Building bridges: A case study of the development and sustainability of an International Partnership in Post-Secondary Engineering Education

by

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ABSTRACT

In a world that is becoming increasingly globalized, a change in the nature of higher education is leading to increased collaboration across borders. In a sector once dominated by developed countries, developing countries are becoming larger players in providing education to their countries and expanding into the field of providing education for others. This partnership began in 1992 when Manitoba was experiencing reduced government funding, frozen tuition rates and declining student numbers while Malaysia was building the capacity of their higher education system. An inter-institutional partnership was established to create a mutually beneficial relationship between the Faculty of Engineering, University of Manitoba, and University College Sedaya International (UCSI) in Malaysia. This partnership was established with clear cut benefits to both parties and developed over time with close personal ties between the institutions. However, the partnership has been declining since 2003 when UCSI was permitted to grant degrees. The lifecycle of the partnership is examined in light of this structural change. Organization models of episodic change and punctuated equilibrium, and transformative learning theory are used to explain the status of the partnership and the options for its sustainability.

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Acknowledgements

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Prologue

In a research intensive institution like the University of Manitoba, awards for cutting edge research are not uncommon. On July 10, 2008, in *What's Happening at the U of M*, an article was posted entitled "Researcher designs the best bridge, again" outlining Aftab Mufti winning the "P.L. Prately Award for co-authoring the best paper on bridge design, as judged by the Canadian Society for Civil Engineering." Professor Mufti said, "I think we won because our research was so thorough, but more so because it was such a novel idea. Others will build on the idea and make it better, but they will be incremental changes. Ours was a paradigm shift."

The paradigm shift he refers to is the use of glass fiber reinforced polymer (GFRP) in place of steel in bridge decks. Advantages to such a product include a product which is light, so cheaply transported and "10 times stronger than steel". Not only that, the use of this product will increase the lifespan of a bridge leading to safety and cost benefits. A further component of his design is the use of, "civionics, a term coined by Mufti, which means sensors placed in the bridge constantly provide data on its state."

Professor Mufti speaks of spending many childhood afternoons with his brother "building and destroying bridges they made from mud and stone collected from their yard. They would pit their designs both against each other and the flood of water they let pour forth from the small reservoir they dug. Three or four prototypes a day would succumb to erosion and collapse, and Mufti would observe the results and learn from them." As an adult, Professor Mufti continues to use these strategies, albeit on a more sophisticated level, as the continual learning and re-evaluation process contributes to designing the best bridge.

If engineers use the lessons learned from previous bridges to design new and better bridges, can the same strategies be used in designing academic partnerships? Can a paradigm

shift result in a new, best partnership? Can the concept of “civionics”, sensors constantly providing data on its state, be employed to keep partnerships effective, efficient and useful?

CHAPTER ONE: INTRODUCTION – ESTABLISHING A FIRM FOUNDATION

In order to situate this study in the context of higher education in the twenty-first century, this chapter begins with an overview of the current environment of this sector on a global, national and institutional level. It will provide the foundation upon which the rest of the study is built. The purpose and rationale for the study will be outlined and various terms prevalent in higher education will be defined including the use of the term of higher education versus postsecondary education versus tertiary education. The terms globalization, internationalization, massification, commodification, sustainability and crossborder education will be defined in order to establish the framework for the study. Delimitations and limitations to this study will then be reviewed. The chapter will then move on to the more specific national and institutional levels by giving a brief history of the countries in which the study is situated: Malaysia and Canada; and will then provide an overview of the institutions involved: UCSI and University of Manitoba. Finally, the chapter will conclude with a brief summary of how the report has been organized.

Introduction

Life progresses in a cycle for those things viewed as animate as well as for those inanimate. Just as engineers continue to strive to design a better bridge with a longer lifespan and quality of life, this paper seeks to explore how the design and monitoring of an international inter-institutional partnerships in higher education has the potential to redevelop in response to paradigm shifts into a better partnership. By reviewing the literature on the formation, development and maintenance of partnerships and by specifically looking at a case study of one such relationship, a lifecycle model is employed to review the development and sustainability of a partnership in the twenty-first century.

Just like building a bridge, building a relationship between postsecondary institutions requires many key interrelated components, such as personal relationships that include trust and loyalty, common understanding and mutual benefit. Viewing these items within the structure of a lifecycle model illustrates what, when, and of what importance such components are to the life of the relationship. As with bridges, some institutional partnerships are of long standing duration; they grow, mature and develop. However, as bridges that are not built to respond to the environment, are ignored, or are not maintained become rundown; institutional partnerships can stagnate as environmental conditions impact the initial ground rules of the partnership or as the mission or vision of the partners or the partnership change.

But just as a bridge can be cared for and used for a long time, so an institutional relationship, if it is well cared for, can experience a long life. While proper maintenance and attention to detail in building the bridge contribute to longevity; this is not enough, it merely sustains the status quo. Just as the edges of engineering are pushed to make a stronger, better bridge, so a partnership has the potential to move beyond what was done in the past, or how it was done in the past, to transform into the best partnership possible. Times do change. Just as the wooden bridges of a previous century have made way for the bigger, stronger bridges of the twenty-first century; so institutional partnerships should look beyond what has worked in the past to what is required to meet the needs of the twenty-first century.

A paradigm shift has occurred in the global environment of postsecondary education which calls for a responsive change from institutions involved in partnerships today. The paradigm shift necessitates a change in perspective and a need to re-visit existing policies and practices. The responsive change is one of transformation where the perceptions of both partners change and result in a transformation of the partnership itself. Without such transformations, a reinvigoration the partnership is not possible.

Purpose

This study reviews the literature on post-secondary education regarding partnership lifecycles, current typology, and sustainability of collaborative arrangements between institutions. Additionally, episodic change and punctuated equilibrium are examined in the context of organizational change and Mezirow's theory of transformative learning is examined in the context of individual change.

A case study methodology is employed to examine the partnership between two institutions to offer a Bachelor of Engineering degree. By determining what the lifecycle of a partnership looks like, the question was posed of whether a determination can be made regarding what should occur at different points in the lifecycle to predict the lifespan of the partnership. Is there just one lifecycle, or are there overlapping cycles that build on what has happened in the past? What happens to the lifecycle when the partnership does not respond to environmental conditions by changing? What qualities must exist to establish a partnership? Are these the same components that lead to longevity in the relationship? What other factors play a part in sustaining a relationship? Is it realistic to suppose that a 'good' partnership can survive long term by maintaining status quo or are there steps that need to be taken to re-invigorate it? These are the questions which inform the study.

Rationale for the Study

All institutions operate within a context and are impacted to a greater or lesser degree by a variety of environmental factors including geography, people, government, and institutional structure. In order to examine the life cycle of a partnership, the foundation must first be laid. In this case, the foundation is the local and wider environment in which the two institutions in the study exist. This study explores new challenges faced by higher education

institutions due to increasing globalization, changing demographics and the internationalization in this educational sector.

This study will be significant for current and future planning at both the University of Manitoba and UCSI. In his installation address on October 28, 2008, Dr. David Barnard, 11th President of the University of Manitoba, stated that, "universities are agents of transformation" (p. 2). This study looks at the response of a partnership in higher education to changing conditions and whether, within a university environment, a 'transformation' occurs which leads to reinvigoration of the partnership.

Definition of Terms

A number of terms, some already referred to, must be defined in order to understand the context of the study.

Higher Education – Postsecondary Education – Tertiary Education

Literature on this subject uses these terms somewhat interchangeably to refer to post-mandatory education, also referred to as post-16 education. In general, the literature emanating from Europe tends to use Higher Education (HE) and Higher Education Institutions (HEI) extensively, whereas North American literature more often uses the term Postsecondary Education (PSE). The terms are used interchangeably in this paper to reflect the terms used in the literature.

Globalization

The media frequently refers to the global world, that the world is getting smaller, and other similar references. Knight & de Wit (1997) define globalization as "the flow of technology, economy, knowledge, people, values, and ideas … across borders. Globalization affects each country in a different way due to a nation's individual history, traditions, culture and priorities.

Globalization increases and reflects the growing connectivity and interdependence among nations" (p. 6). This definition is fairly general as it applies to various aspects and impacts the huge majority of people around the world. The rapid changes in communication technology allow for an almost instantaneous flow of information around the globe, whether it is news, current events or advertising, the impact is widespread for the grassroots population in much of the world. When disparate areas of the world are influenced by the same media, globalization becomes what Delanty (2008) refers to as ``the homogenization of the world by markets and communication" (p. 29). Part of this homogenization process is the widespread use of the English language in the higher education sector wherein "English is now the only global research language (Marginson and Ordonka, forthcoming)" (Altbach, 2008, p. 16). The impact of the western perspective has become so ubiquitous in higher education that some argue that globalization is merely "the global diffusion of western modernity, that is, westernization" (Yang, 2003, p. 271). In contrast, there are many areas of the world where access to this technology is not present and these populations continue to fall further behind accentuating the 'have' and 'have not' divide. Thus globalization is an important component in the consideration of power and accessibility of higher education as "it is important to ensure that globalization does not turn into the neocolonialism of the 21st century" (Altbach, 2004, p. 24). Altbach refers to the inequalities that currently exist which can be exacerbated by access, or lack of access, to technology or the internet.

The question, then arises that, if we live in a global world, is that the same thing as living in an international environment? Not necessarily; Knight (2006a) writes that globalization is "a phenomenon impacting internationalization" (p. 348). What, then, is internationalization?

Internationalization

Whereas "students have always travelled abroad to study and scholars have always worked outside their home countries" (Altbach, 2004, p. 5), the terminology of internationalization is a fairly recent phenomenon. In 2004, Jane Knight indicated that "Only in the last two decades has the term internationalization been an important part of higher education vocabulary. Prior to this time, international development cooperation, international academic affairs and foreign students were the key concepts used to describe the kind of international activities that post secondary institutions engaged in" (p. 5). So while Altbach (2008) says that "Academic institutions operate in a global environment and bring science and scholarship from around the world to a local community" (p. 7), internationalization for the purposes of this paper involves the context provided to the partnership by having two institutions located in different parts of the world. As far as Canada's efforts in this realm, an Association of Universities and Colleges of Canada's (AUCC) report entitled *International Education* (2006) indicates that, "While Canadian universities have more than 3,500 active institutional exchange agreements in place, AUCC research shows that less than one per cent of Canadian university students participate in international education opportunities" (p. 1).

With this as the backdrop to the field of postsecondary education, it becomes essential for an institution to define and implement an internationalization strategy to ensure that students are graduating with global competencies. Such a strategy includes, "specific policies and programmes undertaken by governments, academic systems and institutions, and even individual departments or institutions to cope with globalization" (Altbach, 2004, p. 6). Without such a strategy, institutions run the risk of not only failing to maintain the new global status quo in post-secondary education, but also run the risk of falling behind the current standards expected of higher education. To achieve such global competencies, internationalization

strategies work as “the process of integrating an international perspective into the teaching/learning, research and service functions” of a higher education institution (Knight & de Wit, 1997, p. 8). A one-time change is not sufficient to create global competencies in an ever changing world. Taylor (2004) emphasizes the necessity a continual response to the “ongoing nature of internationalization” (p. 150) and the need for international strategies to be integrated into all aspects of the institution. This will provide various challenges and innovative solutions as “it is probably inevitable – that the response of individual members of staff and different organizational units will vary within the same institution” (Taylor, 2004, p. 151).

Massification

A university education was, at one time, only available to a small, elite group of people. Over time, this group has expanded not only on a local basis but on a global basis until “Massification was, without question, the dominant force in higher education in the latter half of the 20th century and will continue to have an impact in the 21st century” (Altbach, 2008, p. 9). A large increase in postsecondary enrolment occurred after the Second World War and again in the 1960`s when enrolment increased dramatically worldwide, “doubling from 40 million in 1975 to 80 million in 1995 and perhaps reaching 150 million in 2007” (Altbach, 2008, p. 9). Altbach (2008) goes on to state that, while the majority of the growth has historically been in developed countries, it is in the developing countries that rapid enrolment growth is now occurring. It is important to note that, not only does the increase occur in student enrolment numbers, but also in an increase in the number and type of institutions offering postsecondary education as the increased accessibility of higher education to students from a wide range of demographic and socio-economic backgrounds has led to a larger, more diverse student population that needs to be accommodated by HEIs (Teather, 2004; Gibbs, 2001). This

phenomenon, enrolment increases in previously un- or under-represented populations, is referred to as massification.

Commodification

How does commodification, then, differ from massification? Commodification refers to the perceived value of the education provided (or the reputation of the institution offering the degree). Commodification considers a university education to be a product that can be bought and sold like any other commodity. This shift from "*public* good – one which adds value to society ... [to]... *private* good – one which mainly benefits individuals (Bloom et al., 2006)" (Altbach, 2008, p. 10) contributes to the perception of education as a private good, as a commodity. The discussion to include higher education in the GATS (General Agreement on Trade in Services) negotiations is another illustration of this shift in perception.

The rapid increase in the number of private institutions and the variety of higher education providers have raised concerns about quality as the goals of profit seem to overshadow more altruistic aims. "Now, multinational corporations, media conglomerates, and even a few leading universities, can be seen as the new neocolonists – seeking to dominate not for ideological or political reasons but rather for commercial gain" (Altbach, 2004, p. 9). Issues of power and equality continue to be of concern in this context.

Sustainability

Sustainability is a concept which is at the forefront of the environmental field. A United Nations Report of the World Commission on Environment and Development refers to sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, Brundtland Commission, 1987). So how is this environmental concept analogous to partnerships in the context of this study?

Taylor (2004) quotes Dilys Schoorman (1999) “Emphasis should be placed on constantly improving and expanding internationalization efforts, rather than allowing current efforts to stagnate (p. 39)” (p. 152). So while we know that not all international partnership agreements are acted upon and if one views partnerships, as illustrated by this case study, as a need of future generations, the sustainability (and hence growth) of these partnerships is an important factor in higher education. “No institution is an island. Partnerships and alliances are critical components of international educational development and a global focus” (Wood, 2007, n.p.). This being said, it is important to care for these relationships in a timely and thoughtful fashion.

In New Zealand, “The international student market is a potentially lucrative one but one that is also more unstable than that of most domestic markets” (Xiaoying & Abbott, 2007, p. 10) due to the impact of things like exchange rates and competition. This is also an important point to make regarding sustainability. Whether for general internationalization strategies or specifically related to international partnerships, an agreement is a living entity which is impacted by various contextual issues and which, if not addressed, could lead to the demise of the arrangement.

In the AUCC brief *Achieving Canadian Excellence in and for the World: Knowledge Partnerships as Building Blocks of Canada’s International Relations* (2005), under *Maximizing Knowledge Partnerships for Sustainable Development* this organization delivers a comment on internationalization: “Canadian universities have a long tradition of cooperation with developing country higher education institutions to generate, apply and transfer knowledge for sustainable human development” (p. 9). This would certainly apply to the University of Manitoba and the success of this institution in many projects overseas. It is, however, an important perspective to internationalization which will be questioned later in the paper regarding the sustainability of the partnership with this perspective.

Crossborder Education

Jane Knight has written extensively about this field. She addresses crossborder education as, "The delivery of the program is often done through a partnership arrangement between foreign and domestic providers or can be an independent initiative by a foreign provider" (Knight, 2006a, p. 358-359). Such arrangements develop in response to the massification of higher education raised previously. Crossborder education strategies can include: franchise, twinning, double/joint degree, articulation, validation, and virtual/distance. A franchise agreement occurs where an institution in country A offers a program for which a student receives a degree from country B. Twinning has an institution in country A collaborating with an institution in country B to develop an articulation agreement to allow students to take courses in both country A and B and the student receiving a degree from one institution. A double/joint degree would be similar to this with the student receiving a qualification from both of the institutions (Knight, 2006b). As we will see in this case study, these distinctions become important. Later in the paper, we will place the case study into this context.

When we add together globalization, internationalization, massification, commodification, sustainability and crossborder education, we come up with a framework for higher education in the twenty-first century. This is the context in which this partnership exists.

Delimitations

In Manitoba, published demographics indicate a drop in the 18 -21 year age group that is considered most likely to attend HEIs (AUCC, 2007) resulting in the need to look outside of this traditional cohort to increase the potential student category. In addition, the program choices in post-secondary education that are open to students have increased in the last ten years thus spreading the potential population per program even thinner. Combine this with a tuition freeze, now in its eighth year, and an older university infrastructure which requires an influx of

capital to maintain standards and ensure that teaching and research technology is at the top of the field and the result is a situation where inputs are declining while outputs are increasing.

The review of the background information clearly points to personal relationships as the key to this partnership. It becomes apparent, however, that it was the monetary opportunity that was driving the arrangement from the University of Manitoba's perspective as it struggled to cope with decreased government funding and a tuition freeze. UCSI, on the other hand, was looking for arrangements to improve their program and recruit students by offering a pathway to a degree from abroad. To address these needs, an international partnership for degree completion was developed. The Faculty of Engineering, University of Manitoba, offered students from UCSI (formerly Sedaya College), Malaysia, up to two years of credit toward a degree in Engineering in a program which has been running continuously since 1992. A similar arrangement was operating with the Faculty of Management, University of Manitoba, but the last student was admitted in 2007.

This study examines the partnership in order to develop an illustration of the lifecycle of the relationship. The study looks at administrative and institutional perspectives to develop a picture of how the partnership developed and was sustained from its inception in 1992 to the present day. The case study is compared to partnership lifecycle literature in an attempt to draw conclusions on what the lifecycle would look like and what components of a partnership would be important during the lifecycle. In addition, the theories of episodic change, punctuated equilibrium and transformative learning theory is employed as a reinvigoration strategy for the partnership.

Limitations

This study has a number of limitations which should be clarified. Firstly, this is a single case study which involves one partnership between two institutions. The nature of this type of study may limit the ability to generalize the findings. The specifics of dealing within a certain discipline, in this case engineering, may lead to particular conditions which may not be applicable to other disciplines. In particular, the strict accreditation and licensing standards of the profession are one of the parameters of the program. In addition, the historical and cultural backgrounds of the countries involved further influence the findings.

A number of advantages are inherent within this case study, namely, the use of the English language at both institutions. This enabled the interviews to be conducted without the filter of a translator due to the mass competency in English at the Malaysian institution. Partnerships which have language differences would be another layer in addition to culture that would impact such a study. Due to various time and financial constraints and in the interests of focusing the study, the number of interviews was limited to 10. Although the interviews include some participants who have been involved in the partnership from its inception, unfortunately the first hand information of the formation of the partnership is limited due to the unavailability of one of the key organizers. The case study also involved a single point in time, a longitudinal study would have provided further information.

Additionally, my perspectives as an employee of the University of Manitoba, formerly as a student advisor and now as an academic specialist working with the University Senate, influence my viewpoints of both the organization and continuance of such partnerships from a more pragmatic, day-to-day operational viewpoint.

Background to the study

Malaysia and Canada share a common history of British colonialism and the use of the English language in the countries' government and education; both countries are members of the Commonwealth. The development of the nations varied considerably, however, leaving a different colonial impact on each. In Canada, British roots go back centuries and it could be considered that the country was settled rather than occupied. Canada became a country in 1867, while Malaysia achieved independence from the British in 1957 after more than 150 years of British rule (Middlehurst & Woodfield, 2004). The British impact on Malaysia might be more likely compared to that of India rather than Canada, where the British came in to rule over the native population. In fact, the East India Company certainly played a role in trade in Malaysia.

Countries

Malaysia

The history of the area now known as Malaysia has been influenced by its geographical location. Trading has played a big part in its history as has the influence of various Indian dynasties. Malaysia, as it is known today, is made up of a number of regions which, for the purposes of this study, will not be discussed; suffice it to say that western influence was limited until the East India Company acquired Penang Island as a trading location in the early 1800s. Throughout the late 1800s and early 1900s, the British gained colonial control over nine sultanates. "British officials believed that the Malay peasants needed to be protected from economic and cultural change and that traditional class divisions should be maintained. Hence, most economic development was left to Chinese and Indian immigrants, as long as it served long-term colonial interests. The Malay elite enjoyed a place in the new colonial order as civil servants." (Britannica, n.p.)

With British rule, a plantation-based economy was established to supply the needs of the West. The British went on to establish mostly English speaking schools leaving the Chinese to develop their own school system (Hirschman, 1979). “Between 1800 and 1941 several million Chinese entered [the country] to work as labourers, miners, planters, and merchants. South Indian Tamils were imported as the workforce on Malayan rubber estates. Malays accounted for 90 percent of Malaya’s population in 1800, but by 1911 they constituted only about 60 percent.” (Britannica, n.p.) This becomes a very important precursor to what happens next. Political unrest was extensive with the post-war British plan “to create a single Malayan Union ... and resulted in the formation of the United Malays National Organization (UMNO). The British negotiated with the UMNO resulting in the creation in 1948 of the Federation of Malaya, created with special guarantees of Malay rights and incensing much of the Chinese community” (Britannica, n.p.). The Federation of Malaya achieved independence from Great Britain on August 31, 1957.

Upon achieving independence, one of the first moves by the new government was to re-establish the Malay culture after years of British rule. Language was one of these strategies and English was removed as the language of business and education. Slightly over 52% of the Malaysian population is Malay, 26% is Chinese, 11% is composed of indigenous peoples and 8% is Indian (Tierney & Sirat, 2008). In 1971, a law was passed which “sought to reverse Chinese economic and social predominance and instead promoted a form of affirmative action for a majority of the population – ethnic Malays and other indigenous groups” (Tierney & Sirat, 2008, p. 23). To do this, a quota system was put in place such that 55% of the spots in public universities would go to Malay and indigenous students (Middlehurst & Woodfield, 2004) leaving those students of Indian or Chinese ethnicity (regardless of place of birth) little opportunity to study at a public university. Due to this policy, many of these students chose to

study at overseas universities such that approximately 51,000 Malaysian students were studying abroad, about 30% sponsored by the government (Middlehurst & Woodfield, 2004). These numbers suffered a sharp decline with the currency crisis of 1997 and the government's action in the 7th Malaysia Plan "to reduce the number of students sent overseas … at the Government's expense" (Middlehurst & Woodfield, 2004, p. 37). This, in combination with the increase in the number of private institutions resulted in a decrease in the number of students studying abroad from 40% in 1985 to 5% in 1999 with the percentage of students studying in private institutions in Malaysia increasing from 9% in 1985 to 40% in 1999 (Middlehurst & Woodfield, 2004, quoting GETIS 2000; Lee, 2004). The quota policy has since changed and, as of 2003, admission to public universities is now based on merit alone.

Malaysia's oldest university, University Malaya, "began operating in October 1949 in Singapore" (Middlehurst & Woodfield, 2004, p. 12) and established a campus in Kuala Lumpur in 1956. Since then, Tierney & Sirat (2008) report that the number of public institutions has increased from six public universities in 1985 to 20 in 2008. Tierney & Sirat (2008) also report that the number of non-public institutions has increased from 150 in the early 1990s to over 500 in 2008, in addition to a tripling of the participation rates in post-secondary education since 1990. These numbers are distributed as follows: 47% public universities, 46% non-public universities (including private and for profit) and 7% of students are studying abroad.

While in private colleges the language of instruction has been English, the language of instruction at "Malaysian universities tended to be Bahasa Melayu " (Middlehurst & Woodfield, 2004, p. 8). Since 1996, however, institutions can choose their language of instruction "and English is increasingly being used" (Middlehurst & Woodfield, 2004, p. 8). Quality is an important component of the growing higher education industry. The UNESCO report on *Review of quality assurance and accreditation systems in UNESCO member states* (2003) reports that

the “regulatory framework appears to be strong in Malaysia with clear government encouragement for adherence to externally monitored quality assurance standards and systems” (p. 8). The government is also focusing on providing higher education to international students, “Malaysia now seeks to be a net exporter of higher education by 2020… (Mahathir 1991)” (McBurnie & Ziguras, 2001, p. 93). It is also important to note that “the government seeks to improve productivity and to enhance the educational role of the private sector” (Middlehurst & Woodfield, 2004, p. 17) thus not putting the onus on government funded institutions alone.

Accessibility is important to the Malaysian government as they seek to give all their citizens an opportunity to access tertiary education as part of the strategy to create a knowledge based economy (Ali, 2005). In his 2005 presentation at the ICDE International Conference, Ali reported that the government is seeking to raise the participation rate of the 17-23 year old cohort from its current 30% to 40% by the year 2010. The government actively encourages private providers to increase student numbers, “a rapid expansion of not only in the number of educational institutions, but also provides the opportunity for education providers to build their capacities as well as create a healthy and competitive education industry” (Ali, 2005, p. 3).

In a UNESCO/Commonwealth of Learning Report (2004), Middlehurst & Woodfield indicated that “The government views higher education as a profitable export industry and wishes to establish Malaysia as the regional centre for excellence in higher education in the ASEAN region” (p. 19). This is reinforced in the Ninth Malaysia Plan 2006-2010 which confirms the continued development of the country as a regional hub of higher education, “11.67 *Developing Regional Centre of Excellence for Education and Training*. Efforts will be intensified to develop Malaysia into a regional centre for excellence in education and training” (p. 258). The

use of the English language is also part of "Malaysia's aim to attract a substantial number of foreign students" (Middlehurst & Woodfield, 2004, p. 19).

Canada

Canada is a democratic monarchy which achieved independence from Britain in 1867. The country is made up of ten provinces and three territories. Within this governing structure, the jurisdiction for education lies within the responsibility of the provinces. Thus, while there are various organizations such as the Association of Universities and Colleges of Canada (AUCC) and the Council of Ministers of Education, Canada (CMEC) which work on the national level, decisions on education are made at the provincial level. Historically, the "federal government makes transfer payments to the provinces to support post-secondary education" (Shanahan & Jones, 2007, p. 32). Other funding comes from the provincial jurisdictions. The history of Canadian higher education has been quite different to that of Malaysia. The Association of Universities and Colleges of Canada represents 94 Canadian public and private not-for-profit universities and university-degree level colleges in the country (AUCC, "About Us"). Accessibility has historically been an important factor in the postsecondary field; in fact, one of the founding missions of the University of Manitoba, and still relevant today, is "that education should be accessible to all people" (University of Manitoba, "Our Story").

Canada has a long history of postsecondary education with the earliest universities founded with strong religious affiliations. The English, Anglican focus was found in three "King's" Colleges: in Windsor, Nova Scotia (1789), Toronto, Ontario (1827) and Fredericton, New Brunswick (1828). Scottish, Presbyterian influence was expressed in the founding of Dalhousie University, Halifax, Nova Scotia (1818), Queen's University in Kingston, Ontario (1841) and McGill University in Montreal, Quebec (1821). Methodist and Baptist influence occurred at Mount Allison University (Sackville, New Brunswick, 1841) and Acadia University (Wolfville, Nova

Scotia, 1838) respectively. The Roman Catholic influence dates further back with St. Francis Xavier (Antigonish, Nova Scotia, 1855), and, the oldest in Canada, Séminaire de Québec, later Laval University, which was established in 1663 (The Canadian Encyclopedia, n.p.). Since that time, there has been a huge, fast growth in post-secondary education in Canada due, in part to population growth, but also an increasing rate of participation which became more evident in the post-war period. The 1950s and 1960s were the glory days for Canadian universities, "Established universities were expanded or rebuilt, new institutions were established, colleges were elevated to university status" (Cameron, 2002, p. 148). This was not to last as "In the early 1990s the political economy in Canada dramatically shifted. The effects of an economic recession for provincial governments were exacerbated by federal cuts in transfer payments" (Shanahan & Jones, 2007, p. 39). It is interesting to note that "There has never been a national accreditation or program assessment mechanism in Canada, in large part because of an assumption that Canadian universities were roughly equal in terms of standards." (Shanahan & Jones, 2007, p. 38).

Partner Institution Profiles

University College of Sedaya International (UCSI)

University College Sedaya International evolved from its beginnings as the Canadian Institute of Computer Studies which was established as a training centre in 1986. The institution was accorded college status by the Malaysian government in 1990 and it became known as Sedaya College. The UCSI website indicates that, in 2002, "it evolved into Sedaya International College, reflecting its increasing international focus" (UCSI, "UCSI History"). During the Malaysian government's push to increase the number of higher education spaces, on September 13, 2003, the institution was accorded university college status and became University College Sedaya International. UCSI is a rapidly expanding institution. It opened a new campus with state

of the art equipment in January 2008 to house the newly formed Faculty of Engineering, Architecture and Built Environment.

Accreditation for programs, at both public and private institutions, is conducted through the Ministry of Higher Education. As of August 25, 2008, UCSI has thirteen accredited Bachelor degrees, a Master of Business Administration, two diploma programs and four other programs. In addition, there are fifteen Bachelor programs with provisional accreditation, a Doctor of Medicine, a Master of Science in Logistics Management and five diploma programs. These programs are housed in five faculties: Medical Science; Applied Science; Engineering, Architecture & Built Environment; Management & Information Technology; and Music, Social Sciences & Design. The provisional accreditation listing includes six Bachelor of Engineering (Honours) degrees in: Electrical and Electronic Engineering, Communication and Electronic Engineering, Mechatronic Engineering, Mechanical Engineering, Chemical Engineering (Petrochemical), and Petroleum Engineering.

In addition to its own degrees and programs, UCSI offers to students the opportunity to complete degrees in Canada, Australia, New Zealand, the United Kingdom or the United States through the 'International Degree Pathway'. The UCSI website lists the participation of four institutions in Canada, eight in Australia, four in New Zealand, seven in the UK, and five in the US. The website indicates that, "upon completion of these degrees students may transfer to an internationally recognized university for postgraduate studies. UCSI degrees can also allow student transfers to other foreign universities for completion of the undergraduate degree." (UCSI, "International Degree Pathway"). Appendix A provides the complete listing from the UCSI website of the countries and programs available to the students. Of note, in Canada, there are four institutions and nine programs mentioned: University of Manitoba (five programs), University of Winnipeg (one program), University of Lethbridge (one program), and the

University of New Brunswick (two programs). The programs focus principally on the fields of engineering, computer science and business.

The language of instruction at UCSI is English and the inclusion of 'International' in the name of the institution reflects the importance placed by the institution on this concept. The student population comes from a variety of countries including, "both local and international students from China, Indonesia, Singapore, Taiwan, Vietnam, Thailand, India, Pakistan, Kenya, Congo, Iran, Iraq, Yemen, Saudi Arabia, United Arab Emirates, Mauritius and Uzbekistan" (UCSI, "Prospective students"). The UCSI webpage (http://www.ucsi.edu.my) elucidates the advantages to this mix saying that "a student can expect to not only gain academic knowledge, but also be exposed to cross-cultural communication skills to enhance their future career pathways locally or internationally."

"In his speech at the ground-breaking ceremony, the former Minister of Education Y.B. Tan Sri Dato' Seri Musa Mohomad said, by setting up this new and comprehensive campus, UCSI will be able to upgrade both its capability as well as its capacity to provide world-class education in this country. "I believe that UCSI will emerge as one of the top private academic institutions in this region," he said" (UCSI, "UCSI History").

University of Manitoba

Manitoba, with a population of 1,186,386, (Manitoba Health, 2007) is serviced by seven public post-secondary institutions, including four universities (University of Manitoba, University of Winnipeg, Brandon University, and the Collège universitaire de Saint-Boniface), one university college (the newly formed University College of the North) and a number of private religious institutions including one university (Canadian Mennonite University). The University of Manitoba accounts for 68% of this enrolment (Council on Post-Secondary Education (COPSE),

2007). Enrolment numbers at all four universities and the university college reached 40,948 (full and part-time students) in the 2005/2006 academic year (COPSE, 2007).

The University of Manitoba was founded in 1877 as a degree granting body for its three founding denominational colleges: St. Boniface College, St. John's College and Manitoba College. The University is governed by the University of Manitoba Act, a statute of the Legislative Assembly of Manitoba. The University is considered to be a research intensive institution offering undergraduate, graduate and professional degrees in a wide variety of disciplines. The University offers over 90 degree programs in nineteen faculties, and one school. Accessibility is a fundamental principle of both the Provincial Government and the University of Manitoba as illustrated by the NDP government' s freeze on tuition which was implemented in the fall of 2000. This freeze has impacted many areas within the university and caused the university to respond to this funding challenge in the budget process. It is of note that the government announced that tuition fees will gradually start to rise commencing September 2009 (Canadian Broadcasting Corporation, 2008).

In recent years, the University of Manitoba has been facing declining undergraduate student enrolment (Office of Institutional Analysis, 2007, 2008) which, combined with the tuition freeze instituted by the provincial government in 1999, has left this institution facing funding challenges and looking for alternatives to increase student numbers. One of these strategies is to increase the enrolment of international students (who are charged a differential fee of 150%) and the University of Manitoba is targeting a number of 10% international students (Office of International Relations, "International Students"). This number, however, has currently dropped from 9% in the fall of 2007 to 8.1% in the fall of 2008 (Office of Institutional Analysis, 2007, 2008). Various recruitment activities are used to this end.

One such plan is the formation of inter-institutional collaborations wherein students study at a higher education institution in another country for the first part of their degree and move to the collaborating institution to complete their degree. Such arrangements are marketed as providing advantages to all parties; however, the evaluation of such programs is not always clear-cut or timely. This study could provide valuable information on factors that contribute to successful arrangements and what is needed to sustain and grow the programs. Additionally, barriers or obstacles to be addressed can also be identified and strategies to overcome these challenges suggested.

Organization of the Report

The internationalization of higher education is on the agenda for most universities at this time. Working in partnerships is one way of contributing to this mission for an institution, but only if the partnership is workable and sustainable. This thesis provides one case study which follows the development of the partnership with a view of modeling a lifecycle pattern. When evaluated against this lifecycle, the sustainability and future of the partnership can be evaluated.

To this end, I have organized around an engineering project of building a better bridge. The prologue tells the story of Professor Mufti's innovative bridge design where he indicates the design as a "paradigm shift" which others will build upon. This thesis works towards just such a paradigm shift in the sustainability of international partnerships. The thesis, working with the bridge building analogy, is presented in five chapters: (1) Introduction - Establishing a Firm Foundation, (2) Literature Review – Looking at Blueprints, (3) Methodology – Building on Ideas, (4) Findings and Discussion – Civionic Data, and (5) Conclusion and Recommendations – Adjusting to the Paradigm Shift.

Chapter One: Establishing a Firm Foundation provides a general introduction to the study including the purpose and significance of the study, reviews the terms used in the post-secondary education sector, and outlines the context of the two institutions involved in the partnership studied. *Chapter Two – Looking at Blueprints* provides a literature review of studies in partnership development and in the internationalization of higher education on a global basis. The literature review examines consortia development and classification, partnership lifecycles, organizational change and transformational learning. The third chapter: *Building on Ideas* describes the methodology used in this single case study. Through semi-structured face-to-face interviews, the participants' perspectives were examined on the stage of the lifecycle that the partnership was in and where it was headed. Chapter four uses the by-line *Civionic Data.* This again relates to the work of Professor Mufti where he coins the word 'civionics' to refer to the constant electronic monitoring of a bridge. In this instance, it refers to the necessity of constant monitoring in relationships of this type in order to be successful. This chapter presents the participants' perspectives on the past and current history of the partnership arrangement and what their vision is for its future. Multiple levels of university administration informed the study while the views of higher administration give a more all encompassing institutional view. The chapter further explores the need to constantly monitor partnerships and the necessary flexibility inherent in any relationship. The final chapter: *Adjusting to the Paradigm Shift* looks at how partnership arrangements at this level are maintained and sustained. The meaning of the relationships to the people involved as well as the institutions involved are elucidated and some guidelines on the evaluation and sustainability are outlined. The lifecycle model is expanded upon in light of models of organizational change. Lessons learned and areas of future research are also presented.

CHAPTER TWO: LITERATURE REVIEW - LOOKING AT BLUEPRINTS

This chapter discusses the framework around which this study is structured; just as blueprints delineate the parameters of a building, so this chapter will look at the parameters which will inform the study. Chapter two provides a review of the literature associated with inter-institutional alliances in higher education and discusses various perspectives on the categorization or classification of such relationships. The chapter goes on to review the reasons for forming such alliances, how alliances are formed and developed, and what makes them successful or otherwise. The chapter then moves onto the theory of transformative learning, episodic and continuous change models and the theory of punctuated equilibrium. These concepts are relevant to how partnerships develop, change and are transformed.

Conceptual Framework of the Study

The conceptual framework that guides this study is three-fold: that the world of postsecondary education is directly and dramatically impacted by internationalization (Altbach, 2004; AUCC, 2006; de Wit, 2004; Denham, 2002; Healey, 2008), that partnerships follow a lifecycle (Dhillon, 2005; Westera, van den Herik, & van de Vrie, 2004), and that monitoring the partnership is essential for sustainability (Westera et al., 2004). The theory of punctuated equilibrium (Parsons & Fidler, 2005) and episodic and continuous change (Weick & Quinn, 1999) are used to examine organizational change in response to environmental triggers. Mezirow's theory of transformative learning is used to examine the motivations of individuals within the partnership to recognize and respond to the need for organizational change.

It is generally accepted that globalization of higher education is a term that describes the current worldwide situation (Altbach, 2004; Denman, 2002; Knight, 2006). The interaction between institutions in different countries due to globalization has led to various issues including quality, accessibility and competition (Ayoubi & Al-Habaibeh, 2006; Chan, 2004;

Osborne, 2006; Teather, 2004). The impact of globalization has led to a competitive environment amongst Higher Education Institutions (HEIs) at an international level but has also opened up an entire world of possibilities for these institutions (Beerkens, 2002; Chan, 2004; Denham, 2004; Hodgkinson & Holland, 2002; Strandness, 1999).

While universities are competing for students around the world, the same institutions also have access to new markets; such a situation can lead to the necessity of cooperation between institutions in order to be competitive (Osborne, 2006). In the foreword of Jane Knight's (2006b) guide to the implications of GATS, Koïchiro Matsuura, Director General of UNESCO, says, "In this age of accelerating globalization, however, dynamic processes of increasing interdependence, growing competition and the communications revolution are calling into question the traditional forms of the university" (p. 8). No longer are established universities in developed countries the only suppliers of tertiary education. While some institutions are involved in cross border and online delivery programs, another of the responses of HEIs to an environment where demand is increasing, demographics are changing, and government funding is being reduced, is the rising incidence of inter-institutional alliances. As Denman (2002) says, it "appears that international consortia are proliferating" (n.p.). Such alliances allow institutions to take advantage of opportunities to expand existing markets or enter new markets which they could not do alone.

Inter-institutional Collaborations in Post-Secondary Education

Inter-institutional collaborative relationships are central to the case study presented in this paper. Before this terminology is applied to the study, however, a definition is presented which provides a number of categories and differing perspectives on how to categorize this type of relationship. The rationale behind forming inter-institutional alliances, development cycles, components of successful alliances, pitfalls in the maintenance and development of such

relationships and a couple of other things that should be considered will then be discussed. The first thing to note is the variety of terms used to describe these relationships.

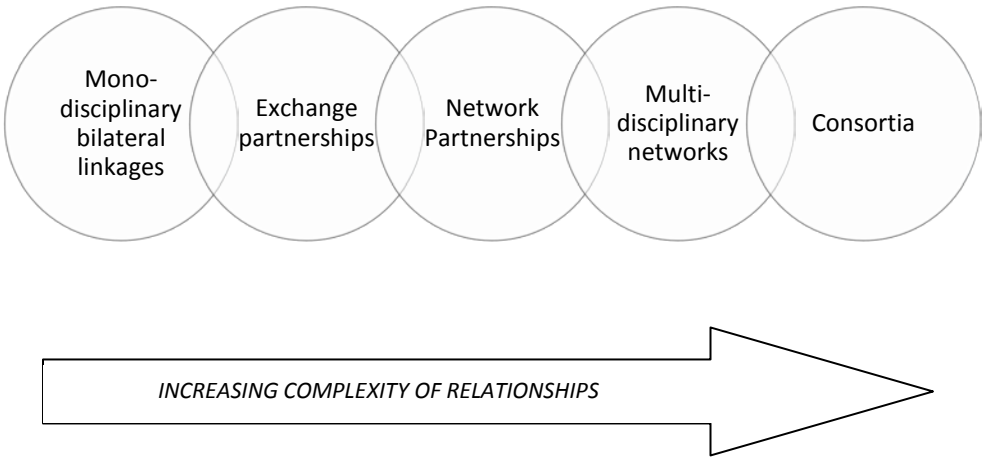
Definition of Inter-institutional alliances

Can the parameters for inter-institutional alliances be defined? Collaborative arrangements between institutions, as reflected in the literature, are referred to by various terms including partnerships, alliances, relationships, and consortia. In order to consider whether these relationships are similar in development and sustainability, first we must decide how to refer to these arrangements. The classification or categorization of inter-institutional alliances is challenging as there are numerous conflicting viewpoints on nomenclature. Some of the most common terms will be reviewed here. Much of the work in this field deals with international collaborations, but there is also a body of work that applies to national or regional collaborations and also cross-sectoral collaborations. Discussion here is limited to international collaborations within the higher education sector by reviewing the work of de Wit (2004), Harman (1989), Beerkens (2002), Martin (1981), Neave (1992) as cited by de Wit (2004) and others. While there are consistent factors across these typologies, there are many differences as well.

De Wit (2004) cites Neave's (1992) classification as typifying a continuum ranging from *mono-disciplinary bilateral linkages* to *exchange partnerships* to *network partnerships* to *multidisciplinary networks* to *consortia*. This typology categorizes the mono-disciplinary bilateral linkages as the simplest arrangement involving only two institutions within a single discipline. Because of the limited number of players involved, this type of linkage has the most institutional autonomy as the communication and negotiation which occurs within the relationship occurs within a relatively straightforward system. Consortia which appear at the other end of the spectrum have the most complexity and the least individual institutional autonomy as the

communication and negotiation required in this type of arrangement involves many participants from various parts and levels of the various institutions. The relationships found between the mono-disciplinary bilateral linkages and consortia become increasingly more complex due to an increased number of participants and disciplines.

Figure 1: Classification continuum illustrating levels of relationship complexity (derived from Neave (1992) as cited by de Wit (2004))

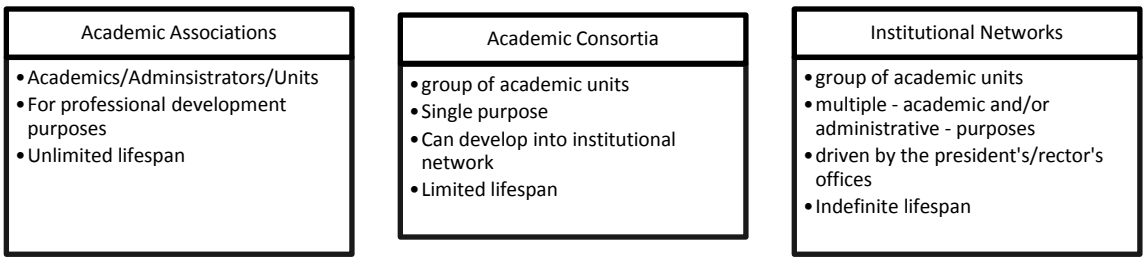


Harman (1989) discusses collaborative relationships on the basis of the amount of institutional autonomy retained, indicating that the more closely the partners are linked, the relationship between partners, the lower the individual partner autonomy. Harman's (1989) continuum ranges from *cooperative* which has the highest level of individual partner autonomy and the least formalized linkages to *coordination* which has more formalized structures in place and finally to *amalgamation* which has the lowest level of individual partner autonomy and the most formalized linkages.

De Wit (2004) divides collaborations into three categories: academic associations, academic consortia and institutional networks based on the number of participants and the

complexity of the relationship. According to de Wit, academic associations are made up of academics or administrators and/or their units "united for a common purpose that is related to their professional development" (p. 34). This category is the least complex of the three categories. He defines an academic consortium as a "group of academic units … who combine for the single purpose of fulfilling a contract, based on bringing together a number of different areas of specialized knowledge" and which has a limited lifespan (de Wit, 2004, p. 35). The consortium is more complex than the association as it has a more formalized structure. These consortia "can develop into institutional networks when the success of their joint contract becomes the basis for more structural and multipurpose co-operation between partners" (de Wit, 2004, p 35). Consortia arrangements tend to come and go in response to the various needs and resources of those involved, hence the reference to a limited lifespan. The final category, institutional network, is defined as a "group of academic units … who come together for multiple - academic and/or administrative – purposes, are driven by the president's/rector's offices and have an indefinite lifespan" (de Wit, 2004, p. 36). It is important to note that institutional networks have an indefinite lifespan because, unlike consortia, the broader base would not invalidate the usefulness of the relationship as other levels of disciplines would continue.

Figure 2: Types of collaboration according to scope of institutional interaction (derived from de Wit (2004))



All of these classifications consider the number of participants and the complexity of the relationship. As number of variables and also has a specific purpose and a limited lifespan. One could extrapolate that by increasing the number of variables involved within the relationship increase, the more flexible the relationship can be and the more likely it is to develop into something beyond the original founding purpose of the relationship and, in this manner, maintain an indefinite lifespan. So what is the significance of classifying such arrangements? As will be discussed later in the paper, the reasons for the formation and continuation of an alliance have a direct impact on how the alliance develops and its life expectancy. The movement from one type of arrangement to another changes the development pattern and the life expectancy.

Martin (1981) divides on the basis of type of institution and breadth of activity without labeling each as de Wit does. Relationships can be composed of homogeneous (research universities for example) or heterogeneous partners (such as universities and secondary schools); and are either formed for a single purpose or multi-purposes. This division relates to how the institutions will relate to each other and includes issues of trust and power. It is also important in determining the goals of each participant. This schema is relevant to this study because whereas homogeneous partners usually operate on equal footing, a hierarchy between heterogeneous partners can develop which can leave partners on unequal footing and with one partner more powerful than the other.

Beerkens (2002) attempts to pull a number of these typologies together using four factors for delineation purposes: intensity, size, scope (time and activity), and sector (business, private sector, etc.). As with Harman's (1989) model, Beerkens divides intensity into cooperation, coordination and amalgamation (which will not be considered here). Under size, there are two divisions, two members or more than two members. In this way, he labels inter-

institutional arrangements with more than two members in a cooperative arrangement as an *association.* Those arrangements with more than two members in a more intense, coordinated relationship, Beerkens labels as *multi-lateral networks*. And those arrangements with two members in a coordinated relationship, he labels as *bilateral networks*. Beerkens further describes the relationship according to lifespan (limited or indefinite) and activity (single or multi-purpose). Beerkens typology is more complex than those previous discussed but still contains the elements of intensity of the relationship, number of participants involved, lifespan and activity level.

Figure 3: Typology of inter-institutional arrangements with specific reference to intensity, size of relationship, number of participants, lifespan and activity level

<table>
<tr><th rowspan="2">Intensity</th><th rowspan="2">Size</th><th rowspan="2">NAME/LABEL</th><th colspan="2">Scope</th></tr>
<tr><th>Lifespan</th><th>activity</th></tr>
<tr><td rowspan="5">Cooperation</td><td rowspan="9">More than two members</td><td rowspan="5">Association</td><td rowspan="2">Limited</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td rowspan="2">indefinite</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td rowspan="4">Coordination</td><td rowspan="3">Multi-lateral network</td><td rowspan="2">Limited</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td rowspan="2">indefinite</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td rowspan="4">Two members</td><td rowspan="4">Bilateral network</td><td rowspan="2">Limited</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td rowspan="2">indefinite</td><td>Single purpose</td></tr>
<tr><td>Multi purpose</td></tr>
<tr><td>Amalgamation</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr>
</table>

(Permission kindly granted by E. Beerkens, April 2009.)

Beerkens' typology is quite different from that of de Wit yet parallels can be drawn between his multi-lateral networks and de Wit's academic consortia and institutional networks (which deal with a group of units or institutions which can have limited or indefinite life spans and be single or multi-purpose). Martin's classification can also work here with homogeneous partnerships, formed for a single or multipurpose. '*Academic associations'* according to de Wit and '*Associations'* according to Beerkens could also be somewhat analogous as they both refer to less structured arrangements. We notice, though, that Beerkens uses the terminology associations and networks, and de Wit uses association, consortia and network.

While it is interesting to note that a number of the models have amalgamation at one end of the spectrum, this could be considered to be outside of the majority of inter-institutional arrangements. Are there other factors which influence other definitions of collaborative arrangements?

Archer (2004) uses the North American Association for Consortium Leadership's (ACL) definition of consortia as per Baus and Ramsbottom (1999) which is quite detailed: voluntary (not the result of regulatory or statutory mandate), multi-institutional (not merely bilateral agreements), multifunctional (not single purpose), beneficiaries of long-term member support, and managed by a substantial professional team. Lang (2002) defines consortia as "formal organizations that exist apart from, although because of, the institutions that constitute their memberships" (p. 165). These parameters are more illustrative of formal consortia such as those formed by university libraries wherein economies of scale are used to purchase subscriptions, or the Association of University and Colleges of Canada which lobbies for member organizations, than those considered in this paper.

In that case, how is a definition going to be of help in looking at lifecycles of a partnership? First, the reasons why an institution would want to enter into such a relationship in the first place should be examined.

Rationale behind forming alliances

One issue that universities around the world are dealing with is having less funding to do more. Thus they need to develop alternate sources of funding. As Chan (2004) indicates, some of the funding deficit must be made up by tuition fees which, in turn, increases the competition for students as more students mean more tuition. Competition for international students (paying differential fees) also occurs. The addition of private higher education providers into the mix means that, not only do universities have to compete with each other, but there is another marketplace that is now competing in the delivery of higher education (Ayoubi & Al-Habaibeh, 2006; Teather, 2004). Does this force an institution to cooperate in order to compete (Osborne, 2006)? Does collaboration change a competitor into a partner? What kind of advantages can an institution expect if it enters a cooperative relationship with another institution?

Economies of scale would be one advantage. Some cooperative arrangements take advantage of spreading the cost of delivering a course, program, or things such as library services across a number of partners thus reducing the cost per partner. Course development costs are also a significant expenditure that can be spread across more than one partner. Availability of academic expertise can also be considered here. If institutions are working together to develop or deliver a course, combining the expertise of two or more institutions can provide a better quality outcome than could be achieved otherwise. Denman (2004) speaks about the theory of "Gestalt" where the final outcome is greater than the sum of the parts. This can be applied to alliances in that the creativity resulting from groups coming together can

exceed the initial expectations of the alliance (Strandness, 1999), a result that obviously cannot be achieved by one institution alone.

Another factor that can be addressed by a collaboration is the achievement of a critical mass of students for a program which would otherwise have insufficient enrolment numbers to be viable. For instance, the University of British Columbia (UBC), Canada, in cooperation with universities in Sweden, South Africa, and Australia, has developed and offers a Master of Education degree in Adult Learning and Global Change (Larsson, Boud, Abrandt Dahlgren, Walters, & Sork, 2005). This program is offered on an online basis with student cohorts. Each cohort includes students from each institution and each cohort participates in courses offered at each institution. In this way, UBC can offer some, but not all, of the required courses and contributes some, but not all, of the students. This partnership allows this program to be offered by a network that would be cost prohibitive to be run by an individual institution due to insufficient student numbers and other resources.

When combining with another institution to provide a course or program, institutions can often access a market which they did not previously have access to. By combining the traditional markets of both (or each) institution, they can access the market of the other. This also serves to increase their profile in new parts of the world resulting in more students and other opportunities (Chan, 2004). Beerkens (2002) refers to this as a "means of expanding organisational boundaries" (p. 299).

In some cases, there is a cultural component that values collaboration, such as in the Knowledge Engineering Web (K-Web) network in the Netherlands reviewed by Westera et al. (2004). The Dutch culture values collaborative efforts and, as such, the development of such networks is supported. In other cases, there is government incentive or encouragement, as with the Midlands Urban Partnership (MUP) in England (Dhillon, 2005, 2007) which was stimulated to

form by government incentives. In yet other cases, such as in New Zealand, government policy mandates the "rebuilding of a collaborative, cooperative, coordinated sector" (Patterson, 2005, p. 356) as a means of reducing competition in the sector and reducing duplication of programs and services. Other governments, such as in Wales, have similar policies, where, "Under conditions of increased competition, and in order to achieve cost-efficient expansion, accessibility and change in a small sector, the question of institutional collaboration, configuration and integrations has been a key policy theme" (Griffiths, 2003, p. 356).

Thus collaborative alliances allow institutions to achieve economies of scale and critical mass, acquire entrance to new markets, access cultural synergies and funding sources, and make competitors into collaborators. It is important to note that, in all of these rationales, it is essential that an advantage is present for all participants. So, once the value of a collaborative relationship is recognized, how can it be developed?

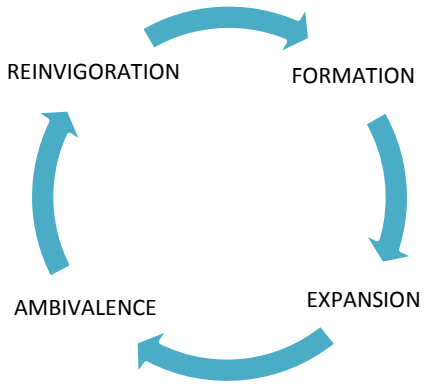
Development Cycles of Consortia

According to Baus and Ramsbottom (1999), "Academic consortia form for one simple reason: to serve their member institutions … to enable the members to achieve together, through cooperation, what cannot be achieved alone" (p. 4). To simplify it even further, in order for a consortium or partnership to be formed and to continue, all participants must feel that they are receiving a benefit (Connolly, Jones, & Jones, 2007). This being the case, what process occurs in consortium formation? There are a number of variations on the development of a collaborative arrangement. Dhillon (2005) talks about the development of the MUP in England and Westera et al. (2004) talk about the development of K-Web in the Netherlands.

Dhillon (2005) has written about the MUP, which was developed, with the incentive of government policies encouraging collaboration, to increase partnership development in further and higher education in the Midlands of England. The MUP is a "self-regulating, voluntary, sub-

regional partnership" which has been functioning effectively for five years (Dhillon, 2005, p. 212). Dhillon noticed that this partnership developed and was sustained while other partnerships came and went. What she observed were the "layers of collaboration" amongst the people and the synergy that developed from it. Her four stage MUP lifecycle includes: formation, expansion, ambivalence, and reinvigoration. The formation of the partnership started with a "small group of senior managers" (Dhillon, 2005, p. 214). As procedures were developed and the level of trust improved, the partnership was able to expand into working together on more projects. The partnership went through a period of ambivalence when there was no forward movement on either the relationships or the functions of the partnership. The partnership required some stimulus to continue; the goals and objectives were re-evaluated and the participants were able to approach the relationship re-invigorated. This illustrates the need for flexibility in the construction and maintenance of collaborations. Successful partnerships need to change in response to internal and external factors (ambivalence stage). The ability to re-invigorate the relationship leads to the continuation of the partnership.

Figure 4: Representation of the stages of partnership development according to Dhillon's (2005) lifecycle model



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The complexities involved in forming and maintaining a partnership require a strong commitment to the partnership and a strong relationship among the participants. Dhillon emphasized the importance of the social relationships involved in the success of this partnership both as shared values, trust and a commitment to working together. The ability to re-evaluate the current status of the organization on the basis of what the partnership should be accomplishing is a strong feature in the viability and continuity of the partnership.

Westera et al. (2004) outline the case for the K-Web in the Netherlands which developed as a means of taking advantage of the economies of scale inherent in collaborative arrangements. This network took advantage of government financial incentives as start-up funding for the project. The authors outline four development phases in the formation of the alliance: pre-alliance phase, stabilization phase, productive development phase, and harvesting phase. The pre-alliance phase is composed of informal relationships with no obligations. This stage takes advantage of pre-existing relationships and informal networks which allow for informal communication. At this stage, the Dutch government came up with some incentive funding for educational innovations. The appropriate managerial staff was included in discussions at this point on the specifics of the collaboration and the alliance was formed. At this stage, institutional autonomy was one of the most debated issues. During the stabilization phase a management structure was developed. This alliance put in place a project manager and a steering committee. It was important at this stage to work through the issues of trust, both in allowing the project manager the necessary authority to make decisions in a timely fashion, and in the belief in the project. It was in this phase that the participants had to work out the details on handling day to day operations and issues that came up. During this stage, “Mutual trust and optimism made the argument of institutional autonomy vanish into thin air.” (Westera et al., 2004, p. 324). The productive development phase was shown to be one of “enthusiasm,

progress, creativity, flexibility, belief and confidence" (Westera et al., 2004, p. 324). The alliance had matured to a stage where administrative structures were in place, the partners had confidence in each other and the business of the consortium could progress. The harvesting phase is where the consortium enjoys its accomplishments. At this stage, it is important to remain cognizant of internal and external pressures in order to maintain, or expand upon, their position. This model ends at this stage unlike the Dhillon model which has a reinvigoration stage.

Components of Successful Consortia

Various researchers have used the structure of an alliance as a means to predict success. Martin (1981), for example, has said that special purpose consortia with no staff are usually more successful and Archer (2004) expands upon this by illustrating that small special purpose consortia can work with in-kind contributions making them less susceptible to their institution's funding concerns and, by combining the expertise of various participants, while creating something together that they could not do alone. Godbey and Turlington (2002), on the other hand, speak about the need for the large multi-purpose consortia to have staff "Those with permanent staffs have a better chance of surviving" (p. 92).

On the basis of the work by authors such as Anderson (1999), Chan (2004), de Wit (2004), Heffernan & Poole (2005), and Westera et al. (2004), features such as personal relationships, trust, funding, governance structure, support from senior management, equality, and communications make up the most cited factors present for successful collaboration.

Trust is a component that is repeated time after time as essential to the success of any kind of collaborative effort. This often takes time to develop and is why, in the development of a consortium, it is of advantage to start off with informal networks of participants who know, respect and trust each other. This was mentioned by Westera et al. (2004) in the developmental

stages of K-Web where the informal networking was occurring before the consortium was put in place. Funding is another issue that is discussed. Whether this is initial start up funding as we saw with the K-Web in the Netherlands, an in-kind contribution model, or a more formal membership fee structure, the stability offered by this allows some risk taking.

In speaking about institutional networks, the presence of a governance structure allows for the efficient work of the network. Additionally, permitting staff within this structure the authority to make decisions on behalf of the network allows the work to be conducted more efficiently and expeditiously. Along with this, clear lines of responsibility and authority and a clear delineation of roles makes the functioning of the consortium or network more effective.

Support from senior administration has been included in the list of components of a successful collaboration. This addresses the importance of the collaborative efforts to the mission of the institution and appreciates the efforts of the participants which provide a valuable service. This gives the consortium or network participants the encouragement required in support of their time commitment to the collaboration.

Equality amongst partners is very important to provide a well-balanced, mutually beneficial collaboration. As alliances between developed and developing countries move away from the international aid or development perspective with the flow of knowledge and technology one way and the flow of students the other, and move towards a more equal relationship, it is essential that their contributions be viewed as of equal value to those of the developed country (Canto & Hannah, 2001). In addition, there should be evidence of mutual benefits where each partner is aware of the advantages provided by the collaboration (Trim, 2001).

It is important in the early stages of the consortium or network development to clarify the goals and objectives of the collaboration and to ensure that the participants are prepared to

make a commitment to them. These goals and objectives may not remain stagnant over the life of the relationship and it is important that the network has the flexibility to re-evaluate the purposes and current projects as necessary to ensure that the partnership remains relevant (Power, 2006; Westera et al. 2004).

The importance of communication cannot be overemphasized. In these types of relationships, it is vital that the participants are kept apprised of what it happening. This can be done on a personal basis through face-to-face, email or telephone communication or it can be done in a more formal way with reports or meetings. Osborne (2006) cautions, however, "keep the size of the administration necessary to facilitate collaboration to a minimum" (p. 121) in order not to overwhelm the entire purpose of the endeavor. Without this level of communication, the partners can feel disconnected from the relationship which can lead to reduced commitment to it.

There are, of course, other aspects that contribute to successful collaborative relationships, but the key is often the relationship amongst the people themselves (Dhillon, 2005, 2007). And, at the end of the day, "be patient and take sufficient time for the alliance to mature" (Westera et al., 2004, p. 327) because "the collaborative process requires long-term commitment" (Casillas Arellano & Martinez, 2005, p. 95) as sufficient time is required for institutional change to occur.

Pitfalls on the Development and Maintenance of Consortia

Many of the same components can be discussed when looking out for difficulties in the development and maintenance of collaborations. Various authors, for instance, discuss many of the pitfalls inherent in the development of collaborative relationships (Chan, 2004; Denman, 2004; Westera et al., 2004; Matheos & Wong, 2005). One complicating factor can be the continuity, or lack thereof, among personnel during the lifetime of the network. As participants

change, the network loses the background experience they bring and new members not only have to be brought up to speed, but the trust in the group needs to be re-established and the commitment to purpose needs to be settled.

Organizational structure is important to consider in the smooth running of the alliance. The academic culture is not necessarily one that values collaborative arrangements (Baus & Ramsbottom, 1999; Chan, 2004; Kezar, 2006), so the importance of senior administration supporting and valuing contributions is necessary. When networks are formed across countries such as in the UBC Adult Learning and Global Change degree, there are various challenges to overcome which arise from differing organizational structures and academic requirements across institutions. Common values or understandings amongst the participants are important. Anderson (1999) recommends to "avoid programs that are not congruent with the fundamental mission of either the participating individual institutions or the collaborative group as a whole" (p. 105). Those projects which are operating as a "quick fix" often do not have long term sustainability. A caution is offered by Westera et al. (2004) to insure that ambitions for the consortium are not set too high but remain realistic and are evaluated and re-evaluated throughout the lifespan to ensure relevancy.

Godbey and Turlington (2002) sum up the balance between advantages and challenges saying, "Despite the constraints and entanglements of collaboration, it can provide the scale and quality of resources that participants needed to sustain cost-effective, high-quality programs over time" (p. 89).

Other Things to Consider

We have looked at various components to consider when setting up consortia at the micro level but there are still numerous considerations at a macro level that also need to be taken into account. When dealing with institutions in other countries, cultural sensitivity is very

important. Not only will this impact how the consortium will operate but will also impact how the negotiations and communications in the development of the consortium will be conducted. Ways of doing business can differ between countries and even between regions. It is important to note that this is not limited merely to language but to a whole realm of other issues.

The concept of neocolonialism must also be considered. Canto and Hannah (2001) deduce that "Education … helps to maintain and to some extent to perpetuate colonial links" (p. 29). Many collaborations are dominated by the western academic approach and the English language, so consideration for the 'westernization' of education must be of concern (Altbach, 2004; Dixon, 2006; Crossley & Tikly, 2004; Papoutsaki & Rooney, 2006; Shaw, 2005). The changing global environment of higher education adds focus to this component as relationships must move beyond the historic development or international aid models of internationalization to models more attuned to partnerships between equals.

Other macro level impacts come about with the increased globalization and the market economy where the trade in educational services is dominating discussions. Increased commercialization leads to reduced access for those lower socioeconomic and less represented groups and results in less social inclusion. Concern regarding the concept of education as a tradable commodity "GATS clearly identifies education as a service to be liberalized and regulated by trade rules" (Knight, 2006b, p. 8) can be seen as a threat to role of HEI as a "public good and a public responsibility" (Koïchiro Matsuura quoted in Knight, 2006b, p. 8).

Increased regionalization is also a consideration as far as the forming of consortia go. The Berlin Communiqué of the Bologna Declaration emphasized the need to move towards forming a European Higher Education Area which, through such tools as the European Credit Transfer System, moves towards increasing mobility and transferability amongst the European Union. The motivations behind such a move are "collaboration within Europe is also intended to

be a means of strengthening European higher education and European economies" (de Prado Yepes, 2006; Luijten-Lub, van der Wende, & Huisman, 2005, p. 151). Higher education collaboration within Europe is just one way that the EU is moving to work together (Osborne, 2006); it is one, however, which can have dramatic impact on the higher education sector around in the world in areas such as mobility, quality and degree recognition. The same thing is occurring to a lesser extent in East Asia as the ASEAN (Association of Southeast Asian Nations) "countries launched a regional university network" (de Prado Yepes, 2006, p. 117). This network that has a secretariat at Chulalongkorn University in Bangkok and manages various programs.

And finally, many alliances have been formed with English speaking institutions focusing on Asian institutions (Cudmore, 2005; de Wit, 2004). Often this is in response to the previously mentioned dependency on international student tuition fees. Has enough consideration be placed on how long this market will continue? Asteris (2006) makes the case that the international student market is set to dry up as the coal exporting market and offers the "warning not to assume that the future will tend to be more of the recent past" (p. 230). As Asian institutions are offering more joint programs, students are able to remain at home rather than going overseas. Additionally, emerging countries are building capacity in the higher education field to accommodate their own populations and, in some cases, to provide educational opportunities to other countries.

Conclusion

De Wit (2004) indicates that the rise "of new academic networks and alliances is directly related to the growing importance of internationalisation of higher education and the impact of globalization on higher education" (p. 29). One could add to this the funding constraints and increasing participation rates evident today. Institutions form collaborative alliances for various

reasons such as to take advantage of economies of scale, access to new markets, and the provision of courses in cooperation they don't have funding or expertise to do alone.

Categorization of these collaborations is not clear. De Wit (2004) has academic associations, academic consortia, and institutional networks. Beerkens (2002) is more specific with associations, bi-lateral networks and multi-lateral networks further divided on the basis of lifespan and activity. Baus and Ramsbottom (1999) define a consortium which has very stringent parameters as far as structure, purpose, funding, and so on are concerned. This does not provide much leeway in view of the variety of collaborations currently being formed. One can see through the consortium/network examples that the factors of size, purpose, and homogeneity outlined by the Martin, de Wit and Beerkens determine which components of success are important.

But is it enough to know how to develop a consortia or an internalization plan that involves such collaborative action? As mentioned in the prologue, the world of post-secondary education is now operating within a new paradigm of internationalization. With the world changing as rapidly as it is, it is essential for those involved in the planning and implementation of this new strategy to be flexible and creative in seizing the opportunities offered. This will involve a transformation in the administration of the institution to envision the opportunities presented within the new paradigm and to work to develop appropriate strategies.

While alliances work within this global framework, it is important to consider partnerships on an individual basis as well. While there are global paradigm shifts, it is important to consider those paradigm shifts which occur within the parameters of the partnership and the reaction to those shifts. Organizational change and personal transformative learning contribute to how a partnership copes with changing parameters.

Partnership Transformation

We are all products of our ever changing environment: physical, social, and cultural, to name but a few. While we, as individuals and as institutions, operate within our environmental paradigm, upon occasion this environment undergoes a shift which requires a re-evaluation of the status quo. Transformation occurs when this shift triggers a change in perspective which leads to a change in the way an individual or institution operates. When transformation occurs within a partnership, it occurs within the individual partners, within the partnership as an entity of its own, and it occurs within the individuals of the organizations. The model of episodic and continuous change and the theory of punctuated equilibrium are reviewed in relation to organizational change and the theory of transformative learning is reviewed in light of personal change.

Episodic and Continuous Change

The premise of episodic and continuous change is that organizations operate in a state of equilibrium or inertia. Minor changes occur within the organization in order to operate in a more efficient or otherwise improved fashion; Weick and Quinn (1999) refer to this as continuous change, a process which is "ongoing, evolving, and cumulative" (p. 375). Continuous change improves what is currently being done without impacting the deep structure of the organization, that which deals with things such as organizational mission. Continuous change can continue constantly and indefinitely in response to the evolution of the partnership. Sometimes, however, continuous change is not sufficient to address changing environmental conditions. Weick and Quinn (1999) cite Miller (1993, 1994) stating that "inertia is often the unintended consequence of successful performance" (p. 369). Just because things are going well, and have proceeded well over a long period of time, this does not mean that changes will

not be required in response to changing external or internal factors. What was successful in the past may not be defined as successful in the present or in the future.

Episodic change is triggered by external or internal events, including environment and characteristics of top managers, which disrupt the equilibrium of the partnership and, because it disrupts the equilibrium and requires the forming of a new equilibrium, "it is most closely associated with planned, intentional change" (Weick & Quinn, 1999, p. 371). In situations of this type, the element of individual leadership and individual change can become important. Thus we have continuous change occurring within a partnership in response to somewhat routine factors in an effort to remain in a state of equilibrium. Episodic change, on the other hand, is a dramatic change requiring some restructuring of the current structure to accommodate a transformation in the partnership.

Punctuated Equilibrium

Another way to look at change within an organization is using the theory of punctuated equilibrium which is consistent with the continuous and episodic change model. Parsons and Fidler (2005) cite Tushman and Romanelli's (1985) view which "divides organisational change into two types – long periods of relatively stable equilibrium punctuated by short periods of intense, deep change." (p. 449). This could be equated with the stability inherent in continuous change to maintain equilibrium and the episodic change to respond to trigger events.

Parsons and Fidler (2005) look at this concept in relation to higher education institutions stating that institutions operate in a state of equilibrium making small changes within the existing confines of the organizational structure which are consistent with the overall priorities and mission of the institution. These incremental changes "improve current operations but do not fundamentally change them" (Parsons & Fidler, 2005, p. 449). So, similar to the continuous change model, the organization, while in a state of continuous change, does not make

fundamental changes to the operation while in a state of equilibrium. When an organization faces pressures which require a change to the mission or priorities, however, this can generate a 'revolutionary' change, or a punctuated equilibrium. This pressure could be internal such as the appearance of a new chief executive, or could be external, such as a change in resources like decreased funding or declining student enrolment (Parsons & Fidler, 2005).They note, however, that this revolutionary change is not long lasting, "Punctuations are brief periods when the organisation may undergo a profound transition or transformation" (Parsons & Fidler, 2005, p. 450) as the rules under which the institution had been operating have changed and the need for a new perspective occurs.

We see, then, that a punctuated equilibrium or episodic change is required in response to a trigger event. This trigger event can be a sudden, unpredictable event or it can be an event for which there is forewarning with more time available to react to the trigger. In this case, however, "When too many warning signs are ignored, punctuations may be forced by a crisis when the future of the organisation is under threat" (Parsons & Fidler, 2005, p. 462). Just because there is a need for change, does not mean that a change will occur. Just as an individual can choose to change or not to change, so organizations or partnerships can choose to change or not, "As Gersick (1991, p. 22) identifies 'internal or external shifts do not, by themselves cause revolutionary change; they only create the need' and provide 'sources of energy' for it" (Parsons & Fidler, 2005, p. 460). This becomes significant in the sustainability and growth of the partnership studied here.

Transformative Learning

Transformative learning occurs when one's view of 'reality' changes in such a way that an alteration in perspective occurs. Such a change, according the Mezirow theory of transformative learning, is initiated by a disorienting dilemma or trigger event which "challenge

individuals to change existing patterns of thought and behavior to meet the new demand." (Plumb & Welton, 2001, p. 90). This is consistent with the previous two sections with trigger events causing episodic change or punctuated equilibrium in the organization. Such a change at the partnership level would require a responsive change at the individual level in order to take advantage of the new structure.

One could assume that if we can see "the reality as it really is." (Scott, 2006, p., 155), the objective of critical social theory, then we would be able to react appropriately to changing realities. As a product of our environment, reality can be a relative thing. What happens though when changes in reality occur that cannot be absorbed by previous experiences? What happens when the world as we know it undergoes a paradigm shift? Plumb and Welton (2001) indicate that "Mezirow suggests that, for the most part, we take for granted our particular backdrop of meaning schemes (in his words, our meaning perspective)." (p. 73) in which case we would not be seeing 'reality as it really is' but rather seeing reality through our own specific filters. Critical reflection on these filters can lead to a "rational restructuring of large perspectives, frameworks or world views" (Scott, 2006, p. 158) and "can lead to vast transformations in the way we view the world and live our lives" (Plumb & Welton, 2001, p. 74). Of course, one can experience the trigger event and not be impacted as it "is possible to look at the structure of one's meaning and schemes and decide not to change them; in that case there is no transformation." (Scott, 2006, p. 158).

Plumb and Welton (2001, p. 90) quote the Mezirow's ten stages of perspective transformation as follows:

- *A disorienting dilemma.*
- *Self-examination.*
- *A critical assessment of personally internalized role assumptions and a sense of alienation from traditional social expectations.*

- *Relating one's discontent to similar experiences of others or to public issues – recognizing that one's problem is shared and not exclusively a private matter.*
- *Exploration of options for new roles, relationships and actions.*
- *Exploring options for new ways of acting. Planning a course of action.*
- *Acquisition of knowledge and skills for implementing one's plans.*
- *Provisional trying and testing of new roles.*
- *Building of competence and self-confidence in new roles and relationships.*
- *A reintegration into society on the basis of conditions dictated by the new perspective (Mezirow 1991, 168-169).*

Of course, there is a recognition that transformation can be impeded by various environmental factors including "social, political and cultural forces" (Plumb & Welton, 2001, p. 90). Mezirow says these distortions can be challenged if the learners can:

- *have accurate and complete information;*
- *be able to weigh evidence and assess arguments objectively;*
- *be open to alternate perspectives;*
- *be able to critically reflect about presuppositions and their consequences;*
- *have equal opportunity to participate…*
- *be able to accept an informed, objective and rational consensus as a legitimate test of validity (Mezirow, 1991, 77-78). (Plumb & Welton, 2001, p. 90)*

Later in the paper, we will look at how these components of transformative learning impact the lifecycle of partnerships.

It is interesting to note that "There are concerns that HEIs are hard to transform and the change process is generally slow and often resisted by those affected… Leadership plays a role in transformation and in leading institutions to buy into their vision for institutional transformation" (Moja, 2008, p. 163-4). This leads to the presumption that in order to achieve a transformation in the partnership, not only does there need to be a recognition of the 'trigger' within in the partnership but also within the decision makers of the partnership. In addition to this, there must be a personal transformation within the decision makers to recognize the

episodic event and choose to change in response to it; this, in turn, enables a transformation of the partnership.

CHAPTER THREE: METHODOLOGY - BUILDING ON IDEAS

Chapter three, the methodology chapter, outlines how the study was conducted. The chapter builds on the foundation of chapter one which outlines the context and environment of the partnership and the sources of literature presented in chapter two, which serve as a blueprint to inform the study of the partnership. Chapter three includes the sources of data, the research questions informing the study, the participants interviewed and documents reviewed, and finally explains how the data was analyzed. The chapter concludes with a discussion of the ethics associated with the study.

Introduction

As the world operates on a global basis and the field of postsecondary education is facing issues such as internationalization and massification, a new paradigm is emerging for this field. Using a qualitative single case research design, this study examines the response of one partnership to this new paradigm. Lifecycle models (Dhillon, 2005; Westera et al., 2004) are employed to provide a structure for the study. Models of episodic and continuous change, the theory of punctuated equilibrium and Mezirow's theory of transformative learning are used to look at present and future scenarios. Case study design is used to design and analyze the data (Merriam, 2001; Yin, 2003).

A case study is employed in order "to cover contextual conditions – believing that they might be highly pertinent to your phenomenon of study" (Yin, 2003, p. 13) and "to gain an in-depth understanding of the situation and meaning for those involved… Insights gleaned from case studies can directly influence policy, practice, and future research" (Merriam, 2001, p. 6). Due to the nature of partnership formation and development, the perspectives of those actually

involved with the partnership form an important component of the study as do the implications on the current practice of the partnership.

Merriam (2001) lists the intent of a case study as: descriptive, interpretive, to build theory, and to evaluate a program (p. 38). This case study will attempt to cover three of these points. The descriptive part includes a review of the formation, development and current status of the partnership. The interpretative section incorporates data collected from interviews and documents into the theoretical framework outlined in the literature review. The evaluation component is discussed in relation to the current status of the partnership and future possibilities.

Sources of Data

The major source of data is interviews conducted at both institutions. This source is supplemented with meeting minutes and correspondence from the Faculty of Engineering, University of Manitoba (not available at UCSI), websites for both institutions, draft and final agreement documents, and documentation from the Program Coordinator regarding the current day to day operation of the partnership. In addition, there is a small element of direct observation encompassed in the field notes as all interviews took place in the offices of the participants and hence the physical environment of the institutions was observed. Originally the study was to include perspectives at the institutional, administrative and student level. During the research process, however, the focus was narrowed to include participants representing institutional and administrative perspective only as the study sought to address definitions of success in a partnership and issues of sustainability for the partnership at the institutional level rather than the day to day operational level.

The interview process commenced with an informal meeting with the key informant to discuss the project in general and obtain from him copies of correspondence, draft agreements,

and faculty council minutes dealing with the formation of the partnership. This was later followed by a formal interview with the key informant and subsequent interviews with participants at UCSI and the University of Manitoba. The interviews were semi-structured with a number of open-ended questions (see Appendix B for research guides) in order to explore the participants perspective as much as possible. Letters of consent were signed by the participants and the interviews were digitally recorded for later transcription. After the first interview with the key informant, interviews were subsequently conducted first at UCSI and then at the University of Manitoba. Each interview was 45 to 60 minutes long and took place in the participant's office. The recordings were then transcribed and subsequent analysis occurred.

Research Questions:

The following research questions inform the study:

1. How does this partnership fit into the categories of the literature; as such, does it support the outcomes expected from the literature?
2. What are the important components leading to the formation, development and longevity of the partnership?
3. Does the partnership fit into the lifecycle models outlined in the literature (specifically Dhillon, 2005 and Westera et al., 2004)? If so, where does it fit?
4. How do the above questions relate to the future of the relationship's sustainability?

Description of Study Environment

This case was chosen as an example of an inter-institutional post-secondary partnership which has been operating continuously since 1992. Classification of the case study was fairly straightforward as a single purpose partnership which, according to de Wit (2004) would, as such, have a limited lifespan. The fact that it has been operational for over 15 years would raise the question of lifespan and the definition of "successful". According to Martin's (1981)

classification, this was a heterogeneous partnership with dissimilar partners (one partner a research intensive university the other a college).

A case study format was chosen in order to "cover contextual conditions" (Yin, 2003, p. 13) which were viewed as pertinent to the study of international inter-institutional partnerships. This case study examines the *University of Manitoba/UCSI Engineering Degree Pathway* which has been operating continuously since 1992. From 1992 – 1996, the partnership was a operated as an 1+3 agreement where students completed one year at Sedaya College and then completed the remainder of their degree at the University of Manitoba. After 1996, the agreement changed to allow students to transfer up to two years of credit from Sedaya College. When the agreement was originally set up, UCSI was Sedaya College and did not have degree granting powers. The situation changed in 2003 when it was granted university college status and the right to grant its own degrees. Since this change in status, there have been few changes to the partnership, so currently students are still receiving up to two years credit for work completed at UCSI.

Courses were, and still are, handled on a course-by-course transfer basis (see Appendix C for details on the transfers). This has resulted in the participation of various faculties outside of Engineering in the evaluation of courses in departments such as English, Mathematics, or Physics. This can lead to delays in transferring of credit for the students coming from UCSI. Although originally this was to form part of this paper, it has not been included as it forms part of the day to day operational matters referred to earlier. The student must qualify under regular admission requirements of the University in order to be accepted; there is no guaranteed admittance. "As a twinning program, the courses taken at UCSI were the same as those at U of M whereby Sedaya used the same course outline, textbook (if available), and modeled its exams and assignments from those supplied by U of M. The students at Sedaya were exposed to an

academic experience similar to their fellow students at the University of Manitoba" (Faculty of Engineering, "Engineering Degree Pathway"). UCSI now has more autonomy with its courses and "U of M assesses each course periodically for equivalency to courses taught at U of M" (Faculty of Engineering,"Engineering Degree Pathway"). All Engineering programs are included in the partnership: Civil, Biosystems, Electrical, Computer, Mechanical, Mechanical Aerospace Option, and Manufacturing.

Creation and Development of the Partnership

A review of the Faculty of Engineering and UCSI websites gave some background to the partnership. Additionally, minutes of the Faculty Council of Engineering at the time of formation were reviewed as were the draft agreements and the discussions that went back and forth between institutions during this time. Permission was obtained from both institutions to conduct this study.

Participant Selection

Participant selection began with a key informant, someone Merriam (2001) defines as "key person who is considered knowledgeable by others and then ask that person for referrals" (Merriam, 2001, p. 83). In this case it was the pathway coordinator at the University of Manitoba. This individual was very knowledgeable not only about the current status and operation of the program but, having been involved in the partnership as a member of Sedaya College as well, had the broader perspective and insight of both institutions. Further sampling used two strategies: purposeful and snowball. While the researcher began by asking the key informant for referrals, review of the organizational structure in both institutions was also used as "Purposeful sampling is based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned" (Merriam, 2001, p. 61). Purposeful sampling was used to choose people who were

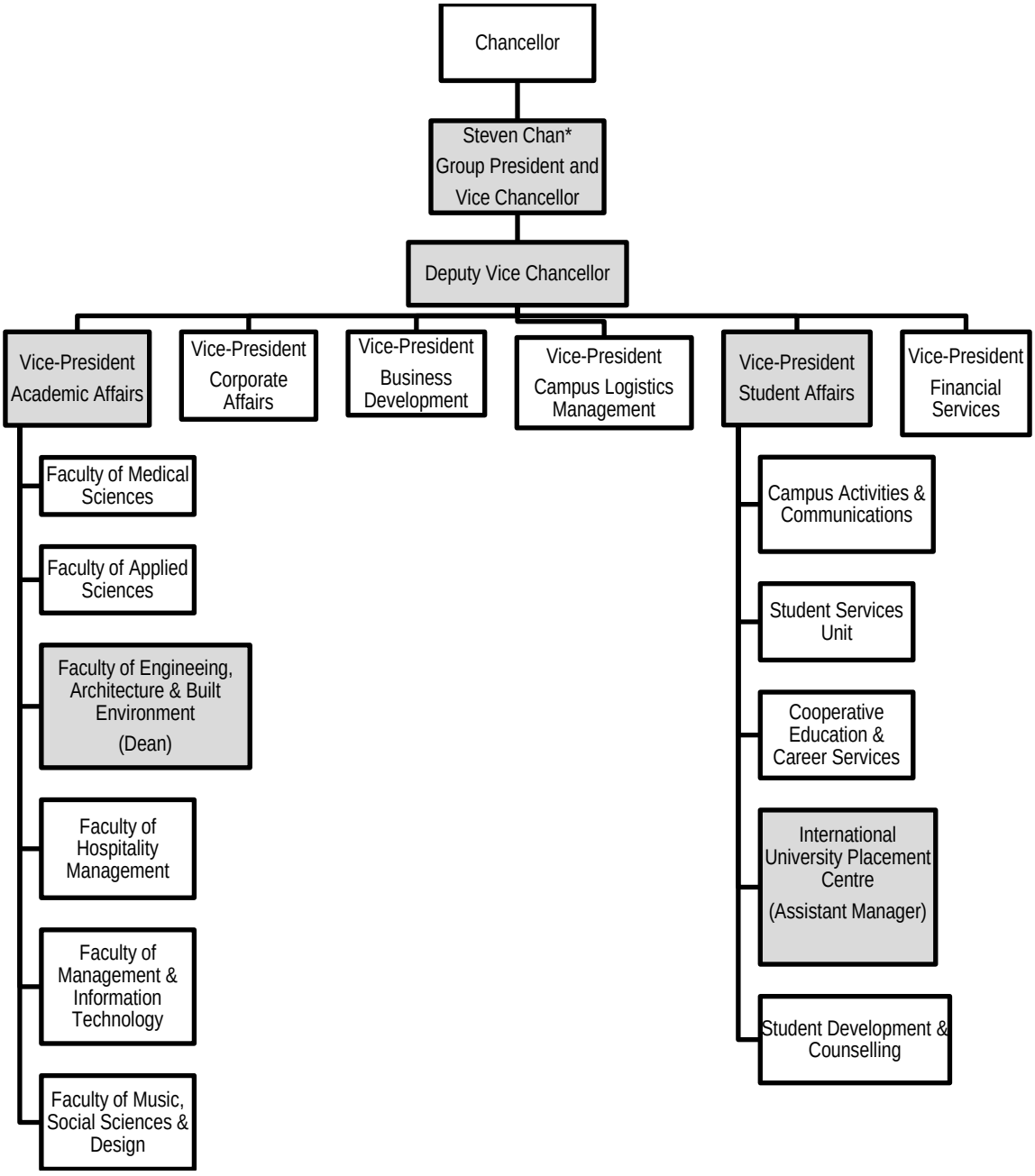
involved in the formation and development of the program and to choose the key players at both institutions working with international programs.

The original study plan (and ethics proposal) included interviewing representatives from three groups: institutional, administrative and student (current and past). Over the course of the study, however, the field was narrowed to include only institutional and administrative representatives; no students were interviewed. The final number of participants interviewed was five at UCSI, and five from the University of Manitoba (including the key informant). All of the interviews were scheduled at a time and place convenient for the participant. As it happened, all of the interviews occurred in the offices of the participants. Although the interviews were all conducted on a first-name basis, Chapter Four refers to the participants by their position titles with two exceptions; the pseudonym Steven Chan is used for the Group President and Vice Chancellor at UCSI and the pseudonym Gilles Lemieux is used for the Pathway Coordinator at the University of Manitoba. Pseudonyms were chosen for these two individuals because, as they have both held various positions over the lifespan of the partnership, they could not be described by their position.

The final interviews included:

UCSI –
- Group President and Vice Chancellor (pseudonym: Steven Chan)
- Deputy Vice Chancellor (the same individual was Vice-President Academic Affairs at the time of the study)
- Vice President, Student Affairs
- Dean, Faculty of Engineering, Architecture and Built Environment
- Assistant Manager, International University Placement Centre

Figure 5: Organizational Chart of Participants from UCSI illustrating organization position held by participants interviewed

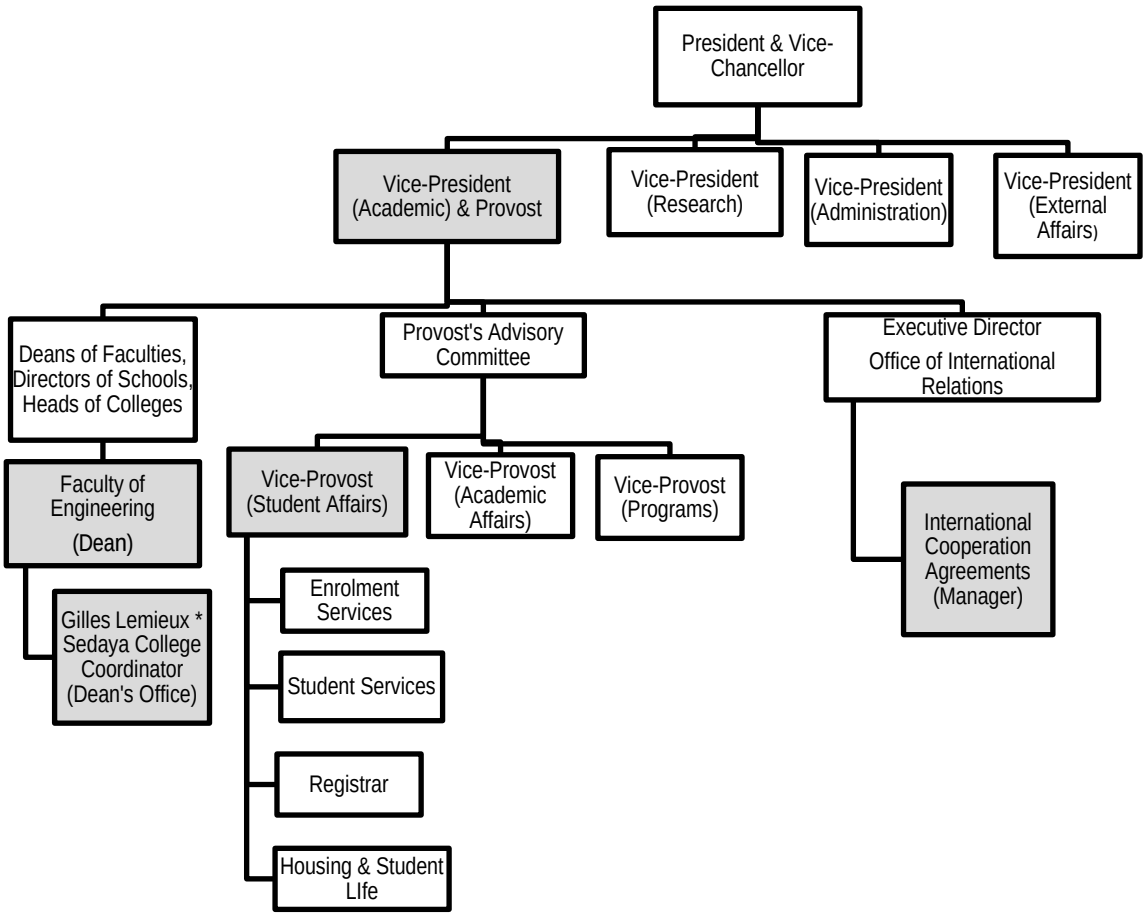


* *The pseudonym Steven Chan was used for this individual due to his long standing participation in the partnership while serving in different positions within the UCSI organization.*

University of Manitoba

- Pathway Coordinator (pseudonym: Gilles Lemieux)
- Dean, Faculty of Engineering
- Vice-Provost (Student Affairs)
- Vice-President (Academic) and Provost
- Manager, International Cooperation Agreements, Office of International Relations

Figure 6: Organizational Chart of Participants from the University of Manitoba illustrating organization position held by participants interviewed



* *The pseudonym Gilles Lemieux was used for this individual due to his long standing participation in the partnership while serving in different positions within the UCSI organization.*

Researcher Positioning

When I was first considering a topic for my thesis, I was a student advisor in a faculty which was in the process of developing twinning programs similar to the one in this study. The frustration that both the international students and I experienced during the development stage peaked my interest in studying this type of arrangement further. The focus of my initial interest was on the operational level, moving toward a structure for items such as admission, transfer credits, and the issue of timeliness which had provided hours of frustration in my job. This case study in the Faculty of Engineering was chosen was because it was in a different faculty, thus providing a measure of distance from the participants and because it had been operating continuously for a lengthy period of time. Although originally designed to encompass operational issues, as the study progressed it developed into an institutional focus and the operational level of the partnership was not studied in depth.

For the purposes of this study, my role is that of independent researcher, not a representative of any institution. It is important to remember my biases in this study. Firstly, coming from a developed (G8) world gives me a particular perspective. Also coming from a country in the Northern Hemisphere influences my perspective. My experience within the Canadian post-secondary sector, both as a student and as an administrator, also influences my perspectives. And finally, having been raised in a country with a publicly funded post-secondary education system, my perspectives are informed by this.

Data Analysis

The following study propositions were used to guide the study: (a) why did the institutions form the partnership, (b) are the institutions committed to continuing the partnership, and (c) what needs to occur to continue the partnership. These propositions were used in the analysis of the data for pattern matching purposes.

Reliability and validity are addressed in a number of ways. Firstly, construct validity was addressed by the use of interviews, observation, websites and documentation as multiple sources of information to triangulate the data. Rather than just a couple of interviews, a larger number of interviews were conducted to provide multiple perspectives on the case. The fact that some of the participants had a long history with the partnership and some did not also gave different perspectives. Internal validity was addressed through the use of pattern matching guided by the study propositions. The use of punctuated equilibrium (Parsons & Fidler, 2005), episodic and continuous change (Weick & Quinn, 1999), Mezirow's theory of transformative learning and the lifecycle models of Dhillon (2005) and Westera et al. (2004) address issues of external validity by analyzing the data from multiple sources according to this framework. Finally, the study is laid out in a manner such that the process is repeatable and hence increases the reliability of it.

The data analysis involved the systematic review of transcripts, field notes and other documentation to, as outlined by Bogdan and Bilken (2007), work with the data by "organizing them, breaking them into manageable units, coding them, synthesizing them, and searching for patterns" (p. 159) in a pattern matching logic. Through this method, data was coded for themes and patterns which were, in turn, related back to the lifecycle models of the literature and the research questions developed at the beginning of the study. The expansion of the lifecycle model provided a structure for the study and the case was explained according to that structure which, in turn, was expanded upon. Rival explanations were reviewed and eliminated.

Confidentiality and Ethics

Human ethics approval was granted before participants were interviewed (Appendix D). All participants in this study are adults and were provided with a letter of consent (Appendix E). Informed consent was obtained from all participants via a signed letter of consent and

participants were given the option of receiving a written summary of the research study upon its completion. Due to the nature of the study, it was not possible for the participants to remain anonymous. Participants were, therefore, offered the opportunity to review a summary of key components of their interview; while no participants requested this opportunity, a copy of chapter four of this paper was distributed for their review.

During the study, transcripts were kept in a lockable filing cabinet in my home office. Digital voice recordings of the interviews were stored on a password protected computer. All interview transcripts will be shredded and the digital recordings will be erased at the conclusion of the study. No deception was used in conducting the research. The participants were aware of what the study was about. There were no risks associated with participating in this study nor was any compensation offered for participation.

Summary

The case study approach is employed in order to produce a longitudinal picture of one case, its formation, development and sustainability and the reasoning behind each of the stages. Observations, documents, websites and interviews were used in data collection. Lifecycle models, transformative learning theory, and organizational change theory are used within the data analysis stage.

CHAPTER FOUR: FINDINGS AND DISCUSSION - CIVIONIC DATA

What would happen to a bridge that received no attention from one year to the next? How long before this inattention leads to cracks forming in the structure or complete breakdown of the structure? Just as the theory of civionics can be used for the maintenance, and hence, longevity of bridges, so can the constant monitoring of a partnership contribute to its health and sustainability. This chapter includes the excerpts from the interviews with participants and discussions around salient themes. Interviews were conducted at both the University of Manitoba and UCSI and many of those interviewed had a long history with the partnership. The perspectives of the participants were consistent on a number of items including the importance of personal relationships and the role of the Program Coordinator in the sustainability of the partnership. It became evident, however, that there was a divide between the perspectives of the two institutions on the current state of the partnership. It is apparent that a structural shift has occurred within UCSI which compromises the relevancy of the original objectives of the partnership. Finally, the partnership is discussed in reference to a lifecycle model, transformative learning theory and organizational change theory associated with the theory of punctuated equilibrium (Parsons & Fidler, 2005) and episodic change (Weick & Quinn, 1999). A key component of this chapter is the identification of themes that emerged from the interviews. The themes identified are: people involved, institutions, maintenance and structural shifts. These four themes are subsequently divided into sub-categories.

1. People involved

    - Personal relationships
    - Personnel dedicated to running the program

2. Institutions

    - Commitment to partnership
    - Benefits
    - Priorities

3. Maintenance

    - Clear goals and objectives
    - Mutual benefits
    - Ongoing evaluation
    - Communication
    - Equality

4. Structural shifts

    - Shift in institutional parameters/character
    - Changes in institutional priorities

1. People Involved

Personal relationships

The literature has shown that institutional partnerships often begin at the individual level, where participants have some personal tie that initiates the relationship. The Vice-President (Student Affairs)(Malaysia) summarizes the origin of this partnership:

> *"our CEO is a Canadian graduate… and [the Pathway Coordinator (Manitoba)] being the first dean of the Faculty of Engineering who is also from Canada and also from University of Manitoba, so that actually gives a different type of foundation which is not only the academic touch but is a human touch, a personal touch, which is involved in this partnership…. the personal touch with this program, that makes it stronger" Vice-President (Student Affairs)(Malaysia)*

When this partnership began in 1992, between the current Group President & Vice Chancellor (Steven Chan) and the Vice-President (Research) at the University of Manitoba at that time, there was a strong personal relationship and commitment to the success of this partnership. It was sustained over the years originally between these two and later with the

Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia) and the Vice-Provost (Student Affairs)(Manitoba) who views the partnership as:

> *"the whole relationship I think has been built on trust...it's really not just the relationship between Sedaya and U of M in a lot of ways was between Steven and [our Vice-President(Research)] and then Steven and the Deputy Vice Chancellor and myself" Vice-Provost (Student Affairs) (Manitoba)*

The Vice-Provost (Student Affairs)(Manitoba) emphasizes that this partnership goes beyond strictly a professional one and that the personal component is integral; in order to sustain this personal relationship, he makes a personal visit to the UCSI campus each year when he is in Kuala Lumpur at a recruitment fair.

> *"I've always felt that that relationship is our relationship because it started with [our Vice-President (Research)] Hogan, it was kind of gently passed over to me now I have religiously gone over there every year personally" Vice-Provost (Student Affairs) (Manitoba)*

The personal relationships were also viewed by UCSI as integral to this particular partnership. The strength of the personal relationships in this partnership have contributed to the sustainability of the partnership due to the commitment that is associated with a personal relationship; dealing with individuals on a long term basis has led to a personalization of the relationship. This personalization makes the partnership different from those that are based on professional contact alone.

> *"because our relationship with Canada has always been stronger, and unique unto Manitoba. So that is part of the reason that I think Manitoba program more than any other program has survived through the many evolutions that UCSI has gone through" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

Over and over again participants highlighted the role and impact of Gilles Lemieux, the Pathway Coordinator (Manitoba), on the partnership and the vital role he plays in the

relationship. His personal relationship and history with the institution of UCSI combined with his current position as Pathway Coordinator at the University of Manitoba strengthen the program by providing the personal relationship contact while providing a dedicated person running the program.

Personnel dedicated to running the program

Both UCSI and the University of Manitoba run many partnership arrangements. Many of the participants stressed the importance of having a specific person dedicated to running the program. Without someone identified with a defined job description to oversee the operational items, there is too much that falls through the cracks. The value of a dedicated person could mean the difference between a partnership that runs smoothly and efficiently wherein issues are addressed in a timely manner and one that falls into disrepair due to neglect and, providing no benefit to either partner, is not sustainable. As someone who works extensively with institutional partnerships, the Manager, International Cooperation Agreements (Manitoba) indicates that:

> *"Having a point person is really key to having a face and a name and a person to actually respond" Manager, International Cooperation Agreements (Manitoba)*

The Dean of Engineering (Manitoba) concurs with the value of having a dedicated person working on the partnership but expands it to ensure that working with a partnership such as this is not just an add-on to what a person is already doing. He indicates that there must be a recognition of the value of the role and the resources required to perform it:

> *"if you don't put it in somebody's job description it doesn't get done" Dean (Manitoba)*

The importance of a dedicated person was also valued at UCSI where the strength of the Engineering program was not replicated in other faculties which did not have a program

coordinator. Those programs (such as the Faculty of Management, mentioned previously) have not shown the same long history that has occurred with Engineering. A dedicated person allows for more attention and commitment to the partnership and additionally allows for a centralized resource to oversee areas such as admission, registration, housing, and visas which are normally handled at the University in a multitude of different offices. The absence of a dedicated person often results in having the students or partner institutions dealing with a variety of offices which often leads to frustration and time delays. A person dedicated to this whole package can be invaluable in terms of speed, efficiency and reducing frustration. There was a recognition of the importance of Gilles' dedicated position as program coordinator both by UCSI and by the University of Manitoba.

> *"I think there is a potential for more faculties to be working together between UCSI and Manitoba and again I'm supposing fairly or unfairly I'm going to pin that down to Gilles and say while he's doing an excellent job in engineering I think it just goes to show that dedicated personnel looking after programming makes a huge difference" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*
>
> *"because Gilles. knows the stuff and … [the students] have an advisor who deals with kids all the time he knows all the students, he's on top of their programs … there's no question that it makes a huge difference in that program" (Vice-Provost (Student Affairs) (Manitoba))*
>
> *"normally we just go through Gilles because he is our coordinator" (Assistant Manager, International University Placement Centre, UCSI)*
>
> *"when you do things on a personal level it works much faster" Gilles Lemieux*

This raises the question of whether a dedicated person is integral in the sustainability of such a partnership or is it more specific than that? Could this partnership have achieved what it has without this particular person? Having someone with intimate knowledge of both institutions and strong personal relationships at both institutions is not the norm. This point is

important to consider as it makes it difficult to replicate this model, or use it as a template for further partnerships.

> *"it also makes the study between Manitoba and UCSI rather atypical" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

And yet, Gilles is repeatedly seen as the strength of the partnership:

> *"Sedaya's been successful because Gilles knows Sedaya intimately and travels back and forth across" Dean (Manitoba)*
>
> *"the big difference I suppose is Gilles himself. If Gilles is not around I think that this would be like any other partnership" Vice-President (Student Affairs)(Malaysia)*
>
> *"I think having Gilles on board from Manitoba side I think has strengthened the program and put real value on partnership in the program" Vice-President (Student Affairs)(Malaysia)*

Is the value dependent upon having a person responsible to a given partnership or is it much more personal than that? Can we separate the person from the job? In this case, obviously, we cannot. The question is can we use this as a model to inform other partnerships or is this partnership truly atypical? The Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia) says:

> *"so he's [Gilles] able to identify, to put his finger on what needs to be done to change so this is an excellent and unique situation I don't think it could be replicated in any other collaboration" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

The question is not necessarily whether a point person is of value to the successful operation of the partnership. The question is, rather, the qualities brought to the partnership by the specific point person, and the ability to work between two institutions, bearing in mind the culture and values of each.

This, however, does not address what the role this person could or should play in moving the partnership into new territory. Is having a dedicated person ensuring the day to day

running of the partnership enough for the long term life of a partnership? When a job description for the potential position of Coordinator of the Engineering Sedaya Program was developed in early 1997, moving the partnership into new realms was not included (Appendix F). The job has been developed to ensure the effective and efficient running of the partnership. The responsibility, therefore, for re-invigorating the partnership lies elsewhere.

Continuity of personnel

A partnership between institutions, just as a relationship between individuals, has a history. As participants change, the network loses the background experience they bring and new members not only have to be brought up to speed, but the trust in the group needs to be re-established and the commitment to purpose needs to be settled. As mentioned previously, this partnership is atypical in that the Pathway Coordinator at the University of Manitoba, who is the integral driving force within the partnership, has a history on both sides of partnership. Gilles worked closely with the partnership as Dean of Engineering at Sedaya College (now UCSI) and developed courses and course transfer matrices which are used in the partnership. When Gilles came from Malaysia to the University of Manitoba his focus was:

> *"to continue with Sedaya and make sure that the programs [were] running smoothly and counseling students here as well as counseling students who were over there" Gilles Lemieux*

So not only does Gilles bring experience and knowledge to his position, he has personal relationships and contacts which have been developed over years of close contact.

> *"we continued to keep the relationship with Manitoba a very strong link and I think that part of the difference and advantage is Gilles" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

2. Institutions

Looking only at people is not sufficient in the examination of the partnership relationship; to do so leaves the partnership in the stage of pre-alliance as defined by Westera et al. (2004), one of informal relationships with no obligations. To look beyond this, one must examine the institutional component of the partnership: commitment, priorities and perception of benefits.

Commitment to partnership

One of the components of successful collaborations identified in the literature is institutional commitment and support of senior management. This provides a recognition of the value participants in partnership are providing towards the mission of the institution and also involves the resources contributed by the institution towards the growth and/or maintenance of the relationship. The commitment, however, must be present in both institutions to be of value. It is also essential that the commitment is seen to be the same both institutions. As we will see later, if one institution is interested in growing the partnership and the other is satisfied with the status quo, a dichotomy of commitment occurs.

> *"this thing can continue to be successful only if both parties are keen. It's like a marriage situation both ends will have to have commitment and the commitment can come in many forms." Steven Chan*
>
> *"It's that personal commitment from our CEO himself, because he wants to make sure that this program grows" Vice-President (Student Affairs)(Malaysia)*
>
> *"the one most important is commitment of the institution" Vice-President (Student Affairs)(Malaysia)*
>
> *"[the Vice-Provost (Student Affairs)(Manitoba)] comes more in terms of an institution to institution collaboration. He essentially just looks at are there any problems related to institutions, do we need to renew the contract, are there problems with fees or students, that kind of thing." Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

While there may be a commitment of the institutions specifically for the partnership or for international partnerships in general, the priorities of each institution must mesh into a situation of mutual benefit in order to achieve a measure of success.

Institutional priorities

Interviews at both institutions expressed the desire for strategic partnerships with varying levels of detail. UCSI has, since 2003, focused on developing degree programs of its own and are only now revisiting former twinning arrangements in order to determine how they can fit best with the degree programs.

> *"first and foremost delivering our own degree programs but on top of having our own degree programs, we want to be able to give students the option of using our credits to transfer to overseas institutions" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

> *"we develop our own programs and that Manitoba program rides on our program" Vice-President (Student Affairs)(Malaysia)*

This is important to note. When this partnership was first developed, UCSI was Sedaya College and did not offer degrees. The arrangement with the University of Manitoba enabled their students to earn a degree via a twinning program. With the current situation, degree granting status for UCSI, there is a resulting paradigm shift. As a university college, UCSI is no longer entitled to participate in twinning programs. Rather, UCSI now develops and offers its own courses and offers its own degrees; and the institution no longer needs the University of Manitoba in order to grant degrees. While degree completion as per the partnership with the University of Manitoba was core business at one time, it now forms a part of the UCSI plan to recruit a segment of the market who are seeking overseas degrees. UCSI recognizes that this market segment is often comprised of international students beyond Malaysia and they see the potential of marketing the partnership to this group. It is also important that with the degree

granting status USCI became a more significant player in achieving an overall Malaysian higher education goal; establishing itself as a centre for higher education in the region and the concomitant recruitment of international students.

> *"it's not our major business that we do, so I would love to have this as strong as before because that would be at least justifiable for us to send some of our staff maybe to Manitoba for training and to have some of the staff from Manitoba to come here" Dean (Malaysia)*

> *"there is a certain market segment of people who love to go overseas … [which] we have not tapped for the last five years" Steven Chan*

> *"we see the number of students in this program are from overseas and maybe it's time for us to focus more on the overseas market" Vice-President (Student Affairs)(Malaysia)*

And finally, with UCSI now granting degrees and actively working on increasing student numbers, it is looking very closely at its business and how it can and will change to accommodate these priorities. Recognizing that the higher education market is a competitive one, UCSI is moving forward on increasing its recognition and, as a tool, using partnerships such as the one with the University of Manitoba to assist in this priority.

> *"we always wanted to do more and more universities recognize our subjects and our activities so it goes in tandem with our objectives for partnerships this time we'd like to continue this partnership and even strengthen this partnership" Vice-President (Student Affairs)(Malaysia)*

> *"we want to get that up to a couple of thousand again [degree transfer program students] at least so that UCSI would have maybe on our own 20,000 students maybe 10% of that, 2,000, would be transferring to other universities to the world. And that is our mission now and that is our focus" Steven Chan*

> *"now that we have our degree programs more or less consolidated and on firm footing, we want to take IUP back and grow it again" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

What are the institutional priorities which the University of Manitoba will address within this context? When the partnership was formed, the Faculty of Engineering was facing funding constraints and falling student numbers. The partnership was developed to increase student

numbers in the Faculty of Engineering, capture international tuitions and move forward internationalization of the faculty. As the University of Manitoba is once again faced with declining student numbers, along with a university-wide move to internationalization, the institution is looking at strategic partnerships to increase international student numbers.

> *"we started this when our numbers were down both in international students and if we're going to be a university of international renown, we should have international student here" Vice-Provost (Student Affairs) (Manitoba)*

> *"[As a method of recruitment, partnership] is much more efficient and effective because you're brining cohorts of students over rather than going into that rather competitive market of one on one" Vice-Provost (Student Affairs) (Manitoba)*

As part of the process to identify which markets and which institutions would be desirable, the Vice-Provost (Student Affairs) (Manitoba) has set up a committee of Deans to strategically target certain disciplines, countries and institutions which would benefit the University of Manitoba.

> *"it's the university picking those markets … they're trying to strategically look at different countries and pick universities that they're complementary to "Vice-Provost (Student Affairs) (Manitoba)*

Benefits to institutions

The benefits to the institutions were clear cut in the beginning. For UCSI (then Sedaya College), they received assistance in the development of its programs, courses, curriculum, laboratory facilities and so on and were able to market to potential students a twinning program with the University of Manitoba. The Engineering program provided a flagship program for the institution and was actually the beginning of the School of Engineering at Sedaya.

> *"School of Engineering established in 1992 and actually it started its business in 1992 as a twinning project with the University of Manitoba and that was the main and the core business conducted at the School" Dean (Malaysia)*

The benefits for the University of Manitoba were also equally clear and primarily financial. The agreement signed allowed for a much larger proportion of student fees to be

disbursed to the faculty than is normally the case with international student tuitions. When the partnership was initiated in 1991, the University was implementing budget cuts and such a fee distribution provided an additional, much needed, influx of funding to the Faculty.

> "It was his [Vice-President] opinion that this proposal could be a very viable option during the current severe budget restraints." (ECE Department Council Meeting, 22 February 1991, section 9.02)

> *"Well, the big pro is the cash that flows in from the program….it was our only flexible cash so that was a big pro." Dean (Manitoba)*

A Memo from the Vice-President (External Programs) to the Dean, Faculty of Engineering dated 12 July 1991, when the partnership was still under negotiation outlined the fee distribution as follows:

> "i) Tuition and student organization fees will be distributed in the normal fashion to general revenue and to The University of Manitoba Students' Union.
> ii) The remainder of the fees received by the University will be distributed in the following fashion:
>
> a) 85% of the remainder will be returned to The Faculty of Engineering…
> b) 15% of the monies received will be distributed to Central Administration…"

While there was the financial advantage for the faculty to enter into such a relationship, the faculty's motivation also involved the consideration of Sedaya College. This is in line with the development model described earlier in the context of heterogeneous relationships. The partnership was partially considered to be a capacity building venture with the University of Manitoba as the more powerful partner.

> "[the] Dean responded, on behalf of [the] Vice-President ….He explained that the motivation for entering into the agreement was the desire to offer an opportunity to Malaysian students for an engineering education, an opportunity that, because of circumstances in that country, they would otherwise be denied. (Minutes of Faculty Council 12 December 1991, p. 3)

We will see that this perspective becomes important with the changing paradigm of UCSI wherein the changing context within Malaysian higher education changes the original circumstances noted here.

There were concerns about this program expressed at the level of faculty members who were concerned with the Sedaya students circumventing the regular admission process of international students. In a memorandum of 9 December 1991 to the Dean, Faculty of Engineering, two professors from the Civil Engineering Department, expressed concerns that Sedaya students, "will advance in the applicant queue by-passing …[those]… who are not afforded the opportunity to buy their way in by paying a differential fee in violation of University of Manitoba policy." A second concern expressed was the assessment of differential fees in contravention of University policy at that time. The first concern was addressed in a memorandum of March 13, 1992 to the Dean from the Director of Admissions, University of Manitoba, indicating, "students who are sponsored by government agencies or under government or institutional contract are considered ex-quota and admitted on the same academics basis as resident students. The assessment of the Sedaya students satisfies this latter category on all counts." The differential fee issue was addressed at the Engineering Faculty Council meeting of 31 March 1992, the minutes of which reflect,

> "Associate Vice-President explained to members of Faculty Council that the Memorandum of Agreement between Sedaya College and the University of Manitoba is a service contract which the University entered into with another institution, which is private, but which is recognized by the Government of Malaysia to provide educational services. He felt that the contract, therefore, does not violate University policies on tuition fees."

In addition, the University (as per the Faculty of Engineering) had total control over the curriculum and courses offered at Sedaya. Appearing first in the original Memorandum of Agreement, the relationship was clearly delineated as, "The SC [Sedaya College] undertakes to develop and/or adjust its entry regulations, curriculum, teaching program, teaching staff, and

examinations, in collaboration with the University [of Manitoba]." This arrangement continued well into the partnership,

"so when I went there I taught from the Manitoba perspective" Gilles Lemieux

The benefits of the partnership to the University of Manitoba are quite clear. The Faculty received a very desirable fund disbursement from this program, the students in Sedaya were being taught the same curriculum as those in Manitoba, and finally, the Faculty was participating in a capacity building program with a developing institution. UCSI had clear benefits at the beginning of the partnership as well: a pathway for its students to complete an engineering degree, they had assistance with the development of its engineering program and they had a marketable product for recruitment purposes. Are these benefits still relevant? Are they still mutual?

UCSI

As already mentioned, the benefits for UCSI which were apparent at the beginning of the partnership are no longer those which are currently required as outlined by the Dean of Engineering, Architecture and Built Environments:

> *"there were some benefits at the beginning, at the early stage that was very important at that time but for the time being having our own programs that is for our advantage" Dean (Malaysia)*

Twinning programs, the basis for the partnership, are no longer being run at UCSI; instead are UCSI's own degree programs plus its international degree pathways. To date, arrangements with other institutions have been put on the back burner while concentrating on developing its own degrees. In this development stage, there has also been a change of focus as UCSI will not be teaching Manitoba curriculum but will rather fit in the degree pathway with what exists in its own programs. This is institutional autonomy which was not considered at the beginning of the partnership when course and curriculum development was based on University

of Manitoba curriculum, but this issue must be considered for the continuation of the partnership.

At the same time, there is a recognition that a segment of the UCSI student population, whether Malaysian or international students, desire an overseas degree. This is not a comment on the quality of the program but rather a perception from students and their families of the value of an overseas degree. UCSI recognizes this fact and is therefore positioning itself to offer this as an option for students; in fact, not only as an option but perhaps as a desired pathway.

> *"So given the choice between the local and the overseas university degree, overseas degree will always trump the local degree" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

> *"one is the marketability of our programs for those students who would like to join a Canadian program... they can transfer maybe for financial reasons or maybe even for getting themselves adjusted to their next move to Canada" Dean (Malaysia)*

> *"So, for example, if you want to go to Manitoba but if you can't afford to, you can do a two part thing. Do UCSI first then go there" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

It would appear that UCSI is very cognizant of what its market is and what they need to do to maintain and grow it.

> *"part of the present trend that we are working toward now with UCSI getting bigger" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

So if UCSI is not limiting themselves to degree completion program partnerships, what then are they looking for? The answer given in many of the interviews was "strategic partnerships". As part of its growth and development as an institution, UCSI is looking to do some consolidation of its programs. Currently it liaises with over 30 different programs in its international degree pathway and, as the institution grows, much of the administrative work which was done at the upper levels, is moving to the faculties. Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia) explains:

"the move we've had to make for other faculties to choose one strategic international partner that they would like to work with and with that we would be able to focus so that we can send most of the students who would like to go abroad to the institution really builds up the economies of scale….I want to encourage the faculties to do now is to pick one primary strategic partner" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

The purpose of these strategic partnerships moves much beyond the capacity building model seen previously, reflected by knowledge moving one way and students the other. Due to the long history and close personal connections with the University of Manitoba, it was mentioned by both the Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia) and the Dean (Malaysia) that the this institution would make a desirable partner. The new strategy is for a partnership that would expand beyond undergraduate teaching into other partnership aspects.

"the other point it is for us actually as a faculty when we are looking for benchmarking, academic benchmarking, so we are actually looking at some partners, some strong partners or strong allies like the University of Manitoba, one of our partners in Canada, where we get to know for example, how they are developing their classes what do they cover in their subjects and hopefully reflect that in some of our courses where acceptable" Dean (Malaysia)

"he's [Dean (Malaysia)] going to be looking for universities that he is comfortable working with in terms of curriculum, sending students there, staff exchange, core research, external moderation, all of that" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

UCSI has prioritized the growth of its institution and, judging by the constant and consistent growth of the institution over the last 15 years, this growth will continue. One of the venues of expansion is the development of strategic partnerships as they move to consolidate resources and partners rather than maintain cooperation with a large numbers of institutions. Steven Chan indicated to me that a new job position is being developed to look after international partnerships which will:

"focus on a few universities who have been our great partners in the past… University of Manitoba is one of the bigger five so now we want this person to do nothing else but just this to continue to work with this five… in terms of Canada, University of Manitoba is the only one" Steven Chan

Both of these items speak to the commitment of UCSI to growth, innovation and looking at new ways of doing business and also fit into the internationalization strategy of the institution.

"we're talking about internationalization in terms of giving students the option of going overseas, but we're also looking at …research or joint research with overseas institutions, we're also looking to invite institutions to moderate our programs so each of the faculties have been given the mandate to choose one overseas university that they feel most comfortable to work with and this overseas university will come in, work with them in terms of looking at curriculum review giving a role of an external moderator.. for programs and curriculum, so we want to have the faculties work with one strategic partner overseas that they can then collaborate with a lot more and differently as well. So that's part and parcel of the internationalization strategy" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

University of Manitoba

The situation at the University of Manitoba is significantly different. The Dean's view on this type of partnership is very different from that of the Dean at UCSI. His feeling is that engineering occurs on an international stage and, as "*engineering is engineering*" wherever you go, the need for such exchanges is minimal. He and his faculty travel extensively to international conferences and hold the view that research programs and graduate students would suffer with professors away. Additionally, their careers may suffer. The Dean (Manitoba) is also restricted by Canadian Accreditation Board (CEAB) standards for his programs and works under that restriction.

"I always open these conversations with these people, who would like an exchange, we'd like to send five students and have five of your students come over and I say probably not. They want our profs to go over there and spend a year and I say probably not. They might come over to teach short courses and there may be some exchanges, but people don't want to go to China and spend three months there; that's three months of their career here, their graduate students." Dean (Manitoba)

Not that the Dean (Manitoba) is averse to international students. He indicated to me that 17% of the undergraduate students in Engineering were international students, of which about 3-4% are with the UCSI program. The major advantage that he sees to having an international student population is the ties and networks they develop with their classmates and alma mater. This, he believes, has a long term advantage when Canadians are doing business internationally.

> *"We have developed a very strong contingent of graduates in relation to and we certainly hope to reap some of the benefits of that long time relationships" Dean (Manitoba)*

> *"So I see international students as a very good way of linking our economies together and helping Manitoba." Dean (Manitoba)*

At the same time, he would find direct entry preferable to transfer students. One of the Dean's major concerns arises from the extra costs associated with international students. The role of the Pathway Coordinator (Manitoba) has contributed to the success of this partnership but, for other international students, the same care is not present. The partnership with UCSI has come with a special funding arrangement with the University directing a much larger proportion of student fees to the faculty. The Dean believes that this extra income is essential in order to support these students appropriately.

> *"There's no shortage of potential out there but until the university is prepared to actually help me fund these students, that is give me some of the international fees, make some sort of formulaic approach for all of them." Dean (Manitoba)*

The Dean (Manitoba), in a memorandum to the Vice-Provost (Student Affairs)(Manitoba) on July 28, 2003, indicated that,

> After all our efforts regarding Sedaya, Engineering would like to see the program continue. However, it is a high cost venture for us to keep our programs coordinated and properly run for the students…These costs include salary recovery for Gilles Lemieux, two development trips per year to Sedaya College, and program costs."

That would be on the faculty level; on the broader institutional level, the perspective is different and some of the same issues of student numbers that were present at the beginning of the partnership appear once again. Institutionally, the University is still looking to increase student numbers in a strategic manner but also to look at other benefits beyond student numbers.

> *"now with our numbers again projected to decrease we need to look for other markets and the international market is a really important market in terms of numbers of students that we can attract here although it is increasingly competitive and not as easy to do" Vice-Provost (Student Affairs) (Manitoba)*

> *"you have to think about where you're going to go with these partnerships, what countries, what regions, why are you doing it there and not somewhere else" Manager, International Cooperation Agreements (Manitoba)*

3. Maintenance

Clear goals and objectives

One of the quickest ways to miscommunication and frustration is to enter into a partnership where there are no clear goals and objectives. Throughout the interviews, the importance of having the *"contract that spells out expectations"* (Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)) was emphasized as were the deliverables expected of the partnership. There was an agreement between the two partners that student numbers and student success were important in defining the success of the partnership.

> *"the number of students in that program as the higher the number of students that you have in that program the more successful it is" Dean (Malaysia)*

> *"So we need to measure success by the quantity of students coming over and the quality of those students and the quality is measured by the number of student graduating" Dean (Manitoba)*

> *"Number of students as well as how well the programs are supported" Steven Chan*

> *"more students wanting to sign up for the program… students doing the UCSI portion and going on to Manitoba are doing well over in Manitoba which means that we've*

done a good job in preparing them for Manitoba" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

We again reach a disconnect in the perspectives of the partners as to the roles they play in the maintenance of the partnership. While there is agreement that student numbers and student success are integral, it is important to reiterate that UCSI is looking to increase student numbers in this program and, to do so, believes that the University of Manitoba has a role to play in being visible to potential students at UCSI.

"third and foremost is the fact that Manitoba's presence in UCSI becomes more visible so people know and if they're thinking I'm a Malaysian and I want to do a degree in Manitoba, let's look at UCSI" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

Mutual benefits

According to Baus and Ramsbottom (1999), "Academic consortia form for one simple reason: to serve their member institutions" (p. 4). Once the membership is not being served, the relevancy of the consortium is in question. It is important, therefore, to ensure that the partnership is relevant and that mutual benefits do, in fact, exist. Changes occurring within the partnership at any given time, large or small, may require the objectives be revisited. For example, in September 1995, the program had been running successfully on both sides and UCSI requested that changes be made to the partnership.

[the] Associate Dean presented an update on the Sedaya College program. He stated that the program has been profitable and also has provided an international linkage and partnership that is beneficial to both students and the Faculty.

In addition, he reported that Sedaya College has improved its complement of staff and facilities and has requested that students be granted increased transfer credits. (Faculty of Engineering Council minutes of September 14, 1995)

In early 1996, both partners were working towards a common purpose as we see in a January 25, 1996 memo from the Associate Dean to Steven Chan, Dean of Academic Studies at Sedaya College which says, "In your December 18, 1995 e-mail to the Vice-President (Research),

you reiterated the willingness of Sedaya College to do whatever necessary to make the 2 + 2 program work … we too want the program to work." This is an example of commitment to working towards a situation beneficial to both.

Ongoing evaluation

It is not good enough to set up a partnership and then ignore it. The Office of International Relations is currently working on a survey of all partnership agreements to ask the question:

> *"is it active? Is it dormant? Should it be terminated?" Manager, International Cooperation Agreements (Manitoba)*

This is a basic, but essential, question to consider. If the partnership is not meeting the objectives as set out, some enquiry should occur. It is not enough to let it stagnate; if it is not providing benefit to the partners, a re-evaluation should occur to either make revisions to the agreement or to end it.

There appears to be no formal current evaluation of the partnership between UCSI and the University of Manitoba. As mentioned, the Vice-Provost (Student Affairs) (Manitoba) checks in once a year, a quick visit when he is in Kuala Lumpur for a couple of days at a recruitment fair. Gilles handles any issues that come up on an operational or day to day basis. There has, however, been a dramatic drop in the number of students enrolled in the program which, one would think would trigger a dramatic, perhaps panicked, response. This does not appear to be the case as there appears to be no planned review to explore and perhaps realign the partnership. If the success of the partnership is based, even partially, on student numbers, a sharp decline in student numbers would indicate a problem with the partnership.

"Sedaya is probably the only partnership that's lasted for such a long time…I think because it worked for both people. I suspect it's not working as well for them now as it was because I notice the numbers are shrinking" Vice-Provost (Student Affairs) (Manitoba)

Communication

Communication is important on so many levels, perhaps even more so when you move across cultures – both within the countries and within the institutions. The importance of personal relationships has been reviewed as has the importance of having a designated person associated with this partnership. Additionally, the presence of Gilles Lemieux in this partnership makes it an atypical one. Certainly in the past the communication has rested almost exclusively with him. While the Vice-Provost (Student Affairs) (Manitoba) does an annual visit, it would appear that there has been a void in the real communication between institutions since the days when the Vice-President (Research) for the University of Manitoba was involved. Student numbers have declined significantly, one partner has undergone a significant change in status to become a degree granting institution and, through all this, it would appear that no one is asking the tough questions which go beyond the day to day operations. Some of these questions include: what is the future of the relationship? Does this partnership have a future? How can we re-invigorate the partnership so that, once again, it provides benefits for both partners?

Communication in the earlier days of the relationship appeared to be strong, in particular when the Vice-President (Research) was involved. There appeared to be more participation from the University of Manitoba at UCSI. Now it appears that Gilles, who visits UCSI on an annual basis, is the one who is holding this partnership together.

"in the early years, it worked fantastically well because University of Manitoba would send academic people to come and help our academic team here… but we don't need that kind of help any more…they used to … come and lecture, not many, but a few would come, would give a guest lecture. The students they just love it and when they do a guest lecture, students can get a feel of University of Manitoba standard as well; things which they don't do at all now." Steven Chan

"sending Gilles every now and then to UCSI that is actually I would say keeping the things alive" Dean (Malaysia)

"We haven't had someone go to Manitoba for a long, long time other than Steven so that's something we're looking forward to doing this year" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

While Gilles is maintaining the lines of communication at the operational level of this partnership, the communication which needs to occur to deal with changes in the more basic structure of the partnership do not seem to take place. The communication lines are very narrow which results in the relationships between individuals being very narrow. This situation, in turn, can result in very narrow commitment to the partnership as, those not involved would feel no ownership to the partnership. While both partners shared the view that there should be more interactions between the individuals within the partnership, for reasons unique to the institutions, this has not occurred.

"cross visits are important as well; at least the persons in charge, at least one person who is running curriculum should visit. There should be cross visits between the two institutions so that, nothing beats being there to understand the situation" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)

"I think that in a more steady state, the Dean should be over there once a year, should do a tour of all the schools there are exchange agreements with and spend two or three days at the schools, discuss things, visit the classes, talk to students. There should be a lot more of that. But I think that Sedaya has worked pretty well" Dean (Manitoba)

"it is good to have more people come to and be more involved in this. We'd like to see people come to UCSI…we need to see some of the staff from both faculties and transferring their knowledge and experience…from Manitoba to come here and stay for one semester and just for a change of environment to teach here and visiting lecturer…and for …cooperative research" Dean (Malaysia)

Face to face communication, important though it is, is not an end in itself. While the importance of personal relationships and a dedicated person for the partnership have been elucidated, it is important to have commitment from participants in the program beyond senior

administration or institutional commitment. One of the best ways of achieving this is through communication at all levels. The interviewees expressed this as:

> *"to make it more successful of course is more communication between the academics" Vice-President (Student Affairs)(Malaysia)*
>
> *"I think the lecturers on both sides need to have open channels of communication sharing ideas and sharing ways of teaching their topics… is very, very important" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*
>
> *"I think that a constant exchange of staff would help more so I go there all the time which is fine, but I told Sedaya its time that you send somebody here you know if their Dean was to come here and visit our Dean, the Dean needs to see how we do things now and why three subjects they used to teach we no longer let them teach or we won't accept as a transfer anymore" Gilles Lemieux*
>
> *"Currently I think we need to have more presence of academic people and we see that many of the universities are aggressive on the academic side they send us staff to come and conduct some lecture, some guest lectures and all those things we don't see that from Manitoba…Gilles is doing a fantastic job. When he comes, he meets the students but I think if Gilles is given more mandates to do more things I think he will be doing more things with us to bring the program to the same heights as it was" Vice-President (Student Affairs)(Malaysia)*

If more communication is needed between deans and academics involved in this partnership rather than leaving all of this up to Gilles, how can this be accomplished? What will happen if it does not occur? Referring back to our original premise of globalization and the impact of technology on connecting people all over the world, can the use of technology, whether for faculty development or student courses, be employed to benefit both partners? Good communication comes with a price tag, whether in travel costs or technology costs, but is a necessary component nonetheless.

> *"good communication is such a key feature of a good partnership and that takes time, takes patience and it takes resources" Manager, International Cooperation Agreements (Manitoba)*

Equality

Equality amongst partners is very important to provide a well-balanced, mutually beneficial collaboration. As alliances between developed and developing countries move away

from the international aid perspective with the flow of knowledge and technology one way and the flow of students the other, and move towards a more equal relationship, it is essential that their contributions be viewed as of equal value to those of the developed country (Cantos and Hannah, 2001).

This partnership began as one of building capacity at UCSI. The partnership began as a 1+3 program. A few years later, negotiations occurred to increase the partnership to 2 + 2 to allow the University of Manitoba to compete with "several British and Australian institutions [which] offer programs that allow Malaysian students to earn an engineering degree while spending only 1 to 2 years abroad" (Faculty Council of Engineering Agenda, February 19, 1996). The minutes of that meeting went on to indicate that the partnership was successful including the student success rate at the University of Manitoba and the engineering course offerings at UCSI.

> *the Sedaya College students who have transferred into our faculty have out-performed other second, third and fourth year students … In December, 1995, [University of Manitoba professor] and […] former Dean of Engineering and Vice-President at the University of Calgary, and former Chairman of CEAB, visited Sedaya College to conduct an informal evaluation of their engineering offerings…Their report was generally positive. (Faculty Council Minutes, February 19, 1996)*

UCSI became a degree granting institution in its own right in 2003, in addition to a research institute. This has been mentioned many times already but the question here is whether the paradigm shift has repercussions on the concept of equality amongst partners.

The Dean (Manitoba) feels restricted in the partnership by CEAB accreditation constraints which regulate the quality of engineering programs in Canada. The Dean (Malaysia) indicates that UCSI programs are accredited via the Malaysian Qualification Network and meet the requirements of the Washington Accord (International Engineering Alliance). The latter speaks to the recognition of engineering qualifications on an international basis.

"[the UCSI engineering degree programs] comply with Malaysian Qualification Framework requirements and also accreditation criteria, Washington Accreditation Criteria" Dean (Malaysia)

Working within the constraints of the CEAB, the Dean (Manitoba) feels that it is essential for University of Manitoba curriculum to be taught in exchanges in order for the University of Manitoba program to be accredited. He indicated that if part of the engineering program does not meet CEAB standards, the program, and all of the students, are in jeopardy.

"there's lots of people want them [agreements] but we are very careful because of accreditation…. If they want a 2+2, they pretty well have to teach our curriculum because if they don't, you don't get enough commonality to work with CEAB" Dean (Manitoba)

"The problem is all of these agreements cost us money because we've got to guarantee that what they're doing over there is what we're doing here or CEAB says no [to] these agreements, you're not giving the students the same quality of education" Dean (Manitoba)

"the way build relationships is that we pick the people here Ningbo's had I think their fourth professor come and sit through classes and watched the way we teach so we're building it by them coming here, it's really hard to have us going there" Dean (Manitoba)

Whereas UCSI has spoken of strategic partnerships and broadening the partnership beyond undergraduate students, the Dean (Manitoba) does not recognize any advantage to his academics spending sabbatical time at UCSI feeling that there is no benefit to time spent there.

"Part of it, an academic could go there with a clear mission but an academic would probably get a lot more done here in six months" Dean (Manitoba)

Lifespan

The classification literature would indicate that a bi-lateral, single purpose relationship of this nature has a limited lifespan once the original objectives of the partnership are attained. However, as de Wit (2004) indicates, it could "develop into institutional networks when the success of their joint contract becomes the basis for more structural and multipurpose co-operation between partners" (de Wit, 2004, p 35). While this partnership has not been

considered to be a limited time contract by the partners, the paradigm shift that has occurred could be viewed as the end of the relationship as it was originally developed leading to the necessity of a choice to be faced on whether to change the partnership or to continue as status quo. The participants in this partnership do not see this partnership as having a limited lifespan but rather see it as continuing indefinitely.

> *"we would like it for as long as it could last" Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

> *"No we would not enter a new program unless there was an expectation that it would continue because it's just not worth the effort you've got to develop all these course equivalencies and you've got to it's just a lot of effort" Dean (Manitoba)*

The problem with this is that, with changing conditions, is it reasonable to assume that the partnership can continue without dramatic changes? Referring back to de Wit, such partnerships can continue as they develop into more diverse cooperation.

> *"usually if it's been a good partnership even if it's been for a short term it might morph into something else in the end. And develop and continue to change" Manager, International Cooperation Agreements (Manitoba)*

4. Structural shift

In 2003, UCSI was granted the status of a degree granting University College by the government of Malaysia. And that, as they say, changes everything. This change turned a heterogeneous partnership (degree granting institution/non-degree granting institution) into a more homogeneous one (both degree granting institutions). At this point, or leading up to this point, there needed to be an overhaul of the partnership to ensure that it was relevant to the new reality. When I asked Steven Chan if this had occurred, he responded:

> *"yes, I had that communication with the Vice-President (Research) at the time he was still, he was in the last bit of his Vice-Presidency I told him we would become a university soon so what shall we do...there was nothing much coming because he was coming to an end with his relationship" Steven Chan*

Shift in institutional parameters/character

What was once a "*strictly a traditional twinning type program where they were running Manitoba's courses*" (Pathway Coordinator (Manitoba)), no longer existed. With its new status, UCSI was no longer able to offer other institutions' programs (including franchising and twinning).

> *"So when we became a university, then we decided not to run all the partnership programs and it was also a requirement by the Ministry not to run other university's programs whether it was a full degree program or twinning programs" Vice-President (Student Affairs)(Malaysia)*

UCSI was now in the stage of fully developing its own degree programs. This left little resources available to nurture a partnership with the University of Manitoba which had, perhaps, outlived its relevancy. In addition to this, one of the prime architects of the partnership, the Vice-President (Research)(Manitoba) was retiring from this position and would no longer be involved in the partnership. This left a hole in the personal relationship which could have contributed to the communication and reinvigoration of the partnership under these new circumstances. Such a change may have required a point person for each partner to ensure that the mutual benefits to both partners remained relevant. The fact that this did not occur led to a decline in student numbers for the partnership.

> *"when we upgraded to a University College in 2003, we kind of put on hold the international degree pathway on ice for a while because we didn't nurture it much because we spent more time nurturing our own degree programs." Deputy Vice Chancellor & Vice-President (Academic Affairs)(Malaysia)*

> *"right now there are only seven students over there who are in this program whereas the list annually is usually around 50, this year is only seven which is quite the cause for concern for me" Pathway Coordinator (Manitoba)*

Additionally, it becomes apparent that there was a hole in the communication process with the change in UCSI's status. While UCSI focused on developing its degree programs to the detriment of student numbers in this partnership, the University of Manitoba, beyond Gilles, did

not seem to recognize the impact or the scale of the impact on student numbers of the change in status to degree granting institution.

> *"from my experience I can't say that when they became a university we didn't see any changes because we continue to take on students" Dean (Manitoba)*

> *"I think we take more steps than Sedaya does right now I think the interest in Sedaya has clearly dipped now I think it's starting to come back. I think the only interest taken, well engineering's got an automatic link because of Gilles" Vice-Provost (Student Affairs) (Manitoba)*

> *"That's one of the reasons why the numbers started to slip I think because they're keeping their own students but what they've done now is that they have a track if you want to University of Manitoba here's a track and there are still students who are still interested in it whose parents are interested in students having an overseas degree and they feel that that enables them to be more competitive in the marketplace over in Malaysia." Vice-Provost (Student Affairs) (Manitoba)*

With such a significant drop in student numbers from 50 to seven, one would think that red flags would go up and someone would ask the tough questions referred to earlier. While the University of Manitoba may not have evaluated or recognized what was happening in the partnership, UCSI certainly had:

> *"I'm saying that it was successful before, I'm not so sure about the last two, three years" Steven Chan*

Changes in institutional priorities

It would seem obvious that changes to the mission of the institution would lead to changes in institutional priorities. While still recognizing the value of a pathway allowing students to go on to study for an overseas degree, UCSI has undergone a transformation in its goals and objectives related to this partnership as what was once core business (degree completion programs) for UCSI is no longer the core of its operation. Gilles reported on discussions he had with UCSI when its status changed and they had to eliminate its twinning and franchising programs. One could question why Gilles was dealing with this issue rather than it

being dealt with at higher levels of the institution. Could this red flag be the trigger for an episodic change that was not recognized and yet not acted upon? If this is so, is there an opportunity which could have been acted upon or could perhaps still be acted upon to change and grow the partnership?

> *"there was a year or two of uncertainty so they quickly wrote a letter to say they need to cancel the program and I say they don't cancel the program because there's other ways to work around things … so it was changed from a twinning program and now it's called a pathway" Gilles Lemieux*

> *"[this partnership is an] opportunity lost because we have not stayed current with that relationship. It started in a capacity building relationship but it has not grown past that capacity building."Manager, International Cooperation Agreements (Manitoba)*

An opportunity for reinvigoration is lost which will still require, at some point, an evaluation to change or remain at status quo. Personal relationships which have played such a significant role throughout the partnership could determine the future of the partnership. The partnership may remain at status quo simply by inaction.

> *"engineering wants to maintain it because I think that Gilles wants to maintain it…he's good for the university…I think that it's important to the university if we move towards an international strategy I think it's really important for the university to reach out on these partnership and have a hand in how that's happening because I think it's part of the international strategy that's missing" Vice-Provost (Student Affairs) (Manitoba)*

Partnership Transformation

Referring once again to the development stages of partnerships: formation, expansion, ambivalence, reinvigoration, it is clear that this is an established partnership. The partnership has gone through the expansion stage as it has developed in student numbers, increasing the number of majors available, and moving from a 1+3 to a 2+2 arrangement. By 2003, when UCSI obtained the authority to grant degrees, students were enrolling in a 2+2 system and student numbers were satisfactory. Since then, however, there has been a drop in student numbers and UCSI has come under a different structure for offering courses. With its new status, UCSI can no

longer offer programs from another institution (i.e. franchising or twinning). It would seem that the partnership has entered a new era. Just as bridges would need to be modified or re-routed to accommodate a change in the path or capacity of a river, so it is necessary to change to address new environmental conditions.

As various participants have indicated, things since 2003 have been going along without much, if any, change. This would seem to indicate that the partnership is currently in a state of ambivalence, equilibrium, or inertia. If the partnership remains in this state, what implications does this have on its sustainability? Reinvigoration requires a close look at the original agreement establishing the partnership. Are the goals of mutual benefit still present? Have they changed? Have changes been made in response to this? It would appear that it is the strength of the personal relationships and the reliance on a point person are what has sustained this partnership certainly in the last five years. While the partnership has undergone some reinvigoration in moving from 1 + 3 to 2 + 2 programming in the early stages of the partnership, the response to falling student numbers in recent history is small.

According to de Wit's classification, an academic consortium is a time limited contract which can, by increasing its breadth or depth, become an institutional network. This would be consistent with a progression from the ambivalence to the reinvigoration stage of Dhillon's model. These consortia "can develop into institutional networks when the success of their joint contract becomes the basis for more structural and multipurpose co-operation between partners" (de Wit, 2004, p 35). Such a progression in this partnership would change the classification of the relationship and would spell out reinvigoration for the partnership.

The regular evaluation of the relationship and open and honest communication is the only way to ensure that responses are timely and relevant. Similar to the application of civionics wherein sensors are placed within the bridge to constantly monitor its state, so communication

can operate as these sensors do to ensure that a structure or process is in place to consistently and regularly monitor the health of the partnership.

Once able to grant degrees, UCSI moved beyond its core business of twinning and franchising to developing and offering degree programs thus reducing the benefits of the degree completion benefit of the partnership arrangement. According to the theory of punctuated equilibrium or episodic change (Parsons & Fidler, 2005; Weick & Quinn, 1999), a change in the external environment which impacts the deep structure of the organization, in this case the premise for the existence of the partnership, provides a trigger to transform the partnership. Mezirow (1995) says that transformational learning occurs with a trigger event. The development of UCSI as a degree granting institution can be considered to be a trigger event as it is a change in the status of one of the partners which changes the relationship to one of greater homogeneity from that of a heterogeneous partnership. This shift will require that those individuals in positions to change the structure of the partnership have a transformation in their perspectives to view the relationship as different than it was before. This transformation enables the organizational change which is required to reinvigorate the partnership. The key to the reinvigoration of this partnership is for the partners and the individuals to have the skills, the imagination and the courage to transform the partnership by transforming the way they perceive and operate within the partnership.

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS - ADJUSTING TO THE PARADIGM SHIFT

Introduction

The participants of the study have shared their perspectives on this partnership between two institutions in two different countries. Additionally, the literature on successful partnerships (Anderson, 1999; Chan, 2004; de Wit, 2004; Heffernen & Poole, 2005; Power, 2006; Westera et al., 2004), classification of relationships (Beerkens, 2002; de Wit, 2004; Harman, 1989; Martin, 1981), and development patterns in institutional relationships (Dhillon, 2005; Westera et al., 2004) have been examined. A review of episodic change (Weick & Quinn, 1999), punctuated equilibrium (Parsons & Fidler, 2005) and transformative learning (Plumb & Welton, 2001) have been used to illustrate how changes to the partnership can be viewed. The development of UCSI into its current status as a degree granting institution was summarized and, based on the initial structural parameters of this partnership, it became evident that the structural changes to UCSI represent a paradigm shift.

This chapter first outlines the structural change and the paradigm shift within this partnership, followed by recommendations on the sustainability of partnerships in general and this partnership in particular. An outline of lessons learned is provided for the purposes of planning new partnership relationships, and finally, recommended areas of further study are presented.

Classification

The literature outlines a number of different methods for classifying collaborative relationships. Using Martin's (1981) classification, this partnership moves from a strictly heterogeneous one to a more homogeneous one on the basis of the change to UCSI's degree granting authority. This is important as it relates to the concept of equality between partners.

The original partnership was developed between partners who were not equal in status; the University of Manitoba was a degree granting institution with well developed, accredited programs while UCSI (as it became) was a new institution which did not have degree granting authority. As such, amongst the benefits to UCSI of being in the partnership were developmental in nature. By teaching the University of Manitoba curriculum, UCSI benefited from course and program creation and development and quality monitoring by the University. But this was a heterogeneous relationship with the University of Manitoba holding the senior position in the partnership. When UCSI became a degree granting institution, the partners became more equal than they were initially; however, no significant change occurred in the partnership to accommodate this change. Referring to Beerkens' typology (2002), the existence of the partnership as a bilateral network (two partners) for a single purpose (undergraduate degree completion) with an indefinite lifespan could describe the partnership up until the point of punctuated equilibrium where a trigger for change was created by a change in status for UCSI.

Figure 7: Comparison of Partnership Classifications

Classification by:	Martin (1981)	de Wit (2004)	Beerkens (2002)
	Heterogeneous → ***Homogeneous*** Single purpose	Academic consortium (single purpose, limited lifespan)	Bilateral network (single purpose, indefinite lifespan)

The classification helps to predict how a partnership will develop and what its life expectancy will be. Classified as an academic consortium according to de Wit's definition (2004), the partnership would be time limited, set up with the single purpose of providing an undergraduate degree completion option for an institution which did not have degree granting

authority and to provide students and funding for an institution which was short on both. A partnership of this nature would be time limited as institutions grow and develop and undergo the influence of various environmental changes. Could the partnership remain in a status quo position and not advance beyond that which de Wit defines as an academic consortium? It certainly could; however, external triggers may lead to the termination of the partnership as student numbers, a measure of partnership success, decline. In order to grow and develop, the relationship must therefore expand beyond an academic consortium. This does not mean that the partnership would need to expand to include all aspects of the institutions, rather an expansion beyond single purpose, in this case undergraduate degree completion, into a broader, multi-purpose mandate, could lead to a more vibrant, innovative and longer lasting partnership. The partnership could potentially expand from a consortium into an institutional network, which would include a broader range of participants and activities and, as one would expect, an indefinite lifespan. This can lead to a stronger partnership which could advance the priorities of both institutions.

> *"in terms of whatever advice and guidance that we would give to faculty members who were setting up these agreements, we would tend to put our energy and whatever resources we might be able to bring to the table into new partnerships that look like they have a good chance of being multi-faculty, multi-disciplinary, multi-program levels (so students right up through researchers) and sink our institutional efforts and resources into fewer, better, stronger, more diverse partnerships." Manager, International Cooperation Agreements (Manitoba)*

The change in classification illustrates that the partnership has moved beyond the initial partnership development model considered. The addition of the concept of punctuated equilibrium to the model calls for the model to be expanded beyond that of Dhillon's lifecycle model (2005). The new status of UCSI as a degree granting institution is a structural change which provides a paradigm shift in the partnership. Episodic change and punctuated equilibrium

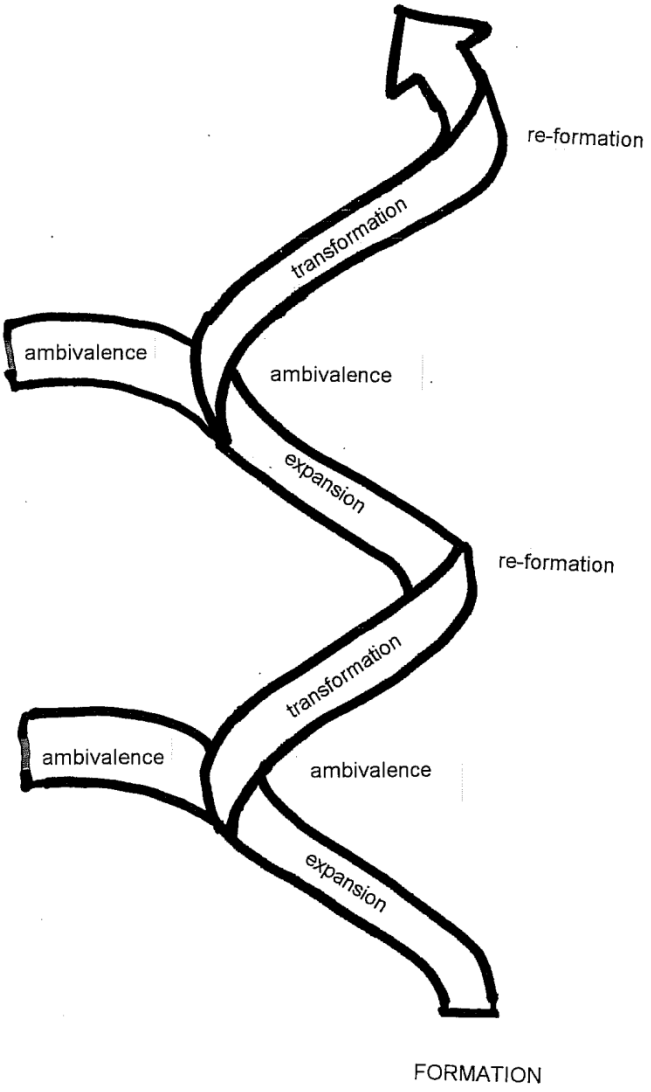
would point to this structural change as the trigger event which requires a re-evaluation of the current partnership in light of this dramatic change to one partner and the repercussions on the partnership. These models would indicate that the continuous change that has been occurring, while successful in the routine maintenance of the partnership, is not sufficient to address the significant change in one of the partners. While the trigger event occurred in 2003 giving the University of Manitoba time to react in a relatively unhurried fashion, no action was taken to address the changed situation.

Parsons and Fidler (2005) write, "punctuations may be forced by a crisis when the future of the organisation is under threat" (p. 462). The organization, in this instance, is the partnership, and with student numbers dropping dramatically composing the crisis, the partnership could be considered to be under threat; a responsive change is required. On an individual level, it is important that the decision makers recognize that a change has occurred which requires a response. Because the partnership began as a heterogeneous relationship, the decision makers may continue to view the partnership in this light. The structural change at UCSI, making the institutions more equal, changes the status of the partnership to a make it a more homogeneous one. Without a perspective change in the decision makers to view the institutions as more equal, negotiations to make structural changes in the partnership will not likely be considered.

On an organizational level, the partnership is currently in a state of ambivalence. In order to realize a reinvigoration, a transformation to accommodate the structural shift at UCSI is necessary. Dhillon (2005) speaks of a stimulus required to move from ambivalence to reinvigoration and the organizational change models reviewed here indicate a revolutionary change. In order to move towards this stage, there needs to be a recognition by both institutions that a paradigm shift has occurred. At the same time, there needs to be a willingness

and commitment to address this new stage with new, clearly defined objectives and goals of the reinvigorated partnership. Once a transformation occurs to reinvigorate the partnership, a new set of objectives and benefits are incorporated and the partnership is 'RE'formed with the new set of objectives and goals. This cycle can be repeated indefinitely with a transformation, transformation and 're'formation in response to changing environmental conditions. The cyclical nature of the continuing evolution of the partnership is visualized here as a helix. This represents the partnership continuously cycling through the stages of development (expansion, ambivalence, transformation, reformation) while illustrating that each cycle occurs in a different environment or place in time. The structure of this new model of partnership development has the potential to reflect the kind of flexibility and responsiveness required for a partnership to be sustainable.

Figure 8: Illustration of partnership development as either a series of repeatable stages occurring in a different time and place in response to changes which impact the initial goals and objectives of the partnership or, if transformation does not occur, as a partnership which remains in a state of ambivalence.



Comparing this back to the bridge building analogy, if a bridge has been built over a river which is rising due to changes in the water routing upstream, what happens if measures are not taken to reevaluate the functioning of the bridge? As the water rises, it is possible that the bridge loses its structural integrity because it was not designed to withstand pressure of that

magnitude. The bridge cannot sustain its structure under such a change to its environment. In order to survive, therefore, it is necessary to 'reform' the bridge to accommodate the altered conditions. Not to do so, will leave the bridge in a deteriorating condition. The same potential exists in a partnership in the ambivalence stage. If the transformation does not occur, or the choice is made not to transform, the partnership remains in a state of ambivalence which will likely lead to deterioration of the partnership, some of which has happened with the declining student numbers, and will ultimately leading to its demise and abandonment.

Sustainability: Ambivalence versus Transformation

The case study of the Engineering degree pathway: University of Manitoba/UCSI has been reviewed in light of the literature on successful partnerships. Interviews were conducted to get the perspectives of those currently working with this partnership. The data from the interviews and other documents indicate that this partnership has many of the components of a good collaboration as set out in the literature. Until approximately 2003, the partnership was working within the parameters of mutual benefit. UCSI had a degree completion program and University of Manitoba had students and funding. A designated person in the form of Gilles Lemieux at the University of Manitoba had good relationships with the personnel at UCSI and it was his job to take care of this partnership. There is no doubt expressed anywhere that Gilles is instrumental in the success, and continuation, of the program. Thus, under conditions of continuous change, minor modifications have occurred to improve the operations of this partnership and, under stable conditions, it could have continued indefinitely without any drawbacks.

Gilles, however, does not hold a position within the faculty or the institution which would allow him to make more fundamental changes to the partnership; he is not one of the decision makers that can propose and implement deep structural changes. The partnership

literature suggests that successful partnerships have the support of senior administration (Anderson, 1999; Chan, 2004; de Wit, 2004; Denman, 2002; Westera et al., 2004). Taking this one step further would be to emphasize the necessity of having an innovative community to work with such relationships not only regularly evaluating for sustainability, but evaluating for other ways of using the partnership for the mutual benefit of the partners. In such a way the partnership remains current and relevant to the participants. When incidents of punctuated equilibrium occur, there needs to be the will within this senior administration to recognize and act upon the triggers to accommodate the shift or, alternatively, recognize the shift and choose not to act upon it.

When the status of one partner changed and UCSI became a degree granting institution, a change in the formal relationship of the partnership needed to occur to accommodate this in order for the partnership to remain relevant and continue to provide mutual benefit to both partners. The lack of significant changes to the partnership indicates that a change to the partnership was not triggered and it remains in the ambivalent stage. What did occur was that the partnership carried on as before but those measures of success, the most visible being the number of students in the program who would do two years at UCSI and then two years at the University of Manitoba, dropped dramatically. To continue along this road will rapidly lead to fewer or no students enrolled in this program and then, the program will either fade out slowly or die quickly. The interviewees speculated that it was Gilles' role that has kept the program alive for the past number of years. Even Gilles himself suggests that the UCSI administration may reason thusly for the continuation of the program:

> *"they might just be doing it because they know me and they know this is my job and let's support Gilles and keep it going, it could be, it might be part of their reasoning"(Gilles Lemieux).*

It is important to recognize that the goals and objectives of a partnership are not stagnant and can be constantly in flux in response to changing environmental conditions. Just as a bridge is constructed to accommodate movement from winds, so a partnership has to be ready to recognize that changing environmental conditions require a response. And just as the new bridge has built in this ability, so the continuous change (Weick & Quinn, 1999) made while a partnership is in a state of equilibrium serves to adjust to small and incremental changes in the environment. However, when a shift occurs that requires a change in the deep structure of the partnership, a structural change must occur in response to this punctuated equilibrium (Parsons & Fidler, 2005). Unlike continuous change which continues without impacting the partnership's structure, episodic change normally occurs at a more senior level (Weick & Quinn, 1999) and may require a transformation in the perspectives of senior administration to transform the partnership into a new state of equilibrium. So the changes occur on two levels, those that are continuous and those that are short periods of intense change in response to triggers to the structure of the partnership.

> *"you have to constantly monitor and evaluate what's happening at the partner institution, are the capacity building measures that we put in place, are they achieving what we hoped they would achieve. And are they still relevant and once they have achieved, what then, what is next. So you can't leave it stagnant, you've got to allow it to grow with what is happening at the partner end, with what is happening here and allow it to develop" Manager, International Cooperation Agreements (Manitoba)*

It is also important to recognize some partnerships are by their very nature time limited and, once the goal of the partnership has been achieved, the most efficient thing to do is to end the partnership. The alternatives, holding onto a partnership which does not meet the needs of the partners, or transforming the partnership by setting new goals, can also be viable.

Implications for Practice, Research and Theory

Increasing internationalization in the field of higher education globally has led to a proliferation of international consortia (Denham, 2002). While historically there have been partnerships wherein institutions in developed countries partner with those in developing countries to develop capacity, in the context of internationalization, this rationale for partnerships is changing. Emerging countries such as Malaysia are rapidly increasing their capacity in the area of higher education with national aspirations of becoming being regional hubs. As HEIs are competing on the global stage, it becomes imperative that institutions have an internationalization strategy to participate in the global field of higher education. This study reveals some of the components of the strategy utilized by UCSI which is evolving and involves partnerships with overseas institutions. The University of Manitoba has been strategic in its relationships by taking into consideration its internationalization strategy and looking for partnerships in specific markets. Institutional partnerships of this nature may provide part of this strategy. In an effort to use resources wisely, access a global market and provide opportunities for students and faculty alike, there is tremendous potential in achieving synergistic relationships when partnerships are developed well and kept relevant.

Punctuated equilibrium and episodic change are appropriate ways to consider the rapidly changing higher education environment. More and more, the need for creative and innovative response is necessary and desirable and the ability to look beyond the way things were perceived or done in the past and develop other options will be crucial to the success of programs and institutions. Individual transformative change and organizational transformation are both pieces to this response. The use of such knowledge can give insights into how to view, evaluate and sustain partnerships in the face of paradigm shifts.

Lessons Learned

The longevity of this partnership can be considered a sign of the success of it. Student numbers and graduation rates are congruent with a successful partnership. Although declining student numbers should have been a red flag to address issues in the partnership, for the most part it was not acted upon. If this partnership is to be used as a model for others, what lessons have we learned from it?

> *"We've had Sedaya for more than ten years. So it's bound to happen if you're starting something new from scratch you're going to have some growing pains and you're going to make some mistakes but I don't think that we've capitalized very well on the mistakes that we've made. I think we've just tried to push them aside and move on, rather than learning from them." Manager, International Cooperation Agreements (Manitoba)*

1. Goals and Objectives must be clearly stated. The Office of International Relations can act as an important resource for the formation of these agreements and should be contacted. There is no sense in reinventing the wheel.
2. It is vital to visit and re-visit the goals and objectives of the partnership and ensure that they are still relevant to both partners. In order to do this, it is necessary to have a good relationship with the partner institution and to ensure the resources allotted to communication are sufficient to maintain the relationship. Knowledge and understanding of the partner institution's current environment can head off future problems.
3. The relevancy and hence sustainability of the partnership is dependent upon responding to paradigm shifts in a prompt and realistic way. This may require transformation at both the organizational and individual level. While continuous change is required for the daily operation of a partnership, it is wise not to overlook larger, global changes which have an impact on the partnership.

4. Personnel working specifically with the partnership can make the difference between success and failure. Without this commitment, too often other things can get in the way and the partnership work will fall off to the side. This can also address any administrative or personal issues that arise in the course of the partnership.
5. If the partnership is to be one of indeterminate length, it is important to have the involvement and commitment to it at various levels within the organizations and over multiple activities and disciplines. It is essential to have a 'point person' who will ensure that issues are followed up and communication and monitoring occur on a regular basis.

Questions for Further Study

While this case study provides a good example of a paradigm shift to the original premise upon which the partnership was developed, it was influenced greatly by the role of one player in particular, Gilles Lemieux. It was unanimous that this partnership could not have continued had it not been for his knowledge, experience and efforts. Mr. Lemieux is unique in this role due to his experience with both of the partner institutions and such a situation may not occur in another partnership.

A further case study of a similar arrangement would be useful to answer the question of how long a partnership can be in the ambivalent stage before it dies. Questions on how to handle a dramatic paradigm shift as was found in this case could also be addressed. While the trigger found in this case study which requires attention to transform the partnership was a dramatic change in status of one of the partners, other triggers could lead to different results.

Also, this study was a of a two partner single purpose relationship. Would the results be transferable to multi-purpose or multi-partner relationships? Accreditation issues were part of the partnership, would the partnership be different with other disciplines or disciplines which were not professional faculties?

This case was limited to a partnership between a public institution and a private institution. Would the same situations arise between two public or two private institutions?

Conclusion

In conclusion, the partnership between the University of Manitoba and UCSI Engineering programs is one that has been sustained over many years. The partnership has weathered many changes in the growth and development of what is now UCSI. What was initially developed provided benefits to both partners: additional funding and student numbers to the University of Manitoba who, at the time, was dealing with budget constraints and declining student numbers, and for UCSI the contribution of an accredited university engineering program to the development of engineering courses and the marketability for UCSI of a degree completion program for recruitment purposes. The partnership has run, since its inception, on a continuous change model with incremental changes designed to improve the operation of the partnership. The close personal relationship between individuals in the partnership has formed an integral part of both the communication between partners and the longevity of the program.

The change to degree granting status of UCSI in 2003 provided a significant structural change to the partnership on the side of UCSI. No longer did the partnership provide benefits to that institution as its needs and priorities changed. At this juncture, the shift caused a punctuated equilibrium. Unfortunately this was not recognized and responded to by the participants leading to a situation of declining student numbers in the program.

What happens next for the partnership will depend upon the priorities of the partner institutions. As one of the measures of success of the partnership is student numbers, the sharp decline in this category would indicate that the partnership is currently not successful. The partners will need to decide whether the partnership should be reinvigorated by a transformation to the partnership to once again create a mutually beneficial relationship. The

other choice is to leave the program in a state of ambivalence. As mentioned, without any shifts that impact the deep structure of the partnership, such a state could proceed indefinitely. The shift, however, has occurred. The question now is what is next for this partnership.

EPILOGUE

On July 10, 2008, in *What's Happening at the U of M,* an article was posted entitled, "Researcher designs the best bridge, again". The article reports on Professor Mufti's lifelong search for a better bridge and his latest research upon which others will build. Just as the University of Manitoba/UCSI partnership was the best partnership when it was developed, the potential to be the best partnership, again, is well within reach.

Just as the replacement of steel with GFRP comprised a paradigm shift in bridge building, so the structural change in the partnership which resulted when Sedaya College became UCSI provided an analogous paradigm shift in the partnership. Just as the GFRP provided the potential for building a better bridge, so the potential for a better partnership exists within the new structure as well.

By using civionics, a new bridge can be constantly monitored to gauge reactions to changing environmental factors. So with partnership maintenance a continuous change model (Weick & Quinn 1999) is used to keep current on the partnership and make incremental changes as necessary to optimize the partnership. But just as a conventional bridge cannot be changed into a GRFP bridge by minor alterations, so a partnership which has experienced a structural change as is the case here cannot be transformed with minor alterations.

The old bridge still works; the old partnership still works. The question that remains is can the University of Manitoba and UCSI "design the best partnership, ***again***".

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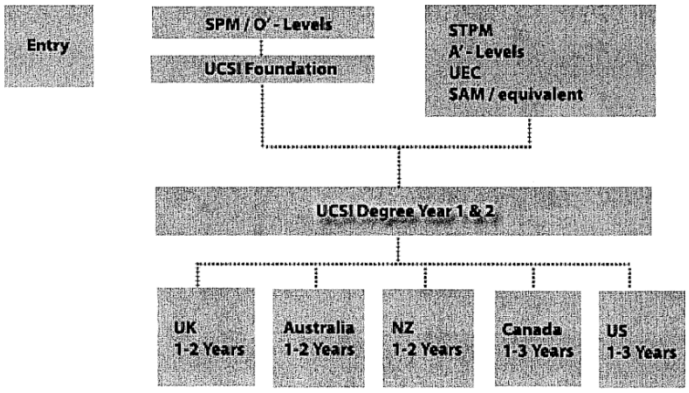
APPENDICES

Appendix A: UCSI International Degree Pathway Options

Progression Chart



Universities with International Degree Pathways for UCSI degrees:

Canada (Semesters Intakes: Sept** & Jan)

University of Manitoba

- Applied Science

  B. Sc. / B.Sc. (Hons) [Credit Transfer up to 2+2]
  Majors: Microbiology, Human Nutritional Science, Food Science, Biotechnology, Genetics, Biochemistry
- Information Technology

  B. Sc. Computer Science [Credit transfer]
- Engineering

  B. Sc. (Engineering) [Credit Transfer 2+2]
  Majors: Mechanical, Mechanical with Aerospace Option, Biosystems, Biosystems with Environmental Option, Civil, Civil with Environmental Option, Computer, Electrical and Manufacturing
- Business / Commerce

  B. Commerce (Hons) [Credit Transfer, up to 1.5+2.5]
  Majors: Accounting, Actuarial Math, Human Resource Management, Finance, International Business, Marketing, Management Information Systems
- Social Science and Liberal Arts

  B.A. Psychology [Credit Transfer]
  B.Sc. (Hons) Psychology [up to 2+2]
  B.Sc. (Major) Psychology [up to 2+2]

University of Winnipeg

- Information Technology

  B.A. / B.Sc. Applied Computing [Credit Transfer]

University of Lethbridge

- Management

  B.Management [Credit Transfer]

University of New Brunswick

- Information Technology

  B.Sc. Computer Science [2+2]

- Business

  B. business Administration [2+2]
  Majors: Human Resource Management, Marketing, Information Systems, Accounting, Finance

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 **Australia** (Semesters Intakes: Feb** & July)

University of Queensland (Brisbane)

- Applied Science

  B. Sc. (Genetics, Biomedical Science, Microbiology, Biochemistry, Biology Chemistry, Nanotechnology) (Hons Optional) [1.5+1.5]
  B. Biotechnology (Hons) [1.5+2.5]
  B. Applied Science (Food Science & Nutrition) Food Science Stream [2+1]
  B. Applied Science (Food Science & Nutrition) Nutrition Science Stream [2+1.5]
  B. Food Technology [1+3]
  B. Marine Studies [1.5+2.5]
  B. Environmental Studies [1.5+2.5]

- Engineering

  B. Eng. (Chemical Engineering) [1+3]

  B. Eng. (Electrical Engineering) [2+2, 1+3]

  B. Eng. (Computer Systems Engineering) [2+2, 1+3]

  B. Eng. (Mechatronic Engineering) [1+3.5, 2.5+2]

- Business / Commerce

  B. Commerce [1.5+1.5]
  Majors: Accounting, Business Information Systems, Finance Management / Economics

  B. Business Management [1.5+1.5]
  Majors: Business Economics, eBusiness, Human Resource management & Industrial Relations, International Business, Management & Organisations, Marketing, Real Estate & Development

  B. Economics [1.5+1.5]
  Majors: Business & Industry, International Trade & Finace, Quantitative Methods

  B. Business Communication [1.5+1.5]
  Majors: Advertising, Marketing & Public Relations, Organisational Communication

  B. Business [1.5+1.5]
  Majors: Accounting, Online Business, Event Management, Hospitality Management, Sport & Leisure Management, Travel & Tourism Management

  B. International hotel & Tourism [1.5+1.5]
  Majors: Event Management, Hotel management, Tourism Management

Swinburne University of Technology (Melbourne)

- Information Technology

  B. Multimedia [2+1]

- Applied Science

  B. Sc. (Biotech/Biochemistry) [2+1]
  B. Sc. (Biochemistry/Chemistry) [1+2]

- Social Science & Liberal Arts

  B. A. (Media and Communication) [1+2]*

Deakin University (Melbourne)

- Social Science and Liberal Arts

  B. Applied Science (Psychology) / B. A. Psychology [2+1]

Charles Sturt University (Albury-Wodonga/Wagga Wagga)

- Applied Science

  B. Sc. (Biotechnology)[approx 1.5+1.5]

Curtin University of Technology (Perth)

- Applied Science

  B. Sc. (Food Science & Technology) [2+1]
  B. Sc. (Nutrition), B. Sc (Food Science & Technology)[Double degree (2+2)]

- Social Science and Liberal Arts

  B.A. Mass Communication [2+1]*

Flinders University (Adelaide)

- Applied Science

  B. Biotechnology (Hons) [1+3, 2+2]

Murdoch University (Perth)

- Applied Science

  B.Sc. (Molecular Biology/Biomedical Science) [2+1]
  B.Sc. (Biotechnology/molecular biology) [2+1]
  B.Sc. (Forensic Biology & Toxicology) [2+1]

La Trobe University (Melbourne)

- Applied Science

  B.Applied Sc, B. biological Science, B. biotechnology & Cell Biology, B. Chemical Science, B. medical Science
  Majors: Biochemistry, Plant Biotechnology & Medical Biology [2+1]; other majors [1+2, 1.5+1.5]

- Engineering

  B.Electronic Engineering [1.5+2.5]
  Majors: Biomedical, Telecommunication, Electronic Systems & Optical Engineering

- Social Science & Liberal Arts

  B. journalism [1+2, 1.5+1.5]
  B. Media Studies [1+2, 1.5+1.5]

United Kingdom (Semesters Intakes: Sept** & Jan)

University of Sunderland (City of Sunderland)

- Information Technology

  B. Sc. (Hons.) Applied Business Computing [2+1]
  B. Sc. (Hons.) Computer Application [2+1]
  B. Sc. (Hons.) Computing [2+1]

- Business

  B.A. (Hons.) Business Administration [2+1]
  B.A. (Hons.) Business & Management (Marketing Management) [2+1]

- Applied Science

  B. Sc. (Hons.) Biomedical Science [2+1]
  B. Sc. (Hons.) Biotechnology [2+1]

University of Wolverhampton (City of Wolverhampton)

- Business

  B. A. (Hons.) Business Management [1+2, 2+1]
  B. A. (Hons.) Marketing [1+2, 2+1]
  B. A. (Hons.) Business and Marketing [1+2, 2+1]
  B. A. (Hons.) International Business Management [1+2, 2+1]
  B. A. (Hons.) Accounting [1+2, 2+1]
  B. A. (Hons.) Accounting and Finance [2+1.5, 1+2]

- Applied Science

  B. Sc. (Hons.) Biotechnology [1+2]
  B. Sc. (Hons.) Biomedical Science [1+2]

- Engineering

  B. Eng. (Hons.) Electronics and Communications Technology [1+2]
  UCSI students have to complete Year 1 & Year 2 at UCSI to gain entrance into Wolverhampton's Year 2

- Information Technology

  B. Sc. (Hons.) International Information Technology Management [2+1]
  B. Sc. (Hons.) Information Technology [2+1]
  B. Sc. (Hons.) Computer Studies [2+1]

B. Sc. (Hons.) Business Information Technology [2+1]

- Social Science & Liberal Arts

  B.A. (Hons) Media & Communication Studies*
  B.A. (Hons) Broadcasting & Journalism*

- Music

  B.A. (Hons.) Music [2+1]
  B.A. (Hons.) Popular Music [2+1]

University of Central Lancashire (Preston/Penrith/Carlisle)

- Information Technology

  B. Sc. (Hons.) [1+2, 2+1.3]
  Majors: Computing, Applied Internet Marketing [1+2, 2+1.3]

Northumbria University (Newcastle)

- Information Technology

  B. Sc. (Hons.) Computing for Business [2+1]
  B.Sc (Hons) Applied Computing [2+1]
  UCSI B. Sc. (Hons.) Computing graduate also eligible to enter M. Sc. Applied Computing Technologies

- Engineering

  B. Eng. (Hons.) Electrical & Electronic Engineering [2+1]
  B. Eng. (Hons.) Communication & Electronic Engineering [2+1]
  UCSI students have to complete Year 1,2, & 3 at UCSI to gain entrance into final year at Northumbria

- Applied Science

  B.Sc. (Hons) Human Nutrition [1+2]
  B.Sc (Hons) biomedical Sciences [1+2]
  B.Sc. (Hons) Food Science and Nutrition [1+2]

University of East London (London)

* UCSI students from the programmes below are able to transfer into UEL degrees at any time during their UCSI degree, subject to fulfilling course requirements [Credit Transfer]

- Business / Commerce

  Business Administration, Marketing, Accounting & Finance, Accounting

- Information Technology

  Business Information System, Computing

- Social Sciences and Liberal Arts

  Psychology, Mass Communication

- Applied Sciences

  Food Science & Nutrition, Biotechnology

- Engineering

  Electrical & Electronic Engineering
  Communication & Electronic Engineering

- Music

  Contemporary
  Classical

- Diploma in Logistic Management

University of Glamorgan (Pontypridd,Wales)

- Business/Commerce

  B.A (Hons) Business Studies [2+2, 3+1]
  UCSI students have to complete Year 1 & 2 at UCSI to gain entrance into Glamorgan's Year 2
  *UCSI students have to complete Year 1,2 & 3 at UCSI to gain entrance into Glamorgan's Year 3

- Engineering

  B.Eng. (Hons) Electrical & Electronic Engineering [1+2]
  B.Eng. (Hons) Communication & Electronic Engineering [1+2]
  UCSI students have to complete Year 1 & Year 2 at UCSI to gain entrance into Glamorgan's E&E & C&E Year 2

- Information Technology

  B.Sc. (Hons) Computer Science [1+2]
  B.Sc. (Hons) Software Engineering [1+2]
  B.Sc. (Hons) Information Systems [1+2]

- Social Sciences & Liberal Arts

  B.Sc. Psychology [1+2]

B.A. (Hons) Communications Studies [1+2]
B.A. (Hons) Media & Communication [1+2]
B.A. (Hons) Television Studies [1+2]
UCSI B.A. (Hons) Mass Communications graduates are eligible for entrance into MSc International Communication & Global Media

Robert Gordon University (Aberdeen, Scotland)

- Engineering

  B.Eng. (Hons) Electronic and Electrical Engineering [2+2]
  B.Eng. (Hons) Electronic and Communication [2+2]
  B.Eng. (Hons) Mechanical and Electrical Engineering [2+2]
  B.Eng. (Hons) Mechanical Engineering [2+2]
  B.Eng. (Hons) Mechanical and Offshore Engineering [2+2]

- Information Technology

  B.Sc. (Hons) Computing for Internet and Media [2+2]
  B.Sc. (Hons) Information Systems Technology [2+2]

- Architecture

  UCSI Foundation in Architectural Studies → B.Sc. (Hons) Architecture or Interior Architecture [4 years]
  UCSI Diploma in Interior Architecture → B.Sc. (Hons) Interior Architecture [1+3] or B.Sc. (Hons) Construction Design & Management [2+2]
  UCSI Diploma in Architectural Studies → B.Sc. (Hons) Architecture [1+3, 2+2] or B.Sc. (Hons) or B.Sc. (Hons) Construction Design & Management [2+2]
  B.Sc. (Hons) Interior Architecture [2+2]
  B.Sc. (Hons) Architecture [2+2, 3+1]

New Zealand (Semesters Intakes: Feb** & July)

Auckland University of Technology (Auckland,North Island)

- Social Science and Liberal Arts

  B. Communication Studies [1+2, 2+1]
  Majors: Advertising Creativity, Journalism, Public Relations, Multimedia, Radio*, Television*, Creative Industries*

  * These majors are only available in 1+2 arrangement

Otago University (Dunedin, South Island)

- Applied Science

  B. Sc. (Food Science) [1+2, 1.5+1.5]

Lincoln University (Canterbury, South Island)

- Information Technology

  B. Applied Computing [1+2, 1.5+1.5]
  B. Commerce and Management [1.5+1.5]

  UCSI Dip in IT graduate will gain 1 year of credits in B. Applied Computing, B. Commerce and Management (Majors : Computing, e-Commerce)

- Applied Science

  B. Sc. [1.5+1.5] Majors : Biochemistry, Biotechnology, Food Sc.

- Business

  B. Commerce and Management [2+1]
  Majors: Accounting, Business Management, Computing, e-Commerce, Economics, Finance, Hospitality, International Business, Marketing, Property, Supply Chain Management, Tourism.

  UCSI Dip in Management may gain 1 year of credits in B. Commerce and Management.

Victoria University of Wellington (Wellington, North Island)

- Commerce

  B. Commerce Administration Majors: Accounting [1.5+1.5], Human Resource Management & Industrial Relations [2+1], Information Systems [1.5+1.5], International Business [2+1], Management [1.5+1.5], Marketing [2+1], Money & Finance [1+2]

USA

Bemidji State University

- Information Systems, Psychology, etc. [Credit Transfer]

Fairleigh Dickinson University

- Business

  B. Sc. (all majors incl. Business Management, Accounting, Marketing & Finance) [Credit Transfer, approx. 3+1]

Murray State University

- Mass Communication, Psychology, Business Administration [Credit Transfer]

Wichita State University

- Engineering, Psychology, etc. [Credit Transfer]

SUNY Plattsburgh

- Mass Communication, Psychology, Business [Credit Transfer]

* In the final stage of finalization.
** Main Intake - most programmes are ONLY offered during the university's main intake
UCSI reserves the right to alter the information given without any prior notice.

UCSI UNIVERSITY COLLEGE SEDAYA INTERNATIONAL (KP/JPS/DFT/US/W06)

Kuala Lumpur Campus
No.1, Jalan Menara Gading, UCSI Heights
56000 Kuala Lumpur
Tel: +603 9101 8880 Fax:+603 9102 3606

Kuala Terengganu Campus
Kawasan Perindustrian Bukit Khor,
Marang, PT 11065, Mukim Rusila,
21600 Marang, Terengganu Darul Iman
Tel: +609 618 6880 Fax:+609 618 6885

Kuching Campus
Sedaya International College Sarawak
Lot. 180-182, Jalan Haji Taha,
93400 Kuching, Sarawak
Tel: +6082 242 433 Fax: +6082 419 120

Appendix B: Research Guides

Interview Guide – Program Director of Degree Pathway U of M/UCSI (key informant)

1. Describe what you role has been over the development of this program and currently.
2. Do you have a counterpart at UCSI? Or who is your main contact there?
3. How often do you communicate with this person? How (face-to-face, telephone, email)?
4. What is the reporting structure for this program at the University of Manitoba? At UCSI?
5. How many students are enrolled in the program each year?
6. What is the total number of graduates each year?
7. What special supports exist specifically for these students at U of M? at UCSI?
8. What factors are important to the sustainability of this arrangement? How are these factors evaluated and maintained?
9. What is the value of the personal relationships in this?
10. In course/program development and modification, how much input do the institutions have on what is offered at the other institution?
11. Who would you recommend that I speak to at UCSI? At U of M?

Interview Guide – Institutional Representatives

Thank you for meeting with me. My research interest is inter-institution agreements for program delivery. As part of my project, I am examining the agreement between UCSI and the Faculty of Engineering, University of Manitoba.

1. In general, what advantages do you see for your institution when setting up these arrangements?
2. What factors are important in these types of arrangements?
3. How do you define and measure success for a collaborative agreement? What factors are considered? What is the time frame? What happens with arrangements which are not successful?
4. What is your role in the arrangement between UCSI and U of M?
5. How long have you been involved with the project between UCSI and U of M?

6. How did you first become involved with this?

7. What changes have you seen over the time you've been involved with this program?

8. Reporting and organizational structure for arrangements between two institutions– what does this look like? How does it work? How well does it work?

9. Are arrangements between two institutions time limited or is there a perception of a long time frame?

10. The Engineering UCSI/U of M arrangement has been operational for over ten years now. Can you comment on the pros and cons of the structure of this arrangement?

11. Are you involved with other institution arrangements?

12. Does this mirror other arrangements you are involved with? If so, can you tell me a bit about them?

13. What is the best way to maintain cooperative arrangements? (monitoring, personal relationships, etc)

14. Do you think that this arrangement had an impact on student numbers (i.e. recruitment tool)? Is that part of the purpose of it?

15. What is not/has not been working well for your institution? For your program? For your students?

16. What do you think the advantages are to your program? To your students?

17. Have the expected advantages to your institution been realized with the UCSI/U of M agreement?

Interview Guide – Administrative Representatives

Thank you for meeting with me. My research interest is inter-institution agreements for program delivery. As part of my project, I am examining the agreement between UCSI and the Faculty of Engineering, University of Manitoba.

1. In general, what advantages do you see for your institution or program when setting up these arrangements?

2. What factors are important in these types of arrangements?

3. How do you define and measure success for a collaborative agreement? What factors are considered? What is the time frame?

4. What is your role in the arrangement between UCSI and U of M?

5. How long have you been involved with the project between UCSI and U of M?

6. How did you first become involved with this?

7. What changes have you seen over the time you've been involved with this program?

8. Reporting and organizational structure for arrangements between two institutions– what does this look like? How does it work? How well does it work?

9. Are arrangements between two institutions time limited or is there a perception of a long time frame?

10. The Engineering UCSI/U of M arrangement has been operational for over ten years now. Can you comment on the pros and cons of the arrangement?

11. Are you involved with other institution arrangements?

12. Does this mirror other arrangements you are involved with? If so, can you tell me a bit about them?

13. What is the best way to maintain cooperative arrangements? (monitoring, personal relationships, etc)

14. Do you think that this arrangement had an impact on student numbers (i.e. recruitment tool)? Is that part of the purpose of it?

15. What is not/has not been working well for your institution? For your program? For your students?

16. What do you think the advantages are to your program? To your students?

17. What steps are taken to ensure student success? Were extra resources added to accommodate this, if so, how was this handled?

18. How were programs developed?

19. Was there any input from instructional/administrative level in the development or ongoing running of the arrangement?

20. What kind of evaluation is there of how things are working: academically, students, other?

21. What factors are evaluated? How often? How?

22. Have the expected advantages to your institution been realized with the UCSI/U of M agreement?

Appendix C: Chart of Transfer Credits from UCSI to University of Manitoba

Courses Offered for the Uof Manitoba/UCSI Engineering Degree Pathway
New Program – for students starting Sept 08 and later at UCSI

UCSI Course Description		Year	Civil	Mech	Mfg	Elec	Comp	Bio sys	University of Manitoba Equivalent	
Course Code	Course Name								Course Code	Course Name
MF109	University Chemistry 1	Year 1	3	3	3	3	3	3	CHEM1300	University Chemistry 1
SE112	English Literature	Year 1	3	3	3	3	3	3	ENGL 1310	Literary Topics
EE008	Calculus & Anal. Geometry I	Year 1	3	3	3	3	3	3	MATH 1510	Applied Calculus 1
CC108	Java Programming 1	Year 1	3	3	3	3	3	3	COMP 1010	Computer Science 1
EE109	Physics for Scien. & Eng. I (lab)	Year 1	3	3	3	3	3	3	PHYS 1050	Physics – Dynamics
2548	Linear Algebra (Math 140)	Year 1	3	3	3	3	3	3	MATH 1210	Tech. of Classical/Linear Algebra see note Below for mathematics
EE101	Calculus & Anal Geometry II	Year 1	3	3	3	3	3	3	MATH 1710	Applied Calculus 2
EM102	Engineering Statics	Year 1	3	3	3	3	3	3	ENG 1440	Intro to Statics
EM203	Thermodynamics I	Year 1	3	3	3	3	3	3	ENG 1460	Intro. Thermal Sciences
EM101 EE104	Engineering Graphics & Design & Engineering Fundamentals	Year 1							ENG 1430	Design in Engineering taken at UofMan
EE102	Circuit Theory I with lab	Year 1	3	3	3	3	3	3	ENG 1450	Intro. To Elect & Comp Tech
EE108	Technical Communication	Year 2	3	3	3	3	3		ENG 2010	Technical Communication
EE107	Math. Methods for Engineers I	Year 2	3	3	3	3	3	3	MATH 2130	Engineering Math Analysis I
EE203	Math. Methods for Engineers II EE101+EE107+EE203+2548 equal to MATH 2130+2132 and 1210	Year 2	3	3	3	3	3	3	MATH 2132	Engineering Math Analysis II no individual one-to-one credit for Math 2, but credit given if all 5 UCSI courses completed as a package
EE305	Numerical Analysis	Year 2	4	4	4	4	4	4	MATH 2120	Intro. Num. Meth. For Engrs
BB104	Business Statistics – currently being evaluated	Year 2	3*	3*	3*	3*	3*	3*	STAT 2220	Engineering Statistics
EM405	Engineering Economics	Year 2	3	3	3	3	3	3	CIVL 4050	Engineering Economics
	CSE – various Yr1 Arts & Mgmt	Year2	3	3	3	3	3	3		Anything in Arts or Management
EM201	Fluid Mechanics	Year 2	4	3	3			4	CIVL 2790 MECH 2260	Fluid Mechanics (for Civils) Intro. Fluid Mech (Mechanicals)
MF110	University Chemistry 2	Year 2		3	3			3	CHEM 1310 CHEM 2240	University Chemistry 2 or Applied Chemistry for Engrs
MF209	Microbiology	Year 2						3	MBIO 2100	General Microbiology A
MB102 MB103	Physiological Sciences 1 Physiological Science 2	Year 2 Year 2						3 3	ZOOL 1320 ZOOL 1330	Human Anatomy Physiology of the Human Body
EE103	Digital Electronics I with lab	Year 2				5	5		ECE 2220	Digital Logic Systems
CC109 CC105	Java Programming 2 PLUS Data Structures & Algorithms	Year 2					3		COMP 1020	Computer Science 2
EE106	Electromagnetic Theory I	Year 2				4			ECE 2130	Electric Fields
EE201	Adv. Circuit Theory & T-Lines	Year 2				4	4		ECE 2260	Circuits & T-Lines
EM302	Stress Analysis & Design II M	Year 2	4	4	4			4	MECH 2220	Stress Analysis & Design IIM
EM202	Engineering Dynamics	Year 2		3	3			3	MECH 3480	Dynamics
EM402	Manufacturing Engineering	Year 2		3	3				MECH 2290	Manufacturing Engineering
	Total Number of Credit Hours Transferred		**54**	**68**	**68**	**65**	**64**	**72**		
	Total Number of Credit Hours in Program (min.)		**167**	**157**	**163**	**173**	**167**	**159**	**Calculated using new Yr 1 of -5 ch from previous**	

Other Biosystems courses that can be taken at UCSI include: Science Elective: Biology I; Statistics instead of a CSE
Mechanics of Machines and Thermodynamics 2M may be offered at a later date at UCSI (as part of Mechanical and Manufacturing)
Special Note: Only 50% of program can be done at UCSI and transferred to U of Manitoba (Maximum ½ total ch)
Linear Algebra req'd for those coming Sept '08 and later.

Revised October 2006

Courses Offered for the Uof Manitoba/UCSI Engineering Degree Pathway
New Program – for students coming Sept 07 and later

UCSI Course Description			Year	Civil	Mech	Mfg	Elec	Comp	Bio sys	University of Manitoba Equivalent		
New Code	Old Code	Course Name								New Code	Old Code	Course Name
MF109	1520	University Chemistry 1	Year 1	Y	Y	Y	Y	Y	Y	CHEM1300	2.130	University Chemistry 1
SE112	2505	English Literature	Year 1	Y	Y	Y	Y	Y	Y	ENGL 1310	4.131	Literary Topics
EE008	4533	Calculus & Anal. Geometry I	Year 1	Y	Y	Y	Y	Y	Y	MATH 1510	136.151	Applied Calculus 1
CC108	1110	Java Programming 1	Year 1	Y	Y	Y	Y	Y	Y	COMP 1010	74.101	Computer Science 1
EE109	5505	Physics for Scien. & Eng. I (lab)	Year 1	Y	Y	Y	Y	Y	Y	PHYS 1050	16.105	Physics – Dynamics
	2548	Linear Algebra (being eval.)	Year 1	Y?	Y?	Y?	Y?	Y?	Y?	MATH 1210		Classical/Linear Algebra
EE101	4534	Calculus & Anal Geometry II	Year 1	Y	Y	Y	Y	Y	Y	MATH 1710	136.171	Applied Calculus 2
EM102	4505	Engineering Statics	Year 1	Y	Y	Y	Y	Y	Y	ENG 1440	130.135	Intro to Statics
EM203	3545	Thermodynamics I	Year 1	Y	Y	Y	Y	Y	Y	ENG 1460	130.112	Intro. Thermal Sciences
EM101 EE104	1313 1302	Engineering Graphics & Design & Engineering Fundamentals	Year 1	Y	Y	Y	Y	Y	Y	ENG 1430		Design in Engineering
EE102	2340	Circuit Theory I with lab	Year 1	Y	Y	Y	Y	Y	Y	ENG 1450	130.116	Intro. To Elect & Comp Tech
EE108	1306	Technical Communication	Year 2	Y	Y	Y	Y	Y		ENG 2010	130.201	Technical Communication
EE107 EE203		Math. Methods for Engineers I Math. Methods for Engineers II Note: EE101+EE107+EE203 equal to MATH 2100+2110+3100	Year 2 Year 2	N N YY	N N YYY	N N YYY	N N YYY	N N YYY	N N YY	MATH 2100 MATH 2110 MATH 3100	136.210 136.211 139.310	Math Methods for Engineers I Math Methods for Engineers II Math Methods for Engineers III MATH 2100+2110+3100 BUT no individual credit
EE305	2355	Numerical Analysis	Year 2	Y	Y	Y	Y	Y	Y	MATH 2120	136.212	Intro. Num. Meth. For Engrs
BB104		Business Statistics – currently being evaluated	Year 2	Y?	Y?	Y?	Y?	Y?	N	STAT 2220	5.222	Engineering Statistics
EM405	2530	Engineering Economics	Year 2	Y	Y	Y	Y	Y	Y	CIVL 4050	23.405	Engineering Economics
		CSE – various Yr1 Arts & Mgmt	Year2	Y	Y	Y	Y	Y	Y			Anything in Arts or Management
		CSE							Y			
	2306	Materials in Civil Engineering – may be offered at a later date	Year 2	(Y)						CIVL 2770	23.277	Civil Engineering Materials
EM201	3365	Fluid Mechanics	Year 2	Y	Y	Y			Y	CIVL 2790 MECH 2260	23.279 25.226	Fluid Mechanics (for Civils) Intro. Fluid Mech (Mechanicals)
	2321	Intro. To Environmental Engr. – may be offered at a later date	Year 2	(Y)						CIVL 2760	23.276	Intro. To Environmental Engrg.
MF110	2520	University Chemistry 2	Year 2		Y	Y			Y	CHEM 1310 CHEM 2240	2.131 2.224	University Chemistry 2 or Applied Chemistry for Engrs
MF209	1552	Microbiology	Year 2						Y	MBIO 2100	60.210	General Microbiology A
MB102 MB103		Physiological Sciences 1 Physiological Science 2	Year 2 Year 2						Y Y	ZOOL 1320 ZOOL 1330	22.132 22.133	Human Anatomy Physiology of the Human Body
EE103	2360	Digital Electronics I with lab	Year 2				Y	Y		ECE 2220	24.222	Digital Logic Systems
CC109 CC105	1112 1115	Java Programming 2 PLUS Data Structures & Algorithms	Year 2					Y		COMP 1020	74.102	Computer Science 2
EE105	2350	Analog Electronics I	Year 2				Y	Y		ECE 2160	24.216	Electronics IIE
EE106	2270	Electromagnetic Theory I	Year 2				Y			ECE 2130	24.213	Electric Fields
EE308	3360	Microprocessor Systems	Year 2				Y	Y		ECE 3610	24.361	Microprocessor Systems
EE201	1311	Adv. Circuit Theory & T-Lines	Year 2				Y	Y		ECE 2260	24.226	Circuits & T-Lines
EM302	4509	Stress Analysis & Design II M	Year 2	Y	Y	Y			Y	MECH 2220	25.222	Stress Analysis & Design IIM
	4514	Mech. of Mach.	Year 2		(Y)	(Y)				MECH 2120	25.212	Mechanics of Machines
	3546	Thermodynamics IIM	Year 2		(Y)	(Y)				MECH 2200	25.220	Thermodynamics IIM
EM202	4504	Engineering Dynamics	Year 2		Y	Y			Y	MECH 3480	25.348	Dynamics
EM402	2529	Manufacturing Engineering	Year 2		Y	Y				MECH 2290	25.229	Manufacturing Engineering
		Total Number Subjects Transferred		**20**	**24**	**24**	**24**	**24**	**24**			

Other Biosystems courses that can be taken at UCSI include: Science Elective: Biology I; Statistics instead of a CSE
Mechanics of Machines and Thermodynamics 2M may be offered at a later date at UCSI (as part of Mechanical and Manufacturing)
Special Note: Only 50% of program can be done at UCSI and transferred to U of Manitoba (Maximum 24 courses)

Revised April 2006

Courses Offered for the Uof Manitoba/UCSI International Engineering Degree Pathway
Old Program – for students coming until Sept 06 to April 07 Session

New Code	Old Code	Course Description	Year	Civil	Mech	Mfg	Elec	Comp	Biosys	UofManitoba Equivalent
MF109	1520	University Chemistry I	Year 1	Y	Y	Y	Y	Y	Y	002.130 University Chemistry 1
	1302	Introduction to Engineering	Year 1	Y	Y	Y	Y	Y	Y	130.113 Intro. To Engineering
SE112	2505	English Literature	Year 1	Y	Y	Y	Y	Y	Y	001.131 Literary Topics
EE008	4533	Calculus & Anal. Geometry I	Year 1	Y	Y	Y	Y	Y	Y	136.151 Applied Calculus 1
CC108	1111	Java Programming 1	Year 1	Y	Y	Y	Y	Y	Y	074.101 Computer Science 1
EE109	5505	Physics for Scien. & Eng. I (lab)	Year 1	Y	Y	Y	Y	Y	Y	016.105 Physics – Dynamics
EE101	4534	Calculus & Anal Geometry II	Year 1	Y	Y	Y	Y	Y	Y	136.171 Applied Calculus 2
	1345	Waves and Modern Physics	Year 1	Y	Y	Y	Y	Y	Y	016.107 Waves & Modern Physics
EM102	4505	Engineering Statics	Year 1	Y	Y	Y	Y	Y	Y	130.135 Engineering Statics
EM203	3545	Thermodynamics I	Year 1	Y	Y	Y	Y	Y	Y	130.112 Thermal Sciences
EM101	1313	Engineering Design	Year 1	Y	Y	Y	Y	Y	Y	130.140 Engineering Design
EE102	2340	Circuit Theory I with lab	Year 1	Y	Y	Y	Y	Y	Y	130.118 Intro. To Electrical Circuits
EE108	1306	Technical Communication	Year 2	Y	Y	Y	Y	Y		130.201 Technical Communication
	1332	Math. Methods for Engineers I	Year 2	Y	Y	Y	Y	Y	Y	136.210 Math Methods for Engineers I
	2333	Math. Methods for Engineers II	Year 2	Y	Y	Y	Y	Y	Y	136.211 Math Methods for Engineers II
	3333	Math. Methods for Engineers III	Year 3		Y	Y	Y	Y		136.310 Math Methods for Engineers III
EE305	2355	Intro. To Numerical Methods	Year 2	Y	Y	Y	Y	Y	Y	136.212 Intro. Num. Meth. For Engrs
	3215	Statistics 1	Year 2	Y	Y	Y	Y	Y	Y	005.222 Statistics forEngineers
EM405	2530	Engineering Economics	Year 2	Y	Y	Y	Y	Y	Y	023.405 Engineering Economics
		CSE		Y			Y		Y	Anything in Arts or Commerce on approved list
	4508	Solid Mechanics 1		Y						023.280 Solid Mechanics 1
	4518	Solid Mechanics 2		Y						023.378 Solid Mechanics 2
	2306	Materials in Civil Engineering	Year 2	Y						023.277 Civil Engineering Materials
EM201	3365	Fluid Mechanics	Year 2	Y	Y	Y			Y	023.279 Fluid Mechanics (for Civils) 025.226 Intro. Fluid Mech (for Mech.)
	2321	Intro. To Environmental Engr.	Year 2	Y						023 276 Intro. To Environmental Engr.
MF110	2520	University Chemistry 2	Year 2						Y	002.131 University Chemistry 2
MF209	1552	Microbiology	Year 2						Y	060.210 General Microbiology A
		Science Elective							Y	
EE103	2360	Digital Electronics I with lab	Year 2				Y	Y		024.222 Digital Logic
CC109	1112	Java Programming 2**	Year 2							See Note 2.
EE105	2350	Analog Electronics I	Year 2				Y	Y		024.216 Electronics IIE
	1104	Intro. To Files & Data Structures	Year 2					Y		074.102 Computer Science 2
	2113	Data Structures 1	Year 2					Y		074.206 Discrete Struct. & Prog. 2
	2123	Data Structures 2	Year 2					Y		(both courses together for this credit)
EE106	2270	Electromagnetic Theory I	Year 2				Y			024.213 Electric Fields
EE308	3360	Microprocessor Systems	Year 2				Y	Y		024.361 Microprocessor Systems
EE201	1311	Adv. Circuit Theory &T-Lines	Year 2				Y	Y		024.226 Circuits & T-Lines
EM302	4509	Stress Analysis & Design II M	Year 2		Y	Y			Y	025.222 Stress Analysis & Design IIM
	4514	Mech. of Mach.	Year 2		Y	Y			Y	025.212 Mechanics of Machines
	3546	Thermodynamics IIM	Year 2		Y	Y				025.220 Thermodynamics IIM
EM202	4504	Applied Mech. II- Eng. Dynamics	Year 2		Y	Y			Y	025.348 Dynamics
EM402	2529	Manufacturing Engineering	Year 2		Y	Y				025.229 Manufacturing Engineering
		Total Number Subjects Transferred		**24**	**25**	**25**	**25**	**25**	**25**	

Note: UCSI Engineering Fundamentals and Engineering Design equivalent to UofMan Engineering Design;
UCSI Computer Engineering students take 1111, 1112 and 1115 for equivalency for 74.101 and 74.102
Other Biosystems courses that can be taken at UCSI include:
Physiological Sciences 1 & 2 for 022.132 Human Anatomy and 022.133 Physiology of the Human Body

Science Elective: Biology I, Chemistry.

Updated November 30, 2005

Appendix D: Ethics approval

APPROVAL CERTIFICATE

07 March 2008

TO: **Meg Brolley** (Advisor K. Matheos)
Principal Investigator

FROM: **Stan Straw, Chair**
Education/Nursing Research Ethics Board (ENREB)

Re: **Protocol #E2008:024**
"Inter-institutional Collaborations in Program Delivery in Higher Education"

Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement**.** This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- if you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to Kathryn Bartmanovich, Research Grants & Contract Services (fax 261-0325), including the Sponsor name, before your account can be opened.

- if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/ors/ethics/ors_ethics_human_REB_forms_guidelines.html**) in order to be in compliance with Tri-Council Guidelines.**

Appendix E: Sample Letter of Consent

UNIVERSITY OF MANITOBA

Research Project Title: Inter-institutional Collaborations for Program Delivery in Higher Education

Researcher: Meg Brolley

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The formation of inter-institutional collaborations wherein students remain in a higher education institution in their home countries to complete the first part of their degree and move to the collaborating institution to complete their degree is one strategy used to increase student enrolment. Such arrangements are marketed as providing advantages to all parties however; the evaluation of such programs is not always clear-cut or timely. This study will identify factors that contribute to successful arrangements and what is needed to sustain and grow the programs. Additionally, barriers or obstacles to be addressed could also be identified and strategies to overcome these challenges suggested.

A case study will examine the partnership between the Faculty of Engineering, University of Manitoba and the University College Sedaya International (UCSI) in Malaysia (formerly Sedaya College) which has students begin their studies at UCSI and complete their studies at the University of Manitoba graduating with a B.Eng. degree from the University of Manitoba. This agreement was established in 1992 and has been running continuously from that time to the present. Through this time period, various modifications to the agreement have occurred.

The study will involve the use of documents including minutes, draft agreements and correspondence from the formation and development of the arrangement and web sites of both UCSI and the University of Manitoba relating to the degree pathway program offered through an agreement of these two institutions. Interviews will be conducted with personnel at various levels in both institutions (UCSI and University of Manitoba) including: institutional, administrative, and students (current and past).

The purpose of this study is to investigate various perspectives on how arrangements between two institutions to offer a degree program were/are formed, sustained and evaluated.

Perspectives which will be sought over the course of the study include those of students (current and former) as well as institutional representatives and those involved in the administration of the program. I am a graduate student conducting this study as part of thesis for a Master of Education degree. Dr. Kathleen Matheos is my thesis supervisor.

Your participation will be comprised of an audio-taped conversation of approximately one hour at a time and location convenient for you. I will have a number of questions for you on your role in the University College Sedaya International/University of Manitoba degree pathway program, your experiences with it and, perspectives on how it has worked/is working for your institution. Part of the purpose of the study is exploratory and, as such, the conversation will remain quite informal. I am very interested in your knowledge and point of view on this topic.

The results of this study will be published as part of my Master of Education thesis submission. I will make available to you a summary of the key components of what we discussed for your review. All tapes and subsequent transcripts will be kept in a locked cabinet and erased at the end of the study. Electronic copies will be kept on a password protected computer for the length of the study and then deleted.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Principal researcher: Meg Brolley 204-474-6892, meg_brolley@umanitoba.ca

Supervisor: Dr. Kathleen Matheos 204-474-8032, matheos@cc.umanitoba.ca

This research has been approved by the Fort Garry Campus Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Office of Research Services, Human Ethics Coordinator, CTC Building, 208 - 194 Dafoe Road, 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

_____

Participant's Signature Date

_____

Researcher and/or Delegate's Signature Date

Appendix F: Job Description for Program Coordinator

THE UNIVERSITY OF MANITOBA
FACULTY OF ENGINEERING

COORDINATOR OF THE ENGINEERING SEDAYA PROGRAM

JOB DESCRIPTION

1. To act as an Advisor to Sedaya students regarding items not specifically dealt with by departments; these may range from suggesting where to get help for personal problems to helping students understand the regulations, policies, or procedures in Engineering.

2. To interact with the International Centre for Students to provide aid regarding items like student orientation and other Engineering specific issues.

3. To supervise developments in the program by interacting with Sedaya personnel and faculty administrators.

4. To represent the Faculty to outside interests, both internal and external to the University of Manitoba, in all matters relating to the Sedaya Program.

5. Other duties related to Sedaya College as assigned.

January 28, 1997

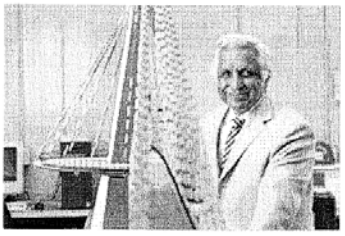
Appendix G: Researcher designs the best bridge, again

UNIVERSITY OF MANITOBA

What's Happening at the U of M

Researcher designs the best bridge, again

Posted Thursday, July 10, 2008 10:52 AM



Dr. Aftab Mufti

As boys growing up in Pakistan, civil engineer Aftab Mufti and his brother spent their afternoons building and destroying bridges they made from mud and stone collected from their yard.

They would pit their designs both against each other and the flood of water they let pour forth from the small reservoir they dug. Three or four prototypes a day would succumb to erosion and collapse, and Mufti would observe the results and learn from them.

Aftab's brother went on to be a physician, but Aftab remained passionate about designing bridges and this year he again won the P.L. Prately Award for co-authoring the best paper on bridge design, as judged by the Canadian Society for Civil Engineering.

The paper, which he wrote with Emile Shehata from Wardrop Engineering Inc., was titled Development of Glass-Fiber-Reinforced-Polymer Bridge Deck System.

"I think we won because our research was so thorough, but more so because it was such a novel idea," Mufti said. "Others will build on the idea and make it better, but they will be incremental changes. Ours was a paradigm shift."

Bridge decks have been a focal point of Mufti's work over the years. A bridge deck is the slab of material your vehicle's tires ride over. They are the most damage-prone bridge parts since they take the brunt of load forces.

The steel rods still commonly found inside a concrete deck have poor flexibility compared to the concrete and this unharmonious marriage ultimately results in cracks, then corrosion, then costly repairs.

Mufti, who also directs the Intelligent Sensing for Innovative Structures Canada Research Network (ISIS Canada), has examined two solutions to this problem.