

Delivering SAP Information Systems Courses 9116 Kilometers from Home

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Abstract

Australian universities have aggressively courted and created many partnerships with universities in the greater Asian region in the last 10 years. A typical Australia university will have between 10 and 20 partnerships with Asian Universities but over the last 2 years many have pared back their offerings into these Asian destinations due to concerns about profitability. Whilst the nature of the exchange between the universities can follow several models in almost all cases an Australian academic is required to travel and deliver course material into an Asian destination. This paper details the issues that one academic confronts in delivering a Masters level course into a Beijing based university. The masters program that is the topic of this paper uses SAP hosting centers, internal SAP servers for access to Enterprise Resource Planning (ERP) systems and provides ERP visiting experts teaching SAP content with a combination of off-shore delivery using face-to-face and on-line delivery. The issues that confront an academic delivering off-shore programs and courses 9116 kilometers from home are explored as well as the day to day tribulations required of the visiting lecturer.

Key Words: distance education, on-line delivery, enterprise systems, China, SAP

1. INTRODUCTION

Australian Universities have followed leads from England and the United States in actively pursuing business/educational partnerships with Universities from developing regions. In 2003 Australian Universities had 151000 on-shore overseas students enrolled and 210000 off-shore students enrolled (DEST-Table D.3, 2005). There are some 4485 signed agreements (up to 2003) between Australian Universities and overseas institutions (DEST-Table D10, 2005) and about 1570 signed off-shore programs (DEST-Table D.11, 2005). The students and the programs they are enrolled in created some \$AUD 10.5 Billion in revenue for the Australian economy in the 2005-2006 period (ABS, 2006). The five top sources for off-shore students are Singapore, Honk Kong, Malaysia, China and Indonesia (DEST- Table D.2, 2005). More recently off-shore enrol-

ments peaked about 2005 and there has been decline over the last two years.

A 2006 OCED report, (as reported in Fahey, 2006), showed that Australia follows only the USA and the UK in the number of International students. Australia is second only to Switzerland in per-capita international students enrolled and second to the USA in the number of Asian-Pacific students enrolled and in 2004 some 30000 Chinese students were studying in Australian programs in China (As reported in Fahey, 2006). Australian universities have been driven into this global educational market place due to a number of drivers: globalization; need for new streams of revenue; emergence of Web information access and the global desire for higher education (Cunningham et al, 2000).

When programs are delivered into overseas destinations many challenges need to be addressed. These include the business relationship at the heart of the agreement, the

cultural stresses inherent in delivering programs, the co-operation between the visiting and local staff members, the interests of the overseas students, the question of equivalence and quality of both Australian and overseas programs as well as a myriad of operational issues. One issue that is often relegated to the "It will be OK" pile is the ability of the visiting staff lecturer to cope and operate in another country and culture some 10000 kilometers from home. This paper will look at models of off-shore delivery, the evolution of ERP education, the delivery of complex SAP based information systems courses globally and then focus down onto the role that the visiting academic plays in delivering one program into a Beijing University. It will detail the tribulations encountered in the delivery of ERP implementation content to English speaking Chinese students at a location 9116 kilometers from home.

2. On/Off-Shore Models

Just as there are many off-shore programs there are also many models that can be followed in developing a program. Often a program is initiated by a personal contact between two academics or university officials, this is often followed by fact finding visits then a memorandum of understanding is signed with suitable due diligence studies. Once all these steps and others are followed a binding agreement is drawn up. The final delivery model can take one of several forms:

- Distance - learning with interaction by fax, phone or email (Ziguras, 1999),
- On-line - learning with heavy utilization of the Web,
- Sandwich - where students commence a degree in home locale and finish in overseas destination,
- Postgraduate - students do coursework overseas but return home to complete dissertation (Patrick, 1997),
- Off-shore - delivered all in local destination weather in local or English language, and,
- Off-shore blended - both visiting and local lecturers deliver course content often supported by Web on-line learning,

The ERP Masters program as delivered in Beijing uses the off-shore blended model in the English language. All courses are structured with the visiting lecturer delivering 15 hours out of the total 36 hours. All course materials are in English as are assessments and exams. All exams are graded by the visiting lecturer but internal assessment is normally split with moderation done by the visiting lecturer. A local lecturer delivers the remaining 21 hours. A typical stay lasts 7 days with the classes running on 5 nights finishing 10.00PM. On-line support is provided with SAP access being by Web GUI with Blackboard providing the online learning tool. It should also be noted that the Australian Vice Chancellors Committee (AVVC) has oversight of the quality audit of all overseas programs and programs are visited and audited.

3. ERP Masters Program

In Australia, an IT Skills Shortage study (DEWR, 2006) commissioned by the Government, found skill shortages in enterprise wide systems, and more specifically SAP R/3 and PeopleSoft implementation and administration. The Department of Immigration and Multicultural Affairs in their Migration Occupations in Demand List (MODL 2007) identified information technology specialists with SAP R/3 skills as people who would be encouraged to migrate to Australia. Universities realized the importance of providing students with "hands on" experience with particular ERP systems and formed strategic alliances with ERP system vendors to gain access to these systems. The ERP vendor benefited from these alliances by increasing the supply of skilled graduates that can support their product thereby enhancing its marketability and lowering the cost of implementation. In recent times there have been discussions by IS Professionals how to best respond to developments in the information technology and communications industry (Stein, Hawking & McCarthy, 2007). The industry now requires a broad range of skills that support the development, implementation and maintenance of e-business solutions.

The ERP curriculum employed by universities could be classified into one of four different curriculum approaches or a fifth, being some hybrid of the four:

1. Training into ERP,

2. ERP via Business Processes,
3. Information Systems Approach,
4. ERP concepts, and,
5. The Hybrid.

The first, which is least preferred by academic institutions, focuses on the instruction or training in a particular ERP system. There has been increasing pressure from both students and industry for universities to offer subjects based on this type of curriculum direction. In the case of SAP, the Alliance specifies that specific training of SAP R/3 is the domain of SAP. The second curriculum approach retains the focus on business processes but uses the ERP system to assist in the presentation of information and skills development. Most ERP system vendors argue that their particular system incorporates best business practice and, as a consequence, students use the system to enhance their understanding of the processes and their interrelationships, especially in areas like supply chain management. The third approach is the use of ERP systems to teach and reinforce information system concepts. ERP systems provide students with the opportunity to study a real world example of a business information system, often incorporating state of the art technology. The final curriculum direction is to teach about ERP systems and concepts. This is different from the first curriculum approach outlined above in that it deals with general ERP issues and the implications for an organization for implementing this type of information system.

ERP Education @ VUT

Victoria University has been a member of the SAP University Alliance since 1998. It adopted a faculty approach to the introduction of ERP curriculum. It was seen as a tool that could reinforce many of the business and information systems concepts taught across the faculty. The university now has approximately twenty-five subjects at both the undergraduate and postgraduate levels that incorporate SAP and related products. These subjects form part of master degree program that is taught in Australia, Singapore and China. Even though the university has a well-established curriculum, it was also faced with the dilemma of how it could take advantage of the educational potential of SAP's "second wave" components. Second wave components include CRM, SCM

and SRM suites. These modules are all designed to get added value out of the core SAP R/3 implementation. Each of these second wave components is a full installation in itself and requires considerable expertise to set up and develop educational programs. Staff needed to go on steep learning curves in firstly learning how to use say a CRM suite and then further work in fine-tuning for students access.

As a pilot program in 2002, the university identified academics from around the world that had the skills, curriculum, and access to systems to teach the specialist solutions. An academic was invited to teach their curriculum at Victoria University through a concentrated mode (one week). This also relied on Victoria University students accessing the visiting lecturer's ERP system and any "add on" solutions in their university via the Internet. The pilot had a number of obvious benefits, firstly, the visiting academic provided access to the curriculum skills and system, and secondly, resident staff received professional development as they assisted in the class, thirdly, students gained access to education they would not readily receive, and finally it provided the foundation for future collaboration between the participating universities. Due to the success of the pilot in the ERP program several subjects were offered via this method in 2003/4/5,

- 2003 ERP Applications - (Shell Course), SAP Configuration,
- 2004 ERP Applications - (Shell Course), SAP Solution Manger,
- 2005 ERP Applications - (Shell Course), SAP Data Warehousing, and,
- 2005 ERP Applications - (Shell Course), SAP Configuration
- 2006 ERP Applications - (Shell Course), SAP Configuration.

ERP Courses @ a Beijing University

The ERP masters program was introduced into a Beijing University at the commencement of 2005. The Beijing University is a medium sized University that was originally the training organization for the state owned railways corporation. It is located between the second and third ring roads about 20 minutes from central Beijing. As is common with Chinese Universities the majority of

students are not local and the University has extensive dormitory facilities. It has well developed student amenities including sports, libraries and well equipped lecture theatres and modern laboratories. It has the full range of undergraduate and post graduate programs and the ERP Masters is associated with the Department of Information Management.

The first intake in 2005 was about 25 students and this has been followed by two further intakes in 2006 and 2007. The first intake has graduated and has been very successful in making the transition from Masters Program to work. Graduates from the program have gained employment at:

- China's leading bank (Three Graduates),
- Accenture (Four Graduates).
- China Merchant Bank,
- Michelin China,
- China Air Express,
- Price Waterhouse Coopers-China,
- Samsung,
- Agricultural Bank of China, and,
- South West Securities.

The course ERP Implementation, that is the subject of this paper, is delivered later in the program and I traveled to Beijing in February 2006 and March 2007 to take the course for the first and second intakes. The following discussion section will detail some of the issues confronted when delivering SAP content 9116 kilometers from home.

4. DISCUSSION

Preparation for Travel

Three months before the class travel approval must be commenced. VU's travel approval process is highly bureaucratic with medical, insurance and Visa issues all to be approved well before travel. There are multiple sign-offs with many potential complications with travel costs, hotel expenses and travel diaries. Visas require a letter of support from the host University stating class name, time and purpose of visit. The flight time is about 12 hours or somewhat more if a connection is required. Travel policy requires fly-in the day before classes commence and the week in Beijing comprises a

hectic schedule of preparation, meetings, software installations, business lunches, student consultation and of course lectures and tutorials. There is one day off during the week, time for some local sightseeing.

Issue 1: Course Material (East vs. West)

As the Beijing and Australian course content is mandated to be identical and must be delivered in English preparation of course material is usually straightforward. The local lecturer needs to be made confident in the material they are to deliver and extra time is allocated to better prepare the local lecturer before the course runs for the first time. The local lecturer is relied upon to add local context to the theory and in the course ERP implementation course theory is augmented by local examples of ERP implementations within Chinese firms. The cultural difference in the operation of Chinese to Western business is commented upon in every class and emphasized in the change management lectures. Whilst much effort is made to facilitate the knowledge transfer from visiting lecturer to local lecturer I have found that the knowledge transfer the other way is limited. The course seems to be two phase. This is what we do when the visiting lecturer is here but when the visiting lecturer returns home and the local lecturer takes over there can be a vacuum of communication.

This issue could be addressed with better communications being built into the second phase of the course when the visiting lecturer returns home. Email is an issue here, there maybe a cultural issue with local lecturers unwilling to contact the visiting lecturer constantly but there should be an explicit understanding that regular contact needs to be made.

Issue 2: Software (Access vs. Use)

In the ERP Implementation course about 50% of the software used is resident in SAP (LSMW-data conversion; PFCG-security; Solution Manager-implementation aid) but there is a need to use third party software. The first major issue is the need to install this third-party software before classes commence. This software includes Mercury Win Runner, RWD InfoPak and SAP Tutor. This software has been obtained with relevant licenses and there is a need to maintain the integrity of these licenses. This requires installation to be completed by the visiting

lecturer before or soon after classes begin. The laboratory used by the ERP program was originally "owned" by the Department of Information Management and work in the laboratory was done by a collection of IT support people, some non-qualified. Early in 2007 the lab was taken over by another section of the University and this led to problems of access not anticipated. After several days of haggling the software was installed. A further complication was the timing of the visit. The ERP implementation course is the first to be delivered after the long winter semester break with staff returning from extended breaks, this means that the ERP laboratory was not been fine tuned by a visit from a lecturer in the preceding week. This "Turf War" is of course endemic in many organizations but the added pressure of only seven days to install, prepare and deliver the course meant that this issue could have derailed the course completely.

This issue is crucial and could be addressed with the clear understanding that software access must be paramount to the course and copyright is an essential element in software provision. There is no possibility of sending software with installation instructions it must be done once the visiting lecturer arrives. This also should be qualified in the original signed agreement as it seems that many crucial operational issues are not noted in the signed agreements.

Issue 3: Learning Support (Web is everywhere?)

Blackboard is Victoria University's web platform and all notes must be delivered via this platform. It is prudent to prepare backups in-case blackboard is not accessible and CD's containing full sets of notes, readings, deliverables were prepared. This precaution proved to be valuable as there were several problems confronting the laboratory even before the first class. The ERP Implementation course was the first course delivered in 2007, as mentioned above, and it was understood that I had to troubleshoot any problems arising out of the winter break. There were ultimately three intersecting issues all concerning Web access. The aforementioned "Turf War" rendered the laboratory low priority to the new "owner". There was a series of earthquakes off the coast of China that disrupted internet traffic into China and finally the VU domain was low in the

University Web priority access list. As the SAP GUI is Web driven this meant the response time to the Melbourne servers for access to SAP was very slow and this also applied to Blackboard. Confronted with slow Web access adjustments in class needed to be made. After several attempts and communications between the technical IS support in Australia and China the Blackboard web presence and SAP access was elevated in the Universities Web access priority list.

This issue could be addressed if the local program co-coordinators ran several tests to verify access was up to speed. Learning support is crucial in the off-shore blended model and students expect multiple levels of support. This ranges from on-site support, access to notes and readings to the more active intervention where students can be prompted to request or elicit support. Radloff (1998) pointed to the need for multiple levels of support so students can either "drop in" or be motivated externally. When the visiting lecturer returns home the students should feel still connected, having two points of contact, local and visiting lecturer.

Issue 4: Students (Same Everywhere)

Having taught for over 30 years at the secondary, TAFE and Higher Education levels as well as in China, Hong Kong and Singapore there is some truth to the heading by-line above, with two exceptions. The ERP Implementation students are typical of Higher Education students everywhere, eager to learn and progress their careers rapidly, but not willing to spend lots of time on tasks they see little return in. The English level broke down into 25% excellent, 50% good with 25% going for the electronic dictionaries. Students could be identified like any group of students, natural leaders, technical leaders, "smoozing" experts as well as the laggards. There was a determined effort by all concerned to get the laggards to some standard of achievement. This collaborative effort was quite different to my previous educational experiences, there seemed to be an understanding that all students would pass and I took it as an understanding among the students. One further difference that I had not encountered before was the presence of a class monitor.

The students issue is addressed by making certain that the normal two way communication in the lecture reaches all students, it is

too easy and accepted for some to attend without ever engaging the class. Assessment also seems to take an elevated importance and needs to be tailored to ensure originality and to fully test both individual and group work components. The perception that Asian educational culture relies on rote learning was not supported in my experience. At the Masters level rote learning is not supported in course delivery. Biggs (1993, 1999, 2003) suggests that cognitive styles should be the determinate in course delivery and this is very important at this level of course. Smith & Smith (1999) point to a difference in acceptance of technology between Chinese and Australian students but practices both during and after the program was delivered indicate greater willingness to adopt the online nature of the blended model. It was crucial to employ techniques to open the lines of communication between students and visiting lecturer. It helped greatly that I traveled with another lecturer delivering another course as he had taken my students previously. This enabled me to develop a learning relationship much more rapidly as my students could make a connection to me via my colleague. This "relationship" twining is a crucial element in all Chinese business relationships.

5. CONCLUSION

The Victoria University School of Information Systems has developed an extremely popular niche Masters Program that prepares students for the world of large scale ERP systems. The use of SAP further enhances the viability of the program and over 500 students have graduated from the program. Information Technology programs the world over have suffered from enrolment downturns over the last 5 years and the ERP Masters is held up as a shining light for the School, Faculty and University. Overseas programs enable many parties to claim differing levels of success; the teaching team sees overseas delivery to exotic locations a pinnacle of teaching practice, the school can champion their success over other schools in the Faculty, the Faculty can supplement income with the diversified revenue streams and the University benefits from the elevated status of its international operations.

Whilst there is plenty of status raising and back slapping the humble academic bears the entire load of ensuring that delivering

content far from home is completed effectively. The issues raised above point to two crucial themes in conducting complex technical courses far from home into China. Firstly, relationship building is a crucial underpinning necessary to deliver effective courses. Relationships need to be developed quickly (7 days) with the local school, with the local administrative staff, with the local IT support staff, with the local lecturer (maybe a sessional staff member) and of course with the students. These relationships then need to be nurtured and renewed for every visit. The second theme relates to the trust that comes out of the relationship building. It is difficult to monitor day to day class activities so far from home. Indeed it may be considered an intrusion to delve into the class once the local lecturer takes over, these are shared lectures taken by full lecturers not an associate or tutor.

Further work in 2008 could include a comparative study where Australian, Chinese and Singaporean students will be analyzed re the effectiveness of the blended model focusing on the impact of the visiting lecturer.

Much of the distance education impetus relies upon the visiting lecturer delivering complex Masters level Courses far, far from home. The relationship between lecturer and student is fleeting at best, extensive relationship building skills are required to deliver the trust required to sustain joint educational partnerships between organizations emanating from disparate cultural and geographic locations.

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