

COLLABORATION IN DEVELOPING ON-LINE LEARNING BETWEEN TWO DIFFERENT COUNTRIES: A CASE STUDY

Chapter 1

Introduction

The globalization and rapid proliferation of information technology (IT) has created an exciting development in distance learning. Distance learning projects, especially those delivered through computer-mediated learning, are becoming more common. In fact, current developments in computer technology and the World Wide Web have created a new culture in distance learning.

On-line learning has become an important component of many distance learning projects. One of the web-based directories (URL: http://dir.yahoo.com/Education/Distance_Learning) of distance learning shows that 129 universities/colleges offer various degrees and courses through distance learning. The directory also indicates that most of these 129 universities and colleges include on-line learning as one of the major methods of communication. Another directory, one for Community Colleges, listed 16 colleges that now offer courses through distance learning, and most of them also offer on-line learning too. An academic web reference (URL: <http://www.centra.com/DISTANCE/deiacad.html>) listed 22 academic institutions that currently offer distance learning courses which include on-line learning as one of the methods of communications. In addition, another directory (URL: <http://www.centra.com/DISTANCE/deiorg.html>) listed 19 organizations that currently involve and offer their training through on-line learning .

The development and expansion of on-line distance learning courses and projects has occurred not only in this country but also internationally. Many schools and institutions that initially focused distance learning programs on domestic audiences, have now expanded their efforts and coverage to a more global level. This phenomenon has created new challenges for curriculum development in distance learning. A much more flexible and collaborative approach is essential in order to attract students' worldwide and also to accommodate the different needs of all the students. This globalization in distance learning requires a more collaborative effort in developing learning experiences between different institutions and countries.

Collaboration in higher education, however, is not a new phenomenon. According to Bird (1996), collaboration between higher education institutions has been an important aspect in educational agendas over the past fifteen years. In fact, Bird (1996) indicated that collaboration in higher education started in the 1960's among a small number of institutions. Since then, the collaboration effort in higher education has grown substantially and includes an international dimension. In the United Kingdom, according to Lines & Clarke (1996, p.106), "the past few years have seen substantial growth in collaborative provision of programs of study between United Kingdom universities and overseas institutions, predominantly in Europe and in South East Asia." This collaboration covers a variety of subjects. In addition, the collaboration exists at various academic levels, i.e. graduate and undergraduate curricula.

Even though higher education collaboration was established many years ago and the growth has been very fast, the recent proliferation of technology world wide is a driving force behind the exploration of on-line learning in the world wide educational agenda. The opportunity to use the Internet and World Wide Web in distance learning delivery is an effective bridge in establishing collaboration among different regions, countries, and cultures.

Every institution has its own culture, and this culture creates boundaries around the institution. According to Moran & Mugridge (1993, p.153), "collaboration demands that those boundaries be crossed and new values negotiated. It therefore requires those involved to understand and articulate the essence of their own institutional culture as well as to comprehend the culture of the partners." All project participants need to be aware of their particular institution's culture in order for them to contribute and participate more fully in projects and transcend boundaries.

However, the concept of culture raised by Moran & Mugridge (1993) is more related to a specific institution's administrative factors. They are not referring to a national/international culture but only to a institutional culture, built on "visible and subterranean norms and values that grow out of its mission as interpreted by successive generations of staff and students" (Moran & Mugridge, 1993, p.152). The authors further explained that some of the examples of these cultures are matters such as "the levels and type of knowledge taught; the kind of students sought; what pedagogies are deemed good; and choices about the relative importance of teaching and research (p. 152)." All these forms of cultures can be transcended without much difficulty.

When there is involvement between two or more countries, a much more important concern should be given to cultural diversity. Unlike with institutional culture, the cultural differences between countries involve differences in philosophical views and may include the epistemological and ontological aspects of knowledge. However, in this regard, these differences should not be viewed in a negative respect. Indeed, educators should embrace this as a professional challenge in order to make the situation beneficial for both sides. Differences in the way of thinking, in scholarship, and in the thoughts of each country's major theorists could be mutually exchanged in order to enrich the scope of knowledge for all involved. In addition, the differences in other technical aspects, including technology, communication, and student readiness levels, also could be addressed as ways of understanding each other. Structuring the collaboration and facilitating the cross-cultural appreciation will create a great challenge in designing the curriculum for any international project. These efforts are integral to internationalizing the curriculum for institutions..

Internationalizing the curriculum in the contexts discussed above does not just refer to the effort of adopting and combining different views and aspects of knowledge, which have been infused into the curriculum. The international curriculum that is developed should demonstrate a deep understanding of the different philosophical thoughts and knowledge for the mutual benefit of both institutions involved in the collaborative effort. For example, the collaboration between the institutions (college and universities) from West and East should address the Western and the Eastern philosophy in that particular discipline.

To the author's knowledge, there are very limited resources in the literature, which address the concept of collaboration and internationalizing the curriculum in this manner. It is very essential then to conduct studies to observe and report the process of developing an on-line learning course that involved different countries and different cultures and which acknowledge, address, and embrace such differences in the planning process.

This study was an initial effort to fill this gap. The on-line course development project between one of the universities in the United States of America (after this will be stated as "US University") and one of the universities in an English speaking Asian Country (after this will be stated as "Asian University") which is still in the early developmental process, is a meaningful subject for study. This project involves two different countries with two different major cultures in the world. The "US University" represents the modern Western culture and the "Asian

University” represents one of the primary Eastern cultures. For Western educators, collaboration with that Asian country will be a good situation to for study because, besides having a long rich history of its own culture, the country also has been exposed to Western culture under the colonial era. For the Asian country, these two different experiences will provide a strong background in developing and establishing the collaboration. In addition, the advantage of having English as a medium of instruction in the country’s education system will be another beneficial factor.

Identifying the process involved in establishing this collaborative effort and developing an on-line course could only be achieved by monitoring the entire process from the beginning to end. It was essential to identify a project that was at the early stage of development in order to monitor the entire process. The “US University” – “Asian University” project was an appropriate choice for this study.

Background of the Study

As stated before, this study was based on the proposed on-line course development project between the “US University” and the “Asian University.” This project derived from a study tour to the Asian country by a group of students in an International Adult Education course at the “US University”. One of the programs on that tour was a visit to the “Asian University,” one of the oldest universities in that country offering a graduate program in the area of Adult Education. During the visit, several adult education issues were discussed, including the philosophical aspects of adult development and learning. The discussion during the visit also revealed interest in exploring similarities and differences of philosophical aspects of adult learning and development between Eastern and Western perspectives.

The initial relationship established through the visits continued by correspondence. The “Asian University” expressed an interest in establishing a collaborative relationship with the “US University” with the focus on engaging in joint research on adult education issues and student and faculty exchanges between the institutions. However, the immediate and "doable" project for the short term was the development of an on-line course on Adult Learning and Development.

After brief correspondence, a proposal to develop an on-line course entitled "Adult Learning and Development: Eastern and Western Perspective" was established. With a mini-grant from the “US University,” this project was launched, and an early report on the progress of the project was presented in a University’s Colloquium Series.

The main aim of this project was to "design, develop, produce, and pilot the course collaboratively; initially for use between the two universities; and for long range to augment and offer to other universities around the globe." The corollary aim was "the monitoring of the process so as to develop a potential process model which could be of benefit to other universities from different countries and cultures who are embarking on collaborative efforts of this nature." (quotes from progress report of team leader, not identified to preserve anonymity).

To achieve the corollary aim of this project, a separate research study was suggested to monitor and study the whole process in developing the course development model. Finally this study was proposed and suggested to be conducted concurrently with the project.

Conceptual Framework

This study involved three major concepts: collaboration, internationalizing the curriculum, and on-line learning. In the literature review the study addressed the efforts that have been brought about in all these three areas. The integration of these aspects was the conceptual framework of this study, as shown in the following diagram:

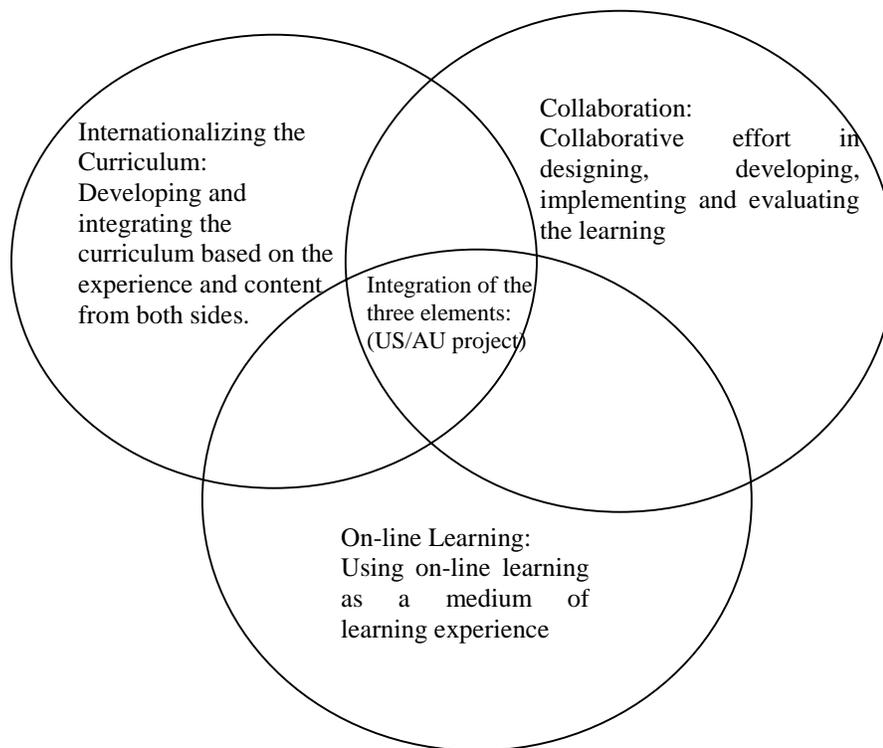


Figure 1: The Conceptual Framework of the Study

Purpose of the Study

The main purpose of this study was to identify what is involved in developing and designing an on-line course between institutions in two different countries. This study also aimed to establish a process framework for collaboratively developing an on-line learning course that involves two different countries and cultures.

Questions Guiding the Research

Two major questions guided the inquiry:

1. What is involved in the process of developing and designing on-line learning between two different countries?
2. What are the challenges faced during the process of developing and designing that on-line course?

Limitation of the Study

This study is based on only one project, which is limited to two institutions, one from the United States and another one from an Asian country. The finding and results from this study only derived from the experience of this particular project. The findings of this study may not be generalized to other projects; however, the general finding could be useful as a guideline for future projects in developing international on-line learning.

The process framework derived from this study is limited to the developmental phase of the project. To complete the process framework, further studies will have to be conducted.

Definitions of Terms

1. Collaboration

In general, the term *collaboration* means partnership. For the purpose of this study the operational definition of this term draws from the definition given by Neil (1981, p.25) as "an active working partnership supported by some kind of institutional commitment."

2. Internationalization and internationalizing the Curriculum.

In broader terms, English (1995, p.2) defined *internationalization* as “institutional strategies for the purpose of educating students to live responsibly and work effectively in an increasingly diverse society and global world.”

There is no specific definition to “*internationalizing the curriculum*” given in the literature. As an operational definition for the purposes of this study, internationalizing the curriculum refers to the process of integrating the global and universal element and also elements from different parts of the world in developing and designing a curriculum.

3. On-line Learning

The term *on-line learning* specifically refers to the learning experience that takes place through computer network. According to Kearsley (1997), this network includes the local bulletin board, global Internet, and World Wide Web.

In addition to this definition of terms, a glossary was prepared to describe some of the terms that might not be usual for readers.

Significance of the Study

Since there are very limited resources on the collaboration effort in developing an on-line course between two different countries and cultures, the findings from this study will be useful for adult education professionals interested in developing cross-cultural on-line courses. The detailed events and issues that derive from this study could be used as general guidelines in developing similar projects in future multi-cultural on-line learning projects. In general, this study also contributes to the literature on distance learning especially on-line learning that is related to different cultures and countries.

Chapter 2

Review of Related Literature

The conceptual framework of this study consisted of three key concepts: collaboration, internationalizing the curriculum, and on-line learning. The review of related literature and studies was addressed within this framework.

Collaboration

Collaboration: The Concept and Purpose

Collaboration among higher institutions, especially in distance education, has been discussed in the literature for more than a decade. Collaboration can be defined with several different meanings and also referenced by other labels, such as partnership, consortium, franchising, and cooperation. As a general term, *collaboration* may be viewed as “multiple parties working together and as a way to share resources” (Kaganoff, 1998, p. 5).

In a chapter of the British Open University’s tenth anniversary conference book, Neil (1981, p.25) defined such collaboration as “an active working partnership supported by some kind of institutional commitment.” This commitment is based on a formal agreement between two or more organizations.

Neil’s conception of the term collaboration refers to a broader terminology. Several other scholars in the field, however, have rendered a much more specific definition. Anderson & Nelson (1989) have specified types of collaboration in their definition. They indicate that collaborative efforts may include “exchange of information, experience, and consultants; collaboration on development, adaptation, and evaluation of learning materials; establishment of credit-transfer arrangements; and creation of new management structures” (cited in Mugridge & Moran, 1993, p.3).

Konard and Small (1986) suggested another dimension of collaboration when they defined collaboration in terms of formality. “Collaboration occurs at three levels of formality which range from informal, ad hoc arrangements through formal arrangements to the creation of new agencies, typically involving a number of collaborating institutions” (cited in Mugridge & Moran, 1993, p.3).

Reviewing the purpose and advantages of collaboration, the literature shows that the collaboration between higher education institutions is being established for several purposes. Neil (1981, p.141) has established four motivational categories that encourage inter-institutional collaboration. These were:

1. The desire to make better or more extensive or new use of resources that are available within one or more communities
2. The opportunity to improve the quality of learning materials...(to increase) educational opportunities for a wider student population, and (to ensure)...the relevance of studies to student needs
3. The need to respond to political pressure of various kind
4. The perceived need to guide or initiate changes of various kinds in particular societies

Neil's description of the purpose of collaboration covers a wide range of domains including social, economic, and political.

Abramson, Bird & Stennett, (1996, p.191) stated that it is important to derive mutual benefit from the collaboration effort. Collaboration or partnerships between institutions "can benefit both students and institutions, especially if no one institution can provide such programs either because of lack of staff, resources, or expertise."

Moran (1993, p. 4) identified other advantages of collaboration. These advantages are:

1. Collaboration may extend an institution's capacity to provide breadth and depth in particular subjects
2. More pedagogical and technological strategies become available as approaches, facilities, and materials are shared. Indirectly this will raise the standard of learning materials and teaching across institutions
3. Cooperative course development may help to build a critical mass of scholars, otherwise scattered in fairly small institutions, and thus may enhance research effort and output
4. Cost advantages exist in using human and material resources effectively and economically.

Gray (1985, p.25) added another area of benefit in collaboration when he suggested that by bringing units together, "collaboration creates the ability to deal with indivisible, system-wide problems that are too large for any one unit to solve."

These various descriptions on the purpose and advantage of collaboration can be categorized into three main classes: economic, social, and political factors. The economic factor includes the optimum use of resources and materials, cost reduction, increase in the quality of materials, methodology and subject content. The social factor includes the opportunity for interaction and changes in society. The political factor includes the need to respond to political pressure. As is evident from this review, the major factor that often motivates collaboration is the economic factor. Social and political as well as cultural factors only played a small role.

Collaboration: The Growth in International Practice

According to Lines & Clarke (1996, p.106), the past few years “have seen substantial growth” in collaboration. Calvert, Evans & King (1993, p.38) indicate that the last ten years “have seen tremendous growth in international traffic in distance education” and this has led to the expansion in the international collaboration.

Several efforts in developing collaboration in distance education among institutions between different countries have been established. Two of the examples are as follows:

1. Collaboration among universities in the UK and overseas institutions (Lines & Clarke, 1996)
2. Collaboration between *Universiti Sains, Malaysia*, British Columbia Open Learning Institute, Canada and Murdock University, Australia (Dhanarajan & Guiton, 1993)

These two examples of collaboration at the international level illustrate the different perceptions of collaboration. The first is closer to the concept of franchising while the second represents the concept of two-way collaboration. However, the two-way collaboration cited here is not about co-designing the curriculum, rather it is an effort to create teaching materials.

Lines & Clarke (1996) reported that one-way collaboration was the most common form of international collaboration widely practiced by universities in the United Kingdom. In establishing one-way collaboration the study showed several activities were involved. The activities included the early effort of developing the collaborative programs; establishing memoranda of agreement; establishing a quality assurance system, appointing external examiners and assessment.

In developing the collaboration several steps took place. The steps were:

1. Initiating the collaboration (Suggestions may arise by the staff of the UK university or as a request from a partner institution from overseas)
2. Visiting the partner institution for initial discussion and auditing the capability and the status of required resources
3. Making a formal decision to proceed for further negotiation by senior management levels
4. Developing and discussing the proposed curriculum
5. Assessing the physical resources available for the program
6. Visiting the partner institution for the final franchising approval
7. Preparing for signing the memorandum of agreement

The memorandum of agreement is a legal contract between the UK universities and the partner institution. In this form of collaboration, the memorandum of agreement is one of the very important documents and must set out clearly the details of the collaboration. The memorandum of agreement normally covered all the following aspects that should be considered.

1. Clear statement of purpose and definition and interpretation of terms used
2. The rights and obligations of both parties
3. Details of the financial agreement
4. Details of the administrative arrangement
5. Academic issues
6. Other matters such as provision of library, computer services accommodations, etc.
7. Contractual issues including matters such as termination of agreement, applicable laws, and confidentiality

The actual implementation of the franchising takes place after both parties sign the formal agreement. In the early implementation stage, it was operated with a much tighter oversight by the UK universities. Ongoing monitoring and evaluation were also conducted in order to ensure the quality assurance system. An external examiner and assessment was also established.

In this model, the major university that initiates and offers the collaboration will play the role as a franchiser whereas the other institutes will be the franchisees. The franchisee has to follow most of the requirements from the franchiser in order to maintain the status and also the

accreditation. This is totally different with two-way collaboration where both parties have an equal role and benefits. In that instance both parties are equally involved from the beginning and contribute actively in the designing process as well as in the implementation phase. Neither program will dominate or play the role of leader or franchiser in terms of power or program ownership.

Dhanarajan & Guiton (1993) conducted a case study on collaboration among institutions of higher education in Malaysia, Canada, and Australia. The collaboration was on creating self-learning materials for off-campus studies. The collaboration initiated by *Universiti Sains Malaysia* was mainly to improve the teaching aspects of its off-campus program.

Three major phases were involved in the whole process of the collaboration: Pre-collaboration activities; collaboration activities; and a follow-up phase. In the first phase, pre-collaboration activities, several specific tasks took place. Some of the important tasks were:

1. Conducting a needs assessment
2. Establishing a formal relation with the funding agency and the institutions involved in the collaboration; appointing a project controller for each party and establishing commitment for budget and resources by all participating agencies
3. Visiting *Universiti Sains Malaysia*
4. Designing and adopting a training format and time table

At the collaboration levels, training for developing distance learning courses was conducted and attended by participants from all the collaborating institutes. The first phase of training in Malaysia was comprised of seminars and workshops. This training introduced participants to word-processing, identifying course resources, writing course blueprints, and drafting course guides, study units, assessment items, tutor notes, and aids. This phase took four to six weeks. The second phase lasted between eight and twelve weeks and took place in the two Australian and one Canadian locations.

The follow-up phase consisted of completing the development of the course; preparing the course for delivery; preparing tutor guides and training tutors; planning the orientation and initiating course evaluation.

This is a type of collaboration where the concept of mutual contribution and learning was taking place. All universities contributed their existing syllabi in sharing and developing learning materials which all three universities could use. The present study takes collaboration a step

further by introducing the concept of two universities in different countries and cultures co-designing a new course, developed to reflect each country's unique contribution to the content of the course.

Internationalization of Higher Education

Viers (1998) enumerates seven key components which have been identified, as important to address in planning for the internationalization of higher education. The seven key components are the following: mission and leadership; curriculum; faculty; study abroad; international students; and outreach and international development.

Mission and leadership are two important elements of the organization. Effective organizations center their work on a clearly defined and broadly supported mission statement. Any changes or interventions normally occur based on the mission statements and leadership's commitment. Therefore, in internationalizing the institution, these two elements should be among the first to be considered.

Curriculum is another main element in educational institutions. The wide definition of *curriculum* comprises all teaching and learning activities. These include identifying the needs, setting the objectives, designing the content, organizing the delivery methods and materials, and conducting evaluation (Hass, 1983). Therefore, the internationalization process should place a high priority on this component.

The faculty's role is also very important. They are the main actors involved in achieving the institution's vision, and also in designing and implementing the curriculum. Faculty development in the internationalization process is crucial. Liverpool (1995) stated that "successful internationalization efforts have strong faculty development components in common." (Cited in Viers, 1998, p. 35.)

Study abroad is one of the most effective means of exposing faculty members and students to international involvement. The faculty and student involvement in various international study programs and tours will provide them with the needed international practical experience. This experience will enhance the skills and the knowledge obtained from the formal curriculum.

Accepting international students will open the institutions to various cultures from all over the world. Mutual relationships between local and international students will provide

opportunities to learn about each other. The international students can be utilized as a resource for different language instruction, which will be another contribution to the internationalization process.

Institutions may also implement international outreach programs. The outreach program "expands opportunities for the larger community to become involved in international activities (Viers, 1988, p. 41). Kopp (1995) states that "outreach acts as a conduit for two-way exchanges between the university and the larger world society." (Cited in Viers, 1998, p. 41.) Both parties, the international community as well as the community surrounding the institutions, will reap the benefits.

In a different study, Carlton (1997, p.1) reported another model in internationalization, which was presented at Virginia Tech's "Building World Class University Symposium." The seven components of the model are as follows:

1. Adding additional international curricula content
2. Increasing student exchanges
3. Increasing the number of international students
4. Implementing faculty development and exchange opportunities
5. Utilizing informational and distance learning technology for international purposes
6. Collaborating with external international constituents within academia, business and industry
7. Advancing and emphasizing international research and development

All these components are equally important in the internationalization process. However, in educational institutions, curriculum is always viewed as a central element. Johnson & Edelstein (1993) stated that a "key ingredient to internationalizing the institution can be found in the curriculum" (cited in Viers, 1998, p. 33.) Therefore, a more detailed discussion will focus on internationalizing the curriculum.

Internationalizing the Curriculum

The concept of internationalizing the curriculum is not new in the history of American higher education. Initial efforts can be traced as far back as the post World War II era and has evolved in different stages in terms of success and progress (Viers, 1998.)

Internationalization refers to “institutional strategies for the purpose of educating students to live responsibly and work effectively in an increasingly diverse society and global world (English, 1995, p.2). Operating with such a definition of internationalization has resulted in changes in the curriculum and other aspects of higher learning. Wheeler (1990, p.5) stated that “the curriculum should enable individuals to develop competencies and sensitivities for perceiving, believing, evaluating, and behaving within the complex human and ecological interactions that characterize the global.”

This direction encourages higher learning institutions to revise the curriculum and include some international component in general education and also remain open to other activities such as faculty exchange, student exchange, and the introduction of several international courses.

The ultimate aim of this process is to make the student aware of the globalization issue and prepare them to play an effective role in their future. In terms of curriculum, the aim is to make the courses offered become more competitive among the students in the global market. This model seems to embrace the utilitarian approach in which the emphasis is on what is “known about the world in order to be competitive in the world market” (Lim: 1995, p.26.)

This perspective is also accepted and practiced by other countries. Japan, for example, in the 1980’s, found “that with economic achievement comes the expectation for greater contribution to the international community” (Umakoshi 1997, p.259). This expectation pressured the Japanese to develop international activities, especially in higher education. In this context, Ebuci (1989), has argued that the concept of internationalization was merely defined as “ a process to attain and assimilate international standards into higher education system” (cited in Umakoshi 1997, p.259). This scenario led Japan’s higher education system to be more liberal and to adapt some changes, such as increasing foreign faculty, implementing programs of international studies, introducing foreign languages, and faculty and student exchanges. This concept of internationalization is also perceived as an effort of infusing outside components and exposes the student and the institutions to be more global by implementing several international activities.

The same scenario happened in Singapore in South East Asia. Meng, Meng & Liang (1997, p. 17) stated that ‘internationalization of MBA programs in Singapore is an important goal not just because the training of global managers is desirable, but also because it is essential

to the continued well being of Singapore's economy. This resulted in the implementation of some MBA courses, such as International Business, Managing Across Borders, Cross-cultural Management, and Leadership in the Global Era.

In addressing curriculum internationalization and distance learning, May (1997, p. 35) stated that "business schools must undergo curriculum internationalization to stay competitive in the business education market place, to meet accreditation requirements, and to provide the business community with a well prepared labor force. Again, this shows the concept and aim of internationalizing the curriculum is similar: that is, to create global awareness and global competencies among the students.

From this perspective, internationalization is reviewed as an infusion from one side by introducing some international components rather than having an in-depth mutual collaboration between the different parties, countries, or cultures in designing the curriculum.

All the studies quoted here suggested a similar concept of internationalizing the curriculum, in which infusion was the main aim of implementation. Infusion is one of the options in implementing the internationalization of curriculum suggested by American Association of State Colleges and Universities (Harari, 1981). *Infusion* merely refers to the process of inserting materials from another country or culture into the higher education curriculum. AASCU also recommends several other approaches. They are: the comparative approach, the issue-oriented approach, and area and civilization studies.

The comparative approach suggests comparing western and non-western cultures and countries, through a specific content of curriculum. The issue-oriented approach suggests a more inter-related discipline, rather than the traditional single discipline approach. This approach suggests organizing some part of the curriculum through universal issues such as energy, war and peace, pollution, food, and population growth. These issues are multidisciplinary and multinational in nature. However, the challenge is "to maximize the integration of disciplines in addressing the world. " (Harari, 1981, p. 19).

Implementing an area and civilization study is a focused approach. This approach suggests establishing and offering minor courses on area and civilization studies such as African Studies, Middle East Studies and Asian Studies.

All approaches discussed deal with preparation of course content and implementation. Less attention, if any, has been paid to the design process particularly to the importance of co-design by different countries and cultures.

These approaches to internationalizing the curriculum have contributed greatly to the process of internationalizing higher education. Every approach has its own strength. However, in order to accumulate maximum benefit through collaboration with other parties in the world, it is important to establish a “two-way mutual approach” or “co-designing” approach in developing the curriculum. By adapting materials from other cultures without mutual deep discussion and understanding with the parties from the particular culture, one runs the risk of missing a complete understanding of the culture's perspective and worldview. The two-way approach, on the other hand, offers not only the content of the related discipline or knowledge but also the opportunity to explore a wide range of possibilities designed to foster an understanding of the actual philosophy, worldview, history.

Based on the literature review, to the researcher's knowledge, so far there is no documented effort being made to develop a model for the co-designing approach to internationalizing the curriculum. The “US University” – “Asian University” collaborative on-line learning project studied in this research could be a pioneer project in establishing the collaborative approach in designing an “international curriculum” according to this perspective. Experiencing the process of working with another culture and country in term of internationalizing the curriculum provide a deep understanding of the their culture. The on-line learning that can engage people all over the world can be used widely to understand and share different experiences and sources that are being practiced by different cultures in this world. Collaboration between two different cultures and heritages in designing a curriculum will involve a new integration of knowledge and sources of knowledge that can be explored widely. This is a great opportunity that was not available during the past decade. In the future, when the information technology grows much more rapidly, especially in the developing country, this effort will become still easier and more enlightening.

On-line Learning

The Concept and the Medium

On-line learning is a principal approach in distance learning in an Information Technology era. Before further discussing the concept of on-line learning, it would be helpful to have a brief understanding of the distance learning concept. A classic definition of *distance learning* by Grime (1993) is “any formal approach to learning in which the majority of the instruction occurs while the educator and learner are at a distance from each other” (quoted in <http://dmi.oit.umich.edu/reports/Distance>, 1995, p.1). Filipczak, (1995, p. 111), presented another definition of distance learning: “getting people into the same electronic space so they can help one another learn” or “ a system and process that connects learners with distributed resources.” Grimes (1993, p.7) in further discussions on distance learning, paraphrases the specific criteria of distance leaning which was proposed by Keegan (1986) (quoted in <http://dmi.oit.umich.edu/reports/Distance>, 1995, p.1). They are:

1. Separation of the teacher and learner (during, at least, a majority of the instruction process)
2. The influence of an educational organization (including the provision of student evaluation)
3. The use of educational media to unite teacher and learner (and carry course content)
4. The provision of two-way communication (between teacher, tutor, or educational agency and learner)

Approaches in distance learning have evolved in accordance with developments in media; from printing and electronics, to the more recent microcomputer and Internet approaches. A brief developmental history of distance learning has been explained in a paragraph by one of the distance learning Web sites, <http://www.newpromise.com> (1998, p.1):

In the beginning was the word – the printed word. In its earliest form, distance learning meant study by correspondence, or what is now called ‘snail mail.’ As new technologies developed, distance instruction was delivered through such media as audiotape, videotape, radio and television broadcasting, and satellite transmission. Microcomputer, the Internet, and the World Wide Web are shaping

the current generation of distance learning. Virtual reality, artificial intelligence, and knowledge systems may be next.

As previously mentioned, on-line learning is one of the approaches in the field of distance learning, and this approach is progressing expeditiously since the development of the microcomputer. On-line learning refers to “any form of learning/teaching that takes place via a computer network.” (Kearsley, 1997, p.1). The computer network could be “a local bulletin board system (BBS) or it could be the global Internet and the World Wide Web, a local area network (LAN), or an intranet within a particular organization” (Kearsley, 1997, p.1).

There are several functions than can be used in disseminating the learning experience in on-line learning. Kearsley, (1997, p.1), listed four common functions that are usually used in on-line:

1. Electronic mail (e-mail) that allows students and instructors to send messages to each other
2. Conferencing that lets participants conduct multi-person discussions in real-time (often called “chats”) or on a delayed basis (asynchronous)
3. A more elaborate system called MOO (Multi-user Object Oriented) for group interaction as well as many “Group Ware” programs
4. Access to databases in the form of text files or multimedia web pages, as well as exchange of information (e.g., assignments, course materials) via file transfer

An on-line learning designer could consider using any of the above functions, or a combination of several functions. A very basic and simple program can be initiated by using e-mail, conferencing, or bulletin board. In order to create a more sophisticated learning environment combination, several other functions will have to be available as options. However, the selection of the function is based on the objective and the content of the learning program, the technology, and the available financial resources.

Developing On-line Learning: The Advantages, Constraints, and Cross-cultural Issues

On-line learning has it own advantages and disadvantages, as is so with other approaches. Bates, (1995), and Eastmond, (1995) indicated some on-line learning’s advantages:

1. Time and place flexibility

2. Potential to reach a global audience
3. No concern about compatibility of computer equipment and operating systems
4. Quick development time, compared to videos and CD-ROMs
5. Easy updating of content, as well as archival capabilities
6. Usually lower development and operating costs as compared to satellite broadcasting for example

The advantages of time and the flexibility, and the potential to reach global audiences could provide an opportunity for people from different parts of the world to unite in the development of an on-line learning experience. On-line environments are much faster than development environment in the printing era. They provide an opportunity not only for a learning experience, but also for the development of an on-line learning collaboration. The computer conferencing feature can be utilized in co-designing the learning experience between different countries and institutions, regardless of the distance as was the case in this study.

Besides the advantages, there are also some disadvantages that have to be considered in developing an on-line learning program. New Promise Web site, <http://www.newpromice.com> (1998, p.3) listed some of the constraints in developing and implementing an on-line learning experience:

1. The limited bandwidth (the capacity of the communication links) and slow modems hamper the delivery of sound, video, and graphics
2. The learner's success also depends on technical skills in computer operation and Internet navigation, as well as the ability to cope with technical difficulties
3. Information overload is also an issue; the volume of e-mail messages to read, reflect on, and respond to can be overwhelming
4. The proliferation of databases and Websites demands information management skills
5. Access to the Internet is still a problem for some rural areas, and for some people with disabilities

In order to maximize the benefits of on-line learning, it is essential for a designer to address all these constraints, and try to help the learner in any way possible. For example, to address technical and information management skills, the designer could offer a basic technical

and information management skill preview prior to enrollment into the course. In addition, the designer also could provide a help center for the learner to refer to when faced with any technical problems. However, there is not much that can be done regarding the modem speed and Internet accessibility unless the learners' communities improve their facilities. The only way to improve this is by ensuring that there are places for learners to access the Internet. Collaborating with other agencies, such as private business or government, is one way to ensure this infrastructure.

Serious consideration of these issues seems essential in planning to develop on-line learning that involves different countries, especially developing nations. The progress and development of computer technology in developing countries is much slower, as compared to developed countries. These issues were addressed in the present study.

In addition to the technical aspect, attention to cultural differences and pedagogical approaches seems equally advisable. In further researching the cross-cultural issues in developing on-line learning, more specifically, World Wide Web sites, Collin & Remmers, (1997, p.86), stated that "we can define two basic categories relevant to cross-cultural application:"

1. Category 1: Sites made for one context and its culture, but visited by those from other contexts and cultures
2. Category 2: Sites made specifically for cross-cultural participation

In developing on-line learning experiences that involve different cultures, it is very important to choose category two, rather than category one. Imposing software or learning material, such as in category one for a common market, will create inter-cultural issues or barriers. In this context, Collins and Remmers (1997, p.86), quoted some of the barriers that are indicated by Ballini & Poly (1988):

1. Problems of human language and vocabulary
2. Problems of differences in educational cultures and environments
3. Problems relating to platform, operating systems, and the lack of standard interface and module libraries

In discussing further the progress of minimizing the technical and pedagogical barriers, Collins & Remmers (1997) indicated that technical barriers have been reduced, but not barriers in pedagogical and cultural issues. Regarding this, the authors quoted a conclusion made by Colis (1996):

In the ensuing years, problems relating to technical standardization and to the technical handling of some aspects of language translation have been substantially reduced, but problems relating to pedagogical and cultural issues, as well as distribution bottlenecks, continue, resulting in relatively little development of a cross-cultural market for educational software made originally for particular local contexts, analogous to category 1 World Wide Web sites (p. 86)

The above conclusion indicates that pedagogical and cultural issues are much more difficult to address than technical aspects. However, there are several guidelines that have been suggested for addressing such cross-cultural issues in on-line learning. Collin & Remmers (1997, p. 87) stated :

Based on various analyses of factors affecting the cross-cultural portability of educational software, guidelines have emerged not only for software design, but also for course design geared towards cross-cultural participation via communication technologies. In Europe, for example, the 'TeleScopia Project' has focused on the adaptation of courses for trans-European delivery, including via World Wide Web sites, and generated such as the following

1. Communication and interaction, in cross-cultural context. Do not assume that more communication and interaction is better than less, especially when such activities cause burdens for the participants.
2. Language. When communication and interaction are used, be particularly sensitive to cultural differences in term of communication styles (i.e., who should initiate comments or questions, who should moderate, the extent to which disagreement or debate is expected, who should decide to terminate a line of communication, the level of formality considered appropriate in interaction between instructor and students, etc.).
3. Content. Choose course content where the cross-cultural aspects are either minimally relevance (thus highly specialized professional course or courses relating to a common trans-border phenomenon such as learning to use the Internet) or courses where the cross-cultural aspects

are integral to the content (i.e., learning a foreign language, international business issued, etc.).

4. “Representation form. Consider the use of visualization to replace or supplement text, but be alert to cultural differences in the acceptability and interpretability of various aspects of visualization.

The above suggestions are relevant in addressing cross-cultural issues in developing on-line learning. However, it is difficult for a designer to address all of these recommendations unless they possess expertise in cross-cultural issues. Designing a learning experience for global consumption is difficult. In addition to the content and technical experts, specialists on cultural issues will be needed. However, in this context, the two-way collaborative approach will be appropriate. The two-way collaborative effort in developing on-line learning as investigated by the present study allows an opportunity for designers from both parties to sit together and address all of the issues concerning a particular culture. There is no better person to deal with cultural issues, than the person who is from that particular culture, itself. This study that features the collaboration in developing on-line learning between two different countries addresses this missing gap.

Developing On-line Learning: The Strategy

In developing on-line learning, there are several components of development that should be addressed. Khan (1997, p. 6) stated that the following components are involved in developing an online learning environment:

1. Content development
2. Multi-media component
3. Internal tools
4. Computer and storage devises
5. Connection and service providers
6. Authoring programs
7. Servers
8. Browsers and other application

Most of the components addressed by Khan (1997) are related to technology. The only exception is the first, which is the curriculum and instructional design. It is true that on-line

learning involves many technical aspects, but, at the same time, the content and the pedagogical aspects are equally important. While we need the technical experts, the pedagogical and curriculum designer maintains an equal role. This study addressed this issue.

There are several strategies that can be adopted in order to make on-line learning more effective (Bates 1995, Dede 1996, Eastmond 1995, Filipczak, 1995):

1. Understand the technology's strength and weaknesses.
2. Provide technical training and orientation.
3. Plan for technical failure and ensure access to technical support.
4. Foster learning-to-learn, self-directed learning, and critical reflection skills.
5. Develop information management skills to assist learners in selection and critical assessment.
6. Mix modes – e.g., combine e-mail discussion with other means.

Developing on-line learning, as in other learning experiences, requires a systematic approach through addressing learning theories, instructional design, curriculum development and learning resources. In on-line learning, the major resources will be the computers as a primary medium. When different cultures and countries collaborate, the cultural issue is a component that should be considered as equally important. This study which involved two different countries provided an opportunity to explore this cross-cultural issue.

Collaboration, internationalizing the curriculum and on-line learning provided framework for this study. Some studies revealed, brought together the concept of collaboration and internationalizing the curriculum, while other studies brought together the concept of collaboration and distance learning. The literature reviewed that formed the basis of this chapter revealed no studies, however, where all three concepts were brought together. This study fills that missing gap.

Chapter 3

Method and Procedures

Research Design

This study was conducted using a case study method. The rationale for choosing the case study approach was to enable the researcher to investigate “ a contemporary phenomenon within the real-life context” (Yin, 1984, p. 23). Miles & Huberman (1994, p. 25) defined a *case* as “a phenomenon of some sort occurring in a bounded context” and further stated that a case could be a unit of analysis in a larger context. The author offered examples such as: studying a phenomenon, an individual, a role, a small group, a community, or a nation. Other examples given are studying an event, and a process.

Based on Miles & Huberman's (1994) categorization of case, this study can be considered a case study of a process. This study investigated the process that takes place when two different countries are involved in developing an on-line course. The specific case that was chosen for study is a collaboration project between two universities (one from United States and the one from one of the Asian countries) in developing an on-line learning experience. This project may be one of many other on-line learning projects; however, since it involved two different countries and cultures, it could be unique and has specific features that were investigated.

Involving two different countries with different cultures, different working strategies, different levels of development in technology, and different philosophical orientations actually opens a vast array of issues. The case study method provided an opportunity for the researcher to explore as much as possible the factors involved in the effort to collaborate, make decisions, and develop the learning project.

Selection of the Case and Sample

This study was based on the “US University” – “Asian University” on-line learning project. This project, which is in the early developmental process, was a meaningful subject for study. Several case studies on collaboration in distance learning have been documented in the literature. (Bottomley, J, 1993, Calvert, J, Evans, T,& King, B., 1993, Dhanarajan, G, Guiton, P., 1993). Most of those studies, however, focused on inter-institutional collaboration and have overlooked some of the inter-cultural issues that may be equally important. The “US University “

– “Asian University” project involves two different countries and cultures, the modern Western culture and one of the primary Eastern cultures. The study thus provided an opportunity to explore different issues that emerge in such a collaborative effort.

The research questions guiding this inquiry were:

1. What is involved in the process of developing and designing an on-line course involving two different countries?
2. What are the challenges faced during the process of developing and designing that on-line course?

In order to answer these two global research questions, several sub-questions have been constructed as specific guidelines. The sub-questions follow:

Question 1:

What is involved in the process of developing and designing an on-line course involving two different countries?

Specific guidelines:

1. How was this project started and initiated?
2. What were the early steps in the development of the project?
3. What are the major phases involved in developing this on-line course?
4. What are the important tasks and events that manifest in each of the phases?
5. Are there any immediate "by-products" derived from this project? If yes, what are they and how do they impact the institutions?

Question 2:

What are the challenges faced during the process of developing and designing the on-line course?

Specific guidelines:

1. To what extent are the following issues challenges?
 - a. Cultural differences
 - b. Communication
 - c. Development in technology
 - d. Expertise (Technical and Curriculum)
 - e. Institution's procedures, regulations and managerial practices

- f. Geographical location and time
 - g. Financial
2. If yes, how do these challenges, in any way, affect the process of developing and designing the on-line course?

The data needed to answer these questions were derived from interviewing and a micro-monitoring of the process. Micro-monitoring the process included analyzing correspondence, meeting notes, and all other modes, means, and manners of communication involved in the process. As part of the micro-monitoring process the researcher also kept personal notes and collected all correspondence since the inception of the project in early 1998.

The interviewing process involved project personnel from both universities. Three members of the project advisory committee from the “US University” and the head of committee from the “Asian University” have been interviewed. These key personnel were identified as informants for the study.

This study is not a program evaluation that normally evaluates the effectiveness of the program in terms of a participant's reaction, transfer of learning, and the impact of the program to the organizations. Rather, it is an exploratory investigation and documentation of the process and procedures taken place in designing and developing an on-line course which involved two different countries.

Study Instruments

A list of questions were developed for the interviews. Examples of the questions are listed in Appendix A. In order to explore the in-depth experience and information, these questions were used only as a guideline. The researcher, however, did not intend to conduct an unstructured interview that provides maximum freedom to the interviewee in responding to the question. The researcher's intent during the interview was to achieve a balance between structured and unstructured interviewing. In the unstructured format of interview, “the researcher suggests the subjects for discussion but has few specific questions in mind” (Rubin & Rubin, 1995, p.5). For the purpose of this study topical interviews (Rubin & Rubin, 1995) with semi-structured format were used.

For micro-monitoring purposes, a data inventory procedure was developed to record all key events, which occurred throughout the process of collaboration and development of the on-

line course. The events included correspondence, meetings, discussions, brainstorming sessions, and on-line conferencing. Each of the events was documented systematically, in a chronological order. These data included the dates, sources, descriptions, references and related aspects of development. An example of data inventory procedures is attached as Appendix B.

Data Collection Procedures

Nine advisory team members participated in the project: four from the “US University” and five from the “Asian University.” Three members from the “US University” team and one from the “Asian University” team were interviewed in order to gather their experiences in the process of developing the on-line course. Two sets of interviews were originally suggested; one during project development and another one at the end of the piloting phases. This is a long-term project, and it is still at the development stage. The piloting and actual implementation continues for at least another year. For the purpose of this study, the focus was on the development and design phase only, and thus only one set of interviews was conducted.

The micro-monitoring process included documenting, collecting, and analyzing all information throughout the process. For this purpose, the researcher, as one of the advisory team members, took full responsibility for keeping personal notes and documenting all of the incidents that occurred throughout the process. The researcher also took the lead in coordinating the information gathered through this process with other team members. Much of this task was accomplished through the participant observation technique or "participant as observer." Gold (1958) refers to participant observation as " a role in which the observer is known to all, and is present in the system as a scientific observer, participating by his presence but at the same time usually allowed to do what observers do rather than expected to perform as others perform." (cited in Wolcott, 1973, p. 8). Through participant observation, it is "possible to describe what goes on, who or what is involved, when and where things happen, how they occur and why, at least from the standpoints of participants." (Jorgenson, 1989, p.12).

To be objective during the interview and monitoring process, the researcher proceeded with a specific goal and point of interest. A list of points of inquiries were developed based on the research questions guidelines. Some of the issues considered in the points of inquiries are:

How does it start and how is it initiated?

The identification of phases and steps in developing the online learning project

The effect of the project on the institution

The identification of challenges such as cultural, communication, technology, skill and knowledge, procedures and regulation, and finances

Ways and means to overcome the challenges

Data Analysis Procedures

All interviews with team members from the “US University” were tape-recorded and transcribed. The interview with the head of the team from the “Asian University” was conducted through e-mail. Questions were sent through e-mail and the response was given in the written text, also through e-mail. The intensive analysis procedures suggested by Merriam (1988) were used as guidelines to analyze the data and make meaningful interpretations by categorizing, coding, and finally developing a process framework. The process framework included the process involved in developing an on-line course between the two different countries with specific and detailed events that have taken place from the project’s beginning to the end of the development phase. This process framework may be potentially useful to others embarking upon similar projects in the future.

Extra caution was given in the coding process in order to preserve the actual meaning of the comments. Coding does not simply mean the reduction of data or expansion, transformation, or reconceptualization of data. The operational meaning of coding given by Coffey & Atkinson (1996, p.30) was employed:

In practice, coding usually is a mixture of data reduction and data complication. Coding generally is used to break up and segment the data into simpler, general categories and is used to expand and tease out the data, in order to formulate new questions and levels of interpretation.

The data from the observations and documentation also were also analyzed in the same manner by categorizing and coding. These data contributed equally important information that enhanced the process framework developed from this study.

This study yielded a vast amount of data both from interviews and the micro-monitoring process. Therefore, it was very important to analyze and interpret the data appropriately in order to guide the researcher in answering the research questions. To make data more meaningful, the researcher reported, analyzed, and interpreted the data from two different perspectives: the voice

of "reporter" and the voice of "analyst." The reporter and the analyst looked from different eyes and lens. The reporter answered the questions of experience and the analyst answered the questions of meaning.

The voice of reporter revealed a chronology of events and descriptions, which included interesting stories and experiences. These outcomes provide opportunities to the readers to understand the detailed process involved in developing an on-line course between two different countries. Key events and experiences that occurred within and between the individuals, groups, and institutions involved in this project were described.

The role of analyst was to interpret the meaning of the reporter's descriptive portion. Interpretation from this perspective expresses the meaning beyond the experience. What does the experience mean to different individuals and groups with different backgrounds? How do they react to the experience, and what is the impact on the project and respective institutions?

Methodological Issues

Validity is one of the most important methodological issues in any research. In this study several techniques were used to improve the validity and dependability of this case study. One of the potential sources of invalidity is the researcher's influence on the subjects during the interviews. Even though the researcher was involved as one of the advisory team members in the project, the researcher tried to minimize this potential invalidity by establishing honest communication during the interview. The researcher also tried to avoid injecting any personal opinions during the interview process. In addition, all the information gathered through the journal documentation was verified with all other team members.

Another strategy to improve the validity in case study design is through establishing a variety of data collections (Yin, 1984: 36) or triangulation (Krathwohl, 1997). Triangulation "consults different sources to determine the validity of data." (Krathwohl, 1997, p.275). Triangulation can involve many different sources. The multiple sources of data collection used in this study were the interviews, personal notes, minutes or records from the advisory committee meetings, correspondence, the audio tape recordings, and also written notes.

Since this study is based only on a single case and not multiple case studies, it cannot be generalized to other projects or populations. In this context the external validity will be very limited. However, the findings and the process framework that will be developed from this study

can be used as a general guidelines or framework in developing any other similar projects in the future. Moreover this study can serve as the basis of further research and refinement.