

# **Integrating Telecommunication Technology in a Professional Communication Skills Course**

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## **A b s t r a c t**

This project aimed to introduce appropriate telecommunication technology into a Professional Communication Skills course taken by students in the second year of a BA (Hons) in English for Professional Communication (BAEPC) programme. The two-year project consisted of two cycles, each having two streams in the Action Research Spiral of initial reflection, planning, action observation, and reflection. Built upon this five-stage Action Research Spiral model (Kember, & Kelly, 1993; Lewin, 1948/1988), three semester-long projects were designed to reflect the action learning process in conjunction with the use of telecommunication technology. These projects were the Fast-food Restaurant Industry and Intercultural Communication in Stream 1, and Industry Analysis in Stream 2.

Multiple evaluation procedures were used to measure the effectiveness and efficiency of the project from differing perspectives and at various times during the course of the project. The evaluation aimed at uncovering specific impressions, problems, and suggestions for improvement. During the course of the Action Learning Project, three measurement procedures were employed: focus group discussions, debriefing and questionnaires.

The outcomes of the Action Learning Project yielded four main gains. First, the use of telecommunication technology enhanced the learning efficacy of the students by helping them share information and consequently improved their learning through a co-operative learning strategy. Secondly, the experience of seeking interviewees (both expatriate and local managers) to grant interviews enhanced their persuasive communication and interviewing skills. In particular, students reflected deeply on how learning occurs through these hands-on experiential semester projects. Thirdly, students gained direct exposure to Hong Kong business professionals and US business major students through collaboration on semester projects. A business and intercultural communication environment was fostered. Fourthly, pedagogical research data were gathered in the form of video- and audio-tapes of debriefings, samples of participants' writing, and the questionnaire responses that will be entered into a database for future research. From a pedagogical perspective, the data can be used to formulate future research focused on improving teaching and learning in the Professional Communication Skills course. In-depth evaluation measurements can produce data which demonstrate that teaching has been effective in preparing students for work in the corporate world.

## **Introduction**

The Action Learning Project aimed at improving the teaching and learning of the Professional Communication Skills course in Year 2 of the BA (Hons) in English for Professional Communication (BAEPC) programme at the City University of Hong Kong by integrating appropriate telecommunication technology, and collaborating with Hong Kong business professionals and university undergraduate and graduate students of the American Assembly of Collegiate Schools of Business (AACSB).

This two-year project consisted of two streams, each having two cycles in the Action Research Spiral of initial reflection, planning, action, observation, and reflection. The design of this project was based upon a five-stage Action Research Spiral model (Kember, & Kelly, 1993; Lewin, 1946/1988) in which three semester-long projects were designed to reflect the action learning process in conjunction with the use of telecommunication technology. These projects were Fast-food Restaurant Industry and Intercultural Communication in Stream 1, and Industry Analysis in Stream 2.

A detailed explanation is given of the five-stage Action Research Spiral model reflecting the Action Learning process during this project. The project activities which were facilitated through the use of telecommunication technology are also described.

## **Background**

### **Reflection**

There is a growing recognition that information technology (IT) and telecommunication-based communication represents 'the wave of the future'. At City University, students already use e-mail to communicate for various purposes. Within the Department of English, telecommunication hardware use was already taught in a parallel course, but the application and use of this hardware was not interwoven into the course content of the Professional Communication Skills course. Consequently, BAEPC students had neither a practical theoretical base nor related experience in applying telecommunication technology such as e-mail, teleconferencing, discussion groups, Internet data banks and Web sites. The underlying problem of this project was the lack of opportunity to expose students to the use of telecommunication technology which would have equipped them better for their future careers. Therefore the project was further designed to add realism and raise student motivation and involvement by incorporating the use of telecommunication technology.

### **Planning**

The plan related to the means whereby e-mail and other information technologies could be integrated into the fabric of the three semester-long projects. The cyclical structure of the three projects and the use of the telecommunication are described below.

# The Project

## A. Fast-food Restaurant Industry Project

### *Cycle 1 (Semester A, 1997)*

Students formed groups of three or four. Each task-force group was instructed to: i) identify and interview one manager/supervisor and at least two full-time employees of any fast-food restaurant, ii) observe the restaurant operation during the peak hours and note conflicts amongst staff and/or customers, iii) prepare a written report in which students compared their interview data with their observation data as well as data from peer groups, and iv) make a group oral presentation.

Interactive communication is encompassed and described in the following four-step procedure: (conducted in Hong Kong)

Step 1. Each task-force group interviewed managers and employees, and posted interview data on the central list server.

Step 2. Each group posted their interview data on list server for other groups to access and read.

Step 3. Each group wrote a comparative report of the interviews (using the input of each group member).

Step 4. Tutors led in-class discussions of the process and the reports.

### *Cycle 2 (Semester A, 1998)*

Twenty-five students selected to conduct the fast-food restaurant project were paired with the American university business major undergraduate students. Throughout the semester, project participants researched and exchanged information with their US counterparts. The project tasks consisted of five major components:

- i. Getting acquainted with each other via e-mail;
- ii. Writing an overview of the fast-food industry in Hong Kong or the US;
- iii. Contrasting a typical Hong Kong fast-food restaurant with a typical San Francisco restaurant and evaluating the transferable and non-transferable practices between Hong Kong and San Francisco;
- iv. Contrasting fast-food customer and employee behaviour in Hong Kong and San Francisco; and
- v. Writing an individual report.

Interactive communication is encompassed and described in the following four-step procedure: (in collaboration with US undergraduates and graduates)

Step 1. Each task-force group conducted library research and field research (including interviews and survey questionnaires) and then exchanged information with their assigned counterparts.

Step 2. Each group member accessed the exchanged information through e-mail.

Step 3. Representatives of each task-force group negotiated the deadlines of the information exchange via e-mail and clarified their exchanged information.

Step 4. Each group member wrote a report comparing the fast-food restaurant operations in Hong Kong and San Francisco, also evaluating the transferable and non-transferable practices between the two cities.

## **B. Intercultural Communication Project**

### ***Cycle 1 (Semester A, 1997)***

Groups of three or four students were required to identify and interview two expatriates, one who had been stationed in Hong Kong for less than a year and another who had resided in Hong Kong for over two years. The interviews were video- or audio-taped and focused on the expatriates' perceived ease and effectiveness/efficiency in communicating in English with Cantonese speaking local personnel in three on-the-job communication categories: production (on-going tasks and work), maintenance (human relations and organisational structure), and innovation (changes and new ideas/programmes). The following factors affecting communication in these areas were also explored: a) second language (L2) proficiency of the Cantonese interlocutors, and b) perceived cultural differences between the expatriates and the Cantonese interlocutors. Expatriates were asked to cite specific examples.

### ***Cycle 2 (Semester A, 1998)***

In cycle 2, the nature of the project was similar to cycle 1. A few changes were made to capture the comparative aspects of on-the-job communication between expatriates and local Chinese personnel. Two interview guides were provided (one for expatriate interviewees and one for local Chinese interviewees). The first interview guide emphasised the expatriate's perception of ease and effectiveness in communicating with local personnel regarding various aspects of production, maintenance, and innovative communication. The second interview guide focused on the local personnel's perception in communicating with expatriate managers in the three aspects of communication function and on their use of intermediaries. Both expatriates and Chinese local personnel were asked to cite specific examples.

Interactive communication was encompassed and described in the following four-step procedure for both cycle 1 and cycle 2 (conducted in Hong Kong).

Step 1. Each task-force group compiled interview data and posted these raw data on the list server.

Step 2. Each group member accessed by e-mail and read the interview data of one other group.

Step 3. Each group wrote a comparative report of the interviews (using the input of each group member) based on the given structures.

Step 4. Tutors led in-class discussion of the process and the reports.

## **C. Industry Analysis Project (IAP)**

### ***Cycle 1 (Semester B, 1998) and Cycle 2 (Semester B, 1999)***

The purpose of the Industry Analysis Project (IAP) was to conduct research and write a business report on a chosen industry. The frame of reference for the research and the report was the model developed by Porter (1979) which describes the structure of any industry. This model identifies five competitive forces that determine the nature of competition within the industry. They are rivalry between existing competitors, bargaining power of suppliers, bargaining power of buyers, threat of new entrants, and threat of substitute products or services.

The project entailed both individual and group responsibilities. Each student was entirely responsible for a designated section of the report (one of Porter's five forces) and all group members were equally responsible for writing the introduction and conclusion sections, and for making an oral presentation to the class.

The use of telecommunication technology centred on the use of e-mail and the exchange of information between the assigned groups.

### ***Cycle 1 (Semester B, 1998) Conducted in Hong Kong.***

The use of e-mail centred on the information exchange between project group members. Interactive communication was encompassed and described in the following steps.

Step 1. Each group member compiled the sought information and posted it on the list server.

Step 2. Each group member accessed the e-mail and read the other members' information.

Step 3 Each task-force group wrote a business report analysing the competitiveness of the researched firm in a chosen industry and made recommendations.

Step 4. Tutors led in-class discussions of the process and the reports.

### ***Cycle 2 (Semester B, 1999), in Collaboration with the US University.***

In cycle 2, eight groups of students were formed to pair with US counterparts. Four industries were identified: mobile phones, digital cameras, coffee makers, and interactive television (iTV). Project group members were required to exchange industry information with their US counterparts. At the end of the project, the Hong Kong and US task-force groups needed to negotiate the allocation of US\$100 million funds between California and Greater China markets (including Hong Kong and Guangdong province) based on their analysis of industry competitiveness.

Step 1. Each task-force group searched for secondary data and conducted field research (i.e., survey questionnaires, telephone interviews, and face-to-face interviews), and then exchanged information with their US counterparts.

Step 2. Each task-force group accessed the exchanged information via e-mail.

Step 3. Representatives of each task-force group negotiated the deadlines for the information with counterparts via e-mail and clarified their exchanged information

Step 4. Each task-force group negotiated with US counterparts about the allocation of US \$100 million fund between California and Greater China markets based on the exchanged information and their analysis of industry competitiveness in the respective region.

Step 5. Each task-force group (individual and group tasks) wrote a business report analysing and comparing the competitiveness of the chosen industry in both Hong Kong and California markets.

### **Action**

The action phase focused on monitoring the flow of telecommunication technology and on the possibility of providing feedback to students via e-mail and in-class discussions. Making sure that students adhered to schedules in posting central file messages in the list server was an essential part of this phase. The schedule of class activities was altered so that it was possible to include appropriate discussions on the on-going process of information exchange via e-mail and central file.

## Observation

The observation phase was employed to capture the impressions of the researchers and representative student groups. Multiple evaluation procedures were used to measure the effectiveness and efficiency of the project from differing perspectives and at various times during the course of the project. The evaluation aimed at uncovering general and specific impressions, problems, and suggestions for improvement. Mechanisms used for evaluating the learning process included student-to-student peer evaluations (i.e. peer critiques, debriefing, and questionnaires), and researcher-to-student evaluations (i.e. focus group discussion, debriefing, and feedback).

At the end of cycle 1, ten student representatives were invited to participate in a focus group discussion that lasted for two and a half hours. In cycle 2, two additional measurements were employed to reflect students' feedback from cycle 1. To detect difficulties encountered by students and to provide prompt feedback, debriefing was conducted at the middle of semester A, cycle 2 (1998). The results were taken into consideration for the design of the semester B project. In addition, both Hong Kong and the US students were required to complete questionnaires at the end of cycle 2.

## Reflection

The reflective period is one in which the experience is digested and processed after the pace and pressure of the semester and where one can reflect critically on the successes and failures. The outcomes of cycle 1, which yielded three main gains, were used as the basis for the design of Cycle 2. The first gain was that the use of telecommunication technology enhanced the learning efficacy of the BAEPC Year 2 students by helping them to share information and, as a consequence, improving their learning through the strategy of co-operative learning. The second gain was the enhancement of the interviewee's persuasive communication and interviewing skills. This was facilitated by the students having to seek interviews with both expatriate and local managers. In particular, students reflected deeply on how learning occurs through all these hands-on experiential semester projects. The third gain was the gathering of pedagogical and research data in the form of video- and audio-tapes and samples of participants' writing.

To enhance the quality of teaching and learning in cycle 2, changes were incorporated into the action learning design. These changes reflected the feedback from the focus-group discussions. cycle 2 was altered in order to:

- involve business major undergraduates so that an environment of intercultural communication could be fostered;
- conduct a semester project debriefing at week 10 of the 14-week semester to enhance the communication between instructors, researchers and students so that the problems students encountered could be identified and solved; and
- require each project to compile a portfolio containing relevant information and documents related to activities. The principal investigator and co-investigator in Hong Kong read the portfolios before the semester project debriefing session in week 10.

## Evaluation of Effectiveness

To assess the effectiveness and efficiency of the project, multiple measures were employed. The first three measurements: selected focus group discussion, debriefing, and questionnaires, will be discussed in the following section. This will be followed by a discussion of the major findings of each measurement employed.

## **Selected Focus Group Discussion**

At the end of cycle 1 a selected focus group discussion was arranged in which ten student representatives were invited to participate. The purpose of the focus group was to create an environment in which discussants could a) comment on and give examples of their collaboration with their group members and their use of telecommunication technology and b) compare and evaluate the experience of other focus group members.

To promote communication effectiveness, both formal and informal discussion formats were adopted. From the formal structure perspective, a series of issues and questions were prepared to stimulate discussion. Additional time was allocated for free-flowing discussion in areas of concern. Four topic areas were identified: i) teamwork and small group communication, ii) use of telecommunication, iii) use of language, and iv) overall comments.

The first major topic related to teamwork and small-group communication, its focus being to understand the importance of teamwork, investigate students' attitudes toward teamwork, and compare the decision-making strategies used by different task-force groups in the course of the project. The second topic area related to the use of telecommunication technology. This involved the effect of using list server technology on the communication process and the situations in which other telecommunication technologies were used (i.e. mobile phones, Internet Chatting Queue [ICQ]). The third topic concerned the use of first and second languages and the comparative impact on the effectiveness of the oral and written communication. The focus of this area centred on the language used in the three projects: the usefulness of using English or Cantonese as an inhibiting, facilitating, or neutral factor; problems of communicating with interviewees and with peers; and suggested ways of improving communication. The focus of the fourth topic area was the overall comments on the three projects and reflection on their learning.

In the following section, the findings of the four sub-topic areas centred on the focus group discussion will be discussed.

### **Teamwork and Small Group Communication**

Eight out of ten representative discussants noted their attitude and strategy toward teamwork and small group communication changes between semesters A and B. In semester A, students used maintenance-relational strategy when working with project members. To most of the students, maintaining group harmony was the prime concern, so conscientious students were willing to work more than their fair share in order to ensure that there was no conflict between members. Lacking the skill of constructive criticism, team members were inclined to adopt conflict avoidance and therefore compromised their ideas. Consequently, conflict avoidance led to 'groupthinks'. With fewer divergent opinions, decisions became easier to make, but the decisions were not necessarily the best ones. According to discussants, voting appeared to be the common method employed by most groups.

In semester B, the teamwork strategy was altered to cope with the more demanding semester project, the Industry Analysis Project. According to the discussants, the majority of the group members came to realise that the maintenance-relational strategy did not lead to group effectiveness. Consequently, they needed to adjust their teamwork strategy in order to enhance group effectiveness. Compared with semester A, students in semester B changed their teamwork strategy from a maintenance-relational orientation behaviour to a task-orientation behavioural style. Although in semester B their attitude towards teamwork was task-oriented, the majority of the students, consciously, still tried hard to avoid conflicts even though they needed to voice differing opinions from time to time. Most importantly, group members learned to analyse and choose among alternatives before finalising their decisions.

## **Use of List Server Technology**

Although the use of telecommunication technology expedited the information exchange, students' feedback on its use was mixed (for similar feedback in other studies see for example Mak, 1995; Sharma, & Garratt, 1995). List server communication technology allowed students to exchange their information and more easily speed up the communication process, but 75% of respondents did not consider the list server communication channel an effective tool in enhancing their communication process and information exchange. Instead, they preferred using mobile phones or ICQ to sending messages through the list server.

We hypothesised that the results for such an unfavourable response might be due to the following: language use, speed and immediate feedback, and technological problems. Compared with face-to-face communication or mobile phone communication, sending messages through the list server or e-mail did not allow students to use their native language, Cantonese. This phenomenon reflects students' attitudes towards language use in the Hong Kong tertiary environment. Because societal pressure in the dominant Cantonese environment restricts the use of English language communication, Hong Kong bilingual Chinese live in an environment that is not conducive to using and improving second-language (English) competency. When given a choice, most students prefer to use their native language. Speed and immediate feedback is another factor contributing to the unfavourable use of the list server. The list server technology available for use at that time did not permit the use of attachments. Instead, the students had to convert the information into text file. The incompatible technology slowed down students' communication processes and increased their workload. They also experienced inconvenience caused by different software programmes.

An unexpected finding related to telecommunication technology was the use of mobile phones and ICQ. In cycle 1, the use of mobile phones was very popular since all the personnel involved in the project were in Hong Kong. The phones allowed them to use their native language when discussing the issues, and to receive immediate responses. In cycle 2, the mobile phones remained a popular communication tool when communicating with personnel in Hong Kong, while ICQ became the dominant channel when contacting counterparts in the US. The use of ICQ to contact group members was higher in cycle 2 than in cycle 1.

## **Use of Language**

The Cantonese students unanimously chose to communicate in Cantonese in the focus group discussion meeting, although almost all of them preferred to use English for report writing. These preferences reflect the uniqueness of the Hong Kong bilingual environment; that is, Cantonese for oral communication and English for written communication. In Hong Kong the norms prescribing language use are complex and contradictory. Hong Kong bilingual Chinese engage primarily in Cantonese conversation as 95% of their colleagues are Cantonese-speaking Chinese. However, English is the preferred medium for written language in business, government and law.

It is surprising that the focus group discussants reported that 80% of the project group students preferred to conduct interviews in English even when interviewing local Cantonese-speaking personnel. Using English in interviews reduced problems of translation; however, according to these discussants, speed and accents were the two most commonly identified problems, especially when interviewing expatriate managers who were English speakers (either native or non-native English speakers).

## **Overall Comments**

Three major areas identified by all discussants were: i) difficulty in arranging interviews, ii) not knowing how to handle small group communication effectively, and iii) not having sufficient time to reflect on what had been achieved.

Although more than 90% of project groups reported that they initially found it difficult to arrange interviews with senior members of companies, all students succeeded in finding expatriate and local Chinese personnel for their interviews. Discussants reported that this process taught them how to approach and convince business people to grant interviews.

The second major area identified was that students did not know how to handle effectively small group communication. Influenced by Confucian ethics, Hong Kong Chinese in a collective society, consider group harmony to be essential when working in a team. As mentioned earlier, to avoid confronting other group members, 90% of participants adopted maintenance-relational behaviour with their group members in semester A. However, a drastic strategy change towards task-oriented behaviour took place in semester B as students realised that the 'heavy duty' project work required substantial involvement of time and effort amongst group members. The third area was that students felt that they had insufficient time to reflect on their learning. Although they agreed that the learning objectives were achieved, they felt that the learning was 'heavy'. Students felt that they competed constantly with deadlines.

## **Debriefing**

To increase communication efficacy between researchers and students, and to allow students to self-reflect on their learning, debriefing was employed in cycle 2, semester A. The purposes of debriefing were: a) to reflect on students' experiences of teamwork to complete the project, b) to critically evaluate their own behaviour and discover differences among that of group members, c) to examine how teamwork contributed to their learning and what they could have done better, and d) to make learning through group collaboration more effective.

In conducting debriefing, ten discussion groups were formed, each made up of five or six people. One member from each discussion group was appointed as the moderator. The debriefing discussion was centred on four areas: i) project management (individual and group tasks), ii) assessment of individual contributions, iii) interpersonal relations and communication, and iv) experience learned from engaging in the project. The results of the debriefings are discussed in the following section.

## ***Project Management***

On average, the majority of individual students spent 10 to 15 hours per week managing their projects (the minimum was 6 hours and maximum 20 hours). Ninety per cent of students reported that the division of labour was evenly distributed and that teamwork allowed them to complement each other's talents by maximising each individual's specialty. They strongly believed that three heads worked better than one. While the number of hours spent working with their group members increased, more than 80% of the participants reported that they could manage their time better so that their individual activities did not interfere with the progress of the group work. In all, they learned how to work as a team and utilise an individual's specialty to ensure the quality of the project.

## ***Assessment of Contribution***

Surprisingly, all of the students considered that they had contributed to the overall success of the group. But when asked about their perception of their role in the group, less than 15% considered themselves co-ordinators or group leaders. A very interesting phenomenon was that

students were reluctant to use the word 'leader' even when they served as co-ordinators throughout the whole project. This phenomenon reflects the concept of Chinese collectivism, that is 'every nail that sticks out should be punched back'. Students did not want to be singled out or to be different from their peers.

To make teamwork more effective, the following suggestions were made:

- Be creative and participate at the project discussion meetings;
- Anticipate possible 'crises', when completing tasks, such as computer breakdown;
- Improve time management;
- Identify problems and examine each alternative objectively, rather than through voting; and
- Create more communication channels in addition to formal meetings.

### ***Interpersonal Relations and Communication***

Although 80% of respondents agreed that teamwork was essential for accomplishing a large-scale project, 40% reported that they preferred individual work, those who liked working intensively preferring individual tasks. Working individually allowed them to work at their own pace and manage time more efficiently.

When asked what they considered to be the five most important aspects in the completion of the project, the factors most frequently mentioned were task accomplishment, commitment, efficiency, harmonious relationships, and group spirit. While students found task accomplishment and strong commitment were crucial, maintaining a harmonious group working environment was also not neglected.

### ***Valuable Experience Learned from Engaging in the Project***

The five most frequently mentioned valuable experiences were:

- Learning to work with team members efficiently and effectively;
- Gaining knowledge of information technology;
- Learning to manage time better;
- Learning to be flexible; and
- Learning the importance of effective communication.

### **Questionnaire and Participants' Ratings**

The questionnaire data in cycle 2 provided additional texture and insights when comparing San Francisco and Hong Kong task-force groups. The focus of the questions was on: a) overall effectiveness of the e-mail communication system, b) difficulties encountered in working with their group members and counterparts, c) attitudes towards their counterparts, d) the allocation of funds, and e) their overall impressions of long distance intercultural e-mail communication decision-making.

#### ***a) Overall Effectiveness***

The first section of questions provided participants with an opportunity to assess overall effectiveness of the e-mail communication system based on a 7-point Likert scale (1 is the lowest and 7 the highest). Seven sub-statements were included to measure perceptions of accuracy, usability, and the importance of receiving and responding to e-mail promptly. The results

showed that both Hong Kong and US students considered that the overall effectiveness of the e-mail communication system was moderate ( $X = 3.13; 4.5$ ). Although e-mail communication was seen to be a necessity in day-to-day communication channels, the result seems inconclusive. The view of one US student indicated the realisation of not only the value of e-mail communication but also the problems:

Overall I think this project was very interesting. I think we should be doing more intercultural e-mail communications in the future when we're doing business but it's not as easy as it seems. I'm glad I got that early glimpse.

As for the usability of received information from their counterparts, US students rated usability higher than did Hong Kong students ( $X = 4.08; 2.69$ ). The discrepancy may result from the perception difference in information exchange.

To most US students, the exchanged information was seen as a reference assisting them to make better decisions. Information exchange was therefore considered to be a 'process', thus the form of the exchanged information did not need to be complete. In contrast, over 90% of Hong Kong students expected their US counterparts to provide complete, semi-finished reports (products). This perception gap towards information exchange is likely to have caused the lower rating of the information usability of Hong Kong student groups.

The major difference in the first set of questions was in the importance of receiving a prompt response and the pressure to respond promptly. US students rated 5.16 on a 7-point Likert scale indicating the importance of receiving a prompt response. This result was consistent with their feeling of being pressured to respond promptly ( $X = 4.84$ ). Hong Kong students, on the other hand, rated much lower on both items ( $X = 3.51; 3.16$ ) indicating that receiving and responding promptly was not their prime concern. The results contradicted the qualitative data in which 95% of Hong Kong students reported that they became agitated during the course of the project because of the slow response from their US counterparts, with one Hong Kong student stating:

In fact, long distance intercultural e-mails and decision-making are widely used in business communication. It enriched the information collected and also it speeded up the communication between people in two different places. However, in our case, we can't enjoy the benefit from this method, as our counterpart is not so active in dealing with our e-mails.

However, another expressed a better understanding of the situation:

I think timing is a key aspect that we have to be aware of when having long distance communication. We cannot expect prompt replies from other parties due to the time differences and the different cultural concepts of 'time'. Therefore, we need to be open-minded and plan earlier to allow ample time for both parties in making decisions. Moreover, I think it is very important to specify a deadline if there is a time constraint and the response we need from them. This can help to avoid unnecessary exchange of e-mails so as to speed up the process of communication.

Another major difference between US and Hong Kong students was the importance of receiving grammatically correct information. In comparison, the mean scores were as follows: US groups ( $X=2.96$ ) and Hong Kong groups ( $X=4.18$ ) indicating that it was somewhat important to receive grammatically correct information. The result of the Hong Kong student groups' attitude is consistent with their low rating of the usability of the exchanged information. As one Hong Kong student said:

... communicating through e-mail requires lots of conditions: the language ability and writing skills of senders, the language competence of the receivers. The culture also affects the writing style that in turn affects the quality of the communication.

It is hypothesised that Hong Kong students want to receive information that they can transfer directly to their reports without further re-writing. Consequently, the printed information provided should be complete and grammatically correct.

#### ***b) Difficulties Encountered***

The second section of questions asked participants to assess the degree of difficulty they encountered with their own project group and with their counterparts. The means scores of the US and Hong Kong groups in collaborating with their own project group as compared with their counterparts was 2.28 versus 3.47 and 3.88 versus 5.20 respectively. The result showed that Hong Kong students encountered more difficulty in collaborating with their US counterparts than their own project group members ( $X = 5.2; 3.47$ ) in completing the project.

#### ***c) Attitudes Towards Counterparts During the Course of the Project***

The high rating of the Hong Kong students groups on their perceived difficulties in interacting with US students was consistent with their overall attitudes toward their US counterparts at the beginning, middle and end of the project. The Hong Kong student groups rated 4.69 on a 7-point Likert scale at the beginning of the project. The rating decreased to 3.08 at the middle of the project indicating that the attitudes of the Hong Kong student groups had changed drastically. Although at the end of the project, the mean score increased to 3.27, the result of the favourable attitudes towards their US counterparts was much lower than at the beginning of the project. In contrast, the US students rated more positively toward their Hong Kong counterparts. Their ratings started with 5.28 showing favourable attitudes, moved down to 4.72 in the middle, and to 4.92 at the end. The movement of the relationships in the course of the project reflects the Confucian heritage culture (CHC) of Hong Kong participants, that strengthening interpersonal relations is more important than working/professional relations.

#### ***d) The Allocation of Funds***

In conducting the IAP, eight task-force groups between Hong Kong and the US were formed to examine the market potential between California and Greater China (i.e., Hong Kong and Guangdong) in one of their chosen industry projects (i.e., mobile phone, digital camera, coffee maker or iTV). During the course of the project, both US and Hong Kong participants needed to exchange information about their chosen industry. At the end of the project, both US and Hong Kong task-force groups were required to negotiate the percentage of funding (\$US100 million provided by headquarters) each regional market should have in order to expand their product to the region successfully. The percentage of the funding allocation was to be based on the comparative analysis of marketing research of both regions by using Porter's (1979) five-force model.

The results showed that 86% of US participants considered the funding allocation between the two regions fair, whereas only 67% of Hong Kong participants agreed with the funding allocation. Those individuals from the Hong Kong and US task-force groups who agreed that the funding allocation was fair reported that the process of negotiating funds allocation was inspiring and that both parties could reach mutual agreement after a few e-mail exchanges.

In comparison with 9% of US students who disagreed with the fairness of funding allocation, 27% of the Hong Kong participants reported that they did not reach agreement with their US counterparts. The reasons for not being able to reach mutual agreements were that:

- insufficient information exchange from US counterparts did not allow them to accurately assess the competitiveness of the product markets in both regions;
- the US counterparts failed to provide evidence to support their request; and
- there was no discussion or negotiation on funding allocation between both parties. According to the Hong Kong participants, the US counterparts insisted on their own recommendation.

All the participants were asked to characterise their relationships with their counterparts. Twenty one out of 27 (77.8%) of US students characterised their relationships with their Hong Kong counterparts as professional, whereas only 18.9% of Hong Kong students considered their relationship with US counterparts to be professional. One third of Hong Kong students described their relationship as friendship. The result revealed a sizeable perception difference between US and Hong Kong students in their working relationship. US students became aware of cultural problems in communication, especially in the use of humour, as shown by comments such as:

Miscommunication arose due to cultural differences. Tried a sarcastic joke to generate good fellowship. It bombed. Tried capitalising on phrases in 'high context' language. This, too, bombed.

and

It was a valuable learning process. Our group members have been pretty upset about the communication when we tried to explain every single detail (we thought!) ... I was amazed at the number of differences between the US and Hong Kong groups, even I shouldn't have had any problem with the Chinese (HK) culture.

The same was true of some Hong Kong students as indicated by the following comment:

Actually, I don't think e-mails are effective in making decisions. Miscommunication arises because of misunderstandings. Maybe we are from different cultural backgrounds, we can't understand each other fully. The most obvious example was that our US counterparts said that we couldn't understand their sense of humour. We, in turn, think they are impolite. So, from my point of view, face-to-face communication is more effective and better because we can interpret the meaning more accurately as people communicate verbally and non-verbally.

#### ***e) Overall Impressions of Intercultural E-mail Communication and Decision Making***

The overall impressions of the project experience, as expressed in the focus groups, were generally positive. Both the use of technology and cross cultural elements were noted as valuable by Hong Kong students, in such comments as:

It is good that it (e-mail project) provides an opportunity for students to co-operate and try the new communication system. ... Through the project, we learnt how to communicate with others effectively by using e-mail. And when there is an accident in communication, such as we can't get information we needed on time, how we could solve the problem. There is another way to communicate, which is a less formal communication channel – the ICQ.

and

It is good to do projects with people abroad as we can gather more information for the project, especially information about the overseas market. ... Overall, it was a valuable experience to co-operate with overseas students in a professional manner, even though misunderstandings might arise during e-mail communications.

Similar views were expressed by the US students, often even more positively, as in:

This was my first project that required long distance communication. Initially I thought it was going to be difficult and complicated. But it turned out to be extremely friendly and a real eye-opener to me. I enjoyed working with the Hong Kong group.

and

I thought overall it was a good project; it was a good experience to work with overseas students and will prove helpful in the future. I also gained knowledge of a new market.

## Implications

The outcomes of this project have resulted in four important gains which relate to learning and teaching. Student learning as well as the structure and content of the BAEPCC programme have been enhanced through this Action Learning Project.

The learning experience of students has been enhanced in four ways.

Firstly, the use of telecommunication technology helped students share information and consequently improve their learning using a co-operative learning strategy. While they were clearly aware of the shortcomings of the technology, they did appreciate the advantages, with the use of mobile phones and ICQ moving from the social situations with which they were familiar to more formal communication with overseas students and with local and expatriate business people. It also should be mentioned that the students became quite skilled users of Power Point software presentations.

Secondly, students gained direct exposure to an intercultural experience by collaborating on two projects with US business major undergraduates. This provided them with a valuable opportunity to develop their intercultural communication skills.

Thirdly, there was encouraging improvement in students' communication and critical thinking skills. The experience of arranging and conducting interviews with both expatriate and local managers enhanced their persuasive communication and interviewing skills. The study revealed development over the two semester projects of students' ability to work effectively in small groups, improving the quality of the outcomes while still endeavouring to maintain good relationships with their peers. The nature of the activities in both projects which the students had to carry out, led to the sharpening of their critical thinking and analytical skills, as shown by the assignments submitted and by responses in the focus groups. This is a particularly pleasing outcome.

Fourthly, a substantial amount of pedagogical and research data was gathered in the form of video and audio recordings and samples of participants' writing. These data can be used for further research into students' learning and professional communication skills. All of this added up to a valuable learning experience for the students, and indicated that the types of projects which the students undertook proved to be relevant and worthwhile.

As for the quality of the teaching, there are three major implications for the structure and content of the BAEPCC programme. These are in the areas of interdisciplinary integration and intercultural communication competency, and contact with the business community.

Firstly, with regard to interdisciplinary integration, the projects have been shown to relate theory to practice effectively in a number of areas, e.g. organisational communication and intercultural communication, and to relate communication studies to business and management.

Secondly, the experience gained in intercultural communication is of particular note, and is of direct relevance to many jobs in Hong Kong. Too often this topic is restricted to the classroom or academic assignments. The Action Learning Project provided students with hands-on experience in intercultural communication that allowed them to put classroom-learned theories into practice.

Lastly, the direct contact with the business community is beneficial at this stage of the students' programmes. While a number of students have part-time jobs or full-time summer jobs (but increasingly fewer these days), in the projects they were drawn to consider more carefully the principles of communication which operate in various situations in which they participated.

It is, then, important to ensure that the programme and its constituent courses are designed so that there is interdisciplinary integration as well as ample opportunity for the development of intercultural communication skills and contact with the real business world. The Professional Communication Skills courses are obvious, but not the only, places for this to occur.

## Conclusion

The project can be considered to have achieved its aims of effectively introducing telecommunication into a Professional Communication Skills course, increasing student learning and motivation, and broadening both the kind and extent of communication involved to include strong intercultural and business elements.

The longitudinal nature of the study, consisting of two cycles of the five-stage Action Learning model, has demanded the investment of much time and effort. However, this has been worthwhile since it has allowed for a variety of evaluation procedures to be employed, refinement of the model, and involvement of two cohorts of students. As a result, much better informed decisions can be made regarding the future development of this Professional Communication Skills course and of other similar courses.

## Acknowledgment

This project was supported by a two-year research grant from the Action Learning Fund (Project No. 8750011), UGC (University Grants Committee), Hong Kong SAR Government. We are extremely grateful to the Fund for the generous support and encouragement received throughout the project.

## References

- Kember, D., & Kelly, M. (1993). Improving teaching through action research. *HERDSA Green Guide No. 14*. Campbelltown, NSW: Higher Education Research and Development Society of Australia Inc.
- Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, 2 (4), 34-36. Reprinted in Deakin University (1988). *The action research reader*. Geelong: Deakin University.
- Mak, L. (1995). What did students gain from international e-mail projects: The CUHK experience in Spring 1994. *Occasional Papers in English Language Teaching*, 5, 119-133. Hong Kong: The Chinese University of Hong Kong.
- Porter, M. (1979). How competitive forces shape strategy. *Harvard Business Review*, 57 (2), 137-145.

Sharma, N., & Garratt, L. (1995). Incorporating e-mail into business and technical communications courses: Organising a conference. *Occasional Papers in English Language Teaching*, 5, 135-146. Hong Kong: The Chinese University of Hong Kong.