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The University of Alberta

Adjustment of Hong Kong Students
at the
University of Alberta

By
Simon Sheh



A Thesis

Submitted to the Faculty of Graduate Studies and
Research in Partial Fulfilment of the Requirements
for the Degree of

Doctor of Philosophy

in

Counselling Psychology

Department of Educational Psychology

Edmonton, Alberta

Fall 1994



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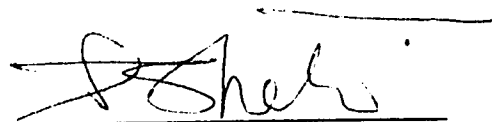
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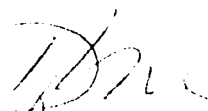
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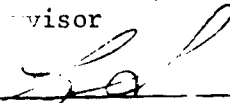
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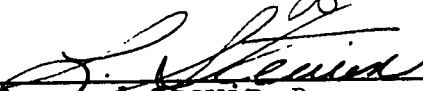
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To God be the Glory

ABSTRACT

The intent of this investigation was to identify adjustment problems experienced by Hong Kong students attending the University of Alberta on student visas. The study implemented multiple methods of qualitative, in-depth interviews and a survey questionnaire. In Stage One of the study, literature related to adjustment of (a) Hong Kong students in Hong Kong, (b) Hong Kong students at universities outside Hong Kong, (c) Canadian students at Canadian universities, and (d) students from any country who were on student visas in a foreign country was reviewed to develop a preliminary adjustment matrix representing the construct of adjustment problems experienced by university students. In Stage Two of the study, the preliminary adjustment matrix developed was used to conduct open-ended interviews with a selected cross-section of Hong Kong students at the University of Alberta. The purpose of the interviews was to help develop an adjustment matrix specifically representing the adjustment experiences of Hong Kong students attending the University of Alberta. In Stage Three of the study, a survey questionnaire was developed based on the adjustment matrix information gathered in Stages One and Two. The questionnaire was then distributed to the general population of Hong Kong international students attending the University of Alberta. The purpose of the questionnaire was to assess the frequency and magnitude

of occurrence of specific types of adjustment problems affecting Hong Kong students.

The results indicated that Hong Kong international students encountered a wide variety of adjustment problems while studying at the University of Alberta. Problems with English language, planning for the future, making friends with Canadians, and pressure from school work were among the most frequent adjustment problems reported by the students. The results also provided substantive information on the Hong Kong students' friendship associations, preferences for seeking help, and levels of involvement in the university community.

The findings of this investigation were discussed in terms of possible directions for further research on the adjustment of Hong Kong international students. Implications for counselling and university orientation programs for Hong Kong students attending the University of Alberta were also presented.

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CHAPTER 1

Introduction

Question and Overview

This dissertation explores the adjustment experiences of undergraduate, international students* from Hong Kong at the University of Alberta. The research involved multiple methods of qualitative, in-depth interviews and a survey questionnaire. The research questions asked in the study were:

1. What adjustment problems were experienced by Hong Kong students at the University of Alberta?
2. What percentage of the Hong Kong students reported that they had experienced each type of problem?
3. How serious was the effect upon their experience of each specific type of problem?

The study was conducted in three stages; each of the three stages is briefly described below.

* Statistics Canada defines international student as a non-Canadian student who does not have "permanent resident" status and, as such, has had to receive permission from the Canadian government to enter Canada for purposes of study. Permission is usually granted in the form of a "student authorization" although a small number of students may receive special ministerial or diplomatic permits. In addition, some students are required to have a visa on arrival in Canada, although students from the United States, most of Europe and most of the Commonwealth are among those exempt from visa requirements. International students are expected to return home on completion of their studies (Statistics Canada, 1990, p. 17).

Stage One. The purpose of Stage One was to build a matrix to describe the concept of adjustment of university students. Literature related to adjustment of (a) Hong Kong university students in Hong Kong, (b) Hong Kong students at universities outside Hong Kong, (c) Canadian students at Canadian universities, and (d) students from any country who were on student visas in a foreign country was reviewed. From the foregoing review of literature, an "adjustment matrix" was developed to describe the construct of adjustment problems experienced by university students.

Stage Two. The purpose of Stage Two was to find out whether the "adjustment matrix" developed in Stage One described the adjustment experiences of Hong Kong students at the University of Alberta. Open-ended, semi-structured interviews were conducted with a selected cross-section sample of undergraduate Hong Kong students at the University of Alberta. In the interviews, each participant was asked about his/her experiences of adjustment problems in Canada. The purpose of the open-ended interviews was to identify adjustment problems from the Hong Kong students' own point-of-view. During the interviews, the "adjustment matrix" developed in Stage One was used in the following ways with each participant:

1. Check off cells in the "adjustment matrix" that were identified by the participants.

2. Add columns and/or cells to the matrix when adjustment problems were identified that were not already in the matrix. Also, where necessary, the description of adjustment problems in existing cells was revised to describe more appropriately the adjustment experience of the participants.

3. The columns and cells listed in the matrix that were not identified in the interview were also probed. Cells that had been identified were checked off and cells that were not experienced as problems were noted.

Stage Three. The "adjustment matrix" information gathered in Stages One and Two was used to develop a survey questionnaire to sample each cell of the matrix. The questionnaire was distributed to all undergraduate Hong Kong students attending the University of Alberta on student visas. The purpose of the questionnaire was to assess the frequency and magnitude of the adjustment problems experienced by Hong Kong students as described in the matrix. Based on the results of the questionnaire, implications for counselling and university orientation programs for Hong Kong students attending the University of Alberta on a student visa were examined.

In this dissertation, the terms international student and foreign student are used interchangeably.

Importance of the Study

For several reasons, this study had contemporary importance. First, there was a growing interest among counselling professionals in the adjustment of minority groups to the culture of the dominant group (Sodowsky, Lai, & Plake, 1991). Second, the number of international and minority students on North American college and university campuses was growing; there was a need to develop innovative orientation programs and culturally sensitive counselling strategies to serve the acculturation and mental health needs of these students (Stone & Archer, 1990). Third, there was a paucity of research on international students in Canada despite Canada's status as one of the leading hosts of international students in the world. Fourth, for the last decade or two, Hong Kong students have consistently been one of the largest groups of international students on Canadian campuses, and yet, there is a dearth of information on how this particular group of ethnic students copes with the experience of cross-cultural sojourn and education.

This study was also important because of its multimethod approach to research. Research on international student adjustment has been dominated by what Sue and Sue (1987) called the "point-research" model. In this quantitative approach, a psychometric instrument (e.g., a depression scale or a questionnaire) derived in a Western culture is used with members of a different culture, such

as international students. For instance, Yee (1980) used the Mooney Problem Checklist (Mooney & Gordon, 1950) to study the adjustment concerns of Hong Kong students. Similarly, Ip (1985) administered the Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Turner, 1970) and the Dogmatism Scale (Rokeach, 1960) to examine Hong Kong students' preferences in seeking help. In many cases within the "point research" model, the numeric scores obtained from people of one culture are compared to the norms established in another culture. A questionable assumption is made that the concept or phenomenon measured by the instruments exists equivalently in both cultures.

The commonly used "point-research" approach creates some potential methodological problems in cross-cultural studies. First, there is the danger of imposed etic in assessment because the content of the instruments used may be culture bound. An imposed etic involves using a method developed for one culture with another culture as if it were universally applicable. As Zuber-Skerritt (1991) pointed out, the language and criteria used in traditional survey methods might be alien to the respondents' own personal construct systems and therefore, may be misunderstood by the respondents. Consequently, the responses of the respondents are likely to be inaccurate or personally invalid. Triandis (1980) warned that it is a serious problem when a researcher takes an emic (culturally specific) assessment scale and

uses it as if it were etic (universally applicable) in nature. Secondly, the findings in survey studies can be superficial. For example, loneliness is a commonly mentioned personal problem of international students in survey studies (Church, 1982). In one study by Bryan, Holdaway, and Allan (1987) at the University of Alberta, loneliness was reported by a high percentage of international students from the People's Republic of China. However, findings in the survey by Bryan et al. (1987) did not indicate what kinds of loneliness the Chinese students were experiencing. According to Russell, Cutrona, Rose, and Yurko (1984), loneliness is not a unitary concept but a cluster of at least two specific components, emotional and social. According to Russell et al. (1984), emotional loneliness results from the absence of emotional attachments to people and places, whereas social loneliness results from the absence of a social network such as friends and acquaintances. A study by Hsu, Hailey, and Range (1987) found that international students from Taiwan and Hong Kong experienced more social than emotional loneliness during their sojourn in the United States. Identifying the types of loneliness experienced by international students can provide useful insights into the ways the students can be helped to alleviate loneliness.

In light of the aforementioned potential research limitations, a number of cross-cultural researchers have called for more diverse and innovative methodologies in

ethnic research (Church, 1982; Slavin, Rainer, McCreary, & Gowda, 1991; Sue, Ito, & Bradshaw, 1982; Sue & Sue, 1990). In the present study, qualitative and quantitative research methodologies were combined to study the adjustment experiences of international students from Hong Kong. This three-stage, multiple methods study, described more fully later, was designed to generate culturally sensitive and accurate information on the adjustment phenomenon experienced by Hong Kong students at the University of Alberta.

Extent of the Study

Intercultural adjustment of international students is a complex phenomenon researchers often approach from a variety of perspectives. Some researchers have been interested in the stages or processes of adjustment. Zapf (1991), for example, has identified 19 stage models that had been reported in the literature on cross-cultural adjustment. These models were designed to explain the process of intercultural adjustment as a function of time. Three of the stage models most frequently cited in the international student literature are Oberg's (1960) "culture shock theory," Lysgaard's (1955) U-curve hypothesis, and Gullahorn and Gullahorn's (1963) W-curve phenomenon. Both Oberg and Lysgaard hypothesized that the process of adjustment to a different culture is characterized by a series of stages: (a) the initial excitement stage regarding the sojourn in a

new country, (b) the disillusionment stage when "cultural conflicts," such as, different social norms and customs, are perceived and experienced, (c) the recovery stage in which adjustment to the new culture begins, and (d) the adaptation stage where the student sojourner assimilates or integrates with the host culture. Gullahorn and Gullahorn (1963) added two more stages in their W-curve model. They suggested that the student sojourner also experiences a period of disillusionment upon return to the home country after the overseas study, followed by another period of adaptation to the home country. So far, the above mentioned or other stage models on the adjustment process have not received strong empirical support in international student research (Hull, 1978; Klineberg & Hull, 1979; Spaulding & Flack, 1976). More longitudinal studies are needed to determine the universality of the various adjustment stages (Church, 1982).

In addition to these stage models, many researchers have been interested in the psychological, social, and cultural variables affecting the adjustment of international students. For example, Babiker, Cox, & Miller (1980) developed the concept of "culture-distance," which states that the more differences between the culture of the international student and that of the host country, the more adjustment problems will be experienced by the student sojourner. Furnham and Bochner (1982) found support for the

culture-distance hypothesis in their study of international students. They found that the degree of adjustment difficulties experienced by the students they studied was directly related to the disparity between the sojourners' culture and the host society.

Another variable that has been widely studied is that of social interaction with host country people and its influence on cross-cultural adjustment. In a major research study by Klineberg and Hull (1979), involving 2,536 international students from 139 nations studying in eleven countries, social contact with local people of the host country was one of the most important factors in determining satisfaction in the sojourn experience. Other studies have also lent support to the importance of social contact with host nationals (Heikinheimo & Shute, 1986; Klein, Alexander, Tseng, Miller, Yeh, & Chu, 1971).

Furnham and Bochner (1986) further elaborated on the social interaction factor stating that it is not the amount but the source of the social contact that has an effect on a student's adjustment. These authors suggested that most international students have three kinds of friendship networks. One type of network is a primary, monocultural network consisting of close friendships with other sojourning compatriots. The main function of the co-national network is to provide a setting of mutual support in which ethnic and cultural values can be rehearsed and expressed. A

second type of network is a secondary, bicultural network consisting of bonds between the international student and significant host nationals such as professors and host country students. The main function of this network is to facilitate instrumentally the academic and professional aspirations of the sojourning student. A third type of network is a multicultural network of friends and acquaintances. The main function of this network is to provide companionship for recreational, and "non-cultural" activities. According to Furnham and Bochner, the monocultural (co-national) bonds are of vital importance to the adjustment of international students and should not be discouraged. However, the authors conceded that international students should expand the bicultural bonds and the multicultural associations beyond the initial instrumental and recreational functions. Research has shown that many non-Western international students have only limited contact with people of the host countries (Furnham & Alibhai, 1985).

A third common area of research interest, which is the primary focus of the present study, is the identification of adjustment problems among international students. In studying the experiences of student sojourners, Pedersen (1980) and Klineberg (1980) cautioned against forming an exaggerated perception that all international students are experiencing severe adjustment problems. For example,

Johnson (1971a) discovered that American students expected international students to have many more problems than the international students themselves reported. In his review of studies on student sojourner adjustment, Church (1982) concluded that the majority (perhaps over 80%) of the international students make satisfactory adaptation to a new culture and to institutional demands. Zheng and Berry (1991), in their longitudinal study of Chinese international students, found that sojourning in a foreign country does not always lead to a negative outcome or lower mental health. Alternatively, a cross-cultural sojourn does, to a certain degree, create various adjustment problems. Among international students, language difficulties, financial problems, adjusting to a new educational system, homesickness, adjusting to new social customs and norms, and for some students, racial discrimination, are frequently mentioned adjustment difficulties (Church, 1982). Therefore, it is important not to overemphasize or underemphasize the adjustment concerns of international students.

One appropriate place to begin, in terms of identification of adjustment problems to a foreign culture, is the frame of reference of the person who is undergoing the adjustment (Lee & Cochran, 1988). The open-ended interviews in Stage Two of the present study were designed to explore the adjustment experiences of Hong Kong students, according to their own perspectives. What were the

adjustment difficulties from the students' personal and cultural perspectives? Were the adjustment difficulties mostly external matters such as differences in food, climate, language, mannerisms, and communication, or were there also internal matters such as feelings of being different and inferior? The open-ended interviews are described more fully in the Methods section of this dissertation.

The Researcher's Point-of-View

No commentary on human affairs is free of bias (Salmen, 1987). My mind was not indeed a blank slate when I embarked on my dissertation research. I myself was a Hong Kong foreign student studying in Canada from 1973 to 1980. I went through the whole gamut of adjustment experiences, such as homesickness and loneliness during Thanksgiving and Christmas times. I struggled with the English language and had difficulty coming to terms with different social and moral values. I expected that the problems I encountered and the ways in which I handled them would likely have some influence on my interpretation of the research literature and my view toward Hong Kong international students during the study. For example, I had doubts about the "foreign student syndrome" first described by Ward (1967), suggesting that international students from a non-Western culture were prone to somatization of psychological problems and that they reported more vague physical complaints than did host

country students. I had found that many Hong Kong students during my student era handled the adjustment very well. The large Hong Kong student body at the university, the existing Chinese community, and the established social networks such as Chinese churches and Christian organizations all contributed to the students' adaptation. I did not feel that Hong Kong students have no adjustment difficulties; however, I suspected that the problems were not as much of a medical or "psychiatric" nature as had been suggested.

In terms of strategies for coping with inter-cultural adjustment problems, I was more in agreement with Furnham and Bochner's (1986) culture-learning/social-skills model of cultural accommodation. Their model stated that the major task facing a sojourner was not to adjust to a new culture but to learn its salient characteristics. According to Furnham and Bochner, learning instead of adjusting to a second culture did not imply an ethnocentric or pathological perspective.

Professionally, I came from a counselling and assessment background with a special interest in counselling work with ethnic Chinese in Canada. I first became interested in cross-cultural counselling after reading the work of Pilowsky (1991) on the stress facing immigrant women in Toronto, Ontario. My research with Hong Kong students is an outgrowth of my personal interest in the well-being of the Chinese people in Canada.

CHAPTER 2

Review of the Literature

Adjustment of Hong Kong University StudentsAdjustment of Hong Kong university students in Hong Kong.

Hong Kong university students are products of an intensive and competitive school system composed of nearly 1.25 million students, 50,000 teachers, and other staff, totalling more than one-fifth of the entire population of Hong Kong (Luk, 1990). By the time the university students enter their first year of study at one of the two local universities, the students have already gone through a vigorous selection process and series of examinations during their primary school, junior high school, and senior high school years. Since the two local universities in Hong Kong only accept about one-tenth of all university applicants, a large number of students would choose to pursue their college education overseas, and Canada has become one of the increasingly popular choice of the students.

Hong Kong university students are also products of a unique amalgamation of Chinese and Western educational traditions. The language of instruction in primary schools is predominantly Chinese. In junior and senior high schools, the spoken language in the classroom is also mostly Chinese, despite the fact that many textbooks are printed in English, except for the Chinese subject areas. However, when students

enter the University of Hong Kong, which is the more established and bigger of the two local universities, the medium of instruction, learning, and examination is almost exclusively English. The University of Hong Kong is a western-style university patterned after the British university system. Cansdale (1969) observed that the rigid school system in Hong Kong, which values rote learning, keen competition, and examination, has led to many students experiencing adjustment problems while studying in the University of Hong Kong. Cansdale (1969) found that many of his students at the University of Hong Kong had a general lack of intellectual curiosity, were unwilling to discuss academic problems, and had a tendency to cling to the authority of the teachers and the printed texts. Cansdale (1969) further found that many students tried to assume the role of an "A" student, rather than to get pleasure and intellectual satisfaction from their studies. He found the students were also bewildered by the social functions in the university, which normally are essential elements in the school life of most college students in the Western world.

Spinks and Ho (1984) and Ho and Spinks (1985) studied the adaptability of social science undergraduate students to the foreign culture and language barriers that existed at the University of Hong Kong. They found that English language and mathematics ability of the students, as determined by the test scores of the Hong Kong Certificate

of Education Examination(HKCEE), had the most predictive value on the overall academic success of the students. Spinks and Ho (1984) also found that TOEFL (Test of English as a Foreign Language) scores (considered by most universities in North America including the University of Alberta) correlate substantially with HKCEE English grades. Ho and Spinks (1985) did not find Chinese verbal intelligence, personality, and attitudes of the students had any significant predictive value for the academic performance of the students. Based on the results of their studies, Spinks and Ho (1984) and Ho and Spinks (1985) concluded that English language ability was a very important determinant of success at a western-style university such as the University of Hong Kong.

The Chinese University of Hong Kong is the second largest university in Hong Kong. The medium of teaching in the Chinese University of Hong Kong is both in Chinese and English. Cheung (1984) studied the preferences of help-seeking of undergraduate psychology students at the Chinese University of Hong Kong. She found that Chinese university students were generally not inclined to seek help for problems affecting their daily lives. Female students were not more inclined to seek help than were male students. When students decided to seek help, Cheung (1984) found that medical doctors were the most often cited resource. In particular, for psychological problems (e.g., personal

worries), friends were predominantly preferred, while medical doctors were preferred for psychophysiological problems (e.g., headaches), physiological problems (e.g., poor appetite), and ambiguous problems (e.g., shortness of breath). Mental health professionals such as psychiatrists, psychologists, or social workers were rarely mentioned by students who would seek help. Given that the psychology students in the study should have some awareness of the mental health profession, Cheung (1984) concluded that the students' low preference for mental health professionals was indicative of the general public's under-utilization of mental health facilities in Hong Kong, where mental health workers are in short supply and where they are seen as western imports. Since the results of the study showed that Chinese students put strong reliance on their friends for what they perceived as psychological problems, Cheung (1984) stressed the importance of working with the students' primary social network, such as peers and family, in the provision of community mental health services for the students.

In an earlier study of undergraduate students in the Chinese University of Hong Kong, Cheung (1983) had found that the students were able to conceptualize health/mental health problems (e.g., tension, anxiety, sleep difficulty) in terms of multiple causes attributed by somatic, psychological, and situational factors. In trying to relieve

the problems, the students would first try a variety of self-help measures within their social network of friends and family. The self-help measures included psychological, interpersonal, somatic, and situational approaches. However, when it came to professional help, medical doctors were conceived by the students as the professionals they could turn to for multimodal problems. Cheung (1983) suggested that Chinese university students did not lack psychological insights for their health problems. However, medical doctors were seen as the primary professionals for providing advice for problems of physical and/or psychological nature. In a study with adult psychiatric patients in Hong Kong, Cheung, Lau, and Wong (1984) also found that the patients were capable of conceptualizing their complaints in both psychological and somatic terms. The patients would initially seek help from close friends and family. When there was a need for professional help, medical doctors were predominantly the workers to turn to for consultation. The above studies by Cheung on university students and adult patients (Cheung, 1983, 1984; Cheung, Lau, & Wong, 1984) strongly suggest that friends and family were treated as an important resource in the Chinese path of help-seeking. And medical doctors were widely accepted in the Hong Kong society as the professionals for consultation in resolving multi-faceted problems.

Adjustment of Hong Kong university students in Canada.

In Canada, Neice and Braun's (1977) study of foreign students was by far the most comprehensive survey of international students studying in Canadian universities, colleges, and technical institutes. The survey involved 794 undergraduate and graduate foreign students from 90 different countries, studying in 25 different post-secondary institutions across Canada. Thirty-two percent of the 794 students in Neice and Braun's study (1977) came from Hong Kong. The Hong Kong students were almost exclusively undergraduate students (96.0%). Students from the United States were the next major group of foreign students (10.0%). Students from Malaysia were the third largest group of foreign students (5.0%). As compared to foreign students from other countries, Neice and Braun (1977) found that Hong Kong students received the least financial support. Hong Kong students also reported more academic adjustment problems in areas such as following course material, writing essays, writing examinations, understanding the English language, and writing notes. Hong Kong students reported more dissatisfaction with their academic programs than did students from other countries. In terms of academic performance, less than half of the Hong Kong students (45.0%) indicated satisfaction with their grades, whereas the majority of the foreign students (70.0%) from the United States and other developed countries indicated satisfaction

with their grades. In regard to friendship with Canadian students, Hong Kong students reported fewer close Canadian friends than did students from the United States and other developed countries. In utilizing services for foreign students, students from the least developed countries found foreign students' services the most useful, whereas Hong Kong students found such services the least useful.

Mok (1985) studied the adjustment problems of Hong Kong foreign students at Queen's university in Ontario, Canada. She found that the three major adjustment problems reported by the Hong Kong students were, in their order of importance, uncertainty for the future, homesickness, and loneliness. Other adjustment problems reported by the students included financial difficulties, academic problems or failures, and general adaptation difficulties (e.g., different food and climate).

Chataway and Berry (1989) compared the adjustment experiences among Hong Kong, English Canadian, and French Canadian undergraduate students at Queen's university. They found that Hong Kong, English Canadian, and French Canadian students attributed their greatest stress to uncertainty for the future, loneliness, and academic difficulties. However, Hong Kong students expressed more problems in communication with the English language, prejudice, social support of friends, stress, anxiety, and adaptation.

Mickle (1985) studied the adaptation of Hong Kong undergraduate students at the University of Toronto and York University in Ontario, Canada. The results of her study suggested that successful adaptation of Hong Kong students was related to having Canadian friends, to community involvement with Canadians, and to perceiving no discrimination. The results also suggested that Hong Kong students who identified less strongly with traditional values adapted more easily, as did students who were in Canada longer. The majority of the Hong Kong students in Mickle's study reported that their friendship with Canadian students was mostly at a superficial level. The majority of the students also said their best friends were fellow Hong Kong students. More than half of the students (55.0%) reported that they experienced some forms of discrimination while studying in Canada.

Heikinheimo and Shute (1986) used the qualitative research methods of unstructured interviews, structured interviews, and participant observation to study the adjustment problems of South-East Asian and African foreign students at the University of Guelph in Ontario, Canada. The South-East Asian students were undergraduates who came from Hong Kong, Malaysia, and Singapore. The African students were all graduate students from 6 different African countries. Heikinheimo and Shute (1986) found that language skills, academic issues, cultural differences, racial

discrimination, and social interaction with Canadians were common areas of adjustment difficulties reported by both the South-East Asian and African students. South-East Asian students, including students from Hong Kong, reported more problems adapting to the Canadian academic setting, and identified language difficulties as their major academic problem. Most students said they had experienced subtle discrimination, such as service workers being less polite to non-White foreign students. Thirty-eight percent of the Asian students said they had no contact at all with Canadians. Heikinheimo and Shute (1986) found that isolated Asian students reported more problems related to cultural, academic, and social adjustment than did students who had interaction with Canadians.

Dyal and Chan (1985) compared the amount of stress reported by Hong Kong foreign students at the University of Waterloo in Ontario, Canada with Canadian students at the same university and Hong Kong students at the University of Hong Kong. Dyal and Chan (1985) found that female Hong Kong students, especially female foreign students from Hong Kong, reported more stress symptoms than did female Canadian students. No significant differences in stress symptoms were found among the male students.

Adjustment of Hong Kong university students at the University of Alberta. Yee (1980) used the Mooney Problem Check List to study the adjustment concerns of Hong Kong

foreign, undergraduate students at the University of Alberta. Yee (1980) found that the majority of the Hong Kong students belonged to the faculties of science, engineering, and business/commence. Concerns for academic problems were significantly higher among the Hong Kong students than among the comparison group of Canadian undergraduate students. The level of academic concerns of the Hong Kong students was negatively correlated with the students' self-rating of English writing and reading skills in the Mooney Problem Check List. Female students, especially female, Hong Kong students, reported more problems in the Mooney Problem Check List than did their male counterparts. Yee (1980) found no significant differences in financial concerns between the Hong Kong and Canadian groups. Yee (1980) also reported that Hong Kong foreign students rarely utilized the student counselling services on campus and the services provided by the international student advisor.

Reshef (1990) studied the adjustment and integration of foreign students at the University of Alberta by examining the process of the foreign student's socialization into Canadian sports. Sixty-one percent of Reshef's undergraduate sample in the survey were students from Hong Kong. Reshef (1990) found that Hong Kong foreign students were the least active in sports of all the foreign students surveyed. When Hong Kong students were involved in sports, they had a tendency to engage in sport activities with fellow Hong Kong

students, rather than with Canadians or with students from other countries. In contrast, foreign students from the United States tended to get involved in sports with non-Americans. Reshef (1990) suggested that the lack of sports involvement of Hong Kong students might be associated with (a) a lack of interest to the types of sports played in Canada, (b) a lack of finances to purchase the necessary sports equipment, (c) high family pressure to concentrate on one's study rather than on recreation, or (d) a general lack of socialization into sports during their youth.

Ip (1985) studied the attitudes of Hong Kong foreign students at the University of Alberta toward seeking counselling help. The Attitudes Toward Seeking Professional Psychological Help Scale (Fischer & Turner, 1970) and the Dogmatism Scale (Rokeach, 1960) were used to measure the Hong Kong students' help-seeking attitudes and relative open/closed-mindedness. Ip (1985) found that open-minded Hong Kong students held more positive attitudes toward seeking psychological help than did dogmatic students. Hong Kong students who socialized with Canadian students, or with both Canadian and Chinese students, were found to be more open-minded than were students who only socialized with fellow Hong Kong students. However, social contact was found to have no effect on the students' attitudes toward help-seeking. Previous counselling experience was also found to have no effect on the students' attitudes toward

help-seeking.

Adjustment of Chinese University Students

In addition to students from the British colony of Hong Kong, many Chinese students from South-East Asian countries such as China, Taiwan, Singapore, and Malaysia also pursue overseas education in Canada and the United States. In this section, the adjustment of Chinese international students in North America is reviewed.

Holdaway, Bryn, and Allan (1988) did a survey on the sojourn experience of international students at the University of Alberta in Canada. The majority of the foreign students surveyed were post-graduate students. The results of Holdaway, Bryn, and Allan's (1988) study found that students from China were most subject to problems of loneliness. The other groups of students who were found to be most subject to loneliness were female students, younger students, married students separated from their spouses, and students living in residences. Wu (1991), a graduate student from China at the University of Alberta, in his phenomenological account of being a foreign student in Canada, wrote about his own language difficulties and his longing for his homeland of China. According to Wu's (1991) experience, foreign student adjustment involves the disintegration and reorganization of one's self identity as well as the establishment of a new relationship with the world.

Klein and her co-workers (Klein, Alexander, Tseng, Miller, Yeh, & Chu, 1971; Klein, Alexander, Tseng, Miller, Yeh, Chu, & Workneh, 1971; Miller, Yeh, Alexander, Klein, Tseng, Workneh, & Chu, 1971; Yeh, 1976; Yeh, Chu, Klein, Alexander, & Miller, 1979) studied the social life of foreign students from Taiwan and Hong Kong at the University of Wisconsin in the United States. The results of these studies showed that the majority of the Chinese students interviewed had failed to develop close relationships with Americans. In particular, Chinese students associated mostly with students from their own country, had only superficial contacts with American students, and were discouraged about any prospects for deep cross-cultural friendships with Americans. The results, gathered by Klein and her co-workers, strongly suggested that social isolation from Americans was a fact of life for many Chinese foreign students at the University of Wisconsin. The Chinese students formed their own sub-groups within the university. Klein, Alexander, Tseng, Miller, Yeh, Chu, and Workneh (1971) suggested that the co-national sub-groups had helped perpetuate the Chinese students' social isolation. The functions of the co-national sub-groups were to (a) provide the Chinese students with a structure in an environment where life styles and morals were discrepant from patterns valued at home, (b) provide the students potential dating and future marriage partners, and (c) provide emotional

support in times of stress due to academic pressure and cultural adjustment problems.

Kang's (1972) study of Chinese foreign students at the University of Minnesota confirmed the above observations by Klein and her colleagues. Kang's (1972) survey findings showed that Chinese foreign students at the University of Minnesota formed an ethnic community of their own and operated it very much like a first generation immigrant group. Typically, several Chinese students lived together in the same house and took turns cooking Chinese meals. Eighty-four percent of the Chinese students surveyed reported that they lived with other Chinese students. They tended to speak their own language with other Chinese students. In naming five closest friends, about one-quarter of the Chinese students reported that all five were Chinese. About two-thirds of the respondents had more Chinese than American friends as the five friends with whom they mostly associated. Mastering verbal and written English was a major obstacle for the Chinese students. The Chinese students rarely interacted with American students through extra-curricular activities. Few Chinese students belonged to non-Chinese organizations in the university. The Chinese students attended their own Chinese churches, and read mostly Chinese newspapers and magazines. According to Kang (1972), the ethnic community formed by the Chinese students provided the students with a place where they could

establish new primary relations, develop a sense of belonging, and cling to familiar Chinese values and belief systems.

Sue and Zane (1985) studied the academic achievements and socio-emotional adjustments among Chinese students at the University of California, Los Angeles (UCLA). Sue and Zane (1985) found that the grades of Chinese students were better than were those of other students at UCLA. Recently arrived, foreign-born, Chinese students, including Chinese international students, tended to spend more hours per week studying than did American-born Chinese students. Recently arrived Chinese students also took reduced course work and limited their academic choices to courses such as mathematics and computer science that capitalized on their quantitative skills. As compared to American-born Chinese students, recently arrived Chinese students were more likely to report that their choice of academic programs was influenced by English proficiency. In addition, foreign-born Chinese students reported more problems with unhappiness and anxiety and showed higher levels of loneliness and isolation than did the American-born Chinese students. Sue and Zane (1985) concluded that, despite their academic success, foreign-born Chinese students appeared to experience more adjustment problems than did the locally born counterparts.

Hsu, Hailey, and Range (1987) studied the social and emotional components of loneliness among Chinese foreign

students at the University of California, Los Angeles (UCLA) and native Chinese students at the University of Chung-Yuan in Taiwan. Hsu, Hailey, and Range (1987) defined social loneliness as an absence of an engaging social network and socially integrative relationships, whereas emotional loneliness results from the absence of close emotional attachments. The UCLA Loneliness Scale (Russell, Peplau, & Ferguson, 1978) and the Belcher's (1973) Extended Loneliness Scale were used to measure the nature of loneliness among the Chinese students. The results of Hsu, Hailey, and Range's (1987) study showed that Chinese foreign students at UCLA reported more social loneliness than did Taiwanese students. In contrast, more Taiwanese students than foreign Chinese students reported feeling emotionally lonely. Hsu, Hailey, and Range (1987) concluded that loneliness is not a unitary concept but rather a cluster of at least two specific components, social and emotional. For the Chinese foreign students at UCLA, emotional loneliness did not seem to be a part of their adjustment experience in Hsu, Hailey, and Range's (1987) study.

Counselling Chinese university students. According to Stone and Archer (1990), providing culturally sensitive and innovative counselling services to minority and international students has become a major challenge to college and university counselling centers in North America. Some studies have suggested that counselling Chinese

university students may require a different approach on the part of the counsellor or psychologist than for counselling North American students. Yuen and Tinsley (1981) conducted a study to investigate whether university students from different cultural backgrounds differ in their expectancies about counselling. Tinsley, Workman, and Kass (1980) developed the Expectancies About Counselling questionnaire. Yuen and Tinsley (1981) found that American students expected counsellors to be less concrete, directive, empathic, nurturant, and expert than did foreign students from Hong Kong. American students also expected to play a more active role in the counselling process. American students believed that the counselling relationship was only instrumental to relief, rather than expecting counsellors to solve their problems. On the other hand, Hong Kong students in Yuen and Tinsley's (1981) study expected counsellors to be authority figures prescribing direct solutions to their problems while they assumed a more passive and dependent role in the counselling relationship. In another study, Exum and Lau (1988) asked Hong Kong foreign students to view two separate videotapes representing two different counselling approaches for an emotional adjustment problem. In one videotape, the counsellor offered a directive approach in which the counsellor provided solutions to the client. In the other videotape, the counsellor offered a non-directive approach in which sharing of emotions and self-disclosure

were encouraged on the part of the client. After viewing the two videotapes separately, the Hong Kong students were asked to rate the counsellor on each of the two videotapes on the Counsellor Effectiveness Rating Scale (Atkinson & Carskaddon, 1975). It was found that the directive approach was rated significantly more positively by the Hong Kong students than was the non-directive approach. Exum and Lau (1988) suggested that, in working with Chinese students, a counsellor should consider using a directive counselling approach. Exum and Lau (1988) further added that the Chinese students were culturally accustomed to expecting counsellors to be experts or wise people who can prescribe direct solutions to the problems presented. The use of a directive counselling approach with Chinese and Asian people was also advocated by Sue and Sue (1990). They encouraged counsellors to take an active and directive role with South-East Asian people, and recommended that counselling should be time-limited, focused on concrete resolution of problems, and deal with the present or immediate future (Sue & Sue, 1990).

When working with international students from South-East Asian countries, Fernandez (1988) encouraged counsellors to adopt a systemic approach, in which the needs of the individual students are seen within the wider context of their natural support system networks of family and friends. According to Pedersen (1991), research on counselling international students has not paid much

attention on the students' natural support system and the usefulness of co-nationals as a counselling resource. Sue and Zane (1985) suggested that Chinese co-nationals represent a valuable but yet unused source of paraprofessional help for Chinese foreign students. Particularly, Sue and Zane (1985) indicated that Chinese students who have been in North America for a longer period of time can serve as successful adaptation models for recently arrived Chinese students. According to Sue and Zane (1985), an intervention program staffed by early immigrant paraprofessionals may be a more acceptable means of providing help to Chinese students who have tended to stigmatize and avoid traditional counselling services, in which the counsellor works with a fee-paying client in a scheduled office interview.

When working with people from a different culture, Pedersen (1986) emphasized the importance of matching the right method and context so that culturally skilled counselling can occur. According to Pedersen (1986), counselling can occur in a formal as well as an informal mode. In North America, counselling occurs mostly in a formal mode, in which a counsellor or therapist, who remains relatively anonymous, engages verbally with a client, who discusses his/her problems in an effort to understand and, perhaps change feelings of discontent or unwanted behaviour (Norsworthy, 1991). However, in many South-East Asian

cultures, it would not be acceptable to go outside the family or the circle of friends to disclose personal problems (Norsworthy, 1991; Pedersen, 1986). In the Chinese culture, the loyalty to "gee gay yun," that is, to one's own people, is very important (Chong, 1994). For Chinese students studying in North America, "gee gay yun" would be their Chinese relatives, Chinese student friends, and co-nationals they trust and respect. According to Pedersen (1986), this indigenous support system of "gee gay yun" can serve as a powerful informal resource to promote healthy mental attitudes in Chinese foreign students. Pedersen (1986) developed a Three-Dimensional Model of Counselling Services for working with people from different cultures. The model showed a full range of methods and contexts through which support systems function, from the most formal (e.g., counsellor works with a fee-paying client in the counsellor's office) to the more informal systems (e.g., a listener receives considerable assistance in solving a psychological problem in a mental health presentation). To be effective in cross-cultural counselling, Pedersen (1986) stressed that counsellors need to understand the relative importance of each formal or informal combination of helping alternatives of the clients' culture.

Research on Foreign Students

Klineberg and Hull (1979) studied the adaptation and coping of foreign university students in 11 countries. The

11 countries were Brazil, Canada, France, Hong Kong, India, Iran, Japan, Kenya, United Kingdom, United States, and West Germany. The foreign students came from 139 nations. The majority of the students were males and undergraduates. Highlights of Klineberg and Hull's (1979) findings are described as follows:

1. Financial problems were most frequently mentioned by the foreign students as causing the greatest concern during their sojourn. Financial problems were ranked first in all countries except India and Kenya. One of the major complaints by foreign students was that their fellowship stipends did not arrive on time from their home countries.

2. Housing in the sojourn countries was found to be expensive by many foreign students (43.0%).

3. The social contacts of foreign students were mainly with students from their home countries. For example, in Canada, fifty-one percent of the foreign students reported that their regular social contact was with fellow nationals. Canada, together with France, ranked among the 11 countries with the least frequent regular contacts between foreign students and local people. Many foreign students indicated that they did not know how to go about establishing meaningful relationships with local people, and thus relied on fellow nationals in order to have someone with whom to talk and share experiences.

4. The majority of the foreign students (57.0%) indicated

that their "best friend" in the sojourn country was either a fellow national or a foreign student from another country. For example, in Canada, sixty-five percent of the foreign students said their "best friend" was a fellow national or another foreigner.

5. Close to a third of the foreign students (29.3%) indicated that they felt they had been the object of discrimination in the sojourn countries. Forty percent of the foreign students indicated that they knew of friends or relatives who had experienced discrimination.

6. Twenty-five percent of the foreign students reported that they had found personal depression to be a source of difficulty for them. In Canada, personal depression was reported by 24.5% of the foreign students in the study. Cases of depression requiring professional treatment were rare among the foreign students in the 11 countries.

7. Foreign students from Asian countries were more likely to find themselves with non-native students at the sojourn locations.

8. Foreign students from Asian countries were more likely to report personal depression, personal discrimination, and more frequent loneliness.

9. Foreign students from Asian and South-East Asian countries were more likely to report considerable dissatisfaction with the non-academic aspects of their sojourn.

10. Foreign students who had traveled previously, and foreign students who had received assistance in meeting and becoming involved with local people, were more pleased with their sojourn experience overall.

Marion (1986) reviewed research on foreign university students in the United States since the early 1950s. It was found that scores on English language tests such as TOEFL (Test of English as a Foreign Language) are good predictors of academic success among foreign students. Small colleges in small towns were found to offer the best potential for interaction between American and foreign students, while large universities in large cities offer the least. The type of American students who were found to most likely develop meaningful social relationships with foreign students were those who showed interest in international affairs, lived in close proximity to the foreign students, and were friendly, outgoing students in the mainstream of university social life. The reviewed studies showed that foreign students perceived Americans as superficial in friendships, and generally poorly informed about foreign countries. Problems associated with being a foreign student include social withdrawal, inability to sleep well, sexual problems, sadness and depression, academic problems, loss of personal integrity and self esteem, difficulties with communicating and making friends, financial concerns, and difficulties

learning the American culture. Foreign students from Europe and Latin America were found to be more satisfied with their experiences in the United States than were students from other nationality groups. Despite the cultural differences between foreign and American students, a number of research studies reviewed by Marion (1986) showed that many adjustment problems arose for foreign students because they are students rather than because they are foreign.

Selby and Woods (1966) studied the adjustment of non-European, foreign students at Stanford University in the United States. Selby and Woods (1966) found that the demands of the academic system had a decisive influence upon the entire process of foreign student adjustment. First, the foreign students were found to come to the United States for the primary purpose of obtaining an advanced education or professional training, to the exclusion of every other consideration. In order to fulfill their academic purpose, the foreign students in Selby and Woods' (1966) study invariably spent most of their time and effort on school work, and put less emphasis on social activities and interpersonal relations. Secondly, it was found that the academic morale of the foreign students rose and fell in accordance with the stages of the academic year, with a decline at the beginning of the school term, a rise at the end of the first term, and a decline again just before examination in the second term. The students' level of

social activities was also found to rise and fall with the students' level of academic morale. Selby and Woods (1966) concluded that foreign student adjustment could be better understood by considering the impact of the academic life, rather than the impact of adjusting to a new culture.

The research by Johnson (1971a) and Walton (1971) has provided some support for Selby and Woods' (1966) findings that foreign students need to be studied more as students than as foreigners. Johnson (1971a) assessed the correspondence between the problems of foreign students and those of domestic students at the University of Tennessee. The adjustment problems of domestic students were found to be closely parallel to those of foreign students with the exception of food, homesickness, and separation from family. Domestic students reported more problems adjusting to institutional meals, while foreign students indicated more difficulties with homesickness and separation from family. Walton (1971) advocated the need to conduct foreign student research within the context of American education rather than in the context of cultural adjustment. According to Walton (1971), foreign students were part of a student culture, and they should be viewed more as student than as foreign.

Taft (1977) suggested that persons who move into new societies often do not wish to adapt any more than they need to, and a peripheral contact with the new culture is typical

of many culture contact situations. Taft (1977) further added that the role of foreign students is a pragmatic one - to obtain an university education - and this may require little adaptation. Foreign students can reduce their adaptation to the bare minimum required in order to fulfill their role as students, and confine their social life to their fellow countrymen. According to Taft (1977), it could be a Western misconception to project into the mind of a foreign student an intrinsic desire to learn about the language and culture of the Western society to which the student has come to study, beyond the minimum level required for coping with being a student. Spaulding and Coelho (1980) indicated that, instead of encouraging foreign students to mingle with Americans so as to get to know the American way of life, it may be healthier to encourage "co-national communities," within which the foreign students preserve cultural traditions and support one another psychologically, culturally, socially, and academically. Spaulding and Coelho (1980) hypothesized that such co-national groups might in fact contribute to encouraging a favourable attitude toward the sojourn country, since they alleviate many adjustment problems.

Torrey, Van Rheen, and Katchadourian (1970) investigated how often foreign students at Stanford University utilize psychiatric and counselling services on campus. It was found that foreign students had a low rate of

utilization of mental health services in the university. A low rate of utilization of the International Centre at Stanford University, where foreign students could find assistance in visas, work papers, and finding housing, was also found. Torrey, Van Rheen, and Katchadourian (1970) found that the primary sources of support for mental health problems for foreign students were students from their own countries or foreign students from other countries. The next most important source of support for the students was writing home. The results of the Torrey et al. (1970) study clearly showed that foreign students look first to their own culture for support with personal and mental health problems. A study by Surdam and Collins (1984) on the adaptation of foreign students at another American university also found that foreign students rarely utilized formal counselling services on campus.

Research of Ethnic Minorities

Brislin and Baumgardner (1971) reported that non-random samples or "samples of convenience" have often been used in research with ethnic minority groups, such as, foreign students. These non-random samples are composed of easily available subjects from colleges, universities, or ethnic communities. The cost, time, and practical problems have made it difficult for many cross-cultural researchers to conduct their studies with random samples (Frey, 1970). Brislin and Baumgardner (1971) indicated that studies using

non-random samples can be valuable, but they need to be improved by providing a much more careful description in the methodology sections of the published research of the samples actually studied. Brislin and Baumgardner (1971) provided three purposes for a well described sample. First, a well described sample would allow other investigators to choose their non-random samples with greater certainty of obtaining important results. Second, careful description would allow one researcher to follow up another's work with the possibility of combining findings to yield a relationship that stands up well to replication. Third, careful description would allow the researcher and his/her subsequent readers to evaluate any plausible rival hypotheses that may threaten a study's validity. Brislin and Baumgardner(1971) said the sample description should include all the characteristics of the subjects and environment which could potentially influence the results or their interpretation. Equally important is an open acknowledgment by the researcher of unobtained information on possibly influential subject and environment characteristics. Brislin and Baumgardner (1971) said that an acknowledgement of unobtained information is helpful to other investigators in evaluating the study and indicating the additional data which appear necessary.

In their review of the research on the enrollment, persistence, and performance of minority students in

American colleges, Mow and Nettles (1990) also called for a careful description of the ethnic minority groups being studied. In studying minority students, Mow and Nettles (1990) pointed out that researchers should carefully select, define, and describe the student groups being examined. In addition, careful attention should be devoted to identifying and grouping academic institutions by type. Mow and Nettles (1990) said colleges and universities and the students enrolled in them differ by type of governance, religious affiliation, predominant race, and geographical location, and different environment may yield different types of college experiences and outcomes for minority students. In their review of minority student research, Mow and Nettles (1990) further pointed out that researchers often use inconsistent approaches to the sampling of minority populations. When analysing one minority group, Mow and Nettles (1990) said some researchers would sample only the target minority population, and this would prohibit any comparative analyses with other minority groups or with the white population. However, Korchin (1980) questioned this seemingly deeply ingrained assumption that the proper approach to the study of a minority group, such as foreign students, is to compare them to whites. Korchin (1980) related an interesting experience in which a paper he co-authored on the nature and determinants of personality competence in black youth was rejected for publication

because a reviewer felt that the study should have included a white control group. Korchin (1980) said the study did not include whites partly because of the financial cost involved. But the most important reason was that the main purpose of the study was to discover in what ways and for what reasons some young blacks become more competent than their classmates of similar heritage; the purpose was not to ask whether blacks are more or less competent than whites. Korchin (1980) asked why the study should include a white control group when the primary interest was in black Americans? Korchin (1980) further asked whether studies of white Americans should be required to include black control groups. In their support of the issues raised by Korchin, Sue, Ito, and Bradshaw (1982) called for support of ethnic research that is carefully thought out (so that biases and inadequacies can be controlled) and that is innovative in strategy and approach.

In regard to methodology in ethnic minority research, Berry (1980) advocated the use of multimethod approaches; the more kinds of information available, the more sure the researcher can be of the research findings. In cross-cultural psychology, Berry (1980) pointed out that it is important to obtain cross-validating evidence using different research techniques and approaches. For example, Yeh, Chu, Klein, Alexander, and Miller (1979) reported that Chinese foreign students have a tendency to give "socially

desirable," "feeling obliged," or "showing politeness" kinds of answers, particular in studies using questionnaires. Yeh, Chu, Klein, Alexander, and Miller (1979) suggested that one way of reducing such a cultural bias is via a non-structured interview conducted by a member of the student's own culture. Questionnaires may then be used to cross-validate the interview findings.

Survey questionnaires and interviews have been widely used in ethnic minority research. Pareek and Rao (1980) indicated that it is important to make the surveys and interviews meaningful to the cultures in which they are conducted. Unless the surveys and interviews are culture-specific, Pareek and Rao (1980) questioned whether the data obtained would elicit valid and authentic information. Werner (1987) suggested that a researcher can design and test the vocabulary and phraseology that people in a particular culture use to describe some aspect of their lives. Werner (1987) said this is a double-check to ascertain that the language of the questionnaire and the language used by the surveyed population match closely. Segall (1986) went further to say that, in ethnic minority research, the participants should be involved as consultants in the research design and interpretation. Segall (1986) said that the researchers should think of the participants as colleagues and not merely as respondents.

In the field of ethnic minority research, there is a

growing feeling among ethnic minorities that research should go beyond the mere explaining of human behaviour, and contribute more to the concerns and betterment of the minority groups being studied. According to Sue and Sue (1990), a strong emphasis on rigorous methodology in psychology has discouraged much meaningful ethnic minority research. Sue and Sue (1990) felt that much exploratory work is needed in investigating minority issues, and research data should be reported in a form that is intelligible and usable by the particular minority group being studied.

Summary

Based on the literature reviewed in this chapter, the adjustment experience of Hong Kong students, Chinese students, and foreign students in general, as well as issues related to ethnic minority research, are summarized as follows:

1. English language ability has been found to be an important determinant of academic success for university students in Hong Kong.
2. Scores on English language tests such as TOEFL (Test of English as a Foreign Language) have been found to be a good predictor of academic success for foreign students.
3. In Hong Kong, friends have been found to be a primary resource among university students for help in resolving personal problems. Mental health professionals such as psychologist have rarely been seen as resource for help.

4. Difficulties with the English language have been found to be a major adjustment problem for Hong Kong foreign students in Canada.

5. In Canada, Hong Kong foreign students have been found to be friendly mostly with fellow Hong Kong students, and view their friendships with Canadian students as superficial.

6. When compared to foreign students from other countries, Hong Kong foreign students in Canada have been found to report more dissatisfaction with their academic performance.

7. Hong Kong foreign students in Canada have been found to under-utilize university counselling services and services catering to international students.

8. Chinese foreign students in general have been found to associate mostly with students from their own country, and seldom develop close friendship with local university students.

9. In terms of counselling style, Chinese foreign students have been found to prefer a directive approach more than an in-direct approach.

10. In working with foreign students, the indigenous support network of peers, family, and co-nationals has been an important source of support for mental health problems.

11. Financial problems have been found to be a common concern among foreign students. Expensive housing, racial discrimination, and depression have also been found to be

adjustment concerns for some foreign students.

12. In the field of cross cultural psychology, there is a need for more relevance or applicability in ethnic minority research for the betterment of the cultural groups being studied.

CHAPTER 3

Methods

Stage One of the Study

Development of the "Adjustment Matrix"

The purpose of Stage One of the study was to create a matrix of columns and cells to represent the construct of "adjustment problems" experienced by university students studying at home and abroad. Each column of the matrix represented a general theme of adjustment problems experienced by university students. Each column had a column heading, theme title. Within the columns were cells, each represented a specific category of adjustment problem. Each cell/category of adjustment problem was illustrated by relevant examples of adjustment experiences.

The following literature on university student adjustment has been chosen for review to develop the "adjustment matrix."

1. Literature on the adjustment of Hong Kong university students in Hong Kong. The primary sources of information in this area were Cansdale (1969), Cheung (1983), Cheung (1984), Ho and Spinks (1985), and Spinks and Ho (1984).
2. Literature on the adjustment of Hong Kong students at universities outside Hong Kong. The primary sources of information in this area were Chataway and Berry (1989), Dyal and Chan (1985), Graham (1983), "Exodus West,"

(1985), Ip (1985), Mickle (1985), Neice and Braun (1977), White (1982), and Yee (1980).

3. Literature on the adjustment of Canadian students at Canadian universities. The primary sources of information in this area were Chataway and Berry (1989), Holdaway and Kelloway (1987), McLean (1992), Stewart and Sutherland (1988).
4. Literature on the adjustment of students from any country who were on student visas in a foreign country. The primary sources of information in this area were Allen and Cole (1987), Berry (1985), Bourne (1975), Boyer and Sedlacek (1988), Bulthuis (1986), Cadieux and Wehrly (1986), Church (1982), Dunnett (1981), Ebbin and Blankenship (1988), Furnham and Alibhai (1985), Furnham and Bochner (1986), Heikinheimo and Shute (1986), Holdaway, Bryan, and Allan (1988), Hsu, Hailey, and Range (1987), Hull (1978), Ishiyama (1989), Jensen and Jensen (1983), Johnson (1971a), Johnson (1971b), Kang (1972), Klein et al. (1971), Klein, Alexander, Tseng, Miller, Yeh, and Workneh (1971), Klineberg (1980), Klineberg and Hull (1979), Leong and Sedlacek (1989), Mallinckrodt and Leong (1992), Marion (1986), Melby and Wolf (1961), Miller, Yeh, Alexander, Klein, Tseng, Workneh, and Chu (1971), Mow and Nettles (1990), Neice and Braun (1977), Ogbudimkpa, Creswell, Lambert, and Kingston (1988), Pedersen (1980), Pedersen (1991),

Perkins, Perkins, Guglieimino, and Reiff (1977), Pruitt (1978), Rao (1976), Schram and Lauver (1988), Selbey and Woods (1966), Spradley and Phillips (1972), Spaulding and Flack (1976), Spaulding and Coelho (1980), Stafford, Marion, and Salter (1980), Stewart and Hartt (1987), Sue and Zane (1985), Surdam and Collins (1984), Thomas and Althen (1989), Torrey, Van Rheen, and Katchadourian (1970), Walton (1971), Ward (1962), Wong-Rieger (1984), Wu (1991), Yeh (1976), Yeh, Chu, Klein, Alexander, and Miller (1979), Zaidi (1975), Zelmer and Johnson (1988), Zheng and Berry (1991), Zwingmann and Gunn (1983).

Berry (1985) classified foreign students' adjustment into the themes of "environmental" problems (e.g., problems with climate, housing, food, etc.), "socio-cultural" problems (e.g., problems with social norms, interpersonal and intergroup relations), "academic" problems (e.g., problems with language), and "psychological" problems (e.g., problems with self-esteem, identity, and mental health). Similarly, Zaidi (1975) categorized the adjustment experiences of foreign Muslim students in Pakistan into "physical," "academic," and "socio-cultural" adjustment. In his review of student sojourner adjustment, Church (1982) grouped commonly mentioned problems of foreign students into the themes of "academic," "socio-cultural," and "personal" problems. In Church's review, "personal" problems referred

to adjustment difficulties such as loneliness, homesickness, and maintaining self-esteem.

Based on the classification works of Berry (1985), Church (1982), and Zaidi (1975), the columns of the "adjustment matrix" in Stage One of this study were arranged according to the headings/themes of "environmental," "academic," "socio-cultural," and "personal." The "environmental" column referred to adjustment problems related to housing, food, and climate. The "academic" column represented cells describing school-related problems. The "socio-cultural" column had adjustment cells in areas such as friendship problems and racial discrimination. The "personal" column contained cells representing personally related problems such as loneliness, depression, and achieving independence.

The "adjustment matrix" developed in Stage One (see table 1) has 61 adjustment cells representing 61 categories of adjustment problems. The "environmental" column has 5 adjustment cells; the "academic" column has 20 adjustment cells; the "socio-cultural" column has 19 adjustment cells; and the "personal" column has 17 adjustment cells. A copy of the Stage One "adjustment matrix" illustrated with examples of adjustment problems is contained in Appendix A.

Stage Two of the Study

The purpose of Stage Two of the study was, through open-ended, in-depth interviews, to find out whether the

Table 1
Stage One Adjustment Matrix

ADJUSTMENT MATRIX

ENVIRONMENTAL	ACADEMIC	SOCIO-CULTURAL	PERSONAL
Housing - obtaining accommodation Housing - living conditions	Formal English skills - Receptive language Formal English skills - Verbal expressive language	Conversational English skills - Receptive language Conversational English skills - Verbal expressive language Conversational English skills - Topics of conversation Non-verbal communication Inter-cultural friendships Mono-cultural friendships Cultural group membership conflict Western norms and values Subtle racial discrimination Explicit racial discrimination Inter-cultural attitudes University inter-cultural environment - Acceptance of foreign students University inter-cultural environment - Status of foreign students University inter-cultural environment - Extracurricular environment on campus Community inter-cultural environment Maintaining cultural identity	Finances Loneliness - Social loneliness Loneliness - Emotional loneliness Hollow and emptiness (Kurusu Heu) Homesickness Somato complaints Achieving independence Planning for the future - Future academic plan Planning for the future - Future career plan Planning for the future - Employment opportunities back home Meeting career needs Pre-return preparation Maintaining self-esteem Personal counselling Immigration Dating Depression
Food Climate Pace/r tempo of life	Methods of instruction - Teaching style Methods of instruction - Learning style Methods of instruction - Evaluation Academic pressure - School work related Academic pressure - Family related Time pressure Academic support Academic performance Faculty-student relationships Selection of coursework Academic program development - Program usefulness Academic program development - Program desirability Academic program development - Program quality Realistic self-appraisal Motivation for overseas study Consistency of activity Unrealistic expectations of foreign students	Maintaining cultural customs Maintaining religious customs radical upheaval at home	

"adjustment matrix" developed in Stage One of this study reflected the adjustment experiences of Hong Kong, undergraduate students at the University of Alberta. In the following discussions, a detailed description is provided of: (a) the rationale for choosing in-depth interviewing as the instrument for the investigation of adjustment experience of Hong Kong students; (b) the selection of participants interviewed; (c) the interview process, and (d) the findings of the interviews.

The Rationale for Choosing In-depth Interviewing

The open-ended, in-depth interview, a common investigative method within the qualitative research paradigm, is well-suited to address phenomenological issues encountered by people from different cultures. According to Hoshmand (1989), qualitative research methods such as interviews grant primary importance to the apprehension of different world views and constructs of people from another cultural context. An investigator who uses an in-depth interview seeks to understand the subjective meaning of the human phenomenon under study. It is assumed that an appreciation of the subjective reality enables a comprehension and description of human behaviour in greater depth, richness, and complexity than is possible from the study of objective and quantifiable variables alone (Neimeyer & Resnikoff, 1982).

The in-depth, open-ended interviews in Stage Two of the

study were designed to provide answers for the research question, "What adjustment problems are experienced by Hong Kong students at the University of Alberta?" Specifically, the interviews were used to explore the adjustment experiences from the Hong Kong students' own perspectives. What adjustment problems were relevant or unique to their sojourn experiences in Canada? Were the Hong Kong students' adjustment problems similar to or different from the problems described in the "adjustment matrix" in Stage One of the study?

Conducting interviews with people from a different culture can be a difficult process. First, the data from interviews are words, and words can take on very different meanings in other cultures. For example, Patton (1990) found that people in Sweden interpreted the word "policy" as equivalent to a very specific program, whereas people in the United States usually refer "policy" to fairly general directives. Second, using an interpreter for conducting interviews is fraught with difficulty. Patton (1990) indicated that there are words and ideas in different cultures which simply cannot be translated well. Third, many topics of discussion acceptable in Western countries may be taboo in other cultures. Tung (1985) reported that many Asians do not freely discuss emotional conditions, especially when the topics of discussion are negative in nature. There is also special discretion among Asians when

talking about one's family. Fourth, there are the problems of comprehension and expression on the part of the participants when the language of the interviews is not their first language.

One way to minimize some of the problems mentioned above is to establish rapport between the researcher and the participants. In his interview studies of South Americans about their opinions toward urban development projects, Salmen (1987) emphasized the importance of establishing rapport with project participants. He indicated that the project participants must come to see the researcher as a person (more or less like themselves) rather than as a professional. According to Salmen, out of the rapport between the participants and the researcher comes the trust and openness needed to understand each other's point-of-view.

During the open-ended interviews of this study, the Hong Kong student participants were anticipated to have problems in English conversation. However, as Osbourne (1990) said, discussion of a phenomenon such as adjustment experiences does not necessarily require a highly "verbal" person. According to Osbourne, extremely verbal people may express ideas about their experiences rather than about the actuality of those experiences.

The Interview Participants

Participants in Stage Two of the study were selected so as to maximize the possibility of looking at a wide spectrum of adjustment experiences of international students from Hong Kong. Males and females were included, from a range of academic faculties. However, only year one undergraduate students were selected due to the assumption that first year students would encounter a wider range of adjustment problems than would their upper-year counterparts. Students who had studied in another foreign country before coming to Canada were excluded from the interview study. Students who took high school education in Canada were included. In order to have a fairly adequate cross-section of Hong Kong undergraduate students represented in the interviews, the number of interviewees were eight students.

Interview participants were located through Chinese student friends of the researcher, as well as Chinese students encountered in libraries and other university facilities, Chinese clubs on the University of Alberta campus, and Chinese churches in the Edmonton community.

The Interview Process

The process of the open-ended, in-depth interviews used in Stage Two of the study followed closely the format suggested by Osbourne (1990). The process can be described as open but focused. The researcher/interviewer did not use an "interview schedule" but neither was the interview as

casual as a conversation or open to infinite length. The procedure was designed for the participant to reflect on his or her past and present experience, and to talk about his/her adjustment problems in Canada.

Each participant was interviewed twice, each time for 60 minutes for a total of 120 minutes. All interviews were videotaped. The participants were contacted by phone to confirm their interest in the study and a date was set for the first meeting. The first interview was used initially to establish rapport and inform the participant of the nature of the research. All interviewees were required to sign a written consent form and fill out an interviewee information form for their participation in Stage Two of the study. A copy of the written consent form is contained in Appendix B. A copy of the interviewee information form is contained in Appendix C. The researcher/interviewer discussed the content of the written consent form with each participant and obtained the participant's signature indicating agreement to participate in the interview. Since a premium was placed on establishing a trusting relationship with the participant in the first interview, whenever necessary, the researcher/interviewer used both English and Cantonese (a Chinese dialect spoken by Hong Kong students) in the conversation.

The first interview was also a place to begin gathering information on the adjustment experiences of the

participants. The information gathered was used to confirm, build on, or modify the material in the "adjustment matrix" developed in Stage One so that the matrix itself could become a closer approximation of the adjustment problems Hong Kong students experienced. The dialogue in the interview was open-ended and the researcher/interviewer took great care not to lead the participant. The researcher/interviewer did not prompt the participant until he or she ran out of things to talk about on a particular topic. The interview on the adjustment experiences was conducted in English and it opened with the following introduction:

Sometimes when one goes to a new country to study, he/she has to adjust to the new country, and learn to live in the new country. The country you come from is different in many ways from the new country. Sometimes it is difficult to adjust to the new country. I understand you are an overseas student from Hong Kong, can you tell me what difficulties you have had adjusting to Canada?

This introduction was flexible as to wording and was rephrased if the meaning seemed unclear to the participant. After the interview had begun, the researcher/interviewer only rarely asked a question, and then usually only for clarification. The researcher/interviewer had a copy of the Stage One "adjustment matrix" with him. During and after the interview session, he would (a) confirm cells in the "adjustment matrix" identified by each participant, (b) add cells to the matrix when adjustment problems were identified that were not already in the matrix, and (c) modify or add examples in the cells identified in order to reflect the

experiences of the participants.

Following the first open-ended interview with the participants, the researcher/interviewer probed for adjustment problems listed in the matrix that were not mentioned in the interview. The researcher/interviewer checked-off cells that had been identified and noted cells that were not experienced as problems.

The second interview was designed to cover any other data the participant had missed in the first interview or that he/she might like to reflect upon. The interview was open-ended and conducted in English. Again, the researcher/interviewer confirmed or added cells in the "adjustment matrix" that had been described by the participant, and noted cells that had not been described as problems.

All interviews were conducted in an interviewing room at the Education Clinic of the Department of Educational Psychology on the University of Alberta campus.

Students Interviewed

As of the beginning of the 1992 academic year, 82 first year, Hong Kong, undergraduate students on student visas were registered at the University of Alberta (Office of the Registrar, 1992). Twenty-five, first year, Hong Kong undergraduate students were contacted in September and October of 1992 through Chinese friends of the researcher, Chinese students encountered by the researcher on the

university campus, Chinese student clubs, and Chinese churches in Edmonton. Among the 25 potential interviewees, there were 12 Science students (four males and eight females); six Engineering students (four males and two females); four Business students (three males and one female); two Arts students (one male and one female); and one Rehabilitation Medicine student (female). One male and one female student were randomly selected from each of the faculties of Science, Engineering, Business, and Arts for the interview. The mean chronological age of the eight interviewees (four males and four females) was 18.63 years. Half of the eight students had studied both grades 11 and 12 in Edmonton before entering the University of Alberta. The other four students only took grade 12 in Edmonton. All eight students were single. Three of the eight students were living in campus residences at the time of the interview.

All eight interviewees were contacted by telephone to make appointments for the interviews. Four participants requested to complete the first and second interviews in one sitting, with total interview time ranging from one hour and 45 minutes to two hours and 30 minutes. The other four participants had their first and second interviews on separate days. The time elapsed between first and second interview ranged from one to eight days. The duration of the interviews ranged from one hour to one hour and 30 minutes.

The Interview Data

"Environmental" adjustment problems. Table 2 describes the number of student interviewees who reported similar adjustment problems for each of the adjustment cells within the "environmental" column of the Stage One "adjustment matrix." Table 3 describes the adjustment problems identified by the interviewees that were not included under the "environmental" column of the initial matrix. These additional adjustment problems were added to the matrix.

Among the environmentally related adjustment problems, problems with the pace/tempo of life and living condition were reported by the majority of the student interviewees. Seven out of the eight students said they had experienced adjustment problems with the pace of life in Canada, whereas six out of the eight students reported problems with their living conditions. The recurring theme regarding the pace of life appeared to be one of boredom. Many interviewees said life in Canada was dull and boring. One student reported that when he first came to Edmonton, he discovered that there were not many entertainment activities compatible to his interests. He said life in Hong Kong was "colourful," and that there were many more types of entertainment and activities for young people. He said the department stores in Hong Kong had many more varieties of goods than did the department stores in Canada. This same student said that now he has gotten used to the slower pace of life in Edmonton.

Table 2

Numbers of Interviewees Who Identified "Environmental"**Adjustment Problems**

"Environmental" adjustment problems	<u>n</u>*
1. Housing	
(a). Obtaining Accommodation	2
(b). Living Condition	6
2. Food	1
3. Climate	3
4. Pace/Tempo of Life	7

***Numbers of interviewees reporting the adjustment problem.**

Table 3

Numbers of Interviewees Who Identified New "Environmental"**Adjustment Problems**

New "environmental" adjustment problems	<u>n</u>*
Housing location	1
Living with relatives/family friends	4
Transportation	3

***Numbers of interviewees reporting the adjustment problem.**

He said he had begun to appreciate the "peaceful" living in Edmonton, and said that life in Hong Kong was now too fast for him. Another student said life in Edmonton was boring for her because all she did was studying; and she said she has no social contact with Canadian students.

In terms of living condition, four of the eight interviewees reported problems related to living with relatives and/or family friends while studying in Canada. This particular adjustment problem is discussed along with the other new adjustment problems identified by the students. Other concerns related to living condition included the followings: noise level of the living quarters; cleanliness of the living quarters; and a lack of privacy in the living place.

The eight student interviewees appeared to have fewer concerns regarding finding accommodation, adapting to Western food, and adapting to the Canadian climate, as only a minority of the eight interviewees reported problems with these categories. Three new adjustment problems were reported by the students, (a) living with relatives and/or family friends; (b) transportation; and (c) housing location. As was mentioned above, half of the interviewees reported that they had experienced problems living with relatives (e.g., uncle, aunt, cousin, sibling) or family friends while they were studying in Edmonton. The problems

did not seem to be related to the physical living condition of the homes of the students' relatives or family friends. The problems appeared to be more related to the relationships between the students and their relatives or family friends. One student reported that she felt less free to express her emotions in front of her uncle. She said she did not feel comfortable expressing her emotions in front of people who were not her own nuclear family members. Another female student reported that she was not happy living with her aunt because her aunt expected her to discipline her "naughty" cousins. This student said that a number of times she wanted to move out of her aunt's place. However, she said living with relatives also had its benefits. She said the relatives would do the cooking, and someone was there when she was sick. One male student said the uncle he used to live with in Edmonton was too concerned about the student's well being and restricted the amount of time he could spent with his student friends.

With regard to transportation, the students who reported the problems said not having a vehicle restricted their mobility. The one student who reported concerns regarding her living location said she lived too far away from the campus and that there were only limited public transit services between where she lived and the university.

"Academic" adjustment problems. Table 4 reports the number of student interviewees who reported similar

adjustment problems for each of the adjustment cells under the "academic" column of the "adjustment matrix." Table 5 describes the eight new academically related adjustment problems reported by the students.

Among the academically related adjustment problems in the matrix, the followings were reported by half or more than half of the interviewees: formal English skills; methods of instruction; academic pressure; academic performance; and constriction of activity. All three sub-categories under formal English skills, namely, receptive language, verbal expressive language, and written language, were considered by more than half of the interviewees to be major areas of adjustment difficulties. All of the eight students indicated that they had experienced problems in expressing themselves in spoken English in classes at the university. One Business student said he disliked oral presentations and debates in his classes. He said he was afraid that other students would laugh at his poor English. Another student said she had to think in Chinese before she spoke in English, and therefore her verbal responses were usually slower than were those of the Canadian students. She said she seldom spoke in class because she did not want to embarrass herself when other students had problems understanding what she wanted to say. One Science student said he was nervous in class discussions because he did not know whether he had the right choice of English words and

Table 4

Numbers of Interviewees Who Identified "Academic" Adjustment Problems

"Academic" adjustment problems	n*
1. Formal English skills	
(a). Receptive language	6
(b). Verbal expressive language	8
(c). Written language	5
2. Methods of Instruction	
(a). Teaching style	5
(b). Learning style	1
(c). Evaluation	6
3. Academic pressure	
(a). School work related	7
(b). Family related	5
4. Time pressure	0
5. Academic support	2
6. Academic performance	4
7. Faculty-student relationships	0
8. Selection of coursework	2
9. Academic program development	
(a). Program usefulness	0
(b). Program desirability	2
(c). Program quality	0
10. Realistic self-appraisal	0
11. Motivation for overseas study	1
12. Constriction of activity	5
13. Unrealistic expectations of foreign students	1

*Numbers of interviewees reporting the adjustment problem.

Table 5

Numbers of Interviewees Who Identified New "Academic" Adjustment Problems

New "academic" adjustment problems	n*
Reading English	4
Class size	3
TOEFL	5
High school English	4
University entrance standards	4
Time management	2
Study skills/methods	1
Maintaining self-confidence	5

***Numbers of interviewees reporting the adjustment problem.**

vocabulary. In regard to receptive language, a number of students reported that they had a hard time understanding English when they first came to Canada because the teachers spoke too fast in class. The common problems in written language appeared to be the speed of writing English in written assignments such as essays and the difficulty of expressing oneself in written English. As one student said, her writing was slow because she had to think in Chinese first and then translate her thoughts into written English. The students' difficulties with the English language also seemed to have affected their adjustment to the teaching style in the Canadian education system, where active student participation was valued and encouraged. One Arts student said he usually remained silent in class discussions because he found it hard to express in English what he wanted to say. In regard to learning style, a number of students said they had become better learners in Canada. One Business student said Canadian teachers would not force him to study and he had to learn to discipline himself to get the school work done. Another Engineering student said that in Hong Kong she did not ask questions in class but in Canada the teachers were more informal, and she was more willing to ask questions to facilitate her understanding. In terms of the methods of evaluation, more than half of the students said there are too many tests and assignments in their course work, which in turn created a lot of academic pressure in

their lives. One student said sometimes he was not able to eat properly because he was too busy with his school work, and he could not tell his parents about his eating habits so that they would not worry about his health. One Engineering student said the work load in his program was very high, and he was still learning to keep himself from falling behind in his school work. Besides coping with their high volume of school work, a number of the interviewees felt that they were obligated to do well in school so that they could honour their parents who financially supported their overseas education. One student said he felt guilty about his poor school performance because his parents in Hong Kong had invested a large sum of money in his education. Half of the interviewees said they were not satisfied with their academic performance. More than half of the students reported that they spent the majority of their waking time studying and doing school work. One Engineering student said he focused too much on his school work when he first came to Canada and totally neglected his needs for fun, entertainment, and friendships. Another student reported that she was too busy to watch news on television or read newspapers and had lost touch with what was happening in the rest of the world. Altogether eight academically related adjustment problems, not included in the "adjustment matrix," were reported by the student interviewees; they were namely, (a) problems with reading English, (b) class

size, (c) TOEFL, (d) high school English 30, (e) time management, (f) study skills, (g) university entrance standards for foreign students, and (h) maintaining self-confidence in one's academic ability. Among these eight new adjustment problems reported, problems with the TOEFL, high school English 30, reading English, and university entrance standards were reported by at least half of the interviewees. Five out of the eight interviewees said they had troubles getting the required TOEFL scores of 580 for entering the University of Alberta. One Science student said he had to write TOEFL seven times before he could reach the score of 580. An Engineering student said he had an above 80% average in Grade 12 but failed to obtain the required score on TOEFL. He further said that there were only four of 12 Hong Kong students in his former grade 12 class who obtained the required TOEFL score to enter university. Another female student said writing the TOEFL was emotionally stressful for her. She said her repeated failures to get the score of 580 made her upset and worried that she might not be able to enter university.

Difficulties with high school English 30 were reported by half of the interviewees. The students said they were not used to studying English literature, which was a large component of English 30. One Engineering student said she had to work much harder in other high school subjects in order to maintain a high enough grade average to compete for

university entrance. Problems with reading English were also reported by half of the interviewees. The students said they had slow reading speed. One student said he often had to read twice before he could understand a paragraph of English text. Another adjustment concern reported by half of the interviewees was university entrance standards. The students voiced their concerns that foreign and local students did not compete at the same standards for entrance into professional schools such as pharmacy and engineering. The students said, because of the quota system, foreign students who wanted to enter professional schools had to have very high grade point averages. One Engineering student said he did not mind the high tuition fees for foreign students, but he considered it unfair that foreign students needed to have higher grade point averages in order to compete for entry into certain departments in the Faculty of Engineering. Another student said some faculties were hard for foreign students to get in because of the quota system in which only a very small percentage of the program space was reserved for foreign students. Not feeling confident about their academic ability was reported by five of the eight interviewees. One Arts student said he was not feeling as academically competent as the other students. One female Science student said she was lacking self-confidence in her study and shared the following:

My friends say I can do it. I don't know. I got an award in Science in

high school. I don't know why I can't do it here.

"Socio-cultural" adjustment problems. Table 6 describes the number of student interviewees who reported adjustment problems similar to the adjustment cells under the "socio-cultural" column of the "adjustment matrix." Table 7 describes the one new adjustment problem identified by the interviewees.

The following "socio-cultural" adjustment problems were reported by half or the majority of the interviewees: (a) problems with English in everyday living; (b) difficulties in making friends with Canadian students; (c) a perceived lack of acceptance of foreign students by Canadian students; and (d) problems with subtle racial discrimination.

All eight interviewees reported problems with understanding English in their daily living. Particularly, they reported problems with understanding slang, jokes, and idioms. For example, one Science student said that when he first came to Canada, he had a problem comprehending the phrase "once in a blue moon." Another student said he had a problem understanding jokes in his first months in Canada. He said he found it embarrassing because people expected him to laugh at the jokes right away. Some students reported difficulties in understanding common vocabulary. One Arts student said she did not know the word "tobbagan." A Business student said she had not heard of the word

Table 6

Numbers of Interviewees Who Identified "Socio-cultural"**Adjustment Problems**

"Socio-cultural" adjustment problems	n*
1. Conversational English skills	
(a). Receptive language	8
(b). Verbal expressive language	7
(c). Topics of conversations	7
2. Non-verbal communication	2
3. Inter-cultural friendships	7
4. Mono-cultural friendships	3
5. Cultural group membership conflict	2
6. Western norms and values	0
7. Subtle racial discrimination	4
8. Explicit racial discrimination	0
9. Inter-cultural attitudes	3
10. University inter-cultural environment	
(a). Acceptance of foreign students	4
(b). Status of foreign students	2
(c). Extracurricular environment on campus	0
11. Community inter-cultural environment	2
12. Maintaining cultural pride	1
13. Maintaining cultural customs	0
14. Maintaining religious customs	1
15. Political upheaval at home	0

*Numbers of interviewees reporting the adjustment problem.

Table 7

**Numbers of Interviewees Who Identified New "Socio-cultural"
Adjustment Problems**

New "socio-cultural" adjustment problems	<u>n</u>*
Treatment of foreign teaching assistants	1

***Numbers of interviewees reporting the adjustment problems.**

"coleslaw." Seven of the eight students said they had problems conversing in English in everyday life. They expressed concerns about their fluency, accent, and pronunciation. One Engineering student said he was tired of speaking English for a while. He said sometimes people laughed at him because he used the wrong word in English. He said he took it personally when people said "pardon me" to him because they did not understand his English.

Seven out of the eight students mentioned that besides discussing school work related topics, they did not have much to talk about with Canadian students. One Business student pointed out that the differences between Hong Kong and Canadian culture limited the topics of conversation between Hong Kong and Canadian students. For example, he said many Canadian students talked about hockey, a sports subject that most Hong Kong students had no interest in. Seven out of the eight interviewees said they had difficulties making friends with Canadian students. Four students said their friendships with Canadian students were at best at the superficial level, such as, saying "hi" to each other or talking about school work, but nothing at a deeper level. One Engineering student recalled his experience in making friends with Canadians by saying the following:

Canadian and Hong Kong students are like oil and water. I talk to Hong Kong students because we have the same things to talk about. With Canadians, I am like a different type of people. We are just two

different groups of people. I am not in their society yet. English, culture, and different ways of doing things make it difficult for me to get to know Canadians.

Three students pointed out that cultural differences had interfered with the quality of their friendships with Canadians. One Science student said Hong Kong and Canadian students were "not having the right key," a common Cantonese expression to imply that two persons have different views and values. One Engineering student observed that Canadian students were not as concerned about school grades as were Hong Kong students. She said Hong Kong students wanted to do well in school, while Canadian students liked to drink and go to parties. Another student made the following observations:

There are many obstacles for us to befriend with Canadians. It is hard for them too. Some of my friends do have Canadian friends, but not many. What will they say to us, and what will we say to them. I don't think they are willing to talk to us. But, we have not much to say to them either. It is not completely their faults.

Half of the interviewees said they had sensed a lack of acceptance by Canadian students. Three students particularly recalled their high school experiences in which they did not feel they were welcomed or accepted by the local students. Two students said they felt isolated and alienated in high school because local students excluded them from projects and group activities. Another student said local students tended to stick to their own groups. He further said sometimes Canadian students were afraid of foreign students

because foreign students usually had higher school marks than did the Canadian students.

In regard to racial discrimination, none of the eight interviewees said that they had experienced explicit discrimination such as racist remarks. However, half of the interviewees reported incidents of subtle discrimination. One Engineering student said she had received a letter from a Canadian citizen criticizing Chinese immigrants taking away jobs from Canadians. A Science student said Canadians superficially accepted multi-culturalism but deep down they did not like too many foreigners in the country. This student further recalled incidents in which sales persons in shops were less polite to him than they were to Canadians, because of his poor English. Another student recalled situations where custom workers treated foreign students differently than they treated Canadians. Another student said he overheard two Canadians in a public transit bus complaining about Chinese speaking too loudly in public places. This student also gave an example in which a local high school student was willing to lend a school text to a fellow Canadian student but not to a Hong Kong foreign student.

One new adjustment problem not included under the "socio-cultural" column of the matrix was reported, and that is the problem related to the treatment of foreign teaching assistants by the students at the university. This problem

was reported by an Engineering student who said some teaching assistants from China were not treated nicely by Canadian students. She said some Chinese teaching assistants were laughed at by the students because of the assistant's poor English.

"Personal" adjustment problems. Table 8 describes the number of interviewees who reported similar adjustment problems under the "personal" column of the "adjustment matrix." Table 9 describes one new adjustment problem reported by the interviewees.

Of the 17 "personal" adjustment problem in the matrix, problems with homesickness, achieving independence, loneliness, and self-esteem were reported by more than half of the eight student interviewees. Seven out of the eight students reported experiences of missing home, especially at the beginning of their sojourn in Canada. One Science student said he missed home so much that he cried a number of times in his first two months in Canada. An Arts student said in his first month in Canada, he missed his family very much and kept thinking that Hong Kong was a better place to be. Another Arts student said she would miss home when she was unhappy or had difficulties with her school work. One Business student said he did not miss home during his first two years in Canada because he was enjoying his freedom of living away from his parents. However, he said he felt homesick after he returned to Canada following a visit to

Table 8

Numbers of Interviewees Who Identified "Personal" Adjustment Problems

"Personal" adjustment problems	n*
1. Finances	0
2. Loneliness	
(a). Social loneliness	5
(b). Emotional loneliness	2
3. Hollowness and emptiness (Kung hsu)	1
4. Homesickness	7
5. Somatic complaints	2
6. Achieving independence	6
7. Planning for the future	
(a). Future academic plan	0
(b). Future career plan	0
(c). Employment opportunities back home	0
8. Meeting career needs	0
9. Pre-return preparation	0
10. Maintaining self-esteem	5
11. Personal counselling	1
12. Immigration	1
13. Dating	1
14. Depression	0

***Numbers of interviewees reporting the adjustment problems.**

Table 9**Numbers of Interviewees Who Identified New "Personal"****Adjustment Problems**

New "personal" adjustment problems	<u>n</u>*
Feeling blue	7

***Numbers of interviewees reporting the adjustment problems.**

Hong Kong because he had learned to appreciate his parents' love and concerns.

Six out of the eight students said they had experienced problems with achieving independence in their daily living. One student shared the following experience:

I found living by myself in the HUB has a lot of frustrations. I had to buy all my utensils and electrical appliances. I almost cried when I found out I have so much responsibility. Now I understand my decision to live by myself also has consequences.

Another student said the following:

It was a problem. You lived with your parents for so long and suddenly you live by yourself. It is a strange feeling that I cannot explain.

A Science student said leaving home was tough for him. He shared the following thoughts at the interview:

My parents did every thing for me. Now, no one near me to serve me. I have no one to express my anger to. No one buys me things. No one does things I like. Parents understand me. But here, people may not understand me. For example, my parents know what I like to eat.

A Business student said she was afraid that she had made the wrong decision for herself. She said she was afraid the outcomes of her decision did not fit her circumstances.

Feeling lonely due to a lack of friends and social relationships were reported by five of the eight interviewees. One student said she was so lonely at one time that she wanted to quit school and go back to Hong Kong. Another student said he felt particularly lonely in holiday seasons. Two students reported loneliness of an emotional nature. One student said he felt lonely because he did not

fit into the circle of his Chinese friends. Another student recalled that she felt lonely because she had no desire to talk to anyone, Chinese or Canadians alike.

One new adjustment concern, not mentioned under the "personal" column of the "adjustment matrix," was reported by the interviewees. None of the students said they had experienced depression. However, seven of the eight students said they had experienced moments of unhappiness or "feeling blue." A Business student reported the following experience in her first year in Canada:

When I first started in Canada, every day I was not happy. I wouldn't speak when unhappy. I would go to my room and wrote to my friends in Hong Kong. Sometimes I cried, especially after I talked to my parents on the phone. This reminded me of the happy times in Hong Kong...It is so boring here, nothing to do in weekend, no where to go, no transportation... I wanted to go back to Hong Kong, but I only tell my parents in Hong Kong happy things. I pretended to be happy when I called home. I don't want my parents to worry about me. Many visa students don't reveal unhappy things to their parents.

Another Business student shared the following experience when he felt unhappy:

I am not willing to tell my parents about my problems and frustration, such as breaking my leg. Not tell parents because they can do nothing except worries. They cannot come to visit or take care of me any way.

One student said, when he was unhappy, he would not speak and wanted to be quiet. He said he was feeling sad and alone because no one seemed to care about him and talk to him.

Summary of Interview Findings

At least half or the majority of the interviewees reported adjustment problems associated with the following aspects of their life as foreign students in Canada.

1. Adapting to the pace/tempo of life in Edmonton
2. Living with relatives and/or family friends
3. Mastering the English language
4. Adapting to a different teaching style
5. Academic pressure from school work and family
6. Dissatisfaction with academic performance
7. Constriction of activity
8. Passing TOEFL for university entrance
9. High school English 30
10. Different entrance standards for foreign and local students to compete for entry into professional schools
11. Maintaining self-confidence in academic ability
12. Topics of conversations with Canadians
13. Making friends with Canadians
14. Subtle racial discrimination
15. Acceptance of foreign students by Canadians
16. Social loneliness
17. Homesickness
18. Achieving independence
19. Feeling blue

Stage Three of the Study

The purpose of Stage Three was fourfold: (a) integration of information gathered in Stages One and Two into a "Hong Kong student adjustment matrix" (HKSAM) that represents the adjustment experiences and problems of Hong Kong foreign students at the University of Alberta, (b) construction of a self-administered questionnaire based on the adjustment columns and cells in the "Hong Kong student adjustment matrix" (HKSAM), (c) distribution of the self-administered questionnaires to undergraduate, Hong Kong, foreign students at the University of Alberta to validate the construct of the adjustment problems presented in the HKSAM, and (d) analysis and interpretation of the survey results in terms of the intensity and magnitude of the Hong Kong students' adjustment problems.

Development of the Hong Kong Student Adjustment Matrix (HKSAM)

The following procedures were used to develop the Hong Kong Student Adjustment Matrix (HKSAM):

1. The four columns, 61 cells "adjustment matrix" in Stage One and the 13 new adjustment problems/cells reported in Stage Two formed the basis for the development of the HKSAM.
2. Some of the initial titles of the adjustment cells in the Stage One matrix were either changed or modified

to reflect as closely as possible the adjustment experiences of the Hong Kong students.

3. Examples of adjustment experiences reported by the Hong Kong students in Stage Two were added into or used to substitute the original examples reported in the Stage One matrix. This was done to ensure the HKSAM was as culturally specific as possible to reflect the adjustment experience of Hong Kong students.
4. Some adjustment cells were either combined or deleted in order to reduce redundancy of information and to streamline the content of the HKSAM.
5. The four column titles used in the Stage One matrix, namely, "environmental," "academic," "socio-cultural," and "personal" were retained as column titles for the HKSAM.

The abbreviated HKSAM (see Table 10) had a total of 55 adjustment cells with four columns. The "environmental" column had nine cells, the "academic" column had 21 cells, the "socio-cultural" column had 13 cells, and the "personal" column had 12 cells. A more detailed HKSAM, with examples of adjustment problems, is in Appendix D.

Construction of the Hong Kong Student Adjustment Survey (HKSAS) Questionnaire

The self-administered, HKSAS questionnaire was made up of two parts. Part One contained questions designed to obtain socio-demographic information relevant to the

Table 10
The Hong Kong Student Adjustment Matrix (HKSAM)

HONG KONG STUDENT ADJUSTMENT MATRIX (HKSAM)

ENVIRONMENTAL	ACADEMIC		SOCIO-CULTURAL	PERSONAL
Housing - Finding accommodation	Formal English skills - Listening	Motivation for overseas study	Conversational English skills - Listening	Finances
Housing - Location	Formal English skills - Speaking	Consistency of activity	Conversational English skills - Speaking	Loneliness - Social
Housing - Living Condition	Formal English skills - Writing	Class size	Topics of conversation	Loneliness - Emotional
Housing - Living with relatives/family friends	Formal English skills - Reading	Time management	Making friends with Canadian students	Homeickness
Housing - Getting along with roommates	University entrance requirement - TOEFL	Study skills/methods	Making friends with foreign students e.g., Hong Kong, Singapore, Malaysia	Achieving independence
Transportation	University entrance requirement - Alberta high school English 30	Maintaining self-confidence	Subtle racism and values	Personal counselling
Food	University entrance requirement - entrance standards		Subtle racial discrimination	Immigration
Climate	Methods of instruction - Teaching/learning style		Explicit racial discrimination	Feeling blue
Pace/tempo of life	Academic pressure - Workload/evaluation		Acceptance of foreign students by Canadian students at the University of Alberta	Depression
	Academic pressure - Family related		Status of foreign students at the University of Alberta	Somatic complaints
	Academic support		Treatment of foreign teaching assistants	Planning for the future
	Academic performance		Maintaining cultural pride	
	Selection of coursework		Political instability at home	
	Program desirability			
	Program satisfaction			

adjustment experiences of Hong Kong, foreign students at the University of Alberta. Part Two of the questionnaire contained questions to survey the adjustment problems presented in the Hong Kong Student Adjustment Matrix (HKSAM). The magnitude of the adjustment problems was rated by the respondents using a 5-point Likert-type scale in the order of: 0 = no problem; 1 = minor problem; 2 = moderate problem; 3 = major problem; and 4 = extreme problem. All items in both Parts One and Two of the questionnaire were designed in closed form, in which all questionnaire items permitted only certain responses (such as a multiple-choice question). Space was provided underneath each questionnaire item in Part Two for open form written comments, in which the respondents could make any responses they wished, in their own words. A working draft of the HKSAS questionnaire was given to seven individuals for the purpose of pretesting the questionnaire. The seven individuals included three of the eight former, student interviewees in Stage Two of the study; two former, Hong Kong, foreign students who were now working in Edmonton, Alberta; and two Canadian chartered psychologists working in Edmonton. This pretesting resulted in some question changes in Part One of the questionnaire as well as the following improvements of the questionnaire format: A Chinese title was added to the first page of the questionnaire. Chinese sub-titles were also added to Part One and Part Two of the questionnaire. A copy of the final

HKSAS questionnaire is in Appendix E.

Distribution of the Hong Kong Student Adjustment Survey (HKSAS) Questionnaire

The ethics review. Since all the HKSAS questionnaires were distributed by mail to all the undergraduate, Hong Kong foreign students, registered at the University of Alberta, a written request was submitted to the Executive Committee of the General Faculties Council of the University of Alberta to seek the University's approval to access the name, address, and telephone numbers of Hong Kong, foreign students from the Office of the Registrar for the purpose of distributing the survey questionnaires. A copy of this written request is in Appendix F. Approval of the above request was granted by the Executive Committee of the General Faculties Council. A copy of the approval letter is in Appendix G.

The target student population. The HKSAS questionnaires were distributed to the entire population of the undergraduate, Hong Kong, foreign students at the University of Alberta. The University of Alberta has approximately 30,000 students, and is located in Edmonton, Alberta, a city of 830,000 people. Edmonton is home of 50,000 ethnic Chinese. The records showed a total of 325 undergraduate, Hong Kong, foreign students registered at the University of Alberta, representing close to half of all of the 668 undergraduate foreign students at the University in 1993

("Foreign Student," 1994). In 1993, foreign undergraduate students comprised approximately 2.9% of the total undergraduate population at the University of Alberta ("Foreign Student," 1994). All 325 Hong Kong students were full-time, undergraduate students. There were 176 male students and 149 female students. In terms of the year of study, there were 57 first year students, 91 second year students, 89 third year students, 79 fourth year students, and nine students whose records did not indicate the year of study. The eight students interviewed in Stage Two of the study were excluded from the Stage Three survey. Four students who showed Hong Kong addresses on the Registrar's records were also excluded from the survey. The final target population for the questionnaire survey was 313 students, 168 males and 145 females. There were 48 first year students, 91 second year students, 89 third year students, 76 fourth year students, and nine students whose records did not show their year of study.

The corporate sponsor for the questionnaire distribution. The downtown branch of the HongKong Bank of Canada in Edmonton, Alberta agreed to financially sponsor the distribution of the HKSAS questionnaires by covering the cost of printing and mailing the questionnaires. The students' name and address labels were put on the survey envelopes by the researcher himself as names and addresses of the students involved in the survey research were

considered confidential. The Hongkong Bank had also agreed to donate a monetary gift of H.K.\$ 500.00 as one of the 25 special gifts awarded in a random draw to show appreciation for the efforts of the students who returned completed questionnaires after the first mailing of the questionnaire. Twenty-four certificates, each in the amount of CAN\$ 5.99, were jointly donated by the Foody Goody Chinese buffet restaurant in Edmonton and by the researcher.

The first mailing of the HKSAS questionnaires. The first mailing of the HKSAS questionnaires to the 313 undergraduate, Hong Kong foreign students took place on February 19, 1993. A letter of transmittal written by the researcher and a letter of support written by the management of the Hongkong Bank of Canada were included with each of the questionnaires sent to the students. The letter of transmittal described the general purpose of the survey, the procedures for returning the questionnaire, and the procedures for entering the random draw for the 25 special gifts. The letter of transmittal was written in English with some Chinese captions. The letter of support, written by the management of the Hongkong Bank of Canada, briefly described the tradition of the Hongkong Bank's business and social responsibility to the Asian/Chinese community in Edmonton and the bank's support of the student survey. A copy of the letter of transmittal is in Appendix H. A copy of the Hongkong Bank's letter is in Appendix I. All questionnaires

in the first mailing were printed in white colour.

The second mailing of the HKSAS questionnaires. The second mailing of the HKSAS questionnaires took place on March 5, 1993. Since two questionnaires were returned by Canada Post after the first mailing due to address changes, only 311 questionnaires were sent out in the second mailing. A follow-up letter was accompanied with each questionnaire in the second mailing. In the follow-up letter, the researcher gave thanks to the students who had returned their completed questionnaires, announced the date and the place of the special draw, and encouraged students who had not completed their questionnaires to complete and return the questionnaires at their earliest convenience. The follow-up letter was written in English, with some Chinese captions (see Appendix J). All questionnaires in the second mailing were printed in yellow colour.

Late responses. HKSAS questionnaires returned after the cut-off date were not included in the counts of the number of respondents in the survey or in any subsequent analyses.

Number of respondents. As of the cut-off date for the 313 questionnaires sent, a total of 197 completed questionnaires were returned, 177 in white colour, and 20 in yellow colour. Two questionnaires were returned as undeliverable by Canada Post. One questionnaire was returned after the cut-off. This resulted in a response distribution as described in Table 11.

distribution as described in Table 11.

Of the 197 students who returned their completed questionnaires, 142 or 72.1% chose to enter the random draw of the 25 special gifts at the downtown branch of the Hongkong Bank of Canada.

Table 11

Number and Percentage of Questionnaires Returned

Questionnaires Returned	Number returned	Percentage of number sent
Usable returns	197	62.9
Returned undelivered	2	0.6
Late returns	1	0.3
Total	200	63.8

CHAPTER 4

Results

Data Analysis

Among the 197 respondents who returned the questionnaires, three students reported that they had studied in other foreign countries prior to their study in Canada. The responses of these three students were not included in the data analysis. The final number of respondents included in the data analysis was 194 students.

HKSAS Part One: General Background Information

Data analysis for each item in Part One of the HKSAS questionnaire involved simple, percentage frequency distributions of responses. Each distribution was calculated according to the actual number of students responding to each questionnaire item. Each item in the HKSAS was responded to by a different number(n) of respondents. As a result, varying n's are reported in the frequency distribution tables provided below. Additional analyses were performed crosstabulating responses from one item to another. The variables of major interest for purposes of cross-tabulation were age, sex, faculty, and year of academic program. Information gathered concerning the target population of Hong Kong foreign students at the University of Alberta dealt with the five variables of age, sex, faculty of registration, year of academic program, and

degree program. Tables 12, 13, 14, 15, and 16 show comparisons of respondents and the total population of Hong Kong students at the University of Alberta.

Age of respondents (Item #1 of HKSAS-Part One). Table 12 shows the comparisons of respondents and the population of Hong Kong foreign students for the variable of age.

Table 12

**Percentage Frequency Distribution of Age of Respondents and
Population of Hong Kong Foreign Students**

Age range	Respondents (n = 194) %	Population (n = 325) %
17 - 19	15.5	13.9
20 - 22	57.7	53.5
23 - 25	20.1	25.9
26 - 28	3.6	4.0
29 - 31	3.1	2.7
Total	100.0	100.0

Sex of respondents (Item #2 of HKSAS-Part One). Table 13 shows the comparisons of respondents and the population of Hong Kong foreign students for the variable of sex.

Table 13

Percentage Frequency Distribution of Sex of Respondents and Population of Hong Kong Foreign Students

	Male	Female	n
	%	%	
Respondents	47.3	52.7	186
Population	54.2	45.8	325

Marital status of the respondents (Item #3 of HKSAS-Part One). Table 14 shows the comparisons of respondents and the population of Kong Kong foreign students in terms of marital status.

Table 14

Percentage Frequency Distribution of Marital Status of Respondents and Population of Hong Kong Foreign Students

	Respondents	Population
	(n = 194)	(n = 325)
Marital status	%	%
Single	99.0	99.4
Married	1.0	0.6
Total	100.0	100.0

Faculty of the respondents (Item #5 of HKSAS-Part One).

Table 15 shows the comparisons of respondents and the population of Hong Kong foreign students for the variable of faculty.

Table 15

**Percentage Frequency Distribution of Faculty of Respondents
and Population of Hong Kong Foreign Students**

Faculty	Respondents	Population
	(n = 194)	(n = 325)
	%	%
Agriculture	2.1	2.5
Arts	13.4	12.0
Business	17.0	16.0
Education	0.0	0.0
Engineering	20.6	22.4
Health Sciences	7.2	6.2
Home Economics	5.7	4.3
Law	0.0	0.0
Science	33.5	35.7
Others	0.5	0.9
Total	100.0	100.0

Year of academic program of the respondents (Item #6 of HKSAS-Part One). Table 16 shows the comparison of respondents and the population of Hong Kong foreign students for the variable of the year of study.

Table 16

Percentage Frequency Distribution of Year of Academic Program of Respondents and Population of Hong Kong Foreign Students

	Respondents (n = 194)	Population (n = 325)
Year of program	%	%
First Year	17.5	17.5
Second Year	28.4	28.0
Third Year	27.3	27.4
Fourth Year	22.7	24.3
Continuing/no records	4.1	2.8
Total	100.0	100.0

Canadian high school experience of the respondents prior to entering the University of Alberta (Item #7 of HKSAS-Part One). Table 17 shows the percentage of the respondents who had studied in a Canadian high school before entering the University of Alberta.

Table 17

Percentage Frequency Distribution of Canadian High

School Experience of the Respondents

	Yes %	No %	n*
Respondents who had studied			
in a Canadian high school	92.8	7.2	194

*Number of respondents

Canadian community college experience of the respondents prior to entering the University of Alberta (Item #8 of HKSAS - Part One). Table 18 shows the percentage of the respondents who had studied at a Canadian community college before entering the University of Alberta.

Table 18

Percentage Frequency Distribution of Canadian Community College Experience of the Respondents

	Yes	No	n*
	%	%	
Respondents who had studied			
in a community college	34.9	65.1	192

***Number of respondents**

The respondents' proficiency in writing the TOEFL
(Item #10 of HKSAS-Part One). Table 19 shows the
 respondents' proficiency in writing the TOEFL.

Table 19

Percentage Frequency Distribution of TOEFL Proficiency of
the Respondents

The number of times required to write the TOEFL before reaching the score of 580 or above for university entrance		(n* = 193) %
1	13.0	
2	16.1	
3	19.7	
4-6	25.4	
7-10	17.6	
> 10	8.3	
Total	100.0	

*Number of respondents

The respondents' participation in the University of Alberta's International Student Centre sponsored activities (Item #11 of HKSAS-Part One). Table 20 shows the respondents' level of participation in activities sponsored by the International Student Centre at the University of Alberta.

Table 20

Percentage Frequency Distribution of Respondents' Participation in International Student Centre's Activities

	(n* = 193)
Level of participation	%
Not at all	76.7
Occasionally (e.g., 2 to 3 times a year)	22.8
Very often (e.g., once a month)	0.5
Total	100.0

*Number of respondents

The respondents' friendship associations (Item #12 and 13 of HKSAS-Part One). Table 21 shows the patterns of friendship associations of the respondents.

Table 21

Percentage Frequency Distribution of Friendship Associations of the Respondents

Friends and associates	Mostly associate with (n* = 194) %	Present best friend (n* = 191) %
Hong Kong students	71.2	78.5
Canadian students	4.1	7.9
Both Hong Kong and Canadian students	24.7	13.6
Total	100.0	100.0

***Number of respondents**

Percentage of respondents who have lived with relatives or family friends in Canada (Item #14 of HKSAS-Part One).

Table 22 shows the percentage distribution of the respondents who have lived with relatives or family friends while studying in Canada.

Table 22

Percentage Frequency Distribution of Respondents Who Have Lived with Relatives or Family Friends in Canada

	Yes	No	<u>n</u> *
	%	%	
Respondents who have lived with relatives or family friends	58.2	41.8	194

*Number of respondents

Percentage of respondents who have visited homes of English-speaking Canadians (Item # 15 of HKSAS-Part One).

Table 23 shows the percentage distribution of the respondents who have visited the homes of English-speaking Canadians while studying in Canada.

Table 23

Percentage Frequency Distribution of Respondents Who Have Visited Homes of English-Speaking Canadians

	Yes	No	n*
	%	%	
Respondents who have visited Canadians' homes	69.6	30.4	194

***Number of respondents**

Percentage of respondents who have encountered situations that require counselling for personal problems (Item # 16 of HKSAS-Part One). Table 24 shows the percentage distribution of the respondents who have encountered situations that required counselling for personal problems.

Table 24

Percentage Frequency Distribution of Respondents Who Have Encountered Situations That Require Counselling for Personal Problems

	Yes	No	n*
	%	%	
Respondents' need for counselling	40.2	59.8	194

*Number of respondents

The respondents' first choice of contact in seeking help for personal problems (Item # 17 of HKSAS-Part One).
 Table 25 shows the respondents' preferences of support for counselling personal problems.

Table 25

Percentage Frequency Distribution of Respondents' First Choice of Contact in Seeking Counselling for Personal Problems

Choice of contact for counselling	(n* = 190) %
Brother or sister	17.9
Foreign student advisor	0.5
Medical doctor	0.0
Parents	6.8
Pastors or church counsellors	7.9
Professors	0.5
Relatives or family friends	3.2
Student friends	61.1
University Counselling Services	2.1
Total	100.0

***Number of respondents**

The respondents' choice of contact for counselling when personal problems persist or become worse (Item # 18 of HKSAS-Part One). Table 26 shows the respondents' preferences of support when their personal problems persisted or became worse.

Table 26

Percentage Frequency Distribution of Respondents' Choice of Support When Personal Problems Persisted or Became Worse

Choice of contact for counselling	(n* = 189) %
Brother or sister	10.6
Foreign student advisor	3.2
Medical doctor	1.6
Parents	28.0
Pastors or church counsellors	18.5
Professors	2.1
Relatives or family friends	5.8
Student friends	22.8
University Counselling Services	7.4
Total	100.0

*Number of respondents

Summary of survey results: HKSAS-Part One. The results of the data analysis for Part One of the Hong Kong Student Adjustment Survey (HKSAS) questionnaire are summarized as follows:

1. The representativeness in terms of age, ratio of males to females, marital status, distribution of faculties, and the year of academic program were similar for the respondents and the general population of Hong Kong students at the University of Alberta (Table 12, 13, 14, 15 and 16). A slightly higher proportion of female students (52.7%) responded than would have been expected from their proportion in the population (45.8%) (Table 13). On the other hand, a slightly lower proportion of male students (47.3%) responded than would have been expected from their proportion in the population (54.2%) (Table 13).

2. Overall, female students responded in a slightly higher proportion in the survey than did male students (52.7% vs. 47.3%) (Table 13). All but 2 of the 194 respondents reported that they were single (Table 14). The majority of the respondents were in the 20-22 age range (57.7%) (Table 12). The majority of the respondents were registered in the following four faculties of the University of Alberta: Science (33.0%), Engineering (20.6%), Business (17.0%), and Arts (13.4%) (Table 15). There was no enrollment of undergraduate, Hong Kong foreign students in the faculties of Education or Law among the respondents and the

population. The majority of the respondents were registered in the second and third year of their academic programs (55.7%) (Table 15).

3. Most of the respondents (92.8%) had studied in a Canadian high school before entering the University of Alberta (Table 17). On the other hand, only slightly more than a third of the respondents (34.9%) had studied in a Canadian community college before entering the University of Alberta (Table 18).

4. Eighty-seven percent of the respondents had to write the TOEFL more than once before they obtained the minimum required score of 580 to enter the University of Alberta (Table 19). One-quarter of the respondents (25.9%) had to write the TOEFL seven times or more to obtain the minimum required score.

5. A high majority of the respondents (76.7%) reported that they had not been involved in any programs or activities organized by the International Student Centre located in the HUB Mall of the University of Alberta (Table 20).

6. In terms of friendship associations, a high majority of the respondents said they associated mostly with fellow Hong Kong students (71.2%) and that their current best or close friends were Hong Kong students (78.5%) (Table 21).

7. The majority of the respondents (58.2%) said they had lived with relatives other than with parents or friends of

the family while studying in Canada (Table 22). A rather high majority (69.6%) also said they had visited homes of English speaking Canadians while studying in Canada (Table 23).

8. More than a third of the respondents (40.2%) said that they had encountered situations in which they needed counselling for personal problems (Table 24). The majority of the respondents (61.1%) said that their first choice for help was their student friends, followed by siblings (17.9%), and clergy (7.9%) (Table 25). Very few of the respondents (2.1%) said they would choose University Counselling Services as their first choice for help in counselling. When their personal problems persisted or became worse, many of the respondents said they would have contacted their parents for counselling (28.0%) (Table 26). A good portion relied on student friends for help (22.8%). The number of respondents who would have consulted clergy or the University Counselling Services also increased when the personal problems became more difficult (18.5% and 7.4% respectively).

Cross-tabulation

Additional analyses were performed which cross-tabulated responses from the 18 items on HKSAS-Part One to the variables of age, sex, faculty, and year of academic program. The age ranges of 17-19, 20-22, and 23-25 were chosen to represent the age variable as the majority of the

respondents reported these three age ranges. The faculties of Arts, Business, Engineering, and Science were chosen to represent the faculty variable as the majority of the respondents were enrolled in these four faculties. The variable of the year of academic program was represented by the first year, second year, third year, and fourth year of study. The followings are highlights of the crosstabulation results.

1. There was a significant relationship between age and community college experience (Item #8) (Chi-square = 7.35, $df = 2$, $p < 0.05$), living with relatives/family friends (Item 14) (Chi-square = 6.54, $df = 2$, $p < 0.05$), and first choice for counselling (Item #17) (Chi-square = 29.63, $df = 14$, $p < 0.05$). There was a higher percentage of students in the 23-25 age group who had community college experience before entering the University of Alberta, who had lived with relatives/family friends, and who had relied more on student friends for counselling than did the students in the 17-19 and 20-22 age group.

2. A significant relationship was found between sex and the number of times the TOEFL had been written (Item #10) (Chi-square = 12.91, $df = 5$, $p < 0.05$). There was a greater chance for female students to write the TOEFL once or twice and obtain the required score than for male students. Conversely, there was a greater chance for male students to write the TOEFL more than 10 times than for female students.

3. A significant relationship was found between faculty and community college experience (Item #8) (Chi-square = 10.93, $df = 3$, $p < 0.05$). There was a higher chance for Arts students to have attended community college before entering the University of Alberta than for students in the faculties of Business, Engineering, and Science.

Tables of cross-tabulation are reported in Appendix K

HKSAS Part Two: Questionnaire on Adjustment Problems

Data analysis for each item on Part Two of the HKSAS also involved simple, percentage frequency distributions of responses to the 5-point Likert-type items. Each distribution is based on the number(n) of respondents to an item. As a result, varying n 's are reported in the following percentage, frequency distribution table. In addition to percentage frequency distribution, mean of the magnitudes of the adjustment problems is also reported in the following table (Table 27). Ratings of the magnitude of adjustment problems on the HKSAS-Part Two are as follows: 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem, 4 = extreme problem.

Table 27

Percentage, Frequency Distribution, and Mean of Adjustment Problems Presented on HKSAS-Part Two

Adjustment problems	n*	Magnitude of problems					Mean
		0	1	2	3	4	
		%	%	%	%	%	
1. Finding - accommodation	194	41.8	25.8	25.8	5.2	1.5	1.0
2. Living - conditions	193	35.8	34.2	17.6	9.8	2.6	1.1
3. Housing - Location	192	42.2	29.7	17.7	8.3	2.1	1.0
4. Living with relatives/ family friends	193	39.9	14.8	24.6	13.1	7.7	1.3
5. Getting along with roommates	194	29.4	32.5	23.7	11.9	2.6	1.3
6. Transportation	194	21.6	23.2	28.9	18.0	8.2	1.7
7. Food	194	60.8	27.3	8.8	2.6	0.5	0.5
8. Climate	193	20.7	30.6	29.5	12.4	6.7	1.5
9. Pace of life	193	16.1	27.5	26.9	18.7	10.9	1.8
10. Academic - Listening	194	27.3	44.8	22.2	4.1	1.5	1.1
11. Academic - Speaking	193	8.3	30.6	35.8	17.6	7.8	1.9
12. Academic - Writing	194	10.3	28.9	23.9	23.2	8.8	1.9
13. Academic - Reading	193	14.5	34.2	31.6	13.5	6.2	1.6
14. TOEFL	194	35.6	29.4	19.1	9.8	6.2	1.2
15. Alberta - English 30	192	39.6	27.6	17.2	11.5	4.2	1.1
16. U. of A. - entrance standards	193	28.0	24.9	20.2	14.0	13.0	1.6
17. Teaching/learning style	193	26.4	38.3	25.4	8.3	1.6	1.2

Notes. Ratings of the magnitude of adjustment problems on HKSAS-Part Two are as follows: 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem, 4 = extreme problem

*Number of respondents

Table 27 (continued)

Percentage, Frequency Distribution, and Mean of Adjustment Problems Presented on HKAS-Part Two

Adjustment problems	n*	Magnitude of problems					Mean
		0	1	2	3	4	
		%	%	%	%	%	
18. Pressure - School work	194	9.8	28.0	30.6	23.8	7.8	1.9
19. Pressure - Family	194	16.0	26.3	27.3	14.4	16.0	1.9
20. Academic support	194	21.1	37.1	22.2	13.4	6.2	1.5
21. Academic performance	194	18.0	32.0	23.7	18.6	7.7	1.7
22. Coursework selection	194	19.6	25.8	28.9	17.5	8.2	1.7
23. Program desirability	193	37.8	23.8	14.0	12.4	11.9	1.4
24. Program satisfaction	194	13.9	32.0	27.8	21.6	4.6	1.7
25. Motivation - Overseas study	193	60.6	29.5	5.7	2.1	2.1	0.6
26. Constriction of activity	194	27.8	25.3	23.2	18.6	5.2	1.5
27. Class size	194	21.6	20.1	26.8	16.5	14.9	1.8
28. Time management	194	12.4	29.9	25.8	20.1	11.9	1.9
29. Study skills	193	18.1	35.8	24.4	15.0	6.7	1.6
30. Confidence	193	23.8	33.7	20.2	14.5	7.8	1.5
31. Conversation - Listening	194	5.7	27.3	35.1	24.7	7.2	2.0
32. Conversation - Speaking	194	11.9	36.1	26.8	17.0	8.2	1.7
33. Conversation - Topics	194	6.7	20.1	25.3	31.4	16.5	2.3

Notes. Ratings of the magnitude of adjustment problems on HKAS-Part Two are as follows: 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem, 4 = extreme problem

*Number of respondents

Table 27 (continued)

Percentage, Frequency Distribution, and Mean of Adjustment Problems Presented on HKAS6-Part Two

Adjustment problems	n*	Magnitude of problems					Mean
		0	1	2	3	4	
		%	%	%	%	%	
34. Friendship - Canadian students	194	8.2	21.6	25.8	24.2	20.1	2.3
35. Friendship - Asian foreign students	193	32.1	36.8	20.2	6.7	4.1	1.1
36. Western values	193	21.8	34.2	25.9	10.9	7.3	1.5
37. Discrimination - Subtle	194	16.0	34.5	33.0	14.4	2.1	1.5
38. Discrimination - Explicit	194	34.0	35.6	23.2	6.2	1.0	1.0
39. Acceptance by Canadian students	193	16.1	31.1	29.5	17.1	6.2	1.7
40. Foreign student status	193	15.5	32.6	30.6	17.1	4.1	1.6
41. Treatment of foreign T.A.	191	12.0	23.0	34.0	20.9	9.9	1.9
42. Cultural pride	194	27.3	34.0	28.4	6.7	3.6	1.3
43. Instability - Hong Kong	193	11.4	22.8	25.4	22.8	17.6	2.1
44. Finances	194	35.1	29.4	20.1	8.8	6.7	1.2
45. Loneliness - Social	194	24.7	34.5	22.7	9.3	8.8	1.4
46. Loneliness - Emotional	194	25.3	28.9	29.4	9.8	6.7	1.4
47. Homesickness	193	18.7	30.1	21.2	16.1	14.0	1.8
48. Achieving independence	191	44.5	38.2	12.6	3.1	1.6	0.8
49. Counselling - Personal	190	34.7	35.8	20.0	7.4	2.1	1.1
50. Immigration - visa	190	50.5	28.4	8.4	7.4	5.3	0.9
51. Dating	189	29.1	29.1	19.0	13.8	9.0	1.4
52. Feeling blue	192	20.3	37.5	19.3	13.0	9.9	1.5
53. Depression	192	39.6	27.6	18.2	9.9	4.7	1.1

Notes. Ratings of the magnitude of adjustment problems on HKAS6-Part Two are as follows: 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem, 4 = extreme problem

*Number of respondents

Table 27 (continued)

Percentage, Frequency Distribution, and Mean of Adjustment Problems Presented on HKAS6-Part Two

Adjustment problems	n*	Magnitude of problems					Mean
		0	1	2	3	4	
		%	%	%	%	%	
54. Somatic complaints	191	29.3	31.4	23.6	9.4	6.3	1.3
55. Planning - Future	193	6.7	20.2	25.9	31.1	16.1	2.3

Notes. Ratings of the magnitude of adjustment problems on HKAS6-Part Two are as follows: 0 = no problem, 1 = minor problem, 2 = moderate problem, 3 = major problem, 4 = extreme problem

*Number of respondents

Summary of Survey Results: HKSAS-Part Two

"Environmental" adjustment problems (Items #1 - 9 of HKSAS-Part Two).

1. With the exception of transportation (Item #6) and the pace/tempo of life (Item #9), the majority of the respondents reported "no problem" or "minor problem" in their adjustment to the living environment in Canada.

2. The majority of the respondents reported adjustment problems ranging from a "moderate" to "extreme" nature in the area of transportation (55.1%) and adapting to the pace of life in Canada (56.1%).

3. Close to half of the respondents said they experienced problems ranging from a "moderate" to "extreme" nature in adjusting to the climate in Canada (Item #8) (48.6%) and living with relatives or friends of the family while studying in Canada (Item #4) (45.4%).

4. Food appeared to present little difficulties for the respondents. Sixty-one percent of the respondents said they had no problem adjusting to eating Western style food in Canada.

5. Among the nine environmentally related adjustment problems, the items that received average magnitude rating close to the "moderate" level were:

(a) Transportation (1.7)

(b) Pace of life (1.8)

6. No items among the environmentally related problems

received a mean magnitude rating at the "major" or "extreme" levels.

7. Among the environmentally related problems, food (Item #7) was the only category that received a majority endorsement of "no problem" from the respondents (60.8%).

"Academic" adjustment problems (Items #10 - 30 of HKSAS-Part Two).

1. With the exception of listening skills (Item #10), the majority of the respondents said they had experienced problems ranging from "moderate" to "extreme" nature in speaking English (Item #11) (61.2%), writing English (Item #12) (60.9%), and reading English (Item #13) (51.3%), in the university setting.

2. The majority of the respondents reported "no problem" or "minor problem" with regard to the TOEFL (Item #14) (65.0%) and Alberta high school English 30 (Item #15) (67.2%).

3. Close to half of the respondents (47.2%) expressed concerns ranging from a "moderate" to "extreme" nature regarding entrance standards for foreign students to enter professional schools at the University (Item #16).

4. The majority of the respondents expressed no, or only minor, concerns regarding teaching and learning style at the University of Alberta (Item #17) (64.7%).

5. The majority of the respondents said they had experienced "moderate" to "extreme" pressure from their work

load (Item #18) (62.2%) and from their family to excel in school (Item #19) (57.7%). Close to a third of the respondents reported "major" to "extreme" academic pressure from their school work (31.6%) and from their family (30.4%).

6. The majority of the respondents felt that they had no or only minor problems in seeking help and support for their school work (Item #20) (58.2%). However, "moderate" to "extreme" dissatisfaction with academic performance was reported by half (50.0%) of the respondents (Item #21). The majority of the respondents (54.6%) also reported problems ranging from a "moderate" to "extreme" nature in selecting coursework (Item #22).

7. The majority of the respondents (61.6%) expressed no or only minor concerns regarding the choice of their current field of study (Item #23). However, more than half of the respondents (54.0%) expressed dissatisfaction ranging from a "moderate" to "extreme" nature with regard to the quality of their current academic program (Item #24).

8. Ninety percent of the respondents expressed no significant problems regarding their motivation to come to Canada to study (Item #25).

9. Close to half of the respondents (47.0%) expressed "moderate" to "extreme" concerns regarding their life being too constricted by studying and school work (Item #27).

10. The majority of the respondents (58.2%) reported

"moderate" to "extreme" concerns regarding the big class sizes at the University of Alberta (Item #27). Close to a third of the respondents (31.4%) expressed "major" to "extreme" concerns regarding class sizes.

11. The majority of the respondents said they had experienced "moderate" to "extreme" problems in managing their time (Item #28) (57.8%). Close to a third of the respondents (32.0%) reported "major" to "extreme" problems in time management. However, the majority of the respondents (53.9%) said they had no or only minor problems in study skills (Item #29).

12. The majority of the respondents (57.5%) expressed no or only minor problems with regard to self-confidence in their academic ability (Item #30).

13. Among the 21 academically related adjustment problems, the items that received mean magnitude ratings close to the "moderate" level were:

- (a) Speaking English (1.9)
- (b) Writing English (1.9)
- (c) Pressure from school work (1.9)
- (d) Pressure from the family (1.9)
- (e) Academic performance (1.7)
- (f) Coursework selection (1.7)
- (g) Program satisfaction (1.7)
- (h) Class size (1.8)
- (i) Time management (1.9)

14. No items among the academically related problems received mean magnitude ratings at the "major" or "extreme" level.

15. Among the academically related problems, motivation for overseas study (Item #25) was the only category that received a majority endorsement of "no problem" in adjustment from the respondents (60.6%).

"Socio-cultural" adjustment problems (Items #31 - 43 of HKSAS-Part Two).

1. The majority of the respondents reported "moderate" to "extreme" problems with everyday English conversation in listening skills (67.0%) (Item #31) and speaking English (52.0%) (Item #32). Close to a third (31.9%) of the respondents said they had experienced "major" to "extreme" difficulty in understanding slang, jokes, idioms, and common vocabulary in their everyday interaction with Canadians. A large majority of the respondents also said they had experienced "moderate" to "extreme" problems in finding common topics of conversation in their everyday interaction with Canadians (73.2%) (Item #33). Close to half of the respondents (47.9%) said they had "major" to "extreme" problems in regard to topics of conversation with Canadians.

2. A large majority of the respondents reported that they had "moderate" to "extreme" problems in making friends with Canadian students at the University of Alberta (70.1%) (Item #34). Forty-four percent said they had "major" to "extreme"

problems in making friends with Canadian students. On the contrary, close to 70.0% (68.9%) of the respondents said they had no, or only minor, problems in making friends with Asian foreign students (Item #35).

3. The majority of the respondents (56.0%) said they had no, or only minor, problems adjusting to Western norms and values while studying in Canada (Item #36).

4. In terms of racial discrimination, a minority of the respondents reported that they had experienced "major" to "extreme" problems in subtle discrimination (16.5%) (Item #37) and explicit discrimination (7.2%) (Item #38) from Canadians. A half of the respondents (50.5%) said they had encountered no, or only minor, problems in subtle discrimination while studying in Canada, and more than two thirds of the respondents (69.6%) said they had encountered no, or only minor, problems with explicit discrimination.

5. A slight majority of the respondents expressed "moderate" to "extreme" concerns that foreign students were not socially accepted by Canadian students in the University of Alberta (52.8%) (Item #39) and that foreign students did not have a vital status at the university (51.8%) (Item #40).

6. Sixty-five percent of the respondents expressed "moderate" to "extreme" concerns regarding the way foreign teaching assistants were treated by the students. Close to a third of the respondents (30.8%) expressed "major" to

"extreme" concerns about the problem.

7. The majority of the respondents (61.3%) said they had experienced no or only minor problems in maintaining Chinese cultural pride while studying in Canada (Item #42).

8. The majority of the respondents (65.8%) expressed "moderate" to "extreme" concerns regarding the political instability in Hong Kong (Item #43). More than a third (40.4%) reported "major" to "extreme" concerns in this area.

9. Among the 13 socially related adjustment problems, the items that received mean magnitude ratings close to or at the "moderate" level were:

- (a) English listening skills (2.0)
- (b) Speaking English (1.7)
- (c) Topics of conversation (2.3)
- (d) Making friends with Canadian students (2.3)
- (e) Acceptance by Canadian students (1.7)
- (f) Treatment of foreign teaching assistants (1.9)
- (g) Political instability in Hong Kong (2.1)

10. No items among the socially related problems received a mean magnitude rating at the "major" or "extreme" level.

"Personal" adjustment problems (Items #44 - 55 of HKSAS-Part Two).

1. The majority of the respondents (64.5%) reported no or only minor problems with their finances while studying in Canada (Item #44).

2. The majority of the respondents said they had

experienced no or only minor problems with loneliness of both social (Item #45) (59.2%) or emotional (Item #46) (54.2%) nature. Only a minority of the respondents reported "major" to "extreme" problems with social (18.1%) and emotional (16.5%) loneliness. In contrast, close to a third of the respondents (30.1%) reported that they had experienced "major" to "extreme" problems with homesickness (Item #47).

3. A large majority of the respondents said they had experienced no or only minor problems with learning to achieve independence while studying in Canada (82.7%) (Item # 48).

4. A large majority of the respondents said they had encountered no or only minor difficulty finding support for counselling regarding personal problems (70.5%) (Item #49).

5. A large majority of the respondents (78.9%) reported that they had encountered no or only minor difficulty with immigration officials regarding renewal or application of student visas (Item #50).

6. The majority of the respondents (58.2%) reported no or only minor concerns regarding dating (Item #51).

7. The majority of the respondents reported no or only minor concerns regarding their mental health in the areas of feeling blue (57.8%) (Item #52), depression (67.2%) (Item #53), and somatic complaints (60.7%) (Item #54). Close to a quarter of the respondents (22.9%) said they had experienced

"major" to "extreme" problems with feeling blue while studying in Canada. Close to 15.0% of respondents reported "major" to "extreme" problems with depression, whereas 15.7% of respondents reported "major" to "extreme" problems with somatic complaints.

8. A large majority of the respondents (73.1%) expressed "moderate" to "extreme" concerns regarding their futures (Item #55). Close to half of the respondents (47.2%) expressed "major" to "extreme" concerns about their future academic plans and vocational opportunities.

9. Among the 12 "personal" adjustment problems, the items that received mean magnitude rating close to or at the "moderate" level were:

(a) Homesickness (1.8)

(b) Planning for the future (2.3)

10. No items among the personally related problems received mean magnitude rating at the "major" or "extreme" level.

11. Among the personally related problems, immigration (Item #50) was the only category that received a majority endorsement of "no problem" from the respondents (50.5%).

Open-Ended Written Comments

Close to a half of the 194 respondents (48.5%) made comments on the HKSAS-Part Two. A general analysis of the contents of the comments showed that the focus of the comments was on the following 11 areas of adjustment:

1. English skills
2. Academic and/or vocational uncertainty
3. Pace of life in Edmonton
4. Making friends with Canadian students
5. Poor teaching skills of professors
6. The Edmonton winter
7. Transportation
8. Topics of conversation
9. Expensive housing around the University
10. Different academic standards imposed on foreign students to compete for entry into professional schools
11. Understanding slangs and jokes

Some of the respondents' comments were as described below:

English skills.

I feel so tense when I have to speak in English even though I know what to say and the sentence is grammatically all right.

Since I can't speak English fluently, I seldom present ideas in class. The mechanism in writing essays is hard to grasp. Hard to understand poetry, also slow reading speed.

Academic and/or vocational uncertainty.

I am uncertain whether to work or further my study after my graduation in June this year. However, I will try to apply for both and take whatever I will have. Since both working and further study have their pros and cons, I keep myself flexible and put myself in a win-win situation.

Worried of finding jobs here as many friends could not get a job and went back to Hong Kong. I really want to try to stay here but it is something I can't control.

Pace of life in Edmonton.

I am trapped in Edmonton. Here seems no place to go.

Extremely bored, slow services everywhere.

There nothing to do and nowhere to go after school.

There are very little to do here, practically no night life here, but hey...supposedly came to study, sometimes I like the quiet anyway.

Making friends with Canadian students.

I find most of my Canadian friends are very superficial.

The Canadian friends I have are mostly orientals. It is not easy for a Hong Kong student to meet the White.

Not much in common other than school work.

Poor teaching skills of professors.

True. I met quite a few professors that are not competent, not helpful, and lazy.

The big problem is some professors' teaching skill is very poor. They don't know how to explain things simply and clearly.

This is not only my problem. My friends also feel that the profs are not helpful. Sometimes, we just skip the classes and prefer to study by ourselves. Of course, we can't do this quite often because we have to know how far the course goes.

The Edmonton winter.

The cold weather and early sunset affect mood.

Almost impossible to survive in winter.

Sometimes the early sunset makes me depressed. God, I hate to get up early to go to class when it is still dark and cold outside.

Transportation.

Very inconvenient without a car. Buses are not very reliable.

No bus services in some areas during Sundays and holidays.

Sometimes I feel bored and can't go out because of the limitation of bus service.

Topics of conversation.

Since I don't understand the Canadian culture very well, I find it hard to talk with them. In most cases, courses or school work are the main topics.

Both Canadian guys and girls only talk about sex and beer and no education.

Have very different background, not much to talk about with Canadians.

Expensive housing around the University.

Apartments around the University area are expensive. One has to live with somebody else to reduce the rent in general.

It is expensive in HUB. Around the University area, the apartments are expensive too.

The housing provided by the University is expensive.

Different academic standards imposed on foreign students to compete for entry into professional schools.

I want to enter Pharmacy with a G.P.A. of 7.9 but U. of A. requires 8.2 for the lowest visa students, but immigrants can enter at 6.1.

I can give an example in entering into the Faculty of Pharmacy. They require a G.P.A. of 8.5 for foreign students but only 6.7 G.P.A. for local people last year. Do you think it is fair?

I find it totally unfair to have a higher G.P.A. to get into certain programs. I don't know why an immigrant or a Canadian can have a lower G.P.A. to get into it. Is it indicative that to get into certain programs depends on other things rather than G.P.A.? I have the feeling of being discriminated.

Calender just indicates we need higher score but never tells how much higher.

Understanding slang and jokes.

Slang is major problem. Sometimes you miss a joke and it makes you feel so dumb.

When I watch T.V., some of the jokes I don't understand at all.

I don't know where to learn the slang, idioms, and that kind of stuff.

Cross-tabulation

Additional analyses were performed which cross-tabulated responses from the 55 questionnaire items on HKSAS-Part Two to the variables of age (17-19, 20-22, and 23-25), sex, faculty (Arts, Business, Engineering, and Science), and year of academic study (first year, second year, third year, and fourth year). The following discussion reviews tests of significance of demographic variables on selected adjustment problems.

1. As shown in Table 28, there was a significant relationship between age and time management (Item #28) (Chi-square = 18.92, df = 8, $p < 0.05$), and between age and topics of conversation (Item #33) (Chi-square = 21.47, df =

8, $p < 0.05$). Students in the 20-22 age group were more likely to have reported problems in time management and finding topics of conversation with Canadian students than were students in the 17-19 and 23-25 age group.

2. As shown in Table 29, there was a significant relationship between gender and program desirability (Item #23) (Chi-square = 9.88, $df = 4$, $p < 0.05$), and between gender and program satisfaction (Item #24) (Chi-square = 14.42, $df = 4$, $p < 0.05$). Female students were more likely to have reported "major" problems in program desirability than were male students. Conversely, male students were more likely to have reported "major" and "extreme" problems in program satisfaction.

3. In Table 29, a significant relationship is also reported between gender and somatic complaints (Item #54) (Chi-square = 10.53, $df = 4$, $p < 0.05$), and between gender and planning for the future (Item #55) (Chi-square = 13.07, $df = 4$, $p < 0.05$). Female students were more likely to have reported "moderate" and "extreme" somatic problems than were male students. Female students were more likely to have reported "extreme" problems with academic/vocational uncertainty than were male students.

4. Table 30 shows that there was a significant relationship between year of academic study and the following areas of adjustment: pace of life (Item #9) (Chi-square = 24.29, $df = 12$, $p < 0.05$), program satisfaction

Table 28

**Tests of the Significance of Age Differences on Various
Adjustment Problems in HKSAS-Part Two**

Variable	n*	Chi-Square	D.F.	P	Cells with E.F. < 5
Age by living with roommates (Item #5)	181	16.1	8	< 0.05	**
Age by time management (Item #28)	181	18.9	8	< 0.02	
Age by conversation-listening (Item #31)	181	31.5	8	< 0.01	**
Age by topics of conversation (Item #33)	181	21.5	8	< 0.01	

Alpha = 0.05

*Number of respondents

** Statistical tests not interpreted with confidence because of sparse data

Table 29

**Tests of the Significance of Gender Differences on Various
Adjustment Problems in HKSAS-Part Two**

Variable	n*	Chi-Square	D.F	P	Cells with E.F. < 5
Gender by program desirability (Item #23)	186	9.9	4	< 0.05	
Gender by program satisfaction (Item #24)	186	14.4	4	< 0.01	
Gender by motivation for overseas study (Item #25)	185	10.3	4	< 0.04	**
Gender by treatment of foreign T.A. (Item #41)	183	13.6	4	< 0.01	
Gender by achieving independence (Item #48)	184	10.9	4	< 0.03	**
Gender by somatic complaints (Item #54)	183	10.5	4	< 0.04	
Gender by planning for the future (Item #55)	185	13.1	4	< 0.02	

Alpha = 0.05

***Number of respondents**

**** Statistical tests not interpreted with confidence because of sparse data**

Table 30

**Tests of the Significance of Year of Study Differences on Various
Adjustment Problems in HK\$AS-Part Two Questionnaire**

Variable	n*	Chi-Square	D.F	P	Cells with E.F. < 5
Year by pace of life (Item #9)	173	24.3	12	< 0.02	
Year by academic-speaking English (Item #11)	173	23.3	12	< 0.03	**
Year by program satisfaction (Item #24)	174	31.6	12	< 0.01	
Year by study skills (Item #29)	173	23.5	12	< 0.03	**
Year by acceptance by Canadian students (Item #39)	173	21.2	12	< 0.05	
Year by finances (Item #44)	174	21.6	12	< 0.05	**
Year by immigration (Item #50)	170	28.9	12	< 0.01	**

Alpha = 0.05

***Number of respondents**

**** Statistical tests not interpreted with confidence because of sparse data**

(Item #24) (Chi-square = 31.58, df = 12, p < 0.05), and acceptance by Canadian students (Item #39) (Chi-square = 21.21, df = 12, p < 0.05). Second year students were more likely to have reported "major" and "extreme" problems with the pace of life, to report "major" problems in program satisfaction, and to report "major" and "extreme" problems in acceptance by Canadian students than were students in first, third, and fourth years of academic study.

Intercorrelations Among Questionnaire Items in the HKSAS-Part One and HKSAS-Part Two

Pearson product-moment intercorrelations were computed to examine the relationships among the HKSAS questionnaire items. The followings are highlights of the correlations results.

1. Academic performance (Item #21) was moderately correlated with family pressure (Item # 19) ($r = 0.502$, $p < 0.05$), academic support (Item #20) ($r = 0.520$, $p < 0.05$), time management (Item #28) ($r = 0.637$, $p < 0.05$), study skills (Item #29) ($r = 0.688$, $p < 0.05$), and self-confidence (Item #30) ($r = 0.606$, $p < 0.05$).

2. Academic performance (Item #21) was moderately correlated with all the English skill items combined (Items #10, #11, #13, #31, #32, #33) ($r = 0.476$, $p < 0.05$).

3. Academic performance (Item #21) was moderately correlated with all the mental health items combined (Items

#30, #45, #46, #47, #52, #53, #54) ($r = 0.448$, $p < 0.05$).

4. A weak correlation was found between academic performance (Item #21) and TOEFL performance (Item #10 - HKSAS-Part One, $r = 0.251$, $p < 0.05$; Item #14 - HKSAS-Part Two, $r = 0.321$, $p < 0.05$).

5. Moderate correlations were found between self-confidence and time management ($r = 0.607$, $p < 0.05$), and between self-confidence and study skills ($r = 0.709$, $p < 0.05$).

6. Self-confidence was moderately correlated with feeling blue (Item #52) ($r = 0.552$, $p < 0.05$) and depression (Item #53) ($r = 0.518$, $p < 0.05$).

7. Academic pressure (Item #18) was moderately correlated with time management (Item #28) ($r = 0.538$, $p < 0.05$) and study skills (Item #29) ($r = 0.530$, $p < 0.05$).

8. University entrance standards (Item #16) was moderately correlated with program desirability (Item #23) ($r = 0.553$, $p < 0.05$).

9. Topics of conversation (Item #33) was moderately correlated with English listening skill (Item #31) ($r = 0.570$, $p < 0.05$), English speaking skill (Item #11, $r = 0.565$, $r < 0.05$; Item #32, $r = 0.638$, $p < 0.05$), and friendship with Canadian students (Item #34) ($r = 0.641$, $p < 0.05$).

10. Friendship with Canadian students (Item #34) was moderately correlated with English listening skill (Item

#31) ($r = 0.569$, $p < 0.05$), English speaking skill (Item #32) ($r = 0.607$, $p < 0.05$), time management (Item #28) ($r = 0.541$, $p < 0.05$), and acceptance by Canadian students (Item #39) ($r = 0.537$, $p < 0.05$).

Tables of intercorrelation of HKSAS questionnaire items are contained in Appendix L.

CHAPTER 5

Discussion

Summary of Findings

The objective of this dissertation was to explore the adjustment experiences of undergraduate, international students from Hong Kong at the University of Alberta. The study was conducted in three stages. The purpose of Stage One was to build an "adjustment matrix" to describe adjustment problems of university students. The purpose of Stage Two was to identify adjustment problems of a selected sample of Hong Kong foreign students at the University of Alberta using the Stage One "adjustment matrix" as a guide during open-ended, semi-structured interviews. In Stage Three, information gathered in Stages One and Two was developed into a Hong Kong Student Adjustment Matrix (HKSAM) representing the adjustment problems experienced by Hong Kong students. Based on the HKSAM, the Hong Kong Student Adjustment Survey (HKSAS) questionnaire was constructed and distributed to all undergraduate Hong Kong students on student visas attending the University of Alberta. The findings of the survey were used to (a) cross-validate the construct of adjustment problems in the HKSAM, and (b) assess the nature, frequency, and magnitude of adjustment problems experienced by Hong Kong students. The following is a summary of the overall survey responses and analysis.

1. The overall survey return rate was 63.8%.
2. A vast majority of the Hong Kong students (92.8%) had studied in a Canadian high school before entering the University of Alberta.
3. A vast majority of the Hong Kong students (87.0%) had to write the TOEFL (Test of English as a Foreign language) more than once before they obtained the minimum required score of 580 to enter the University of Alberta. Female students were found to be more successful than were male students in writing the TOEFL.

A positive but weak correlation was found between TOEFL performance and the students' self-ratings of academic performance.

4. A vast majority of the Hong Kong students (76.7%) had not been involved in any programs or activities organized by the International Student Centre at the University of Alberta.
5. Socially, a vast majority of the Hong Kong students reported that they associated mostly with each other (71.1%) and that their best or close friends were fellow Hong Kong students (78.5%). Forty-four percent of the Hong Kong students said they had experienced "major" to "extreme" problems in making friends with Canadian students. The majority of the Hong Kong students had "moderate" to "extreme"

concerns that foreign students were not socially accepted by Canadian students (52.8%), and that foreign students did not have an important status in the university (51.8%). A minority of the Hong Kong students (16.5%) felt that they had experienced "major" to "extreme" subtle discrimination from Canadians, whereas only 7.2 % of the students reported experiences of "major" to "extreme" explicit discrimination. However, close to a third of the Hong Kong students (30.8%) expressed "major" to "extreme" concerns that foreign teaching assistants were mistreated by students in the university.

6. In regard to the mental health of Hong Kong students, the majority of the students said they had no or only minor problems with social (59.2%) or emotional (54.2%) loneliness. However, close to a third of the students (30.1%) had experienced "major" to "extreme" problems with homesickness. The majority of the students reported no or only minor problems with feeling blue (57.8%), depression (67.2%), and somatic difficulties (60.7%). Fifteen percent of the students had experienced "major" to "extreme" problems with depression, and 16.0% of the students reported "major" to "extreme" problems with somatic complaints. The percentage of female students reporting "moderate" and "extreme" somatic problems was significantly

higher than that of male students. Forty percent of the Hong Kong students had encountered situations which needed counselling for personal problems. The majority of the students (61.1%) reported that they would have sought counselling from their friends regarding personal problems. The other sources for help were siblings, parents, and clergy from Chinese churches. Very few of the Hong Kong students reported that they would have chosen the University Counselling Services for help in counselling (2.1%). Even when their personal problems became more difficult, only 7.4% of the students reported that they would have considered the counselling services provided by the university.

7. Academically, fifty percent of the Hong Kong students reported "moderate" to "extreme" concerns with their school performance. The majority of the students (54.6%) had encountered "moderate" to "extreme" problems in selecting coursework. The majority of the students (54.0%) expressed "moderate" to "extreme" dissatisfaction with the quality of their present academic programs. The percentage of male students reporting "major" and "extreme" problems with program satisfaction was significantly higher than that of female students. Close to a third of the students (31.4%) had expressed "major" to "extreme" concerns regarding class sizes in the university. Close to a

third of the students (32.0%) reported experiencing "major" to "extreme" problems in time management. Close to a third of the students reported having experienced "major" to "extreme" pressure from their school work (31.6%) and families (30.4%). Close to a half of the students (47.2%) expressed "major" to "extreme" concerns about their future academic plans and vocational opportunities. The percentage of female students reporting "extreme" problems with academic/vocational uncertainty was significantly higher than that of male students.

8. The majority of the Hong Kong students had experienced problems with the English language. For example, close to a third of the students (31.9%) had experienced "major" to "extreme" problems with slang, jokes, idioms, and common vocabulary. Close to a half of the students (47.9%) reported experiencing "major" to "extreme" problems with topics of conversation with Canadians.
9. In terms of their living environment in Edmonton, the majority of the students (55.1%) reported "moderate" to "extreme" problems with transportation. The majority of the students (56.1%) had experienced "moderate" to "extreme" difficulties adjusting to the pace of life in Edmonton. Close to half of the students (48.6%) said they had experienced "moderate"

to "extreme" problems adjusting to the climate in Alberta. The majority of the Hong Kong students (58.2%) had lived with relatives or family friends while studying in Edmonton. Forty-five percent of the students had experienced "moderate" to "extreme" problems living with relatives or family friends.

10. More than a third of the Hong Kong students (40.4%) expressed "major" to "extreme" concerns regarding the political instability in Hong Kong. Financially, the majority of the Hong Kong students (64.5%) reported no or only minor concerns regarding financial support.
11. The top 10 adjustment problems in the survey that received the highest average magnitude ranking in terms of problem severity were:
 - (a) Planning for the future
 - (b) Making friends with Canadian students
 - (c) Topics of conversation
 - (d) Political instability in Hong Kong
 - (e) English listening skills
 - (f) Speaking English
 - (g) Writing English
 - (h) Academic pressure
 - (i) Time management
 - (j) Treatment of foreign teaching assistants
12. Among the 55-items Hong Kong Student Adjustment Survey (HKSAS) questionnaire, only three items of adjustment

problems had received a majority of "no problem" response from the students. These three items were (a) adapting to Western food (60.8%), (b) motivation to study in Canada (60.6%), and (c) immigration (50.5%). English listening skills in everyday conversation had the lowest percentage of "no problem" response from the students (5.7%), followed by topics of conversation (6.7%), planning for the future (6.7%), friendships with Canadian students (8.2%), English speaking skills in academic settings (8.3%), and pressure from school work (9.8%).

In essence, the survey response had cross-validated the construct of adjustment problems in the Hong Kong Student Adjustment Matrix (HKSAM) as a relevant representation of the adjustment experience of Hong Kong international students at the University of Alberta.

Relation to Previous Research

As compared to other foreign student surveys conducted in Canada, the return rate of 63.8% of the present study was a relatively high response. Reshef's (1990) study of foreign students socialization into sport at the University of Alberta had a return rate of 28.0%. Bryan, Holdaway, and Allan's (1987) survey of international students at the University of Alberta had a return rate of 52.8%. The study conducted by Yee (1980) on the adjustment concerns of Hong

Kong foreign students at the University of Alberta had a return rate of 38.0%. The survey conducted by Mickle (1985) on the adaptation of Hong Kong students at the University of Toronto had a return rate of 22.4%.

The present survey lends support to previous research findings (Klein, Alexander, Tseng, Miller, Yeh, & Chu, 1971; Mickle, 1985; Neice & Braun, 1977) which indicated that Hong Kong and Chinese foreign students tended to associate mostly with each other and seldom developed close friendships with people in the sojourn country. In this survey, seventy-one percent of the Hong Kong students said that they associated mostly with other students from Hong Kong, whereas only 4.1% of the respondents said they associated mostly with Canadian students. Close to 80.0% of the Hong Kong students said their present best or close friends were students from Hong Kong, whereas only 7.9% of the students said their present best or close friends were Canadian students. In terms of friendships with Canadians, the majority of the Hong Kong students (70.1%) said they had experienced moderate to extreme problems in making friends with Canadian students, whereas the majority of the respondents (68.9%) said they had encountered no or only minor problems in making friends with foreign students from Hong Kong or from other South-East Asian countries.

The results of the present study agree with the findings reported by Cheung (1983, 1984) that friends are a

primary source of help among Hong Kong students for counselling regarding personal problems, and that professional counsellors such as psychologists are rarely seen by the students as a resource for help. In the present survey, sixty percent of the Hong Kong students reported that they would contact their friends first for counselling regarding personal problems, but only 2.1% responded that they would contact the University Counselling Services. When asked whom they would contact if their personal problems persisted or became worse, many of the students reported that they would have contacted people they knew in their social network of friends (22.8%), parents (28.0%), Chinese pastors or church counsellors (18.5%), and siblings (10.6%). Only 7.4% of the students said they would have contacted the University Counselling Services. The present findings agree with the findings reported by Pedersen (1986, 1991) and Sue and Zane (1985) that the indigenous support network of peers, family, and co-nationals is an important source of psycho-social support for Hong Kong foreign students.

The present study found that difficulty with the English language is a major adjustment problem among Hong Kong foreign students. Many Hong Kong students experience difficulties not only with the basic mastery of the English language, such as listening and speaking, but also with the socio-cultural aspects of the English language, such as slang, jokes, idioms, common vocabulary, and topics of

conversation. As the majority of the student interviewees in the Stage Two interviews said, besides discussing school work related topics, they did not have much to talk about with Canadian students. One Business student pointed out in the interviews that many Canadian students liked to talk about hockey, but most Hong Kong students had no interest in hockey. The Hong Kong students in the interviews said that cultural differences had interfered with the quality of their friendships with Canadian students. In the survey, problems with topics of conversation was found to be moderately correlated with problems of friendship with Canadian students ($r = 0.641$, $p < 0.05$).

The results of the survey also lend some support to the notion that foreign students should be studied more as students than as foreigners because their adjustment is very much influenced by the stress and demands of being a student (Johnson, 1971a; Selby & Woods, 1966; Walton, 1971). In the present survey, three of the top ten adjustment problems reported by the Hong Kong students were related to the role of being a student, namely, problems related to uncertainty about one's vocational/academic future, stress arising from academic pressure, and problems associated with time management. In a study by Holdaway and Kelloway (1987) of first year Canadian students' perceptions and experiences at the University of Alberta, amount of work, registration procedures, stress, difficulty of work, and methods of

instruction were perceived by the first year students as the areas that needed the most adjustment. In a study on early attrition of Canadian students at Dalhousie University, Stewart and Sutherland (1988) found that uncertainty regarding future career goals and objectives, dissatisfaction with program or course content, and inability to enrol in desired classes were the top three academic factors reported by the students as reasons for early withdrawal from university. Within the context of Canadian university education, Hong Kong foreign students at the University of Alberta did appear to share some similar problems with Canadian students in terms of adjusting to the university environment.

In contrast to the findings by Klineberg and Hull (1979) that many foreign students around the world had concerns with their finances, the present study did not find Hong Kong students experiencing significant financial problems, as only 15.5% of the students reported problems with finances at the "major" to "extreme" levels. The lack of significant financial concerns reported by Hong Kong students is probably due to the fact that all foreign students are required by the immigration officials to demonstrate possession of adequate funds before their student visas can be issued or renewed. Hong Kong foreign students may have to experience more financial difficulty in the near future because the government of Alberta is

considering a proposal to have international students pay the full costs of their education beginning 1995 (Marck, 1994).

Implications for Future Research

The findings of this study have generated a number of implications for further exploration in foreign student research. First, ninety-three percent of the Hong Kong students reported that they had studied in a Canadian high school before they entered the University of Alberta. This means that the vast majority of the Hong Kong students began their first year in Canada as high school students. Future research could include studies on the adjustment experiences of international high school students from Hong Kong. As Pedersen (1991) pointed out, there has been very little research done on the counselling needs of international high school students. Identifying the needs and problems of Hong Kong students studying in Canadian high schools could help Hong Kong students experience better adjustment during their first year in Canada, and in turn, better adjustment when they enter university.

Secondly, female Hong Kong students in this study appeared to experience more significant problems than did male Hong Kong students regarding somatic difficulties and uncertainty about their academic/vocational futures. Female Hong Kong students were also found to be more successful than were male Hong Kong students in writing the TOEFL,

whereas male students reported more significant problems with program satisfaction than did female students. In foreign students research, few studies have examined gender differences in adjustment. Some studies of foreign students that do show significant gender differences (e.g., Dyal & Chan, 1985; Fong & Peskin, 1969; Hill, 1966; Porter, 1963) suggested that female foreign students reported a greater number of adjustment problems than did male students. More studies are needed of gender differences and issues among Hong Kong students adjustment.

Thirdly, despite previous research showed that foreign students' performance on English language tests such as the TOEFL are good predictors of their academic performance (Marion, 1986), the present study found that Hong Kong students' performance on the TOEFL, as determined by the number of times they needed to take the test to achieve a pass, was only weakly correlated with the students' self-report of academic performance. A number of Hong Kong students in the interviews and the survey questioned the relevancy of TOEFL as a requirement for university entrance. One student in the interview reported that he knew of some Hong Kong high school students who had A averages but were not able to obtain the required score of 580 for university entrance. More research is needed to study the usefulness of the TOEFL as a requirement for Hong Kong and other non-English fluent foreign students to enter the University of

Alberta. One interesting area of research is the comparison of the usefulness of the TOEFL as a predictor of academic success between Hong Kong students who major in science and technical subjects and Hong Kong students who major in the arts and social science areas. The majority of the Hong Kong students in the present study (54.1%) were science and engineering students, and only a minority of the students (13.4%) were in Arts. TOEFL may not be a good predictor of academic success for Hong Kong students who major in science and engineering since these academic areas may not normally require an in-depth knowledge of the English language as do Arts subjects.

Implications for Counselling Hong Kong Foreign Students

The present study shows that Hong Kong foreign students experienced a wide spectrum of adjustment problems, ranging from adjusting to the Winter in Edmonton to concerns about their academic and vocational futures. Although the majority of the Hong Kong students said they had no or only minor problems with depression, forty percent of the students indicated a need for counselling for personal problems, and fifteen percent of the students reported experiencing significant problems with depression. These findings show that there is a need to help Hong Kong students better understand and deal with stress and mental health issues while studying in Canada. This study has strongly demonstrated that the primary support network of Hong Kong

students are their peers, family, and Chinese co-nationals such as church counsellors. Hong Kong student groups at the University of Alberta, Chinese churches in Edmonton, and the Chinese community as a whole can be important sources of support to promote mental health needs of Hong Kong foreign students. For example, Chinese churches in Edmonton can invite a Chinese Christian psychologist to present workshops on mental health and student adjustment. The local Chinese newspaper can have a column penned by a former Hong Kong student focusing on adjustment issues. Professional staff working in the counselling and health services at the university could compile a current list of Chinese psychologists and counsellors working in Edmonton so that Hong Kong students can be referred appropriately. From a research point of view, more studies on counselling foreign students should focus on the natural support system networks among international students and usefulness of those networks. For example, using open-ended, semi-structured interviews, a qualitative study could be conducted on how Hong Kong students use their indigenous support systems to resolve adjustment problems. This might shed some light on why the International Centre and the University Counselling Services are generally under-utilized by Hong Kong students.

Implications for the University of Alberta

The findings in this survey provide substantive information regarding the adjustment experience of Hong Kong

students, the largest group of undergraduate international students studying in the University of Alberta. The information gathered in this research not only provides useful indications of the nature and magnitude of adjustment problems experienced by the Hong Kong students, but it also offers some interesting statistics about how Hong Kong students view the services and programs provided by the university. For example, the vast majority of the Hong Kong students in the survey said they had not been involved in any services or programs sponsored by the International Centre, the hub of international student programs and activities in the university. According to the Foreign Student Handbook of the University of Alberta (Hendricksen, 1991), a major purpose of the International Centre is to provide information and assistance to foreign students enrolled at the University of Alberta. The assistance provided by the International Centre includes coordination of airport reception, orientation for foreign students, emergency loans and bursaries, advocacy concerning foreign student issues, workshops for students re-entering their home country, and advising foreign students and their families on personal, financial, academic, and immigration concerns. The International Centre also sponsors a Host Family Program where foreign students are matched with Canadian families to promote friendship and mutual understanding. The International Week is another activity

organized by the International Centre to celebrate and promote the university's role in international involvement. The International Centre appears to have a good variety of programs and services geared toward the needs of foreign students, and yet somehow the Centre has not attracted the attention of the largest group of foreign students on the campus, the Hong Kong students. In order to fulfill its mandate to serve foreign students, including Hong Kong students, the International Centre may need to have more dialogue with various Hong Kong student and Chinese community groups to explore effective and innovative ways to reach out to the adjustment needs of Hong Kong students. Some specific areas in which Hong Kong students may need more assistance are intercultural friendships, time management, study skills, and intercultural communication.

Another interesting piece of information obtained in the survey is the Hong Kong students' view of the treatment of foreign teaching assistants. The majority of the Hong Kong students in the survey (64.8%) expressed "moderate" to "extreme" concerns about the ways foreign student assistants are treated by students at the university. The following are some of the survey comments made by Hong Kong students regarding the treatment of foreign teaching assistants:

I've once seen a CBC (Canadian-born Chinese) laughing at a Chinese T.A.'s English, regardless the T.A. is really helpful and presenting the material very well.

It's a dilemma. I know many people mock the foreign T.A.s.

My Chemistry T.A. had always been made fun of for his name and accent.

Many Canadian students do not respect the T.A.s.

Especially in Chemistry labs.

Yes, especially those from Mainland China.

And professors too.

In the most recent survey of undergraduate experiences at the University of Alberta ("Undergraduate experience," 1993), only 29.0% of the university graduates agreed with the survey question "Teaching assistants were used effectively." Thirty-five percent of the respondents disagreed with the question, and 36.0% reported "neutral." According to a survey conducted at the University of Minnesota (Paige, 1983), American students rated foreign T.A.s "much worse" or "somewhat worse" than they did American T.A.s on: (a) ability to communicate with the students (77.3%); (b) familiarity with university policies (26.4%); and (c) overall teaching ability (47.4%). In response to the question, "Do you think having a foreign T.A. has helped, hurt or had no effect on the quality of the course you've taken?" 43.5% responded "harmed," 47.8% said "no effect," and only 8.8% responded "helped." Moreover, eighty percent of the respondents reported problems understanding the foreign T.A.'s English. In his review of

institutional policy on foreign students, Kaplan (1987) indicated that local students in larger universities in the United States have persistently complained about their inability to understand their foreign instructors and laboratory assistants. According to Kaplan (1987), the problem with foreign teaching assistants is not purely linguistic. There are matters of learning style, of what is said as much as how it is said, of the presuppositions of the role of a teacher, and of the relationship between teacher and student. Kaplan (1987) advocated training for foreign teaching assistants to improve their effectiveness. A training program designed at the University of Minnesota (Paige, 1983) had found that language and intercultural preparation could improve foreign teaching assistants' performance in the classroom. Foreign teaching assistants who completed the training program were perceived as being more effective because they acquired not only better English language skills, but also better intercultural communication competencies (Paige, 1983). In light of the findings of the present survey on the treatment of foreign teaching assistants, it would be helpful for the University of Alberta to explore the usefulness of training foreign professors and teaching assistants to enhance their classroom effectiveness.

One of the most frequent comments made by the Hong Kong students in the survey was about the issue of different

academic standards being imposed on foreign students to compete for entry into professional schools such as Pharmacy. One student wrote that the Faculty of Pharmacy required a G.P.A. of 8.5 from foreign students, but local students could get into Pharmacy with a G.P.A. of 6.7. It is the opinion of this writer that the registration handbook of the university should provide clearer guidelines regarding how foreign students are selected into professional schools so that foreign students would not feel that they are being unfairly discriminated against academically. With very limited space reserved for foreign students in most of the professional schools at the university, many Hong Kong students need to understand that they are competing with each other rather than with Canadian students, and usually the foreign students who have the highest academic standings are the ones being accepted into the programs.

Implications for International Students Adjustment

The kinds of student adjustment implications which evolved from the present study center around four main areas of interest. First, the experience of adjustment problems is inevitable in the lives of foreign students. The present study found that Hong Kong international students encountered a wide variety of adjustment problems while studying in the University of Alberta. Some of the problems experienced by the Hong Kong students were culture-specific (e.g., concerns with the political instability in Hong

Kong), some were student-specific (e.g., concerns with vocational uncertainty), and some were problems common to intercultural sojourn (e.g., adjusting to a different climate). Second, the kinds of adjustment problems were not universal for all foreign students. In the present study, not every Hong Kong student experienced the same types of problems, and not every Hong Kong student experienced his/her problems with the same degree of intensity. Third, studying in a foreign country does not need to be a stressful experience. The majority of the Hong Kong students in this study experienced no significant problems with loneliness, depression, or somatic difficulties. The students' support network of friends, family, and co-nationals probably helped to alleviate the stress of intercultural sojourn. Hong Kong students managing to make some close friendships with Canadians would gain a greater appreciation of Canadian culture and customs. Finally, the role of international students remains a pragmatic one: to obtain a university education. In this study, the vast majority of the Hong Kong students had no problems with their motivation to study in Canada. To obtain a university degree is not only a personal achievement to the Hong Kong students, but also a sense of pride for the family and relatives. Adjustment problems are inevitable, but the final reward of graduation and a better job prospect in the future

make the sojourn in the University of Alberta a worthwhile experience.

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APPENDIX A

Stage One Adjustment Matrix

ENVIRONMENTAL

Sharing obtaining accommodation, e.g. finding affordable accommodation
 Missing living conditions, e.g. dealing with noise, privacy, getting along with roommates
 Food, e.g. adjusting to Western style food; finding ethnic food
 Climate, e.g. adjusting to the cold weather
 Pace/tempo of life, e.g. adjusting to the perceived a slower and quieter pace of life in the host country

ACADEMIC

Formal English skills - Receptive language; e.g. understanding lectures and instructive language, e.g. expressing ideas in class where discussion is encouraged; conversing with professors and fellow students
 Formal English skills - Written language, e.g. answering essay questions in examinations; taking notes; completing written assignments
 Methods of instruction - Teaching style, e.g. active vs. passive student participation in class; professor/student informality; seminar vs. lecture
 Methods of instruction - Learning style, e.g. memorization of knowledge vs. formulating own ideas and applications
 Methods of instruction - Evaluation, e.g. frequent assignments and tests; grading methods
 Academic pressure - School work related, e.g. amount of work; difficulty of work; not understanding style or expectation of assignments; not having enough time for study
 Academic pressure - Family related, e.g. parental and family's expectation to excel academically; feeling pressured to fulfil the expectations of the family, who may have sacrificed much to finance the education
 Time pressure, e.g. completing university studies as quickly as possible
 Academic support, e.g., asking for assistance with problems in coursework; being... with study skills
 Academic performance, e.g., unsatisfactory grades; academic failures
 Faculty-student relationships, e.g., helpfulness of professors responding to the interests, needs, and professional development of foreign students
 Selection of coursework, e.g., balance between personal interest and job outlook
 Academic program development - Program usefulness, e.g., appropriateness and relevance of academic/professional training in the foreign country to the circumstances back home

SOCIO-CULTURAL

Conversational English skills - Receptive language, e.g. understanding English, such as, colloquial expressions, slang and jokes, in everyday life
 Conversational English skills - Verbal expressive language, e.g. fluency in speaking English in everyday life
 Conversational English skills - Topics of conversation, e.g. not enjoying the same topics of conversation with people of a different culture
 Non-verbal communication, e.g., understanding implicit behavioural norms, rules, and conducts in social situations; uncertain how to act in some social situations
 Inter-cultural friendships, e.g. making close friendships with students of the host country
 Mono-cultural friendships, e.g. making close friendships with students of same or similar cultural backgrounds
 Cultural group membership conflict, e.g., experiencing conflicts of being too "Westernised" because one likes to socialise with Westerners or adopt a Western lifestyle
 Western norms and values, e.g., adjusting to causal sexual relationships between male and female; adjusting to individualistic thinking
 Ethnic racial discrimination, e.g., perception that people are less polite to ethnic minorities
 Explicit racial discrimination, e.g., objected racist remarks; racist jokes
 Inter-cultural attitudes, e.g., people unfamiliar with, ignorant of, or disrespectful of other cultures
 University inter-cultural environment - Acceptance of foreign students, e.g., willingness of host country students to be sociable with foreign students
 University inter-cultural environment - Status of foreign students, e.g., foreign students are only seen as subgroups to be tolerated vs. foreign students as rich resources vital to the growth of the university community
 University inter-cultural environment - Extracurricular environment on campus, e.g., lack of activities involving multi-cultural groups

Community level cultural endorsement, e.g., unfamiliarity of the host country people, not being welcomed as a foreigner
 Maintaining cultural identity, e.g., not feeling proud to be a cultural minority in the host society
 Maintaining cultural customs, e.g., experiencing difficulties maintaining religious cultural rituals; maintaining one's own ethnic eating habits
 Maintaining religious customs, e.g., experiencing difficulties maintaining religious practices of one's own culture
 Political uncertainty at home, e.g., dealing with political uncertainty in one's own homeland

PERSONAL

Finances, e.g., having sufficient funds for study, living expenses, and recreation

Loneliness - Social loneliness, e.g., loneliness due to absence of friends and social relationships

Loneliness - Emotional loneliness, e.g., loneliness due to absence of close emotional attachments; feeling lonely even when one is with friends

Hollow and emptiness (Kung Hsu), e.g., emptiness and nothingness; a threat to the meaning of one's existence and life purpose

Homelessness, e.g., missing family and friends back home

Stomach complaints, e.g., stomach ache, loss of appetite, low spirits, dizziness, sleep, loss of life, difficulty falling asleep

Struggling independence, e.g., assuming responsibility and decision making without assistance of parents and family members

Planning for the future - Future academic plan, e.g., difficulties making decision to pursue more studies or return home

Planning for the future - Future career plan, e.g., uncertainty regarding future career goals and objectives

Planning for the future - Employment opportunities back home, e.g., concern over job opportunities on returning to home country

Meeting career needs, e.g., finding career related practical experiences in the host country

Pre return preparation, e.g., lack of attention to the practical issues back in the home country

Distancing self as a result of feeling confident, determined, and self-reliance in everyday problem solving

Personal counselling, e.g., availability of another individual to whom one can turn to in crisis or for guidance regarding personal problems

Investigation, e.g., experiencing difficulties with library even after taking increasing student visas

Dishes, e.g., availability of dishes; finding time to eat; making friends with the opposite sex

Depression, e.g., feeling hopeless, helpless, experiencing sad mood; frequent crying

APPENDIX B

**WRITTEN CONSENT FORM
FOR INTERVIEWS**

**Adjustment of Hong Kong students at the
University of Alberta**

To participants in this study:

I am a graduate student in Educational Psychology at the University of Alberta. The subject of my doctoral research is: "Adjustment of Hong Kong students at the University of Alberta." I am interviewing Hong Kong students who are on student visa. You are one of approximately eight participants.

As a part of this study, you are being asked to participate in two in-depth interviews. Both interviews will be focused on your experiences as a foreign student in Canada and on the adjustment problems you have encountered. As the interviews proceed, I may ask an occasional question for clarification or for further understanding, but mainly my part will be to listen as you reflect on your experiences as a foreign student.

My goal is to use the materials from your interviews to design a survey questionnaire to understand better the adjustment experiences of Hong Kong foreign students at the University of Alberta. I also hope to use the survey findings to explore ways that can help students from Hong Kong and other countries experience a satisfactory sojourn in Canada. Each interview will be audio or videotaped. The audio or videotapes will be erased after the dissertation is completed. As part of the dissertation and scientific publications and presentations, I may discuss materials from your interviews. However, all information will be held in complete confidence and no names or other personally revealing information will be used.

You may at any time withdraw from the interview process. You may withdraw your consent to have specific excerpts used, if you notify me at the end of the interview series. If I were to want to use any materials in any way not consistent with what is stated above, I would ask for your additional written consent.

I, _____, have read and understand the above information and agree to participate as an interviewee under the conditions stated above.

Signature of participant

Signature of interviewer

Date

APPENDIX C

INTERVIEWEE INFORMATION FORM

Name _____ Date _____

Age ___ Sex ___ Birth date _____ Single ___ Married ___

Address _____

Telephone (Home) _____ (Work) _____

What year did you begin studies at the U. of A.? 19 _____

At what level of studies did you begin (e.g., first year of
masters program or second year of undergraduate program)?

Faculty _____ Department _____

What level of studies are you currently in? _____

How many years have you studied at the U. of A.? _____

Have you returned to Hong Kong or have you gone to any other
country during this period? Yes ___ No ___.
If yes, how long _____Have you studied at any other school, college, or university
outside of Hong Kong? Yes ___ No ___.
If yes, where _____
How long? _____ What level of studies _____A contact (name of person, address, and/or phone number)
where you can be reached in case of change of address or
phone number _____

APPENDIX D

HONG KONG STUDENT ADJUSTMENT MATRIX (HKSAM)

ENVIRONMENTAL	ACADEMIC
Housing - Finding accommodation, e.g., problems with finding an affordable place to live.	Formal English skills - Listening, e.g., teachers or teacher assistants speak too fast for me to follow the instruction
Housing - Living condition, e.g., unclean accommodation; lack of privacy; noisy, etc.	Formal English skills - Speaking, e.g., problems with pronunciation and grammar; don't know how to express myself in class; don't want others to laugh at me in class presentation
Housing - Location, e.g., living too far from campus and/or friends	Formal English skills - Writing, e.g., spending long hours to write essays; difficult to express ideas in English; have to think in Chinese first before translating ideas into English
Housing - Living with relatives/family friends, e.g., feeling less free to show temper and dislikes in front of relatives or family friends; relatives are too strict with my whereabouts	Formal English skills - Reading, e.g., slow reading speed; not used to reading English literature poetry, short stories, academic or research literature
Housing - Getting along with roommates, e.g. personality conflict with roommates	University entrance requirement - TOEFL, e.g., problems in achieving the required TOEFL score; initially unable to enter university because of low TOEFL scores
Transportation, e.g. not owning a car restricts mobility; limited bus services where I live	University entrance requirement - Alberta high school English 30, e.g., problems in passing English 30; had to get higher marks in other high school subjects to compensate for the low English marks
Food, e.g., adapting to Western-style food	University entrance requirement - entrance standards, e.g., not fair requiring foreign students to have a higher G.P.A. to get into certain university programs
Climate, e.g., adapting to the cold, dry winter; adapting to the early sunset in winter	Methods of instruction - Teaching/learning style, e.g., not accustomed to a teaching style that encourages active student participation and independent learning; not accustomed to formulating my own ideas and applications
Pace/tempo of life, e.g., feeling bored; life in Canada is slow and unexciting	Academic pressure - Workload/evaluation, e.g. feeling overwhelmed by frequent mid-terms, tests, and assignments
	Academic pressure - Family related, e.g., feeling obliged to do well to please parents; don't want parents to waste money; I would feel guilty when academic performance was unsatisfactory
	Academic support, e.g., couldn't find people for help when having problems with school work or study methods
	Academic performance, e.g., not satisfied with my school grades; academic failures
	Selection of coursework, e.g., don't know what courses to take; unsure of academic interest and direction; difficult to balance between personal interests and job outlook
	Program desirability, e.g., unhappy with current field of study; unable to enter desired program due to restricted enrollment for foreign students
	Program satisfaction, e.g., not satisfied with the performances of the professors; professors are not helpful to students; poor academic program
	Motivation for overseas study, e.g., not motivated to come to Canada for education; study overseas only to please parents' wishes
	Constriction of activity, e.g., nothing to do besides studying; have no time for fun and entertainment; most of my time is spent studying
	Class size, e.g., hard to get to know people in big lectures; big classes are very impersonal
	Time management, e.g., don't know how to manage time effectively; very easy to get behind with school work
	Study skills/methods, e.g., don't know how to study effectively; don't know how to get better grades
	Maintaining self-confidence, e.g., not feeling confident in my academic ability; feeling less competent than other Hong Kong students

SOCIO-CULTURAL

Conversational English skills - Listening, e.g., have problems understanding slang, jokes, idioms, and/or common vocabulary in everyday conversation

Conversational English skills - Speaking, e.g., don't know how to start a conversation; have an accent and cannot speak English fluently; have to organize thoughts in Chinese before translating them in spoken English

Topics of conversation, e.g., don't have much to talk about with Canadians; Canadians have different topics of conversation

Making friends with Canadian students, e.g., friendships with Canadian students are often superficial; have no close Canadian friends; hard to make friends with Canadian students; not much in common with Canadians

Making friends with foreign students from Asian countries, e.g., Hong Kong, Singapore, Malaysia, e.g., have friends but not many close ones

Western norms and values, e.g., adjusting to casual sexual relationship between male and female, individualistic thinking, etc.

Subtle racial discrimination, e.g., perception that people are less polite to ethnic minorities

Explicit racial discrimination, e.g., harassed by racist remarks or jokes

Acceptance of foreign students by Canadian students at the University of Alberta, e.g., Canadian students stick to their own groups; feeling excluded, isolated, alienated, unwelcomed; Canadian students not sociable with foreign students

Status of foreign students at the University of Alberta, e.g., perception that foreign students are not treated as rich resources vital to the growth of the campus community; foreign students are only seen as a subgroup to be tolerated

Treatment of foreign teaching assistants, e.g., foreign T.A.s are laughed at by students because of their T.A.s' poor English

Maintaining cultural pride, e.g., not feeling good to be a visible minority in Canadian society

Political instability at home, e.g., being affected by the uncertainty of the "1997" situation in Hong Kong

PERSONAL

Finances, e.g., not having sufficient funds for tuition, living expenses, and recreation

Loneliness - Social, e.g., don't have friends; feeling lonely during holiday times; have no one to share deeper things

Loneliness - Emotional, e.g., feeling lonely even when one is with friends; loneliness due to absence of close emotional attachments to people and places

Homeickness, e.g., missing family/friends back home, especially during first few months in Canada; thinking Hong Kong is a better place to be

Achieving independence, e.g., not used to looking after oneself independently; afraid to make the wrong decision; not used to making one's own decision

Personal counselling, e.g., don't have a trusted person for guidance regarding personal problems; don't have anyone to turn to in crisis or distress situations, e.g., failing a year, death in a family, emergency surgery

Immigration, e.g., problems with renewing student visa; problems with immigration laws

Dating, e.g., don't have time to date; too few suitable dates to choose from

Feeling blue, e.g., feeling unhappy; don't want to talk to anyone; want to be alone; worry a lot

Depression, e.g., feeling hopeless; very sad; frequent crying; no interest in social activities; no appetite; cannot sleep

Somatic complaints, e.g., stomach ache; headache; neck/back aches; muscular tension; low-spirited; dizzy; sleepy; less attentive

Planning for the future, e.g., uncertain about career choices; uncertain whether to pursue more studies after graduation or return home; concern over employment opportunity back home

APPENDIX E

香港學生留學適應情況調查表

HONG KONG STUDENT ADJUSTMENT SURVEY (HKSAS)

PART ONE: GENERAL BACKGROUND INFORMATION

第一部 普通資料

Please circle the letter of the most appropriate response for each of the following questions:

1. Age: a) 17-19
 b) 20-22
 c) 23-25
 d) 26-28
 e) 29-31
2. Sex: a) male
 b) female
3. Marital Status: a) single
 b) married
4. Student Status: a) full-time
 b) part-time
5. Faculty: a) Agriculture
 b) Arts
 c) Business
 d) Education
 e) Engineering
 f) Health Sciences (please circle one: dentistry, medicine, nursing, pharmacy, O.T., P.T.)
 g) Home Economics
 h) Law
 i) Science
 j) Other _____
6. Year of academic program at the U. of A.: a) 1st. yr.
 b) 2nd. yr.
 c) 3rd. yr.
 d) 4th. yr.
 e) higher than 4th. yr.
7. Have you studied in a Canadian high school (or enrolled in a college high school program) before entering the U. of A.?
 a) yes
 b) no
8. Have you studied in a Canadian community college before entering the U. of A.?
 a) yes
 b) no
9. Have you studied in a foreign country other than Canada (e.g., U.S.A., United Kingdom, Australia, etc.) before entering the U. of A.?
 a) yes; country _____
 b) no
10. How many times did you have to write the TOEFL before reaching or exceeding the required score for the U. of A. entrance standard?
 a) 1
 b) 2
 c) 3
 d) 4-6
 e) 7-10
 f) more than 10

11. How often do you participate in the programs and activities organized by the International Student Centre in the HUB?
 a) not at all
 b) occasionally (e.g., 2 to 3 times a year)
 c) very often (e.g., once a month)
12. Do you associate mostly with:
 a) Hong Kong students;
 b) Canadian students;
 c) or equally with both?
13. Are your present best or close friends:
 a) Hong Kong students;
 b) Canadian students;
 c) or both?
14. Have you lived with relatives or family friends since you came to Canada?
 a) yes: how long _____
 b) no
15. Since you came to Canada, have you visited homes of English speaking Canadians (e.g., having supper or spending a weekend with a Canadian family?)
 a) yes
 b) no
16. Since you came to Canada, have you encountered situations in which you need to seek counselling for personal problems?
 a) yes
 b) no
17. In general, whom would you contact first for counselling regarding personal problems?
 Choose one response only:
- a) brother or sister
 - b) foreign student advisor
 - c) medical doctor
 - d) parents
 - e) pastors or church counsellors
 - f) professors
 - g) relatives or family friends
 - h) student friends
 - i) University Counselling Services
18. If your personal problems persist or become worse, whom would you contact for counselling?
 Choose one response only:
- a) brother or sister
 - b) foreign student advisor
 - c) medical doctor
 - d) parents
 - e) pastors or church counsellors
 - f) professors
 - g) relatives or family friends
 - h) student friends
 - i) University Counselling Services

香港學生留學適應情況調查表

HONG KONG STUDENT ADJUSTMENT SURVEY (HKSAS)

PART TWO: QUESTIONNAIRE ON ADJUSTMENT PROBLEMS

第二部 適應問題與程度

Please circle only one (1) number for each question. Please read the instruction carefully and answer all questions.

- ANSWER KEY:
- 0 - No problem
 - 1 - Minor problem
 - 2 - Moderate problem
 - 3 - Major problem
 - 4 - Extreme problem

CIRCLE ONE NUMBER
FOR EACH QUESTION

Since I came to Canada as a foreign student,
I have experienced problems with or related to:

	--PROBLEM--				
	M	M	M	E	
	I	O	A	X	
	N	D	J	T	
	O	E	O	R	
	R	R	R	E	
	.	A	.	M	
	NO	.	T	.	E
	PROBLEM	.	E	.	.
ENVIRONMENTAL	.	.	.	.	.
1. Housing - Finding accommodation (e.g., problems with finding an affordable place to live)	.	.	.	.	.
Comment _____	.	.	.	.	.
	0	1	2	3	4
2. Housing - Living conditions (e.g., unclean accommodation; lack of privacy; noisy, etc.)	.	.	.	.	.
Comment _____	.	.	.	.	.
	0	1	2	3	4
3. Housing - Location (e.g., living too far from campus and/or friends)	.	.	.	.	.
Comment _____	.	.	.	.	.
	0	1	2	3	4
4. Housing - Living with relatives/family friends (e.g., feeling less free to show temper and dislikes in front of relatives or family friends; relatives are too strict with my whereabouts)	.	.	.	.	.
Comment _____	.	.	.	.	.
	0	1	2	3	4

HKSAS - PART TWO

CIRCLE ONE NUMBER FOR EACH QUESTION

Since I came to Canada as a foreign student, I have experienced problems with or related to:

PROBLEM INDEX: M M M L, I O A X, N D J T, O E O R, R R R E, . A . M, . T . E, . E . .

5. Housing: Getting along with roommates (e.g. personality conflict with roommates) Comment _____

0 1 2 3 4

6. Transportation (e.g. not owning a car restricts mobility; limited bus services where I live) Comment _____

0 1 2 3 4

7. Food (e.g., adapting to Western-style food) Comment _____

0 1 2 3 4

8. Climate (e.g., adapting to the cold, dry Winter; adapting to the early sunset in Winter) Comment _____

0 1 2 3 4

9. Pace/tempo of life (e.g., feeling bored; life in Canada is slow and unexciting) Comment _____

0 1 2 3 4

"Other" Please describe other problems you have experienced with respect to housing, transportation, food, climate, and pace of life. _____

ACADEMIC

10. Formal English skills - Listening (e.g., teachers or teacher assistants speak too fast for me to follow the instruction) Comment _____

0 1 2 3 4

CIRCLE ONE NUMBER FOR EACH QUESTION

Since I came to Canada as a foreign student,
I have experienced problems with or related to:

PROBLEM
M M M E
I O A X
N D J T
O E O R
R R R E
. A . M
NO . T . E
PROBLEM . E . .

11. Formal English skills - Speaking
(e.g., problems with pronunciation and grammar; don't know how to express myself in class; don't want others to laugh at me in class presentation)

Comment _____

0 1 2 3 4

12. Formal English skills - Writing
(e.g., spending long hours to write essays; difficult to express ideas in English; have to think in Chinese first before translating ideas into English)

Comment _____

0 1 2 3 4

13. Formal English skills - Reading
(e.g., slow reading speed; not used to reading English literature, poetry, short stories, academic or research literature)

Comment _____

0 1 2 3 4

14. University entrance requirement - TOEFL
(e.g., problems in achieving the required TOEFL score; initially unable to enter university because of low TOEFL scores)

Comment _____

0 1 2 3 4

15. University entrance requirement - Alberta high school English 30
(e.g., problems in passing English 30; had to get higher marks in other high school subjects to compensate for the low English marks)

Comment _____

0 1 2 3 4

16. University entrance requirement - entrance standards
(e.g., not fair requiring foreign students to have a higher G.P.A. to get into certain university programs)

Comment _____

0 1 2 3 4

17. Methods of instruction - Teaching/learning style
(e.g., not accustomed to a teaching style that encourages active student participation and independent learning; not accustomed to formulating my own ideas and applications)

Comment _____

0 1 2 3 4

CIRCLE ONE NUMBER FOR EACH QUESTION

Since I came to Canada as a foreign student,
I have experienced problems with or related to:

...PROBLEM...
M M M E
I O A X
N D J T
O E O R
R R R E
. A . M
NO . T . E
PROBLEM . E . .

18. Academic pressure - Workload/evaluation
(e.g., feeling overwhelmed by frequent mid-terms, tests, and assignments)

Comment _____

.
.
.
0 1 2 3 4

19. Academic pressure - Family related
(e.g., feeling obliged to do well to please parents; don't want parents to waste money; I would feel guilty when academic performance was unsatisfactory)

Comment _____

.
.
.
0 1 2 3 4

20. Academic support
(e.g., couldn't find people for help when having problems with school work or study methods)

Comment _____

.
.
.
0 1 2 3 4

21. Academic performance
(e.g., not satisfied with my school grades; academic failures)

Comment _____

.
.
.
0 1 2 3 4

22. Selection of coursework
(e.g., don't know what courses to take; unsure of academic interest and direction; difficult to balance between personal interests and job outlook)

Comment _____

.
.
.
0 1 2 3 4

23. Program desirability
(e.g., unhappy with current field of study; unable to enter desired program due to restricted enrollment for foreign students)

Comment _____

.
.
.
0 1 2 3 4

24. Program satisfaction
(e.g., not satisfied with the performances of the professors; professors are not helpful to students; poor academic program)

Comment _____

.
.
.
0 1 2 3 4

CIRCLE ONE NUMBER FOR EACH QUESTION

Since I came to Canada as a foreign student,
I have experienced problems with or related to:

PROBLEM
M M M E
I O A X
N D J T
O E O R
R R R E
. A . M
NO . T . E
PROBLEM . E . .

25. Motivation for overseas study
(e.g., not motivated to come to Canada for education; study overseas only to please parents' wishes)

Comment _____

0 1 2 3 4

26. Constriction of activity
(e.g., nothing to do beside studying; have no time for fun and entertainment; most of my time is spent studying)

Comment _____

0 1 2 3 4

27. Class size
(e.g., hard to get to know people in big lectures; big classes are very impersonal)

Comment _____

0 1 2 3 4

28. Time management
(e.g., don't know how to manage time effectively; very easy to get behind with school work)

Comment _____

0 1 2 3 4

29. Study skills/methods
(e.g., don't know how to study effectively; don't know how to get better grades)

Comment _____

0 1 2 3 4

30. Maintaining self-confidence
(e.g., not feeling confident in my academic ability; feeling less competent than other Hong Kong students)

Comment _____

0 1 2 3 4

YOUR ANSWER ARE VERY IMPORTANT TO US!

Other

Please describe other problems you have experienced with respect to formal English skills, university entrance requirements for foreign students, academic functioning, academic program, study skills, etc.

CIRCLE ONE NUMBER FOR EACH QUESTION

Since I came to Canada as a foreign student, I have experienced problems with or related to:

PROBLEM
 M M M E
 I O A X
 N D J T
 O E O R
 R R R E
 . A . M
 NO . T . E
 PROBLEM . E . .

SOCIO-CULTURAL

31. Conversational English skills - Listening
 (e.g., have problems understanding songs, jokes, idioms, and/or common vocabulary in everyday conversation)

Comment _____

0 1 2 3 4

32. Conversational English skills - Speaking
 (e.g., don't know how to start a conversation; have an accent and cannot speak English fluently; have to organize thoughts in Chinese before translating them in spoken English)

Comment _____

0 1 2 3 4

33. Topics of conversation
 (e.g., don't have much to talk about with Canadians; Canadians have different topics of conversation)

Comment _____

0 1 2 3 4

34. Making friends with Canadian students
 (e.g., friendships with Canadian students are often superficial; have no close Canadian friends; hard to make friends with Canadian students; not much in common with Canadians)

Comment _____

0 1 2 3 4

35. Making friends with foreign students from Asian countries, e.g., Hong Kong, Singapore, Malaysia
 (e.g., have friends but not many close ones)

Comment _____

0 1 2 3 4

**CIRCLE ONE NUMBER
FOR EACH QUESTION**

Since I came to Canada as a foreign student,
I have experienced problems with or related to:

PROBLEM
M M M E
I O A X
N D J T
O E O R
R R R E
. A . M
NO . T . E
PROBLEM . E . .

- | | |
|--|--|
| <p>48. Achieving independence
(e.g., not used to looking after oneself independently; afraid to make the wrong decision; not used to making one's own decision)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>49. Personal counselling
(e.g., don't have a trusted person for guidance regarding personal problems; don't have anyone to turn to in crisis or distress situations, e.g., failing a year, death in a family, emergency surgery)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>50. Immigration
(e.g., problems with renewing student visa; problems with immigration laws)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>51. Dating
(e.g., don't have time to date; too few suitable dates to choose from)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>52. Feeling blue
(e.g., feeling unhappy; don't want to talk to anyone; want to be alone; worry a lot)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>53. Depression
(e.g., feeling hopeless; very sad; frequent crying; no interest in social activities; no appetite; cannot sleep)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |
| <p>54. Somatic complaints
(e.g., stomach ache; headache; neck/back aches; muscular tension; low-spirited; dizzy; sleepy; less attentive)</p> <p>Comment _____</p> <p>_____</p> | <p>.</p> <p>.</p> <p>.</p> <p>.</p> <p>0 1 2 3 4</p> |

APPENDIX F

ACCESS TO STUDENT RECORDS: REQUEST FROM PROFESSOR D BAINE ON BEHALF OF A GRADUATE STUDENT

University of Alberta
Edmonton

Department of Educational Psychology
Faculty of Education

RESEARCHER

Canada T&C 103

6-102 Education North, Telephone (403) 492-5245
Fax (403) 492-1318

December 14, 1992

lrs/sheh

4.

Executive Committee
General Faculties Council
C/o Ellen Schoeck
University Secretariat
2-5 University Hall
University of Alberta
Edmonton, Alberta

Dear Ellen Re: Dissertation research: Simon Sheh

Simon is studying adjustment problems experienced by students coming to the University of Alberta from Hong Kong. He has interviewed an available sample of a small number of these student and now wishes to circulate a questionnaire to a large, representative sample of males and females in various faculties and years of study. To assist random, stratified sample selection, Simon is requesting the following information from student records:

ACTION
REQUIRED:

- a. a list of the names, addresses and telephone numbers of all students from Hong Kong studying at the UofA on student visas;
- b. identified, if possible, in terms of age, marital status, year in which they are registered, and gender.

This information will be used exclusively for selection of the research sample. Following selection, I will supervise destruction of the information. Students will be requested to respond anonymously to the questionnaires. All information will be treated in a completely confidential manner; no student names or other personally identifying information will be reported in any way.

For your information, Simon had considered selecting a sample from various associations related to "Hong Kong students." However, he decided not to select a sample in this manner because he is also interested in the adjustment problems of students who may not be members of any associations.

Thank you for consideration of this request. If I can be of any assistance, please contact me at 492-2646.

Best wishes

David Baine
David Baine, Ed.D.
Professor

Note from the University Secretariat:
The Executive Committee has delegated authority to grant such requests; relevant procedures are attached.

(For the GFC Executive Committee Meeting of February 1, 1993)

1992 GFC POLICY MANUAL
SECTION 109

4.2

Policy governing access to old student records to be used for biographical research:

1. Students' records which are 50 years old or older (for which 50 years has elapsed since the last update) shall be released, at the discretion of the Registrar, for biographic research purposes.
2. For the purposes of biographical research, the researcher will not be permitted direct access to the record. The researcher must submit requests for specific information to the Registrar who may, at the Registrar's discretion, provide the information requested.
3. Students' records which are less than 50 years old shall be released for biographical research only upon release from the student or the student's estate, or by permission from the Executive Committee of GFC.
4. In any case the Registrar's decisions may be appealed to the Executive Committee of GFC.

(EXEC 16 OCT 1981)

The Executive Committee delegated authority to the Registrar to release grade point averages for University of Alberta students who have attended colleges affiliated with the University. This delegation is premised on the understanding that the information released to the student's former college would be used for statistical purposes only and that the confidentiality of individual student records would be maintained.

(EXEC 15 APR 1985)

APPENDIX G



University of Alberta

Inter-departmental Correspondence

to	Mr BJ Silzer Associate Vice-President & Registrar 201 Administration Building	date February 3, 1993
from	Ms EA Schoeck Director, University Secretariat 2-5 University Hall	our title your title
subject	<u>Access to Student Records: Request from Professor D Baine on Behalf of a Graduate Student Researcher</u>	

At its meeting on February 1, 1993 the GFC Executive Committee discussed the attached request that Mr Simon Sheh be given access to information concerning students from Hong Kong studying at the University of Alberta on student visas. On behalf of General Faculties Council, the Executive granted access to a list of names, addresses and telephone numbers of all students from Hong Kong studying at the University of Alberta on student visa (part 'a' of the request). This approval was given subject to the Education Ethics Committee's Report being submitted to the University Secretariat for review by the Vice-President (Academic). Also, the Registrar's Office has been authorized to provide information on the age, gender and year of registration of all students from Hong Kong studying at the University of Alberta on student visa (part 'b' of the request).

Ellen Ann Schoeck

EAS/vw
Enclosure

cc. Dr WJ McDonald, Vice-President (Academic)
 Professor D Baine, Department of Educational Psychology
 Mr S Sheh, c/o Department of Educational Psychology
 Ms B Neuman, Associate Registrar
 Mr H King, Associate Registrar
 Ms B Purves, Assistant Registrar
 Ms S Main, Assistant Registrar

APPENDIX H

請 幫 幫 忙

19 February 1993

Dear Hong Kong student :

Please help us try to understand the adjustment experiences (留學適應情況) of Hong Kong foreign students at the University of Alberta.

We are studying the nature of adjustment problems experienced by Hong Kong foreign students at the University of Alberta. The information obtained will be useful for:

- a) increasing awareness of the types and magnitude of adjustment problems experienced by Hong Kong foreign students at a Canadian university in Canada; and
- b) improving services provided to Hong Kong foreign students while attending a Canadian university.

Please take 15 minutes now!

Please complete the enclosed questionnaire, which will take about 15 minutes. Then, please return the questionnaire in the self-addressed, stamped envelope by Friday, 05 March 1993. There is no need to include your name; your responses are completely confidential.

In appreciation of your effort, a random draw of 25 special gifts will be made among those students who return a completed questionnaire by Friday, 05 March 1993. The first draw is for a monetary reward in the amount of H.K. \$ 500.00 donated by the Hongkong Bank of Canada. The next 24 draws are for a gift certificate in the amount of CAN\$ 5.99 usable at the exciting, new "Foody Goody" (美食軒) Chinese buffet restaurant. Be sure to complete and return the enclosed card with the completed questionnaire if you wish to enter the draw. To maintain confidentiality, please put the card inside the unmarked envelope.

We sincerely thank you for your time and effort. 謝謝您愛心的支持

Simon Sheh, M.Ed. (余沛龍)
Doctoral student in Counselling Psychology
Department of Educational Psychology
 430 - 5008

David Baine, Ed. D
Doctoral dissertation
supervisor
 492-2646

This research is supported in part by the Hongkong Bank of Canada.

APPENDIX I

Hongkong Bank of Canada

10561 Jasper Avenue, Edmonton, Alberta T5J 1Z4

Earl V. Andrusiak FICB
Vice-President and Manager

Dear Hong Kong Students of the University of Alberta,

As you know Hongkong Bank is very active in the business and social scene in Hong Kong, accordingly Hongkong Bank of Canada also actively supports various cultural and social activities of the Asian/Chinese community in the City of Edmonton.

A recent example was our donation to the University of Alberta for the purchase of Chinese library materials for its East Asian Library collection.

We consider the survey conducted by Mr. Simon Sheh a meaningful exercise and agrees with our general objective to provide rehabilitation assistance where necessary to settlers in Canada.

We have gladly offered our sponsorship to this exercise and we encourage your participation.

Yours sincerely,

E.V. Andrusiak
Vice-President

Dick Yin
Account Manager

APPENDIX J

05 March 1993

Dear Hong Kong Student:

I would like to tell you that I am overwhelmed by the many returns of the Hong Kong Student Adjustment Survey (HKSAS) questionnaire to my office this week. Your strong responses to this survey have proved that studying the adjustment experiences of foreign students is a worthwhile endeavour to pursue in the university community. As a former foreign student from Hong Kong myself, I would like to assure you that your responses to the survey will be very useful in increasing awareness of the problems Hong Kong foreign students face as well as improving services provided to Hong Kong foreign students while attending a Canadian university.

I would like to thank you all those students who have returned their completed questionnaire. The draw for the 25 special gifts will be held on Friday, 12 March 1993, at the downtown branch of the Hongkong Bank of Canada. Student winners of the draw will be notified by telephone as soon as possible.

I realize that this is a very busy time for most students. I would like to encourage all those students who have not completed the questionnaire to take 15 MINUTES NOW to fill out the enclosed survey and return it in the self addressed, stamped envelope. Your responses to the survey will help increase the representativeness of the research findings on the adjustment experiences of Hong Kong foreign students. If you have already completed and returned the survey, please disregard the enclosed questionnaire.

I received request from students who would like to have a copy of the summary of my survey results. For students who are interested in the findings of my research, please fill out the attached request form and return it in the self-addressed, stamped envelope.

Thank you once again for your time and effort. Best wishes for your final exams in April.

Sincerely yours,



謝 謝 您 的 回 應

Simon Sheh, M.Ed. (余 添 龍)
 Doctoral Candidate in
 Counselling Psychology
 Department of Educational Psychology
 University of Alberta
 430-5008/487-7791

This research is sponsored by the Hongkong Bank of Canada

APPENDIX K

Table K-1

Tests of the Significance of Age Differences on Various
Adjustment Problems in HKSAS-Part One

Variable	n*	Chi Square	D.F.	P	Cells with E.F. < 5
Age by community college (Item #8)	179	7.3	2	< 0.03	
Age by having lived with relatives or family friends (Item #14)	181	6.5	2	< 0.04	
Age by first choice for counselling (Item #17)	178	29.6	14	< 0.01	**

Alpha = 0.05

*Number of respondents

** Statistical tests not interpreted with confidence
because of sparse data

Table K-2

Tests of the Significance of Gender Differences on Various
Adjustment Problems in HKSAS-Part One

Variable	n*	Chi- Square	D.F.	P	Cells with E.F. < 5
Sex by number of times to write TOEFL (Item #10)	185	12.9	5	< 0.03	

Alpha = 0.05

*Number of respondents

Tests of the Significance of Faculty Differences on Various
Adjustment Problems in HKSAS-Part One

Variable	<u>n</u> *	Chi-Square	D.F	P	Cells with E.F. < 5
Faculty by study in Canadian highschool (Item #7)	154	13.6	3	< 0.01	**
Faculty by community college (Item #8)	152	10.9	3	< 0.02	

Alpha = 0.05

*Number of respondents

** Statistical tests not interpreted with confidence because of sparse data

Cross-tabulation of year of study by HKSAS-Part One
questionnaire item responses.

No significant relationships were noted between the respondents' year of study and their responses on HKSAS-part one.

APPENDIX L

Table L-1

Intercorrelational Analysis of HKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
ENV1	.1000 (.194) P=.000	.4257 (.193) P=.000	.3581 (.192) P=.000	.1015 (.183) P=.171	.3080 (.184) P=.000	.3591 (.184) P=.000	.0899 (.194) P=.212	.0918 (.193) P=.204	.1901 (.193) P=.008	.1441 (.194) P=.045	.1104 (.193) P=.177
ENV2	.4257 (.193) P=.000	1.0000 (.193) P=.000	.1767 (.191) P=.014	.0779 (.182) P=.296	.3932 (.193) P=.000	.3170 (.193) P=.000	.1876 (.192) P=.009	.0794 (.192) P=.274	.1997 (.192) P=.005	.2633 (.193) P=.000	.2467 (.192) P=.001
ENV3	.3581 (.192) P=.000	.1767 (.191) P=.014	1.0000 (.192) P=.000	.1727 (.181) P=.020	.1077 (.192) P=.137	.4432 (.192) P=.000	.1205 (.192) P=.096	.2955 (.191) P=.000	.1967 (.191) P=.005	.0839 (.192) P=.247	.1335 (.192) P=.065
ENV4	.1015 (.183) P=.171	.0779 (.182) P=.296	.1727 (.181) P=.020	1.0000 (.183) P=.000	-.0138 (.183) P=.853	.1051 (.183) P=.157	.0213 (.183) P=.775	-.0767 (.193) P=.302	.0687 (.183) P=.357	-.0453 (.183) P=.542	-.0507 (.182) P=.416
ENV5	.3080 (.194) P=.000	.3932 (.193) P=.000	.1077 (.192) P=.137	-.0138 (.183) P=.853	1.0000 (.194) P=.000	.2212 (.194) P=.002	.0934 (.194) P=.195	.0565 (.193) P=.435	.1086 (.193) P=.133	.0863 (.194) P=.231	.0500 (.193) P=.490
ENV6	.3591 (.194) P=.000	.3170 (.193) P=.000	.4432 (.192) P=.000	.1051 (.183) P=.157	.2212 (.194) P=.002	1.0000 (.194) P=.000	.1872 (.194) P=.011	.2336 (.193) P=.001	.1997 (.193) P=.005	.2679 (.194) P=.000	.2538 (.193) P=.000
ENV7	.0899 (.194) P=.212	.0918 (.193) P=.204	.1901 (.193) P=.008	.0899 (.194) P=.212	.0934 (.194) P=.195	.1872 (.194) P=.011	1.0000 (.194) P=.000	.2419 (.193) P=.001	.2012 (.193) P=.005	.1215 (.194) P=.091	.2144 (.193) P=.003
ENV8	.0918 (.193) P=.204	.0794 (.192) P=.274	.1997 (.192) P=.005	.0779 (.182) P=.296	.3932 (.193) P=.000	.3170 (.193) P=.000	.1876 (.192) P=.009	1.0000 (.193) P=.000	.4235 (.192) P=.000	.1746 (.194) P=.015	.2309 (.193) P=.001
ENV9	.1901 (.193) P=.008	.1997 (.192) P=.005	.1967 (.191) P=.006	.0687 (.183) P=.357	.1086 (.193) P=.133	.1051 (.183) P=.157	.0213 (.183) P=.775	.2336 (.193) P=.001	1.0000 (.193) P=.000	.1287 (.193) P=.075	.1621 (.192) P=.075
ACAD10	.1441 (.194) P=.045	.2633 (.193) P=.000	.0839 (.192) P=.247	-.0453 (.183) P=.542	.0863 (.194) P=.231	.2679 (.194) P=.000	.2538 (.193) P=.000	.1746 (.194) P=.015	.1287 (.193) P=.075	1.0000 (.194) P=.000	.5251 (.193) P=.000
ACAD11	.1104 (.193) P=.127	.2467 (.192) P=.001	.1335 (.192) P=.065	-.0507 (.182) P=.416	.0500 (.193) P=.490	.2538 (.193) P=.000	.2144 (.193) P=.003	.2309 (.192) P=.001	.1621 (.192) P=.025	.5251 (.193) P=.000	1.0000 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
ACAD12	.1121 (.194) P=.120	.1772 (.193) P=.014	.1596 (.192) P=.027	.0118 (.183) P=.874	.0733 (.194) P=.310	.1657 (.194) P=.021	.2413 (.194) P=.001	.1907 (.193) P=.008	.1742 (.194) P=.015	.3911 (.194) P=.000	.5207 (.193) P=.000
ACAD13	.1789 (.193) P=.012	.2480 (.191) P=.000	.3057 (.192) P=.000	.0271 (.182) P=.717	.1155 (.193) P=.110	.1750 (.193) P=.015	.2825 (.193) P=.000	.2528 (.192) P=.000	.1847 (.193) P=.010	.3990 (.193) P=.000	.5017 (.192) P=.000
ACAD14	.1545 (.194) P=.031	.1884 (.193) P=.009	.2852 (.192) P=.000	.0333 (.183) P=.655	.1313 (.194) P=.068	.1725 (.194) P=.016	.1503 (.194) P=.037	.2171 (.193) P=.002	.0922 (.193) P=.202	.3307 (.194) P=.000	.3630 (.193) P=.000
ACAD15	.1346 (.192) P=.067	.1832 (.191) P=.007	.2793 (.190) P=.000	.0545 (.183) P=.463	.0139 (.187) P=.848	.2988 (.192) P=.000	.2556 (.192) P=.000	.1173 (.192) P=.105	.0832 (.191) P=.252	.3886 (.191) P=.000	.3693 (.191) P=.000
ACAD16	.2430 (.193) P=.001	.1793 (.192) P=.013	.2761 (.191) P=.000	.1043 (.182) P=.161	.0857 (.193) P=.236	.2351 (.193) P=.001	.0806 (.193) P=.265	.1820 (.192) P=.012	.1223 (.192) P=.091	.2135 (.193) P=.003	.2907 (.192) P=.000
ACAD17	.1748 (.193) P=.015	.1945 (.192) P=.007	.1964 (.191) P=.006	.0262 (.183) P=.725	.1264 (.193) P=.080	.2351 (.193) P=.001	.2563 (.193) P=.000	.2086 (.193) P=.004	.2410 (.192) P=.001	.4412 (.193) P=.000	.4045 (.192) P=.000
ACAD18	.2089 (.193) P=.004	.2824 (.193) P=.000	.1109 (.191) P=.127	.0577 (.183) P=.438	.2270 (.193) P=.001	.2265 (.193) P=.002	.2217 (.193) P=.002	.2115 (.193) P=.003	.1963 (.193) P=.006	.3029 (.193) P=.000	.4111 (.192) P=.000
ACAD19	.2811 (.194) P=.000	.2713 (.193) P=.000	.1778 (.192) P=.014	.1571 (.183) P=.034	.1987 (.194) P=.005	.2198 (.194) P=.002	.1075 (.194) P=.136	.0648 (.193) P=.370	.2922 (.193) P=.000	.2318 (.194) P=.001	.3415 (.193) P=.000
ACAD20	.3696 (.194) P=.000	.3565 (.193) P=.000	.2243 (.192) P=.002	.0669 (.183) P=.368	.2031 (.194) P=.005	.2670 (.194) P=.000	.2017 (.194) P=.005	.1026 (.193) P=.156	.2405 (.193) P=.001	.3997 (.194) P=.000	.3242 (.193) P=.000
ACAD21	.2197 (.194) P=.002	.3076 (.193) P=.000	.2225 (.192) P=.002	.0734 (.183) P=.323	.2159 (.194) P=.002	.2323 (.194) P=.001	.1572 (.194) P=.029	.0914 (.193) P=.206	.2348 (.193) P=.001	.3356 (.194) P=.000	.4496 (.193) P=.000
ACAD22	.0863 (.184) P=.231	.1143 (.193) P=.113	.3045 (.192) P=.000	.1284 (.183) P=.083	.0730 (.194) P=.312	.1145 (.194) P=.112	.1166 (.194) P=.106	.1262 (.193) P=.080	.1986 (.193) P=.006	.3251 (.194) P=.000	.3278 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
ACAD23	.1371 (.193) P=.057	.2022 (.192) P=.005	.2391 (.191) P=.001	.1293 (.183) P=.081	.1174 (.193) P=.104	.1698 (.193) P=.018	.0324 (.193) P=.654	.1155 (.193) P=.110	.2195 (.192) P=.002	.2381 (.193) P=.001	.2701 (.192) P=.000
ACAD24	.2074 (.194) P=.004	.3577 (.193) P=.000	.1938 (.192) P=.007	.0060 (.183) P=.936	.2198 (.194) P=.002	.2425 (.194) P=.001	.3101 (.194) P=.000	.1539 (.193) P=.033	.2566 (.193) P=.000	.3883 (.194) P=.000	.3658 (.193) P=.000
ACAD25	.0100 (.193) P=.881	.1582 (.192) P=.028	.0352 (.191) P=.628	-.0298 (.182) P=.690	.1495 (.193) P=.038	-.0227 (.193) P=.754	.1494 (.193) P=.038	.1584 (.192) P=.028	.1456 (.193) P=.043	.1097 (.193) P=.129	.1616 (.192) P=.075
ACAD26	.0961 (.184) P=.183	.2190 (.193) P=.002	.0785 (.192) P=.275	.0379 (.183) P=.610	.1720 (.194) P=.016	.1472 (.194) P=.041	.1014 (.194) P=.159	.1625 (.193) P=.024	.2952 (.193) P=.000	.1842 (.193) P=.010	.2580 (.193) P=.000
ACAD27	.1052 (.194) P=.144	.1223 (.193) P=.080	.2879 (.192) P=.000	.1008 (.183) P=.174	.1509 (.194) P=.036	.1892 (.194) P=.008	.1394 (.194) P=.053	.2497 (.193) P=.000	.3096 (.193) P=.000	.1835 (.194) P=.010	.1865 (.193) P=.009
ACAD28	.1893 (.194) P=.008	.2471 (.193) P=.001	.2629 (.192) P=.000	.0545 (.183) P=.463	.2147 (.194) P=.003	.1819 (.194) P=.011	.1307 (.194) P=.069	.1154 (.193) P=.110	.1253 (.193) P=.083	.3051 (.194) P=.000	.4732 (.193) P=.000
ACAD29	.1581 (.193) P=.019	.2478 (.192) P=.001	.2111 (.191) P=.003	.0060 (.182) P=.936	.2017 (.193) P=.005	.1819 (.193) P=.011	.1984 (.193) P=.006	.2043 (.192) P=.004	.1494 (.192) P=.039	.4321 (.193) P=.000	.5278 (.192) P=.000
ACAD30	.1889 (.194) P=.009	.2016 (.193) P=.005	.1778 (.191) P=.014	.0186 (.182) P=.803	.1791 (.193) P=.013	.1928 (.193) P=.007	.1667 (.193) P=.021	.1124 (.192) P=.121	.2331 (.192) P=.001	.3454 (.193) P=.000	.4626 (.192) P=.000
SOC31	.1254 (.194) P=.082	.1888 (.193) P=.009	.1592 (.192) P=.018	.0293 (.183) P=.694	.1252 (.194) P=.082	.1499 (.194) P=.037	.1992 (.194) P=.005	.2041 (.193) P=.004	.1541 (.193) P=.032	.4545 (.194) P=.000	.5133 (.193) P=.000
SOC32	.0883 (.194) P=.221	.1442 (.193) P=.045	.1186 (.192) P=.101	-.0028 (.183) P=.970	.0345 (.194) P=.633	.2154 (.194) P=.003	.1997 (.194) P=.005	.2451 (.193) P=.001	.1704 (.193) P=.018	.4576 (.194) P=.000	.7118 (.193) P=.000
SOC33	.2005 (.194) P=.005	.1428 (.193) P=.048	.1770 (.192) P=.014	.0309 (.183) P=.678	.0391 (.194) P=.588	.2358 (.194) P=.001	.1733 (.194) P=.016	.1834 (.193) P=.011	.2066 (.193) P=.004	.4306 (.194) P=.000	.5649 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of IKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
SOC34	.1882 (.194) P=.009	.1766 (.193) P=.014	.2499 (.192) P=.000	.0541 (.183) P=.467	.1229 (.194) P=.088	.2392 (.194) P=.001	.0425 (.194) P=.557	.1259 (.193) P=.079	.1335 (.193) P=.064	.3754 (.194) P=.000	.4865 (.193) P=.000
SOC35	.2402 (.193) P=.001	.0738 (.192) P=.309	.1524 (.191) P=.035	.1352 (.183) P=.068	.0307 (.193) P=.671	.1359 (.193) P=.059	.1461 (.193) P=.043	.1580 (.193) P=.028	.2313 (.193) P=.001	.2599 (.193) P=.000	.2674 (.192) P=.000
SOC36	.1440 (.193) P=.046	.1964 (.192) P=.006	.1579 (.191) P=.029	.0734 (.183) P=.323	.0940 (.193) P=.193	.0424 (.193) P=.558	.2600 (.194) P=.000	.1891 (.193) P=.008	.1014 (.192) P=.162	.1480 (.193) P=.040	.1851 (.192) P=.010
SOC37	.3504 (.194) P=.000	.2120 (.193) P=.003	.3311 (.192) P=.000	.1372 (.183) P=.064	.3124 (.194) P=.000	.3022 (.194) P=.000	.2720 (.194) P=.000	.0871 (.193) P=.228	.2358 (.193) P=.001	.2640 (.194) P=.000	.2688 (.193) P=.000
SOC38	.2519 (.194) P=.000	.0864 (.193) P=.232	.3087 (.192) P=.000	.0507 (.183) P=.496	.2131 (.194) P=.003	.1755 (.194) P=.014	.2708 (.194) P=.000	.1640 (.193) P=.033	.3126 (.193) P=.000	.2931 (.194) P=.000	.2384 (.193) P=.001
SOC39	.2742 (.193) P=.000	.1464 (.192) P=.043	.2584 (.191) P=.000	.1012 (.183) P=.174	.1984 (.193) P=.005	.1689 (.193) P=.019	.2750 (.193) P=.000	.1390 (.192) P=.054	.2203 (.193) P=.002	.2979 (.193) P=.000	.4186 (.192) P=.000
SOC40	.2626 (.193) P=.000	.1827 (.192) P=.011	.3486 (.191) P=.000	.1179 (.183) P=.112	.2361 (.193) P=.001	.2261 (.193) P=.002	.1858 (.193) P=.010	.1096 (.193) P=.129	.2331 (.192) P=.001	.1864 (.193) P=.009	.2846 (.192) P=.000
SOC41	.1842 (.191) P=.011	.1450 (.190) P=.046	.2471 (.191) P=.001	.1714 (.180) P=.021	.1899 (.193) P=.009	.1631 (.191) P=.034	.1115 (.191) P=.125	.0563 (.190) P=.440	.1812 (.191) P=.012	.1533 (.191) P=.034	.2958 (.190) P=.000
SOC42	.1690 (.194) P=.018	.1268 (.193) P=.079	.2806 (.182) P=.000	.1050 (.183) P=.157	.1800 (.194) P=.012	.0389 (.194) P=.590	.2179 (.194) P=.002	.1435 (.193) P=.047	.2885 (.193) P=.000	.1289 (.194) P=.073	.2542 (.193) P=.000
SOC43	.1869 (.193) P=.009	.2786 (.192) P=.000	.3067 (.191) P=.000	.0694 (.182) P=.352	.1773 (.193) P=.014	.2853 (.193) P=.000	.1729 (.192) P=.016	.1538 (.192) P=.033	.1319 (.192) P=.068	.1703 (.193) P=.018	.3434 (.192) P=.000
PERS44	.3183 (.184) P=.000	.2512 (.193) P=.000	.2345 (.192) P=.001	.1690 (.183) P=.022	.1290 (.194) P=.073	.2092 (.194) P=.003	.1869 (.194) P=.009	.2388 (.193) P=.001	.2359 (.193) P=.001	.1565 (.194) P=.029	.2940 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
PERS45	.1307 (.194) P=.069	.1934 (.193) P=.007	.1245 (.192) P=.085	.0837 (.183) P=.260	.2239 (.194) P=.002	.0395 (.194) P=.168	.1854 (.194) P=.010	.2155 (.193) P=.003	.3639 (.193) P=.000	.1806 (.194) P=.012	.1862 (.193) P=.010
PERS46	.2059 (.184) P=.004	.2371 (.193) P=.001	.2276 (.192) P=.001	.1798 (.183) P=.015	.2588 (.194) P=.000	.1452 (.194) P=.043	.1585 (.194) P=.027	.1973 (.193) P=.006	.3315 (.193) P=.000	.1267 (.194) P=.078	.1816 (.193) P=.011
PERS47	.2011 (.193) P=.005	.1112 (.192) P=.125	.2429 (.191) P=.001	.0558 (.167) P=.454	.0765 (.193) P=.290	.1466 (.193) P=.042	.3039 (.193) P=.000	.2723 (.193) P=.000	.3533 (.193) P=.000	.1635 (.193) P=.023	.2745 (.194) P=.000
PERS48	.0614 (.191) P=.389	.1259 (.190) P=.083	.1524 (.189) P=.036	.0838 (.181) P=.262	.1109 (.191) P=.127	.1208 (.191) P=.096	.0966 (.191) P=.184	.2070 (.191) P=.004	.2167 (.191) P=.003	.2455 (.191) P=.001	.2863 (.190) P=.000
PERS49	.1490 (.190) P=.040	.2263 (.189) P=.002	.2182 (.188) P=.003	.1308 (.180) P=.080	.1849 (.190) P=.007	.1346 (.190) P=.064	.1634 (.190) P=.024	.1962 (.190) P=.007	.3126 (.189) P=.000	.2612 (.190) P=.000	.3166 (.189) P=.000
PERS50	.1509 (.190) P=.038	.2002 (.188) P=.006	.3388 (.187) P=.000	.0954 (.180) P=.203	.2048 (.190) P=.005	.2138 (.190) P=.003	.1645 (.190) P=.023	.2213 (.190) P=.002	.2451 (.189) P=.001	.1512 (.190) P=.037	.2671 (.189) P=.000
PERS51	.1196 (.189) P=.101	.1875 (.188) P=.007	.1350 (.187) P=.065	.1175 (.178) P=.118	.1134 (.189) P=.120	.2012 (.189) P=.006	.2147 (.189) P=.003	.2429 (.188) P=.001	.3210 (.189) P=.000	.2095 (.191) P=.004	.2188 (.188) P=.003
PERS52	.1869 (.192) P=.009	.1632 (.191) P=.024	.1158 (.190) P=.112	.2028 (.181) P=.006	.2585 (.190) P=.000	.1154 (.192) P=.111	.1430 (.192) P=.048	.0883 (.191) P=.224	.2284 (.191) P=.001	.1507 (.192) P=.037	.2803 (.191) P=.000
PERS53	.2468 (.192) P=.001	.2266 (.191) P=.002	.1321 (.190) P=.069	.1330 (.181) P=.074	.2566 (.192) P=.000	.2267 (.192) P=.002	.1258 (.192) P=.082	.1414 (.191) P=.051	.2880 (.191) P=.000	.2136 (.192) P=.003	.2892 (.191) P=.000
PERS54	.1707 (.191) P=.018	.2425 (.190) P=.001	.3582 (.189) P=.000	.1478 (.180) P=.048	.2151 (.191) P=.003	.3037 (.191) P=.000	.1903 (.191) P=.008	.1730 (.190) P=.017	.2939 (.190) P=.000	.2897 (.191) P=.000	.2578 (.190) P=.000
PERS55	.1636 (.193) P=.023	.1840 (.192) P=.011	.1626 (.181) P=.025	.1329 (.162) P=.074	.1138 (.193) P=.115	.1885 (.193) P=.009	.0878 (.193) P=.225	.0339 (.192) P=.641	.1740 (.192) P=.016	.2439 (.193) P=.000	.3220 (.182) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
ENV1	.1121 (.194) P=.120	.1799 (.193) P=.012	.1545 (.194) P=.031	.1326 (.192) P=.067	.2430 (.193) P=.001	.1748 (.193) P=.015	.2089 (.193) P=.004	.2911 (.194) P=.000	.3696 (.194) P=.000	.2197 (.194) P=.002	.0863 (.194) P=.231
ENV2	.1772 (.193) P=.014	.2490 (.192) P=.000	.1884 (.193) P=.009	.1932 (.191) P=.007	.1793 (.192) P=.013	.1945 (.192) P=.007	.2924 (.192) P=.000	.2713 (.193) P=.000	.3565 (.193) P=.000	.3076 (.193) P=.000	.1143 (.193) P=.113
ENV3	.1596 (.192) P=.027	.3057 (.191) P=.000	.2852 (.192) P=.000	.2793 (.190) P=.000	.2761 (.191) P=.000	.1964 (.191) P=.006	.1109 (.191) P=.127	.1778 (.192) P=.014	.2243 (.192) P=.002	.2225 (.192) P=.002	.3045 (.192) P=.000
ENV4	-.0118 (.193) P=.874	.0271 (.182) P=.717	.0333 (.183) P=.655	.0545 (.183) P=.463	.1043 (.182) P=.161	-.0262 (.183) P=.725	-.0577 (.183) P=.438	.1571 (.183) P=.034	.0669 (.183) P=.368	.0734 (.183) P=.323	.1284 (.183) P=.083
ENV5	.0733 (.194) P=.310	.1155 (.193) P=.110	.1313 (.194) P=.068	-.0139 (.192) P=.848	.0857 (.193) P=.236	.1264 (.193) P=.080	.2270 (.193) P=.001	.1987 (.194) P=.005	.2031 (.194) P=.005	.2159 (.194) P=.002	.0730 (.194) P=.312
ENV6	.1657 (.194) P=.021	.1750 (.193) P=.015	.1725 (.194) P=.016	.2988 (.192) P=.000	.2351 (.193) P=.001	.2351 (.193) P=.001	.2265 (.193) P=.002	.2198 (.194) P=.002	.2670 (.194) P=.000	.2323 (.194) P=.001	.1145 (.194) P=.112
ENV7	.2413 (.194) P=.001	.2825 (.193) P=.000	.1503 (.194) P=.037	.2556 (.192) P=.000	.0806 (.193) P=.265	.2563 (.193) P=.000	.2217 (.193) P=.002	.1075 (.194) P=.136	.2017 (.194) P=.005	.1572 (.194) P=.029	.1166 (.194) P=.106
ENV8	.1907 (.193) P=.008	.2528 (.193) P=.000	.2171 (.193) P=.002	.1173 (.192) P=.105	.1820 (.193) P=.012	.2086 (.193) P=.004	.2145 (.193) P=.003	.0648 (.193) P=.370	.1026 (.193) P=.156	.0914 (.193) P=.306	.1262 (.193) P=.080
ENV9	.1742 (.193) P=.015	.1847 (.193) P=.010	.0922 (.193) P=.202	.0832 (.191) P=.252	.1223 (.192) P=.091	.2410 (.192) P=.001	.1963 (.192) P=.005	.2922 (.193) P=.000	.2405 (.193) P=.001	.2348 (.193) P=.001	.1986 (.193) P=.006
ACAD10	.3911 (.194) P=.000	.3990 (.193) P=.000	.3307 (.194) P=.000	.3886 (.192) P=.000	.2135 (.193) P=.003	.4412 (.193) P=.000	.3029 (.193) P=.000	.2318 (.194) P=.001	.3997 (.194) P=.000	.3356 (.194) P=.000	.3251 (.194) P=.000
ACAD11	.5207 (.193) P=.000	.5017 (.192) P=.000	.3630 (.193) P=.000	.3693 (.191) P=.000	.2907 (.192) P=.000	.4045 (.192) P=.000	.4111 (.192) P=.000	.3415 (.193) P=.000	.3242 (.193) P=.000	.4496 (.193) P=.000	.3278 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
ACAD12	.1.0000 (.194) P=.000	.5957 (.193) P=.000	.3704 (.194) P=.000	.4015 (.192) P=.000	.2645 (.193) P=.000	.3373 (.193) P=.000	.2350 (.193) P=.001	.3070 (.194) P=.000	.3075 (.194) P=.000	.4029 (.194) P=.000	.3817 (.194) P=.000
ACAD13	.5957 (.193) P=.000	.1.0000 (.193) P=.000	.3670 (.193) P=.000	.4276 (.191) P=.000	.3090 (.192) P=.000	.4443 (.192) P=.000	.3164 (.192) P=.000	.3384 (.193) P=.000	.3704 (.193) P=.000	.3991 (.193) P=.000	.3737 (.193) P=.000
ACAD14	.3704 (.194) P=.000	.3670 (.193) P=.000	.1.0000 (.194) P=.000	.3877 (.192) P=.000	.2779 (.193) P=.000	.3374 (.193) P=.000	.2482 (.193) P=.001	.2219 (.194) P=.002	.2227 (.194) P=.002	.3209 (.194) P=.000	.2809 (.194) P=.000
ACAD15	.4015 (.192) P=.000	.4276 (.191) P=.000	.3877 (.192) P=.000	.1.0000 (.192) P=.000	.3081 (.191) P=.000	.3487 (.192) P=.000	.2257 (.192) P=.002	.2660 (.192) P=.000	.2722 (.192) P=.000	.3082 (.192) P=.000	.3621 (.192) P=.000
ACAD16	.2645 (.193) P=.000	.3090 (.192) P=.000	.2779 (.193) P=.000	.3081 (.191) P=.000	.1.0000 (.193) P=.000	.3166 (.192) P=.000	.3435 (.192) P=.000	.3683 (.193) P=.000	.3904 (.193) P=.000	.3894 (.193) P=.000	.4153 (.193) P=.000
ACAD17	.3373 (.193) P=.000	.4443 (.192) P=.000	.3374 (.193) P=.000	.3487 (.192) P=.000	.3166 (.192) P=.000	.1.0000 (.193) P=.000	.3870 (.193) P=.000	.3267 (.193) P=.000	.4264 (.193) P=.000	.4223 (.193) P=.000	.4871 (.193) P=.000
ACAD18	.2350 (.193) P=.001	.3070 (.193) P=.000	.2482 (.193) P=.001	.2257 (.192) P=.002	.2660 (.192) P=.000	.2722 (.192) P=.000	.1.0000 (.193) P=.000	.2662 (.193) P=.000	.4545 (.193) P=.000	.4515 (.193) P=.000	.2980 (.193) P=.000
ACAD19	.3070 (.194) P=.000	.3670 (.193) P=.000	.2219 (.194) P=.002	.2660 (.192) P=.000	.3683 (.193) P=.000	.3267 (.193) P=.000	.2662 (.193) P=.000	.1.0000 (.194) P=.000	.3959 (.194) P=.000	.5024 (.194) P=.000	.3141 (.194) P=.000
ACAD20	.3025 (.194) P=.000	.3704 (.193) P=.000	.2227 (.194) P=.002	.2722 (.192) P=.000	.3904 (.193) P=.000	.4264 (.193) P=.000	.4545 (.193) P=.000	.3959 (.194) P=.000	.1.0000 (.194) P=.000	.5199 (.194) P=.000	.4555 (.194) P=.000
ACAD21	.4029 (.194) P=.000	.3991 (.193) P=.000	.3209 (.194) P=.000	.3082 (.192) P=.000	.3894 (.193) P=.000	.4223 (.193) P=.000	.4515 (.193) P=.000	.5024 (.194) P=.000	.5199 (.194) P=.000	.1.0000 (.194) P=.000	.4833 (.194) P=.000
ACAD22	.3817 (.194) P=.000	.3737 (.193) P=.000	.2809 (.194) P=.000	.3621 (.192) P=.000	.4153 (.193) P=.000	.4871 (.193) P=.000	.4871 (.193) P=.000	.3141 (.194) P=.000	.4555 (.194) P=.000	.4833 (.194) P=.000	.1.0000 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
ACAD23	.2843 (.193) P=.000	.2430 (.192) P=.001	.2810 (.193) P=.000	.2205 (.192) P=.002	.5530 (.192) P=.000	.3337 (.193) P=.000	.3392 (.193) P=.000	.3491 (.193) P=.000	.4137 (.193) P=.000	.4285 (.193) P=.000	.5171 (.193) P=.000
ACAD24	.2843 (.194) P=.000	.3308 (.193) P=.000	.2787 (.194) P=.000	.3083 (.193) P=.000	.2586 (.193) P=.000	.4636 (.193) P=.000	.4424 (.193) P=.000	.2712 (.194) P=.000	.4983 (.194) P=.000	.4548 (.194) P=.000	.3746 (.194) P=.000
ACAD25	.1712 (.193) P=.017	.1619 (.193) P=.024	.1516 (.193) P=.035	.1242 (.191) P=.087	.0954 (.192) P=.188	.1627 (.192) P=.024	.2299 (.193) P=.001	.1995 (.193) P=.005	.0743 (.193) P=.304	.2510 (.193) P=.000	.1790 (.193) P=.013
ACAD26	.2551 (.194) P=.000	.3154 (.193) P=.000	.1998 (.194) P=.005	.1084 (.192) P=.135	.2447 (.193) P=.001	.2676 (.193) P=.000	.4877 (.193) P=.000	.2748 (.194) P=.000	.3134 (.194) P=.000	.2116 (.194) P=.003	.1396 (.194) P=.052
ACAD27	.1772 (.194) P=.013	.2309 (.193) P=.001	.1090 (.194) P=.130	.1579 (.192) P=.029	.2387 (.193) P=.001	.2471 (.193) P=.001	.2570 (.193) P=.000	.1755 (.194) P=.014	.2634 (.194) P=.000	.2474 (.194) P=.001	.3406 (.194) P=.000
ACAD28	.2992 (.194) P=.000	.3011 (.193) P=.000	.2503 (.194) P=.000	.2088 (.192) P=.004	.3470 (.193) P=.000	.4556 (.193) P=.000	.5376 (.193) P=.000	.3617 (.194) P=.000	.4280 (.194) P=.000	.6372 (.194) P=.000	.5087 (.194) P=.000
ACAD29	.4416 (.193) P=.000	.4227 (.192) P=.000	.3234 (.193) P=.000	.3065 (.191) P=.000	.3828 (.192) P=.000	.5408 (.192) P=.000	.5303 (.192) P=.000	.4220 (.193) P=.000	.4996 (.193) P=.000	.6882 (.193) P=.000	.4862 (.193) P=.000
ACAD30	.4059 (.193) P=.000	.2967 (.192) P=.000	.2806 (.193) P=.000	.3522 (.191) P=.000	.2792 (.192) P=.000	.4352 (.192) P=.000	.4013 (.192) P=.000	.4627 (.193) P=.000	.3808 (.193) P=.000	.6060 (.193) P=.000	.4787 (.193) P=.000
SOC31	.4039 (.194) P=.000	.4201 (.193) P=.000	.2221 (.194) P=.002	.2646 (.192) P=.000	.2266 (.193) P=.002	.3971 (.193) P=.000	.3093 (.193) P=.000	.2590 (.194) P=.000	.3518 (.194) P=.000	.3371 (.194) P=.000	.4007 (.194) P=.000
SOC32	.4483 (.194) P=.000	.4017 (.193) P=.000	.3314 (.194) P=.000	.2820 (.192) P=.000	.2948 (.193) P=.000	.3799 (.193) P=.000	.3604 (.193) P=.000	.2621 (.194) P=.000	.3468 (.194) P=.000	.3792 (.194) P=.000	.3812 (.194) P=.000
SOC33	.3234 (.194) P=.000	.3281 (.193) P=.000	.1815 (.184) P=.010	.2640 (.192) P=.000	.2030 (.193) P=.005	.3800 (.193) P=.000	.3269 (.193) P=.000	.1515 (.194) P=.035	.3591 (.194) P=.000	.2996 (.194) P=.000	.3375 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
SOC34	.3714 (.194) P=.000	.2814 (.193) P=.000	.1734 (.194) P=.016	.1870 (.192) P=.009	.2719 (.193) P=.000	.3461 (.193) P=.000	.3170 (.193) P=.000	.3135 (.194) P=.000	.3624 (.194) P=.000	.3551 (.194) P=.000	.3979 (.194) P=.000
SOC35	.3749 (.193) P=.000	.4542 (.192) P=.000	.2372 (.193) P=.001	.2330 (.192) P=.001	.2147 (.192) P=.003	.3455 (.193) P=.000	.2512 (.193) P=.000	.2989 (.193) P=.000	.3060 (.193) P=.000	.2331 (.193) P=.001	.2819 (.193) P=.000
SOC36	.2006 (.193) P=.005	.2583 (.192) P=.000	.1657 (.193) P=.021	.1223 (.192) P=.091	.1452 (.192) P=.044	.3422 (.193) P=.000	.2626 (.193) P=.000	.1807 (.193) P=.012	.2298 (.193) P=.001	.1879 (.193) P=.008	.1444 (.193) P=.045
SOC37	.2434 (.194) P=.001	.2546 (.193) P=.000	.3032 (.194) P=.000	.1619 (.192) P=.025	.2262 (.193) P=.002	.2931 (.193) P=.000	.3068 (.193) P=.000	.2937 (.194) P=.000	.4597 (.194) P=.000	.3901 (.194) P=.000	.3034 (.194) P=.000
SOC38	.2428 (.194) P=.001	.2977 (.193) P=.000	.3280 (.194) P=.000	.2117 (.192) P=.003	.2953 (.193) P=.000	.3736 (.193) P=.000	.2850 (.193) P=.000	.2636 (.194) P=.000	.4853 (.194) P=.000	.3992 (.194) P=.000	.3803 (.194) P=.000
SOC39	.4068 (.193) P=.000	.3807 (.192) P=.000	.2781 (.193) P=.000	.2474 (.191) P=.001	.3376 (.192) P=.000	.3968 (.192) P=.000	.3319 (.192) P=.000	.3428 (.193) P=.000	.4667 (.193) P=.000	.4992 (.193) P=.000	.3930 (.193) P=.000
SOC40	.2713 (.193) P=.000	.3106 (.192) P=.000	.2280 (.193) P=.001	.1890 (.192) P=.009	.3022 (.192) P=.000	.2541 (.193) P=.000	.2549 (.193) P=.000	.2317 (.193) P=.001	.3438 (.193) P=.000	.3642 (.193) P=.000	.2649 (.193) P=.000
SOC41	.2656 (.191) P=.002	.2218 (.191) P=.002	.1762 (.191) P=.015	.1091 (.192) P=.135	.1763 (.190) P=.015	.2182 (.190) P=.002	.2728 (.190) P=.000	.2723 (.191) P=.000	.2561 (.191) P=.000	.2777 (.191) P=.000	.2651 (.191) P=.000
SOC42	.2028 (.194) P=.005	.2617 (.193) P=.000	.2853 (.194) P=.000	.1088 (.192) P=.133	.1186 (.191) P=.101	.1835 (.193) P=.011	.1858 (.193) P=.010	.2518 (.194) P=.000	.2561 (.194) P=.000	.3058 (.194) P=.000	.1731 (.194) P=.016
SOC43	.1817 (.193) P=.011	.1962 (.192) P=.006	.0839 (.192) P=.246	.1056 (.191) P=.146	.1683 (.192) P=.020	.1720 (.192) P=.016	.3009 (.192) P=.000	.2870 (.193) P=.000	.2813 (.193) P=.000	.3501 (.193) P=.000	.2154 (.193) P=.003
PEBS44	.3098 (.194) P=.000	.2755 (.193) P=.000	.0621 (.192) P=.390	.1660 (.192) P=.021	.2535 (.193) P=.000	.1555 (.193) P=.031	.2979 (.193) P=.000	.2917 (.194) P=.000	.4242 (.194) P=.000	.3479 (.194) P=.000	.2151 (.194) P=.003

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
PERS45	.3117 (.194) P=.000	.2978 (.193) P=.000	.0890 (.194) P=.217	.1147 (.192) P=.113	.1624 (.193) P=.024	.1050 (.193) P=.131	.3115 (.193) P=.000	.3007 (.194) P=.000	.3084 (.194) P=.000	.2235 (.194) P=.002	.2369 (.194) P=.001
PERS46	.1550 (.194) P=.031	.2007 (.193) P=.005	.1497 (.194) P=.037	.0576 (.192) P=.427	.1156 (.193) P=.110	.1037 (.193) P=.151	.3327 (.193) P=.000	.3229 (.194) P=.000	.2852 (.194) P=.000	.2678 (.194) P=.000	.2037 (.194) P=.004
PERS47	.2902 (.193) P=.000	.2904 (.193) P=.000	.1844 (.191) P=.010	.1009 (.191) P=.165	.2702 (.192) P=.000	.2296 (.192) P=.001	.2106 (.192) P=.003	.3593 (.193) P=.000	.1138 (.193) P=.115	.2208 (.193) P=.002	.2853 (.193) P=.000
PERS48	.2387 (.191) P=.001	.2520 (.190) P=.000	.1144 (.191) P=.115	.0796 (.190) P=.375	.2669 (.189) P=.000	.2807 (.191) P=.000	.2724 (.190) P=.000	.3032 (.191) P=.000	.2439 (.191) P=.001	.2660 (.191) P=.000	.3498 (.191) P=.000
PERS49	.2937 (.190) P=.000	.3606 (.189) P=.000	.2780 (.190) P=.000	.2233 (.189) P=.002	.1861 (.189) P=.010	.2742 (.190) P=.000	.3408 (.190) P=.000	.3307 (.190) P=.000	.3640 (.190) P=.000	.3715 (.190) P=.000	.3801 (.190) P=.000
PERS50	.1890 (.190) P=.006	.1410 (.189) P=.053	.1200 (.190) P=.099	.1527 (.189) P=.036	.1518 (.188) P=.037	.0857 (.190) P=.240	.1247 (.190) P=.086	.1581 (.190) P=.029	.2024 (.190) P=.005	.1643 (.190) P=.023	.1441 (.190) P=.047
PERS51	.2457 (.189) P=.001	.2569 (.188) P=.000	.1158 (.189) P=.113	.2311 (.187) P=.001	.2002 (.188) P=.006	.1715 (.188) P=.019	.3336 (.188) P=.000	.2553 (.189) P=.000	.3072 (.189) P=.000	.2481 (.189) P=.001	.2937 (.189) P=.000
PERS52	.2428 (.192) P=.001	.2551 (.191) P=.000	.1506 (.192) P=.037	.1708 (.190) P=.018	.2373 (.191) P=.001	.1825 (.191) P=.012	.3574 (.191) P=.000	.3641 (.192) P=.000	.2689 (.192) P=.000	.3345 (.192) P=.000	.3057 (.192) P=.000
PERS53	.2241 (.192) P=.002	.2292 (.191) P=.001	.1518 (.192) P=.036	.0864 (.190) P=.186	.1861 (.191) P=.010	.2117 (.191) P=.003	.3726 (.191) P=.000	.3714 (.192) P=.000	.3047 (.192) P=.000	.3502 (.192) P=.000	.2613 (.192) P=.000
PERS54	.2503 (.191) P=.000	.3395 (.190) P=.000	.2876 (.191) P=.000	.1823 (.189) P=.012	.2533 (.190) P=.000	.3804 (.190) P=.000	.4148 (.190) P=.000	.3305 (.191) P=.000	.3336 (.191) P=.000	.4268 (.191) P=.000	.3930 (.191) P=.000
PERS55	.2511 (.193) P=.000	.2066 (.192) P=.004	.0268 (.193) P=.711	.1509 (.191) P=.037	.2176 (.192) P=.002	.1702 (.192) P=.018	.3301 (.192) P=.000	.3622 (.192) P=.000	.2566 (.193) P=.000	.3152 (.193) P=.000	.3270 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOC31	SOC32	SOC33
ENV1	.1371 (.183) P=.057	.2074 (.194) P=.004	.0100 (.193) P=.891	.0861 (.194) P=.183	.1052 (.194) P=.144	.1893 (.193) P=.008	.1681 (.193) P=.019	.1889 (.193) P=.009	.1254 (.194) P=.082	.0883 (.194) P=.221	.2005 (.194) P=.005
ENV2	.2022 (.192) P=.005	.3577 (.193) P=.000	.1582 (.192) P=.028	.2190 (.193) P=.002	.1223 (.193) P=.090	.2471 (.193) P=.001	.2478 (.192) P=.001	.2016 (.192) P=.005	.1888 (.193) P=.009	.1442 (.193) P=.045	.1428 (.193) P=.048
ENV3	.2391 (.191) P=.001	.1838 (.192) P=.007	.0352 (.191) P=.623	.0785 (.192) P=.279	.2879 (.192) P=.000	.2629 (.192) P=.000	.2111 (.191) P=.003	.1778 (.191) P=.014	.1692 (.192) P=.019	.1186 (.192) P=.101	.1770 (.192) P=.014
ENV4	.1283 (.183) P=.081	.0060 (.182) P=.936	-.0286 (.183) P=.690	.0379 (.183) P=.610	.1008 (.183) P=.174	.0546 (.183) P=.463	.0060 (.182) P=.936	.0186 (.182) P=.803	.0293 (.183) P=.694	.0028 (.183) P=.970	.0309 (.183) P=.678
ENV5	.1174 (.193) P=.104	.2198 (.194) P=.002	.1495 (.193) P=.038	.1720 (.194) P=.016	.1509 (.194) P=.036	.2147 (.194) P=.003	.2017 (.193) P=.005	.1791 (.193) P=.019	.1252 (.194) P=.082	.0345 (.194) P=.633	.0391 (.194) P=.588
ENV6	.1598 (.193) P=.013	.2435 (.194) P=.001	-.0227 (.193) P=.754	.1472 (.194) P=.041	.1892 (.194) P=.008	.1819 (.194) P=.011	.1819 (.193) P=.011	.1928 (.193) P=.007	.1499 (.194) P=.037	.2154 (.194) P=.003	.2358 (.194) P=.001
ENV7	.0324 (.193) P=.654	.3101 (.194) P=.000	.1494 (.193) P=.038	.1014 (.194) P=.159	.1394 (.194) P=.053	.1307 (.194) P=.069	.1984 (.193) P=.006	.1667 (.193) P=.021	.1992 (.194) P=.005	.1997 (.194) P=.005	.1733 (.194) P=.016
ENV8	.1155 (.193) P=.110	.1539 (.193) P=.033	.1584 (.192) P=.028	.1625 (.193) P=.024	.2487 (.193) P=.000	.1154 (.193) P=.110	.2043 (.192) P=.004	.1124 (.192) P=.121	.2041 (.193) P=.004	.2451 (.193) P=.001	.1834 (.193) P=.011
ENV9	.2195 (.192) P=.002	.2566 (.193) P=.000	.1456 (.193) P=.043	.2952 (.193) P=.000	.3096 (.193) P=.000	.1253 (.193) P=.083	.1494 (.192) P=.039	.2331 (.192) P=.001	.1541 (.193) P=.032	.1704 (.193) P=.018	.2066 (.193) P=.004
ACAD10	.2381 (.193) P=.001	.3883 (.194) P=.000	.1097 (.193) P=.129	.1842 (.194) P=.010	.1835 (.194) P=.010	.3051 (.194) P=.000	.4321 (.193) P=.000	.3454 (.193) P=.000	.4845 (.194) P=.000	.4576 (.194) P=.000	.4306 (.194) P=.000
ACAD11	.2701 (.183) P=.000	.3658 (.183) P=.000	.1616 (.192) P=.025	.2580 (.193) P=.000	.1865 (.193) P=.009	.4732 (.192) P=.000	.5278 (.192) P=.000	.4626 (.192) P=.000	.5133 (.183) P=.000	.7118 (.183) P=.000	.5649 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table B-1 (Continued)

Intercorrelational Analysis of HKRS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOC31	SOC32	SOC33
ACAD12	.2843 (.193) P=.000	.2551 (.194) P=.000	.1712 (.193) P=.017	.2551 (.194) P=.000	.1772 (.184) P=.013	.2892 (.194) P=.000	.4416 (.193) P=.000	.4059 (.193) P=.000	.4039 (.194) P=.000	.4483 (.194) P=.000	.3234 (.194) P=.000
ACAD13	.2430 (.192) P=.001	.3308 (.193) P=.000	.1619 (.193) P=.024	.3154 (.193) P=.000	.2309 (.193) P=.001	.3011 (.193) P=.000	.4227 (.192) P=.000	.2957 (.192) P=.000	.4201 (.193) P=.000	.4017 (.193) P=.000	.3381 (.193) P=.000
ACAD14	.2810 (.193) P=.000	.2787 (.194) P=.000	.1516 (.193) P=.035	.1998 (.194) P=.005	.1090 (.194) P=.130	.2503 (.194) P=.000	.3234 (.193) P=.000	.2806 (.193) P=.000	.2221 (.194) P=.002	.3314 (.194) P=.000	.1845 (.194) P=.010
ACAD15	.2205 (.192) P=.002	.3083 (.192) P=.000	.1242 (.191) P=.087	.1084 (.192) P=.135	.1579 (.192) P=.029	.2088 (.192) P=.004	.3065 (.191) P=.000	.3522 (.191) P=.000	.2646 (.191) P=.000	.2820 (.192) P=.000	.2640 (.192) P=.000
ACAD16	.5530 (.192) P=.000	.2586 (.193) P=.000	.0954 (.192) P=.188	.2447 (.193) P=.001	.2387 (.193) P=.001	.3420 (.193) P=.000	.3023 (.192) P=.000	.2782 (.192) P=.000	.2266 (.193) P=.002	.2948 (.193) P=.000	.2030 (.193) P=.005
ACAD17	.3337 (.193) P=.000	.4636 (.193) P=.000	.1627 (.192) P=.024	.2676 (.193) P=.000	.2471 (.193) P=.001	.4556 (.193) P=.000	.5408 (.192) P=.000	.4352 (.192) P=.000	.3971 (.193) P=.000	.3799 (.193) P=.000	.3800 (.193) P=.000
ACAD18	.3392 (.193) P=.000	.4424 (.193) P=.000	.2299 (.192) P=.001	.4877 (.193) P=.000	.2570 (.193) P=.000	.5376 (.193) P=.000	.5303 (.192) P=.000	.4013 (.192) P=.000	.3093 (.193) P=.000	.3604 (.193) P=.000	.3269 (.193) P=.000
ACAD18	.3481 (.193) P=.000	.2712 (.194) P=.000	.1995 (.193) P=.005	.2748 (.194) P=.000	.1755 (.194) P=.014	.3617 (.194) P=.000	.4220 (.193) P=.000	.4627 (.193) P=.000	.2590 (.194) P=.000	.2621 (.194) P=.000	.1515 (.194) P=.035
ACAD20	.4137 (.193) P=.000	.4983 (.194) P=.000	.0743 (.193) P=.304	.3134 (.194) P=.000	.2634 (.194) P=.000	.4280 (.194) P=.000	.4996 (.193) P=.000	.3808 (.193) P=.000	.3518 (.194) P=.000	.3468 (.194) P=.000	.3691 (.194) P=.000
ACAD21	.4285 (.193) P=.000	.4548 (.194) P=.000	.2510 (.193) P=.000	.2116 (.194) P=.003	.2474 (.194) P=.001	.6372 (.194) P=.000	.6882 (.193) P=.000	.5050 (.193) P=.000	.3371 (.194) P=.000	.3792 (.194) P=.000	.2996 (.194) P=.000
ACAD22	.5171 (.193) P=.000	.3746 (.194) P=.000	.1780 (.193) P=.013	.1396 (.194) P=.052	.3406 (.194) P=.000	.5087 (.194) P=.000	.4862 (.193) P=.000	.4787 (.193) P=.000	.4007 (.194) P=.000	.3812 (.194) P=.000	.3375 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ACA023	ACA024	ACA025	ACA026	ACA027	ACA028	ACA029	ACA030	SOC31	SOC32	SOC33
ACA023	1.0000 (.193) P=.000	.3775 (.193) P=.000	.2495 (.192) P=.000	.1960 (.193) P=.006	.2716 (.193) P=.000	.3656 (.193) P=.000	.3774 (.192) P=.000	.3073 (.192) P=.000	.2003 (.194) P=.005	.2940 (.193) P=.000	.2720 (.193) P=.000
ACA024	.3775 (.193) P=.000	1.0000 (.194) P=.000	.2016 (.193) P=.005	.2508 (.194) P=.000	.3882 (.194) P=.000	.4060 (.194) P=.000	.4215 (.193) P=.000	.3419 (.193) P=.000	.3441 (.194) P=.000	.3155 (.194) P=.000	.2978 (.194) P=.000
ACA025	.2495 (.192) P=.000	.2016 (.193) P=.005	1.0000 (.193) P=.000	.2428 (.193) P=.001	.1634 (.193) P=.023	.2363 (.192) P=.001	.2181 (.192) P=.002	.3585 (.192) P=.000	.0560 (.193) P=.439	.1058 (.193) P=.143	.1782 (.193) P=.013
ACA026	.1960 (.193) P=.006	.2508 (.194) P=.000	.2428 (.193) P=.001	1.0000 (.194) P=.000	.3491 (.194) P=.000	.3049 (.194) P=.000	.3052 (.193) P=.000	.2153 (.193) P=.003	.3220 (.194) P=.000	.2885 (.194) P=.000	.3200 (.194) P=.000
ACA027	.2716 (.193) P=.000	.3882 (.194) P=.000	.3491 (.194) P=.000	.3049 (.194) P=.000	1.0000 (.194) P=.000	.3259 (.194) P=.000	.3071 (.193) P=.006	.2485 (.193) P=.000	.3780 (.194) P=.000	.2674 (.194) P=.000	.3382 (.194) P=.000
ACA028	.3656 (.193) P=.000	.4060 (.194) P=.000	.3049 (.193) P=.001	.3049 (.194) P=.000	.3259 (.194) P=.000	1.0000 (.194) P=.000	.7579 (.194) P=.000	.6066 (.193) P=.000	.4577 (.194) P=.000	.4534 (.194) P=.000	.4358 (.194) P=.000
ACA029	.3774 (.192) P=.000	.4215 (.193) P=.000	.2181 (.192) P=.002	.2363 (.192) P=.001	.3071 (.193) P=.006	.3071 (.193) P=.006	1.0000 (.193) P=.000	.7093 (.192) P=.000	.4264 (.193) P=.000	.4599 (.193) P=.000	.1540 (.193) P=.000
ACA030	.3073 (.192) P=.000	.3419 (.193) P=.000	.3585 (.193) P=.000	.2153 (.193) P=.003	.2485 (.193) P=.000	.6066 (.193) P=.000	.7093 (.192) P=.000	1.0000 (.193) P=.000	.4138 (.193) P=.000	.4070 (.193) P=.000	.3339 (.193) P=.000
SOC31	.2003 (.193) P=.005	.3441 (.194) P=.000	.0560 (.193) P=.439	.4577 (.194) P=.000	.4138 (.193) P=.000	.4138 (.193) P=.000	.4138 (.193) P=.000	.4138 (.193) P=.000	1.0000 (.194) P=.000	.6313 (.194) P=.000	.5701 (.194) P=.000
SOC32	.2940 (.193) P=.000	.3155 (.194) P=.000	.1058 (.193) P=.143	.4534 (.194) P=.000	.4358 (.194) P=.000	.4358 (.194) P=.000	.4599 (.193) P=.000	.4070 (.193) P=.000	.4070 (.193) P=.000	1.0000 (.194) P=.000	.6384 (.194) P=.000
SOC33	.2720 (.193) P=.000	.2978 (.194) P=.000	.1782 (.193) P=.013	.3200 (.194) P=.000	.3200 (.194) P=.000	.3200 (.194) P=.000	.3540 (.193) P=.000	.3339 (.193) P=.000	.5701 (.194) P=.000	.6384 (.194) P=.000	1.0000 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOC31	SOC32	SOC33
SOC34	.3252 (.193) P=.000	.2969 (.194) P=.000	.1282 (.193) P=.076	.3444 (.184) P=.000	.3817 (.194) P=.000	.5414 (.194) P=.000	.4526 (.193) P=.000	.4221 (.193) P=.000	.5552 (.184) P=.000	.6065 (.194) P=.000	.6411 (.194) P=.000
SOC35	.2357 (.193) P=.001	.2824 (.193) P=.000	.0846 (.192) P=.192	.2418 (.193) P=.001	.1735 (.193) P=.016	.2087 (.193) P=.004	.2371 (.192) P=.002	.2745 (.192) P=.000	.2662 (.193) P=.000	.2316 (.193) P=.001	.1904 (.193) P=.008
SOC36	.2345 (.193) P=.001	.2211 (.193) P=.002	.2756 (.192) P=.001	.2598 (.193) P=.000	.1957 (.193) P=.006	.2207 (.193) P=.002	.2964 (.192) P=.000	.2491 (.192) P=.000	.1848 (.193) P=.010	.2459 (.193) P=.000	.2422 (.193) P=.001
SOC37	.2234 (.193) P=.002	.3625 (.184) P=.000	.0731 (.193) P=.312	.1305 (.194) P=.070	.2721 (.194) P=.000	.3574 (.194) P=.000	.3407 (.193) P=.000	.2713 (.193) P=.000	.2583 (.194) P=.000	.2569 (.194) P=.000	.3396 (.194) P=.000
SOC38	.3395 (.193) P=.000	.3934 (.194) P=.000	.1518 (.193) P=.035	.1315 (.194) P=.068	.2638 (.194) P=.000	.3311 (.194) P=.000	.4000 (.193) P=.000	.3897 (.193) P=.000	.1855 (.194) P=.010	.2419 (.194) P=.001	.2337 (.194) P=.001
SOC39	.3851 (.192) P=.000	.4682 (.193) P=.000	.2224 (.192) P=.002	.2110 (.193) P=.003	.4045 (.193) P=.000	.4670 (.193) P=.000	.4185 (.192) P=.000	.4275 (.192) P=.000	.4430 (.193) P=.000	.4344 (.193) P=.000	.4484 (.193) P=.000
SOC40	.2580 (.193) P=.000	.3626 (.193) P=.000	.1620 (.192) P=.025	.1748 (.193) P=.015	.3838 (.193) P=.000	.3441 (.193) P=.000	.2840 (.192) P=.000	.2813 (.192) P=.000	.2958 (.193) P=.000	.2249 (.193) P=.002	.2699 (.193) P=.000
SOC41	.2517 (.190) P=.000	.2351 (.191) P=.001	.1898 (.191) P=.009	.1084 (.191) P=.135	.2519 (.191) P=.000	.3754 (.191) P=.000	.3264 (.190) P=.000	.3763 (.190) P=.000	.2498 (.191) P=.000	.2230 (.191) P=.002	.3309 (.191) P=.000
SOC42	.1945 (.193) P=.001	.2133 (.194) P=.003	.1704 (.193) P=.018	.1603 (.194) P=.026	.2851 (.194) P=.000	.2676 (.194) P=.000	.2265 (.192) P=.002	.2735 (.193) P=.000	.2515 (.194) P=.000	.2105 (.194) P=.003	.1528 (.194) P=.033
SOC43	.1851 (.192) P=.010	.3185 (.193) P=.000	.0440 (.192) P=.545	.2062 (.193) P=.004	.2289 (.193) P=.001	.3404 (.193) P=.000	.3151 (.192) P=.000	.2414 (.192) P=.001	.2944 (.193) P=.000	.2560 (.193) P=.000	.2697 (.193) P=.000
PERS44	.2309 (.193) P=.001	.3430 (.184) P=.000	.0981 (.193) P=.175	.3468 (.194) P=.000	.2787 (.194) P=.000	.2825 (.194) P=.000	.2460 (.193) P=.001	.2780 (.193) P=.000	.2847 (.194) P=.000	.2885 (.194) P=.000	.2776 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOCC31	SOCC32	SOCC33
PERS45	.2677 (.193) P=.000	.1917 (.194) P=.007	.1302 (.193) P=.071	.3587 (.194) P=.000	.3097 (.194) P=.000	.2516 (.194) P=.000	.2456 (.193) P=.001	.2921 (.193) P=.000	.2420 (.194) P=.001	.2199 (.194) P=.002	.2371 (.194) P=.001
PERS46	.2217 (.193) P=.002	.2376 (.194) P=.001	.1084 (.193) P=.133	.2848 (.194) P=.000	.3256 (.194) P=.000	.3352 (.194) P=.000	.2757 (.193) P=.000	.3765 (.193) P=.000	.2292 (.194) P=.001	.1857 (.194) P=.009	.2744 (.194) P=.002
PERS47	.2181 (.192) P=.002	.1598 (.193) P=.026	.1189 (.193) P=.097	.1766 (.193) P=.013	.2359 (.193) P=.001	.1953 (.193) P=.006	.1833 (.193) P=.011	.2590 (.192) P=.000	.2531 (.193) P=.000	.2507 (.193) P=.000	.2260 (.193) P=.002
PERS48	.2686 (.191) P=.000	.2481 (.191) P=.001	.2660 (.191) P=.000	.3150 (.191) P=.000	.2197 (.191) P=.002	.2885 (.191) P=.000	.3084 (.191) P=.000	.3562 (.191) P=.000	.3697 (.191) P=.000	.3453 (.191) P=.000	.3283 (.191) P=.000
PERS49	.2527 (.190) P=.000	.3001 (.190) P=.000	.2374 (.185) P=.001	.3114 (.190) P=.000	.3043 (.190) P=.000	.4084 (.190) P=.000	.4690 (.189) P=.000	.4830 (.189) P=.000	.3605 (.190) P=.000	.3309 (.190) P=.000	.3413 (.190) P=.000
PERS50	.1865 (.190) P=.010	.1782 (.191) P=.014	.0654 (.189) P=.371	.1808 (.190) P=.013	.3090 (.190) P=.000	.1513 (.190) P=.037	.0677 (.189) P=.354	.1230 (.189) P=.094	.2668 (.190) P=.000	.1934 (.190) P=.008	.1773 (.190) P=.014
PERS51	.1892 (.188) P=.006	.2690 (.189) P=.000	.1926 (.189) P=.008	.3218 (.189) P=.000	.2605 (.189) P=.000	.2527 (.189) P=.000	.2844 (.188) P=.000	.3167 (.188) P=.000	.1596 (.189) P=.028	.2036 (.189) P=.005	.2517 (.189) P=.000
PERS52	.2434 (.191) P=.001	.1877 (.192) P=.009	.2385 (.191) P=.001	.2959 (.192) P=.000	.2991 (.192) P=.000	.3840 (.192) P=.000	.3845 (.191) P=.000	.5523 (.191) P=.000	.2863 (.192) P=.000	.2396 (.192) P=.001	.2861 (.192) P=.000
PERS53	.2619 (.191) P=.000	.2325 (.192) P=.001	.3080 (.191) P=.000	.2593 (.192) P=.000	.2515 (.192) P=.000	.3543 (.192) P=.000	.3734 (.191) P=.000	.5181 (.191) P=.000	.2248 (.192) P=.002	.2524 (.192) P=.000	.3124 (.192) P=.000
PERS54	.2713 (.190) P=.000	.3145 (.191) P=.000	.1364 (.190) P=.061	.2643 (.190) P=.000	.4071 (.191) P=.000	.4677 (.191) P=.000	.4673 (.190) P=.000	.4581 (.190) P=.000	.3080 (.191) P=.000	.2291 (.191) P=.001	.2360 (.191) P=.001
PERS55	.2111 (.192) P=.003	.2015 (.193) P=.005	.0303 (.192) P=.676	.1644 (.193) P=.022	.1936 (.193) P=.007	.3134 (.193) P=.000	.2860 (.192) P=.000	.3337 (.192) P=.000	.3275 (.193) P=.000	.2664 (.193) P=.000	.2279 (.193) P=.001

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
ENV1	.1882 (.194) P=.009	.2402 (.193) P=.001	.1440 (.194) P=.046	.3504 (.194) P=.000	.2519 (.194) P=.000	.2742 (.193) P=.000	.2626 (.193) P=.000	.1842 (.191) P=.011	.1690 (.194) P=.019	.1859 (.193) P=.009	.3193 (.194) P=.000
ENV2	.1766 (.193) P=.014	.0738 (.192) P=.309	.1964 (.193) P=.006	.2120 (.193) P=.003	.0854 (.193) P=.232	.1464 (.192) P=.043	.1827 (.192) P=.011	.1450 (.192) P=.046	.1288 (.192) P=.079	.2786 (.192) P=.000	.2512 (.193) P=.000
ENV3	.2499 (.192) P=.000	.1524 (.191) P=.035	.1579 (.191) P=.029	.3311 (.192) P=.000	.3087 (.192) P=.000	.2584 (.191) P=.000	.3486 (.191) P=.000	.2471 (.191) P=.001	.2906 (.192) P=.000	.3067 (.191) P=.000	.2345 (.192) P=.001
ENV4	.0841 (.183) P=.467	.1352 (.183) P=.068	-.0734 (.183) P=.323	.1372 (.183) P=.064	.0507 (.183) P=.496	.1012 (.182) P=.174	.1179 (.182) P=.112	.1714 (.180) P=.021	.1050 (.183) P=.157	.0694 (.182) P=.352	.1690 (.183) P=.022
ENV5	.1229 (.194) P=.088	.0307 (.193) P=.671	.0940 (.193) P=.193	.3124 (.194) P=.000	.2131 (.194) P=.003	.1994 (.193) P=.005	.2351 (.193) P=.001	.1899 (.191) P=.009	.1800 (.194) P=.012	.1773 (.193) P=.014	.1290 (.194) P=.073
ENV6	.2392 (.194) P=.001	.1359 (.193) P=.059	.0424 (.193) P=.558	.3022 (.194) P=.000	.1756 (.194) P=.014	.1689 (.193) P=.019	.2261 (.193) P=.002	.1631 (.191) P=.024	.0389 (.194) P=.590	.2853 (.193) P=.000	.2092 (.194) P=.003
ENV7	.0425 (.194) P=.557	.1461 (.193) P=.043	.2600 (.193) P=.000	.2720 (.194) P=.000	.2708 (.194) P=.000	.2750 (.193) P=.000	.1858 (.193) P=.010	.1115 (.191) P=.125	.2179 (.194) P=.002	.1729 (.193) P=.016	.1869 (.194) P=.009
ENV8	.1269 (.193) P=.078	.1580 (.193) P=.028	.1891 (.192) P=.008	.0871 (.193) P=.228	.1640 (.192) P=.023	.1390 (.192) P=.054	.1096 (.192) P=.129	.0563 (.190) P=.440	.1435 (.192) P=.047	.1538 (.193) P=.033	.2388 (.193) P=.001
ENV9	.1335 (.193) P=.064	.2313 (.192) P=.001	.1014 (.192) P=.162	.2358 (.193) P=.001	.3126 (.192) P=.000	.2203 (.192) P=.002	.2331 (.192) P=.001	.1812 (.191) P=.012	.2885 (.193) P=.000	.1319 (.192) P=.068	.2359 (.193) P=.001
ACAD10	.3754 (.194) P=.000	.2599 (.193) P=.000	.1480 (.194) P=.040	.2640 (.194) P=.000	.2931 (.194) P=.003	.2979 (.193) P=.000	.1864 (.193) P=.009	.1533 (.191) P=.034	.1289 (.194) P=.073	.1703 (.193) P=.018	.1565 (.194) P=.029
ACAD11	.4865 (.193) P=.000	.2674 (.192) P=.000	.1851 (.192) P=.010	.2688 (.193) P=.000	.2384 (.193) P=.001	.4196 (.192) P=.000	.2846 (.192) P=.000	.2958 (.190) P=.000	.2542 (.192) P=.000	.3434 (.193) P=.000	.2840 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
ACAD12	.3714 (.194) P=.000	.3749 (.193) P=.006	.2006 (.193) P=.005	.2454 (.193) P=.001	.4068 (.194) P=.000	.2713 (.193) P=.000	.2656 (.191) P=.000	.2028 (.194) P=.005	.1817 (.193) P=.011	.3098 (.194) P=.000	
ACAD13	.2814 (.193) P=.000	.4542 (.192) P=.000	.2583 (.193) P=.000	.2546 (.193) P=.000	.3807 (.192) P=.000	.3106 (.192) P=.000	.2218 (.191) P=.002	.2617 (.191) P=.000	.1962 (.193) P=.006	.2755 (.193) P=.000	
ACAD14	.1734 (.194) P=.016	.2372 (.193) P=.001	.1657 (.194) P=.021	.3032 (.194) P=.000	.2781 (.193) P=.000	.2280 (.191) P=.001	.1762 (.191) P=.015	.2853 (.194) P=.000	.0839 (.193) P=.246	.0621 (.194) P=.390	
ACAD15	.1870 (.192) P=.009	.2330 (.192) P=.001	.1223 (.192) P=.091	.1619 (.192) P=.025	.2474 (.191) P=.001	.1890 (.192) P=.009	.1091 (.189) P=.135	.1088 (.192) P=.133	.1056 (.191) P=.146	.1660 (.192) P=.021	
ACAD16	.2719 (.183) P=.000	.2147 (.192) P=.003	.1452 (.192) P=.044	.2262 (.193) P=.002	.3376 (.192) P=.000	.3022 (.192) P=.000	.1763 (.190) P=.015	.1186 (.193) P=.101	.1683 (.192) P=.020	.2535 (.193) P=.000	
ACAD17	.3461 (.193) P=.000	.3455 (.193) P=.000	.3422 (.193) P=.000	.2931 (.193) P=.000	.3736 (.193) P=.000	.2541 (.193) P=.000	.2182 (.190) P=.002	.1835 (.193) P=.011	.1730 (.192) P=.016	.1555 (.193) P=.031	
ACAD18	.3170 (.193) P=.000	.2512 (.193) P=.000	.2626 (.193) P=.000	.3068 (.193) P=.000	.2850 (.193) P=.000	.2549 (.193) P=.000	.2728 (.193) P=.000	.1858 (.193) P=.010	.3009 (.193) P=.000	.2979 (.193) P=.000	
ACAD19	.3135 (.194) P=.000	.2989 (.193) P=.000	.1807 (.193) P=.012	.2937 (.194) P=.000	.3428 (.193) P=.000	.2317 (.193) P=.001	.2723 (.191) P=.000	.2518 (.194) P=.000	.2870 (.193) P=.000	.2817 (.194) P=.000	
ACAD20	.3624 (.194) P=.000	.3060 (.193) P=.000	.2298 (.193) P=.001	.4597 (.194) P=.000	.4667 (.193) P=.000	.3438 (.193) P=.000	.2561 (.191) P=.000	.2561 (.194) P=.000	.2813 (.193) P=.000	.4242 (.194) P=.000	
ACAD21	.3551 (.194) P=.000	.2331 (.193) P=.001	.1879 (.193) P=.009	.3901 (.194) P=.000	.4992 (.193) P=.000	.3642 (.193) P=.000	.2777 (.191) P=.000	.3058 (.194) P=.000	.3501 (.193) P=.000	.3479 (.194) P=.000	
ACAD22	.3378 (.184) P=.000	.2819 (.193) P=.000	.1444 (.193) P=.045	.3034 (.194) P=.000	.3803 (.193) P=.000	.2649 (.193) P=.000	.2651 (.191) P=.000	.1731 (.194) P=.016	.2154 (.193) P=.003	.2151 (.194) P=.003	

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
ACAD23	.3252 (.193) P=.000	.2357 (.193) P=.001	.2245 (.193) P=.001	.2234 (.193) P=.002	.3395 (.193) P=.000	.3851 (.192) P=.000	.2580 (.193) P=.000	.2517 (.190) P=.000	.1945 (.193) P=.007	.1851 (.192) P=.010	.3209 (.193) P=.001
ACAD24	.2969 (.194) P=.000	.2824 (.193) P=.000	.2211 (.194) P=.002	.3625 (.194) P=.000	.3934 (.194) P=.000	.4682 (.193) P=.000	.3626 (.193) P=.000	.2351 (.191) P=.001	.2133 (.194) P=.003	.3185 (.193) P=.000	.3430 (.194) P=.000
ACAD25	.1282 (.193) P=.076	.0946 (.192) P=.192	.2386 (.193) P=.001	.0731 (.193) P=.312	.1518 (.194) P=.035	.2224 (.192) P=.002	.1620 (.192) P=.025	.1898 (.191) P=.009	.1704 (.193) P=.018	.0440 (.192) P=.545	.0981 (.193) P=.175
ACAD26	.3444 (.194) P=.000	.2418 (.193) P=.001	.2598 (.193) P=.000	.1305 (.194) P=.070	.1315 (.194) P=.068	.2110 (.193) P=.003	.1748 (.193) P=.015	.1084 (.191) P=.135	.1501 (.194) P=.026	.2062 (.193) P=.004	.3468 (.194) P=.000
ACAD27	.3817 (.194) P=.000	.1735 (.193) P=.016	.1967 (.193) P=.006	.2721 (.194) P=.000	.2638 (.194) P=.000	.4045 (.193) P=.000	.3838 (.193) P=.000	.2519 (.191) P=.000	.2851 (.194) P=.000	.2289 (.193) P=.001	.2787 (.194) P=.000
ACAD28	.5414 (.194) P=.000	.2557 (.193) P=.004	.2207 (.193) P=.002	.3574 (.194) P=.000	.3311 (.194) P=.000	.4670 (.193) P=.000	.3441 (.193) P=.000	.3754 (.191) P=.000	.2676 (.194) P=.000	.3404 (.193) P=.000	.2825 (.194) P=.000
ACAD29	.4526 (.193) P=.000	.2271 (.192) P=.002	.2964 (.192) P=.000	.3407 (.193) P=.000	.4000 (.193) P=.000	.4195 (.192) P=.000	.2840 (.192) P=.000	.3264 (.190) P=.000	.2265 (.193) P=.002	.3151 (.192) P=.000	.2460 (.193) P=.001
ACAD30	.4221 (.193) P=.000	.2745 (.192) P=.000	.2491 (.192) P=.000	.2713 (.193) P=.000	.3897 (.193) P=.000	.4275 (.192) P=.000	.2813 (.192) P=.000	.3763 (.190) P=.000	.2735 (.193) P=.000	.2414 (.192) P=.001	.2780 (.193) P=.000
SOC31	.5692 (.194) P=.000	.2662 (.193) P=.000	.1848 (.194) P=.010	.2683 (.194) P=.000	.1855 (.194) P=.010	.4430 (.193) P=.000	.2958 (.193) P=.000	.2498 (.191) P=.000	.2515 (.194) P=.000	.2844 (.193) P=.000	.2847 (.194) P=.000
SOC32	.1785 (.194) P=.000	.2316 (.193) P=.001	.2499 (.193) P=.000	.2569 (.194) P=.000	.2419 (.194) P=.001	.4344 (.193) P=.000	.2249 (.193) P=.002	.2230 (.191) P=.002	.2105 (.194) P=.003	.2560 (.193) P=.000	.2985 (.194) P=.000
SOC33	.6411 (.194) P=.000	.1904 (.193) P=.008	.2422 (.193) P=.001	.3396 (.194) P=.000	.2337 (.194) P=.001	.4484 (.193) P=.000	.2699 (.193) P=.000	.3309 (.191) P=.000	.1528 (.194) P=.033	.2697 (.193) P=.000	.2776 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
SOC34	1.0000 (.194) P=.000	.2797 (.193) P=.000	.2534 (.194) P=.000	.3560 (.194) P=.000	.2523 (.194) P=.000	.5368 (.193) P=.000	.3227 (.193) P=.000	.3480 (.191) P=.000	.2730 (.194) P=.000	.3170 (.193) P=.000	.3132 (.194) P=.000
SOC35	.2797 (.193) P=.000	1.0000 (.183) P=.000	.1177 (.193) P=.103	.2487 (.193) P=.000	.3330 (.193) P=.000	.3648 (.192) P=.000	.2058 (.190) P=.004	.2566 (.193) P=.000	.2465 (.192) P=.001	.2129 (.192) P=.003	.2404 (.193) P=.001
SOC36	.2534 (.193) P=.000	.1177 (.193) P=.103	1.0000 (.193) P=.000	.1969 (.193) P=.006	.3018 (.193) P=.000	.3379 (.192) P=.000	.2469 (.193) P=.000	.2728 (.190) P=.000	.2246 (.193) P=.002	.0760 (.192) P=.295	.2245 (.193) P=.002
SOC37	.3560 (.194) P=.000	.2487 (.193) P=.000	.1969 (.193) P=.006	1.0000 (.194) P=.000	.5670 (.194) P=.000	.5626 (.193) P=.000	.5909 (.193) P=.000	.4820 (.191) P=.000	.4768 (.194) P=.000	.3071 (.193) P=.000	.2852 (.194) P=.000
SOC38	.2523 (.194) P=.000	.3330 (.193) P=.000	.3018 (.193) P=.000	.6670 (.194) P=.000	1.0000 (.194) P=.000	.5405 (.193) P=.000	.5340 (.193) P=.000	.4062 (.191) P=.000	.4756 (.194) P=.000	.1535 (.193) P=.033	.3045 (.194) P=.000
SOC39	.5368 (.193) P=.000	.3560 (.193) P=.000	.5670 (.194) P=.000	1.0000 (.193) P=.000	.5405 (.193) P=.000	1.0000 (.193) P=.000	.6282 (.192) P=.000	.4184 (.190) P=.000	.4786 (.193) P=.000	.2629 (.192) P=.000	.4224 (.193) P=.000
SOC40	.3227 (.193) P=.000	.2058 (.193) P=.004	.2487 (.193) P=.000	.5909 (.193) P=.000	.5340 (.193) P=.000	.6282 (.192) P=.000	1.0000 (.193) P=.000	.4572 (.190) P=.000	.5702 (.193) P=.000	.2703 (.192) P=.000	.3519 (.193) P=.000
SOC41	.3480 (.191) P=.000	.2566 (.193) P=.000	.2728 (.190) P=.000	.4820 (.191) P=.000	.4062 (.191) P=.000	.4184 (.190) P=.000	.6282 (.192) P=.000	1.0000 (.191) P=.000	.4069 (.191) P=.000	.3230 (.190) P=.000	.3028 (.191) P=.005
SOC42	.2730 (.194) P=.000	.2465 (.193) P=.001	.2246 (.193) P=.002	.4768 (.194) P=.000	.4756 (.194) P=.000	.4786 (.193) P=.000	.5702 (.193) P=.000	.4069 (.191) P=.000	1.0000 (.194) P=.000	.1919 (.193) P=.007	.2991 (.194) P=.000
SOC43	.3170 (.193) P=.007	.2129 (.192) P=.003	.0760 (.192) P=.295	.3071 (.193) P=.000	.1535 (.193) P=.033	.2629 (.192) P=.000	.2703 (.192) P=.000	.3230 (.190) P=.000	.1919 (.193) P=.007	1.0000 (.193) P=.000	.2799 (.193) P=.000
PERS44	.3132 (.194) P=.000	.2404 (.193) P=.001	.2245 (.193) P=.002	.2852 (.194) P=.000	.3045 (.194) P=.000	.4224 (.193) P=.000	.3519 (.193) P=.000	.3028 (.191) P=.005	.2991 (.194) P=.000	.2799 (.193) P=.000	1.0000 (.194) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKASAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
PERS45	.2537 (.194) P=.000	.3287 (.193) P=.000	.0685 (.193) P=.344	.2054 (.194) P=.004	.2429 (.194) P=.001	.2699 (.193) P=.000	.2305 (.193) P=.001	.1861 (.191) P=.010	.2712 (.194) P=.000	.2741 (.193) P=.000	.3094 (.194) P=.000
PERS46	.2540 (.194) P=.000	.2752 (.193) P=.000	.0502 (.193) P=.488	.2631 (.194) P=.000	.2747 (.194) P=.000	.3026 (.193) P=.000	.2637 (.193) P=.000	.2169 (.191) P=.003	.3132 (.194) P=.000	.3364 (.193) P=.000	.2861 (.194) P=.000
PERS47	.1929 (.193) P=.007	.2629 (.192) P=.000	.1649 (.192) P=.022	.2734 (.193) P=.000	.2322 (.193) P=.001	.2653 (.192) P=.000	.2579 (.192) P=.000	.2660 (.191) P=.000	.1905 (.192) P=.008	.2145 (.192) P=.003	.1908 (.193) P=.008
PERS48	.3805 (.191) P=.000	.2621 (.191) P=.000	.2502 (.191) P=.000	.2070 (.191) P=.004	.2534 (.191) P=.000	.3064 (.190) P=.000	.2398 (.191) P=.001	.1726 (.188) P=.018	.2153 (.191) P=.003	.1654 (.191) P=.023	.2624 (.191) P=.000
PERS49	.2642 (.190) P=.000	.2714 (.190) P=.000	.2577 (.190) P=.000	.3140 (.190) P=.000	.3342 (.190) P=.000	.3387 (.189) P=.000	.3331 (.190) P=.000	.2823 (.187) P=.000	.2599 (.190) P=.000	.2651 (.189) P=.000	.2543 (.190) P=.000
PERS50	.2405 (.190) P=.001	.0977 (.190) P=.180	.1628 (.188) P=.025	.2910 (.190) P=.000	.2953 (.190) P=.000	.2955 (.189) P=.000	.3370 (.190) P=.000	.1884 (.187) P=.010	.3905 (.190) P=.000	.2702 (.189) P=.002	.3505 (.190) P=.000
PERS51	.2363 (.189) P=.001	.3359 (.188) P=.000	.1511 (.188) P=.038	.2815 (.189) P=.000	.2857 (.189) P=.000	.2596 (.188) P=.000	.2505 (.188) P=.001	.2756 (.186) P=.000	.2222 (.189) P=.002	.2667 (.188) P=.000	.1919 (.189) P=.008
PERS52	.2989 (.192) P=.000	.2567 (.191) P=.000	.0474 (.191) P=.515	.2761 (.192) P=.000	.2494 (.192) P=.000	.3228 (.191) P=.000	.2691 (.191) P=.000	.3698 (.189) P=.000	.2786 (.192) P=.000	.3167 (.191) P=.000	.2808 (.192) P=.000
PERS53	.2924 (.192) P=.000	.2266 (.191) P=.002	.1613 (.191) P=.026	.2811 (.192) P=.000	.2319 (.192) P=.001	.3270 (.191) P=.000	.2651 (.191) P=.000	.3325 (.189) P=.000	.3393 (.192) P=.001	.3351 (.191) P=.000	.2956 (.192) P=.000
PERS54	.3780 (.191) P=.000	.3259 (.190) P=.000	.1702 (.190) P=.019	.4049 (.191) P=.000	.3610 (.191) P=.000	.4153 (.190) P=.000	.4216 (.190) P=.000	.4093 (.188) P=.000	.3218 (.191) P=.000	.2874 (.190) P=.000	.2438 (.191) P=.001
PERS55	.3220 (.193) P=.000	.0801 (.192) P=.269	.0095 (.192) P=.898	.2756 (.193) P=.000	.2378 (.193) P=.001	.2354 (.192) P=.001	.2663 (.192) P=.000	.3166 (.190) P=.000	.2210 (.193) P=.002	.4326 (.192) P=.000	.2200 (.193) P=.002

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
ENV1	.1307 (.194) P=.069	.2059 (.194) P=.004	.2011 (.197) P=.005	.0614 (.191) P=.399	.1490 (.190) P=.040	.1509 (.180) P=.038	.1196 (.189) P=.101	.1869 (.192) P=.009	.2468 (.192) P=.001	.1707 (.191) P=.018	.1636 (.193) P=.023
ENV2	.1934 (.193) P=.007	.2371 (.193) P=.001	.1112 (.192) P=.125	.1259 (.190) P=.083	.2263 (.189) P=.002	.2002 (.188) P=.006	.1975 (.188) P=.007	.1632 (.191) P=.024	.2266 (.191) P=.002	.2425 (.190) P=.001	.1840 (.192) P=.011
ENV3	.1245 (.192) P=.085	.2276 (.191) P=.001	.2428 (.191) P=.001	.1524 (.189) P=.036	.2182 (.188) P=.003	.3388 (.188) P=.000	.1350 (.187) P=.085	.1158 (.190) P=.112	.1321 (.190) P=.069	.3582 (.189) P=.000	.1626 (.191) P=.025
ENV4	.0837 (.183) P=.260	.1798 (.183) P=.015	.0558 (.182) P=.454	.0838 (.181) P=.262	.1308 (.180) P=.080	.0954 (.180) P=.203	.1175 (.178) P=.118	.2028 (.181) P=.006	.1330 (.181) P=.074	.1478 (.180) P=.048	.1329 (.182) P=.074
ENV5	.2339 (.194) P=.002	.2588 (.194) P=.000	.0765 (.193) P=.290	.1109 (.191) P=.127	.1949 (.190) P=.007	.2048 (.190) P=.005	.1134 (.189) P=.120	.2585 (.192) P=.000	.2566 (.192) P=.000	.2151 (.191) P=.003	.1138 (.193) P=.115
ENV6	.0895 (.194) P=.168	.1452 (.194) P=.043	.1466 (.193) P=.042	.1208 (.191) P=.086	.1346 (.190) P=.064	.2138 (.190) P=.003	.2012 (.189) P=.006	.1154 (.192) P=.111	.2267 (.192) P=.002	.3037 (.191) P=.000	.1885 (.193) P=.009
ENV7	.1854 (.184) P=.010	.1585 (.194) P=.027	.3039 (.193) P=.000	.0966 (.191) P=.184	.1634 (.190) P=.024	.1645 (.190) P=.023	.2147 (.189) P=.003	.1430 (.192) P=.048	.1258 (.192) P=.082	.1903 (.191) P=.008	.0878 (.193) P=.225
ENV8	.2155 (.193) P=.003	.1973 (.193) P=.006	.2723 (.192) P=.000	.2070 (.190) P=.004	.1962 (.190) P=.007	.2213 (.190) P=.002	.2429 (.188) P=.001	.0883 (.191) P=.224	.1414 (.191) P=.051	.1730 (.190) P=.017	.0339 (.192) P=.641
ENV9	.3639 (.193) P=.000	.3315 (.193) P=.000	.3533 (.193) P=.000	.2167 (.190) P=.003	.3126 (.189) P=.000	.2451 (.189) P=.001	.3210 (.188) P=.000	.2284 (.191) P=.001	.2880 (.191) P=.000	.2939 (.190) P=.000	.1740 (.192) P=.016
ACAD10	.1806 (.194) P=.012	.1267 (.194) P=.078	.1633 (.193) P=.023	.2455 (.191) P=.001	.2612 (.190) P=.000	.1512 (.189) P=.037	.2095 (.189) P=.004	.1507 (.192) P=.037	.2136 (.192) P=.003	.2897 (.191) P=.000	.2839 (.193) P=.000
ACAD11	.1862 (.193) P=.010	.1816 (.193) P=.011	.2745 (.192) P=.000	.2863 (.189) P=.000	.3165 (.189) P=.000	.2671 (.189) P=.000	.2188 (.188) P=.003	.2803 (.191) P=.000	.2892 (.191) P=.000	.2578 (.190) P=.000	.3220 (.192) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKASAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
ACAD12	.3117 (.194) P=.000	.1550 (.194) P=.031	.2902 (.193) P=.000	.2387 (.191) P=.001	.2937 (.190) P=.000	.1990 (.189) P=.006	.2457 (.189) P=.001	.2428 (.192) P=.001	.2241 (.192) P=.002	.2503 (.191) P=.000	.2511 (.193) P=.000
ACAD13	.2979 (.193) P=.000	.2007 (.193) P=.005	.2904 (.193) P=.000	.2520 (.189) P=.000	.3606 (.189) P=.000	.1410 (.189) P=.053	.2569 (.188) P=.000	.2551 (.191) P=.000	.2292 (.191) P=.001	.3395 (.190) P=.000	.2066 (.192) P=.004
ACAD14	.0890 (.194) P=.217	.1497 (.184) P=.037	.1644 (.193) P=.010	.1144 (.191) P=.115	.2780 (.190) P=.000	.1200 (.190) P=.099	.1158 (.188) P=.113	.1506 (.192) P=.037	.1518 (.192) P=.036	.2876 (.191) P=.000	.0268 (.193) P=.711
ACAD15	.1147 (.192) P=.112	.0576 (.192) P=.427	.1009 (.191) P=.165	.0796 (.190) P=.275	.2233 (.189) P=.002	.1527 (.189) P=.036	.2311 (.187) P=.001	.1708 (.190) P=.018	.0964 (.190) P=.185	.1823 (.189) P=.012	.1509 (.191) P=.037
ACAD16	.1624 (.193) P=.024	.1156 (.193) P=.110	.2702 (.192) P=.000	.2669 (.190) P=.000	.1861 (.189) P=.010	.1518 (.189) P=.037	.2002 (.188) P=.006	.2373 (.191) P=.001	.1861 (.191) P=.010	.2533 (.190) P=.000	.2176 (.192) P=.002
ACAD17	.1090 (.193) P=.131	.1037 (.193) P=.151	.2286 (.192) P=.001	.2907 (.191) P=.000	.2742 (.190) P=.000	.0857 (.189) P=.240	.1715 (.188) P=.019	.1825 (.190) P=.012	.2117 (.191) P=.003	.2804 (.190) P=.000	.1702 (.192) P=.018
ACAD18	.3115 (.193) P=.000	.3327 (.193) P=.000	.2106 (.192) P=.003	.2724 (.191) P=.000	.3408 (.190) P=.000	.1247 (.190) P=.086	.3336 (.188) P=.000	.3574 (.191) P=.000	.3726 (.191) P=.000	.4148 (.190) P=.000	.3301 (.192) P=.000
ACAD19	.3007 (.194) P=.000	.3229 (.194) P=.000	.3593 (.193) P=.000	.3032 (.191) P=.000	.3307 (.190) P=.000	.1581 (.190) P=.029	.2553 (.189) P=.000	.3641 (.192) P=.000	.3714 (.192) P=.000	.3305 (.191) P=.000	.3622 (.193) P=.000
ACAD20	.3084 (.194) P=.000	.2852 (.194) P=.000	.1138 (.193) P=.115	.2439 (.191) P=.001	.3640 (.190) P=.000	.2024 (.190) P=.005	.3072 (.189) P=.000	.2689 (.192) P=.000	.3047 (.192) P=.000	.3336 (.191) P=.000	.2566 (.193) P=.000
ACAD21	.2235 (.194) P=.002	.2678 (.194) P=.000	.2208 (.193) P=.002	.2660 (.191) P=.000	.3715 (.190) P=.000	.1643 (.190) P=.023	.2481 (.189) P=.001	.3345 (.192) P=.000	.3502 (.192) P=.000	.4268 (.191) P=.000	.3152 (.193) P=.000
ACAD22	.2369 (.194) P=.001	.2037 (.194) P=.004	.2863 (.193) P=.000	.2498 (.191) P=.000	.3801 (.190) P=.000	.1441 (.190) P=.047	.2937 (.189) P=.000	.3057 (.192) P=.000	.2613 (.192) P=.000	.3930 (.191) P=.000	.3270 (.193) P=.000

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
ACAD23	.2627 (.193) P=.000	.2181 (.192) P=.002	.2686 (.191) P=.000	.2527 (.190) P=.000	.1865 (.188) P=.010	.1992 (.191) P=.006	.2434 (.191) P=.001	.2619 (.191) P=.000	.2713 (.190) P=.000	.2111 (.192) P=.003	
ACAD24	.1917 (.194) P=.007	.2376 (.193) P=.001	.1598 (.193) P=.026	.2481 (.191) P=.001	.3001 (.190) P=.000	.1782 (.190) P=.014	.2690 (.189) P=.000	.1877 (.192) P=.003	.3145 (.181) P=.000	.2015 (.193) P=.005	
ACAD25	.1302 (.193) P=.071	.1084 (.193) P=.133	.1199 (.193) P=.097	.2660 (.190) P=.000	.2334 (.189) P=.001	.0654 (.189) P=.371	.1926 (.188) P=.008	.2385 (.191) P=.001	.3080 (.191) P=.000	.1264 (.190) P=.061	.0303 (.192) P=.676
ACAD26	.3587 (.194) P=.000	.2848 (.194) P=.000	.1786 (.193) P=.013	.3150 (.191) P=.000	.3114 (.190) P=.000	.1808 (.190) P=.013	.3218 (.192) P=.000	.2959 (.191) P=.000	.2593 (.191) P=.000	.2645 (.191) P=.000	.1644 (.191) P=.022
ACAD27	.3097 (.194) P=.000	.3256 (.194) P=.000	.2359 (.193) P=.001	.2197 (.191) P=.002	.3043 (.190) P=.000	.3090 (.190) P=.000	.2605 (.189) P=.000	.2991 (.192) P=.000	.2515 (.192) P=.000	.4071 (.191) P=.000	.1936 (.193) P=.007
ACAD28	.2516 (.194) P=.000	.3352 (.194) P=.000	.1963 (.193) P=.006	.2885 (.191) P=.000	.4084 (.190) P=.000	.1513 (.189) P=.037	.2526 (.189) P=.000	.3840 (.192) P=.000	.3543 (.192) P=.000	.4677 (.191) P=.000	.3134 (.193) P=.000
ACAD29	.2456 (.193) P=.001	.2757 (.193) P=.000	.1833 (.192) P=.011	.3094 (.190) P=.000	.4690 (.190) P=.000	.0677 (.189) P=.354	.2844 (.188) P=.000	.3845 (.191) P=.000	.3734 (.191) P=.000	.4673 (.190) P=.000	.2860 (.192) P=.000
ACAD30	.2921 (.193) P=.000	.3765 (.193) P=.000	.3590 (.192) P=.000	.3562 (.190) P=.000	.4830 (.189) P=.000	.1220 (.189) P=.094	.3167 (.188) P=.000	.5523 (.191) P=.000	.5181 (.191) P=.000	.4581 (.190) P=.000	.3337 (.192) P=.000
SOC31	.2420 (.194) P=.001	.2292 (.184) P=.001	.2531 (.193) P=.000	.3697 (.191) P=.000	.3605 (.190) P=.000	.2668 (.190) P=.000	.1596 (.189) P=.028	.2863 (.192) P=.000	.2248 (.192) P=.002	.3080 (.191) P=.000	.3275 (.193) P=.000
SOC32	.2199 (.194) P=.002	.1867 (.194) P=.009	.2507 (.193) P=.000	.3453 (.191) P=.000	.3309 (.190) P=.000	.1934 (.183) P=.008	.2036 (.190) P=.005	.2396 (.191) P=.001	.2524 (.192) P=.000	.2291 (.191) P=.001	.2564 (.193) P=.000
SOC33	.2371 (.194) P=.001	.2244 (.194) P=.002	.2260 (.193) P=.002	.3283 (.191) P=.000	.3413 (.190) P=.000	.1773 (.189) P=.014	.2517 (.189) P=.000	.2861 (.192) P=.000	.3124 (.192) P=.000	.2360 (.191) P=.001	.2279 (.193) P=.001

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS48	PERS48	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
SOC34	.2537 (.194) P=.000	.2540 (.194) P=.000	.1929 (.193) P=.007	.3805 (.191) P=.000	.2642 (.190) P=.000	.2405 (.190) P=.001	.2363 (.189) P=.001	.2999 (.192) P=.000	.2924 (.192) P=.000	.3780 (.191) P=.000	.3220 (.193) P=.000	
SOC35	.3287 (.193) P=.000	.2752 (.192) P=.000	.2829 (.192) P=.000	.2621 (.191) P=.000	.2714 (.190) P=.000	.0977 (.190) P=.180	.3359 (.188) P=.000	.2567 (.191) P=.000	.2266 (.191) P=.002	.3259 (.190) P=.000	.0801 (.192) P=.269	
SOC36	.0685 (.193) P=.344	.0502 (.193) P=.488	.1649 (.192) P=.022	.2502 (.191) P=.000	.2577 (.190) P=.000	.1628 (.190) P=.025	.1511 (.188) P=.038	.0474 (.191) P=.515	.1613 (.190) P=.026	.1702 (.190) P=.019	.0095 (.192) P=.896	
SOC37	.2064 (.194) P=.004	.2631 (.194) P=.000	.2734 (.193) P=.000	.2070 (.191) P=.004	.3140 (.190) P=.000	.2910 (.190) P=.000	.2815 (.192) P=.000	.2761 (.192) P=.000	.2811 (.192) P=.000	.4049 (.191) P=.000	.2756 (.193) P=.000	
SOC38	.2428 (.194) P=.001	.2747 (.194) P=.000	.3322 (.193) P=.001	.2534 (.191) P=.000	.3342 (.190) P=.000	.2953 (.190) P=.000	.2857 (.189) P=.000	.2494 (.192) P=.000	.2319 (.192) P=.001	.3610 (.191) P=.000	.2378 (.193) P=.001	
SOC39	.2699 (.193) P=.000	.3026 (.193) P=.000	.2653 (.192) P=.000	.3064 (.190) P=.000	.3387 (.189) P=.000	.2955 (.189) P=.000	.2586 (.188) P=.000	.3228 (.191) P=.000	.3270 (.191) P=.000	.4153 (.190) P=.000	.2354 (.192) P=.001	
SOC40	.2305 (.193) P=.001	.2637 (.193) P=.000	.2578 (.192) P=.000	.2398 (.191) P=.001	.3331 (.190) P=.000	.3370 (.190) P=.000	.2505 (.188) P=.001	.2691 (.191) P=.000	.2651 (.191) P=.000	.4216 (.190) P=.000	.2663 (.192) P=.000	
SOC41	.1861 (.191) P=.010	.2169 (.191) P=.003	.2660 (.191) P=.000	.1726 (.188) P=.018	.2823 (.187) P=.000	.1884 (.187) P=.010	.2756 (.188) P=.000	.3688 (.188) P=.000	.3325 (.189) P=.000	.4093 (.188) P=.000	.3166 (.190) P=.000	
SOC42	.2712 (.194) P=.000	.3132 (.184) P=.000	.1905 (.193) P=.008	.2153 (.191) P=.003	.2599 (.190) P=.000	.3905 (.190) P=.000	.2222 (.190) P=.002	.2786 (.192) P=.000	.2353 (.192) P=.001	.3218 (.191) P=.000	.2210 (.193) P=.002	
SOC43	.2741 (.193) P=.000	.3364 (.193) P=.000	.2145 (.192) P=.003	.1654 (.190) P=.023	.2651 (.189) P=.000	.2202 (.189) P=.002	.2667 (.188) P=.000	.3167 (.191) P=.000	.3351 (.191) P=.000	.2874 (.190) P=.000	.4326 (.192) P=.000	
PERS44	.3094 (.194) P=.000	.2861 (.194) P=.000	.1808 (.193) P=.008	.2674 (.191) P=.000	.2543 (.190) P=.000	.3906 (.190) P=.000	.1919 (.189) P=.008	.2808 (.192) P=.000	.2956 (.192) P=.000	.2438 (.191) P=.001	.2200 (.193) P=.002	

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)
 Intercorrelational Analysis of HKSAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
PERS45	1.0000 (.194) P=.000	.7760 (.194) P=.000	.3226 (.193) P=.000	.2644 (.191) P=.000	.4898 (.190) P=.000	.2310 (.190) P=.001	.4713 (.189) P=.000	.5664 (.192) P=.000	.4797 (.192) P=.000	.3189 (.191) P=.000	.3284 (.193) P=.000
PERS46	.7760 (.194) P=.000	1.0000 (.194) P=.000	.3871 (.193) P=.000	.3403 (.191) P=.000	.5485 (.190) P=.000	.2964 (.190) P=.000	.4153 (.189) P=.000	.6420 (.192) P=.000	.5120 (.192) P=.000	.3978 (.191) P=.000	.3190 (.193) P=.000
PERS47	.3226 (.193) P=.000	.3871 (.193) P=.000	1.0000 (.193) P=.000	.3663 (.190) P=.000	.4098 (.189) P=.000	.2124 (.189) P=.003	.2143 (.188) P=.003	.3841 (.191) P=.000	.3408 (.192) P=.000	.4006 (.191) P=.000	.2772 (.192) P=.000
PERS48	.2644 (.191) P=.000	.3403 (.191) P=.000	.3663 (.190) P=.000	1.0000 (.191) P=.000	.4861 (.190) P=.000	.2538 (.188) P=.000	.2567 (.191) P=.000	.3761 (.191) P=.000	.4287 (.191) P=.000	.3894 (.190) P=.000	.2103 (.191) P=.004
PERS49	.4898 (.190) P=.000	.5485 (.190) P=.000	.4098 (.189) P=.000	.4861 (.190) P=.000	1.0000 (.190) P=.000	.1952 (.189) P=.007	.4189 (.188) P=.000	.5238 (.190) P=.000	.5317 (.190) P=.000	.4761 (.189) P=.000	.2904 (.190) P=.000
PERS50	.2310 (.190) P=.001	.2964 (.190) P=.000	.2124 (.189) P=.003	.2538 (.190) P=.000	.1952 (.189) P=.007	1.0000 (.190) P=.000	.0760 (.187) P=.302	.1401 (.190) P=.054	.2187 (.190) P=.002	.2137 (.189) P=.003	.2635 (.190) P=.000
PERS51	.4713 (.189) P=.000	.4153 (.189) P=.000	.2143 (.188) P=.003	.2567 (.191) P=.000	.4189 (.188) P=.000	.0760 (.187) P=.302	1.0000 (.189) P=.000	.4454 (.189) P=.000	.3658 (.189) P=.000	.3517 (.188) P=.000	.2304 (.189) P=.001
PERS52	.5664 (.192) P=.000	.6420 (.192) P=.000	.3841 (.191) P=.000	.3761 (.191) P=.000	.5238 (.190) P=.000	.1401 (.190) P=.054	.4454 (.189) P=.000	1.0000 (.192) P=.000	.7396 (.192) P=.000	.5289 (.191) P=.000	.4517 (.192) P=.000
PERS53	.4797 (.192) P=.000	.5120 (.192) P=.000	.3408 (.191) P=.000	.4287 (.191) P=.000	.5317 (.190) P=.000	.2187 (.190) P=.002	.3658 (.189) P=.000	.7396 (.192) P=.000	1.0000 (.192) P=.000	.6017 (.191) P=.000	.3406 (.192) P=.000
PERS54	.3189 (.191) P=.000	.3978 (.191) P=.000	.4006 (.190) P=.000	.3894 (.190) P=.000	.4761 (.189) P=.000	.2137 (.189) P=.003	.3517 (.188) P=.000	1.0000 (.191) P=.000	.6017 (.192) P=.000	1.0000 (.191) P=.000	.3549 (.191) P=.000
PERS55	.3284 (.193) P=.000	.3190 (.193) P=.000	.2772 (.192) P=.000	.2103 (.191) P=.004	.2904 (.190) P=.000	.2635 (.190) P=.000	.2304 (.189) P=.001	.4517 (.192) P=.000	.3406 (.192) P=.000	.3549 (.191) P=.000	1.0000 (.193) P=.000

Alpha = 0.05
 Number in parenthesis a number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
AGE	.0859 (.194) P=.234	.0809 (.193) P=.209	.0208 (.192) P=.775	-.1171 (.183) P=.114	.1526 (.194) P=.034	-.0005 (.194) P=.994	.1023 (.194) P=.156	.0206 (.193) P=.777	-.0204 (.193) P=.778	.1510 (.194) P=.025	.1185 (.193) P=.101
SEX	-.0377 (.186) P=.610	-.1275 (.185) P=.084	.0855 (.184) P=.248	.0111 (.176) P=.884	.0566 (.186) P=.413	.0214 (.186) P=.772	-.1842 (.186) P=.012	-.0254 (.186) P=.731	-.0356 (.185) P=.630	-.0001 (.186) P=.999	-.0494 (.185) P=.504
MARITAL	.1021 (.194) P=.167	.0865 (.193) P=.232	.0500 (.192) P=.491	.1494 (.183) P=.044	.0700 (.194) P=.332	.0266 (.194) P=.713	-.0637 (.194) P=.334	-.0481 (.193) P=.507	-.1092 (.193) P=.130	-.1235 (.194) P=.086	-.0351 (.193) P=.628
STUDENT	(.193) P=.193	(.192) P=.192	(.191) P=.191	(.182) P=.182	(.193) P=.193	(.193) P=.193	(.193) P=.193	(.192) P=.192	(.192) P=.192	(.193) P=.193	(.192) P=.192
FACULTY	-.0271 (.194) P=.707	-.0137 (.193) P=.850	.0290 (.192) P=.650	.1615 (.183) P=.029	.1417 (.194) P=.049	.0377 (.194) P=.701	.0753 (.194) P=.297	.0483 (.193) P=.505	-.0042 (.193) P=.953	-.0591 (.194) P=.413	.0244 (.193) P=.736
ACVR	.0333 (.194) P=.645	.0333 (.193) P=.646	-.0130 (.192) P=.858	-.0541 (.183) P=.467	.2123 (.194) P=.003	.0368 (.194) P=.611	.0882 (.194) P=.221	-.0447 (.193) P=.537	-.0078 (.193) P=.915	-.0623 (.194) P=.388	-.1399 (.193) P=.052
HS	.0226 (.194) P=.755	-.0429 (.191) P=.553	.1095 (.192) P=.131	.1014 (.183) P=.172	.0809 (.194) P=.262	.0726 (.194) P=.314	-.0650 (.194) P=.361	-.1314 (.193) P=.069	-.0215 (.193) P=.767	.0205 (.194) P=.776	-.0198 (.193) P=.785
CC	.0070 (.192) P=.923	.1354 (.191) P=.062	.0006 (.190) P=.993	.0505 (.182) P=.498	.1130 (.192) P=.119	.1074 (.192) P=.131	.0622 (.192) P=.384	.0265 (.191) P=.716	.0270 (.191) P=.711	-.0093 (.192) P=.898	.1132 (.191) P=.119
FOR	.0705 (.194) P=.329	.0735 (.193) P=.310	.0673 (.192) P=.354	-.0371 (.183) P=.618	.0171 (.194) P=.812	.0329 (.194) P=.581	.0492 (.194) P=.456	.0339 (.193) P=.640	.0476 (.193) P=.511	.0871 (.194) P=.227	.1277 (.193) P=.077
TOEFL	.0842 (.193) P=.245	.0867 (.192) P=.232	.1469 (.191) P=.043	.0951 (.182) P=.202	.0990 (.193) P=.171	.0696 (.193) P=.336	.1454 (.192) P=.044	.1854 (.192) P=.010	.0579 (.193) P=.425	.3388 (.192) P=.000	.3585 (.192) P=.000
ISC	-.1321 (.183) P=.067	.0168 (.192) P=.817	-.0368 (.191) P=.813	-.1984 (.183) P=.007	-.0048 (.193) P=.947	.1237 (.193) P=.087	-.0151 (.193) P=.834	.0825 (.192) P=.250	.0814 (.192) P=.245	.1151 (.193) P=.111	.1517 (.192) P=.036

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ENV1	ENV2	ENV3	ENV4	ENV5	ENV6	ENV7	ENV8	ENV9	ACAD10	ACAD11
ASSOC	.0351 (.194) P=.627	.0140 (.193) P=.847	.0320 (.192) P=.659	.0934 (.183) P=.208	.0666 (.194) P=.927	.0401 (.194) P=.579	.0163 (.194) P=.822	-.0264 (.193) P=.716	.0575 (.193) P=.427	-.2487 (.194) P=.000	-.2880 (.193) P=.000
FRIENDS	.1265 (.191) P=.082	.0493 (.190) P=.499	.0071 (.189) P=.822	-.0146 (.180) P=.846	-.0376 (.191) P=.606	.0224 (.191) P=.758	-.0509 (.191) P=.484	-.1624 (.190) P=.025	-.0420 (.190) P=.565	-.0045 (.191) P=.951	-.1026 (.190) P=.159
LIVED	.2052 (.184) P=.004	.0631 (.193) P=.384	-.0674 (.192) P=.353	-.3487 (.183) P=.000	.1461 (.194) P=.042	.0587 (.194) P=.417	.0358 (.194) P=.620	.0082 (.193) P=.910	-.0126 (.193) P=.862	.1378 (.194) P=.055	.0533 (.193) P=.462
VISIT	.0511 (.194) P=.478	-.0043 (.193) P=.953	.0739 (.192) P=.309	.0092 (.183) P=.901	.0289 (.194) P=.689	.1539 (.194) P=.032	.0107 (.194) P=.882	.0609 (.193) P=.400	.1221 (.193) P=.031	.1242 (.194) P=.068	.1846 (.193) P=.010
COUNS	-.0500 (.194) P=.489	-.2334 (.193) P=.001	.0482 (.192) P=.507	-.0663 (.183) P=.372	-.2322 (.194) P=.001	.1452 (.194) P=.042	.1133 (.194) P=.116	.1107 (.193) P=.125	.1210 (.193) P=.094	-.0941 (.194) P=.192	-.0380 (.193) P=.600
FIRST	.0668 (.190) P=.360	-.0228 (.189) P=.754	-.0558 (.188) P=.447	-.0038 (.179) P=.960	.0517 (.190) P=.479	.0057 (.190) P=.938	-.0813 (.190) P=.265	-.0237 (.189) P=.747	-.0066 (.189) P=.928	-.0616 (.190) P=.398	.1615 (.189) P=.026
NEXT	-.0092 (.189) P=.900	.1112 (.188) P=.129	-.0747 (.187) P=.310	.1499 (.178) P=.046	.0072 (.189) P=.953	-.0348 (.189) P=.634	-.0121 (.189) P=.868	-.0280 (.189) P=.703	.0471 (.189) P=.521	-.1178 (.189) P=.106	.0382 (.188) P=.593

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	ACAD22
AGE	.0128 (.194) P=.859	.1078 (.193) P=.136	.0956 (.194) P=.185	-.0172 (.192) P=.913	.0364 (.193) P=.515	.2213 (.193) P=.002	.1335 (.193) P=.064	.0040 (.194) P=.956	.1734 (.194) P=.016	.1361 (.194) P=.059	.1033 (.194) P=.152
SEX	.0513 (.186) P=.487	-.0837 (.185) P=.257	-.0644 (.186) P=.382	-.1621 (.185) P=.027	.1028 (.185) P=.164	.0810 (.186) P=.272	-.0163 (.186) P=.826	.1191 (.186) P=.106	-.0699 (.186) P=.343	-.0348 (.186) P=.637	.0419 (.186) P=.570
MARITAL	-.0373 (.194) P=.606	-.0120 (.193) P=.668	.1089 (.194) P=.131	-.0114 (.192) P=.876	.1809 (.193) P=.012	-.1263 (.193) P=.080	.0541 (.193) P=.455	.0488 (.194) P=.499	.0924 (.194) P=.200	.1148 (.194) P=.111	.0262 (.194) P=.717
STUDENT	(.193) P=.	(.192) P=.	(.193) P=.	(.191) P=.	(.192) P=.	(.192) P=.	(.192) P=.	(.193) P=.	(.193) P=.	(.193) P=.	(.193) P=.
FACULTY	.0557 (.194) P=.441	.0792 (.193) P=.273	-.0384 (.194) P=.595	.0305 (.192) P=.675	.1337 (.193) P=.064	-.0637 (.193) P=.379	.0729 (.193) P=.314	.0769 (.194) P=.287	.0668 (.194) P=.354	.0790 (.194) P=.273	-.0444 (.194) P=.538
ACVR	.1843 (.194) P=.010	-.1507 (.193) P=.036	-.0204 (.194) P=.778	-.0785 (.192) P=.279	-.0845 (.193) P=.243	.1057 (.193) P=.144	-.0086 (.193) P=.906	-.1679 (.194) P=.019	-.0350 (.194) P=.628	.0137 (.194) P=.850	-.0398 (.194) P=.582
HS	.0393 (.194) P=.587	-.0514 (.193) P=.478	-.0598 (.194) P=.166	-.1355 (.192) P=.061	-.0626 (.193) P=.387	.0240 (.193) P=.740	-.0696 (.193) P=.336	.0410 (.194) P=.570	-.0434 (.194) P=.548	.0462 (.194) P=.523	-.0772 (.194) P=.284
CC	.0522 (.192) P=.472	-.0092 (.191) P=.800	-.1630 (.192) P=.024	.1351 (.190) P=.063	.0188 (.191) P=.796	-.0596 (.191) P=.413	.1164 (.191) P=.109	.0564 (.192) P=.437	-.0470 (.192) P=.518	-.0062 (.192) P=.932	.0026 (.192) P=.972
FOR	.1218 (.194) P=.090	.1087 (.193) P=.132	.0728 (.194) P=.313	.0695 (.192) P=.338	.0842 (.193) P=.244	.0891 (.193) P=.218	.1255 (.193) P=.082	-.0066 (.194) P=.927	.0920 (.194) P=.202	.1002 (.194) P=.164	.1010 (.194) P=.161
TOEFL	.2876 (.193) P=.000	.2932 (.192) P=.000	.6623 (.193) P=.000	.3387 (.191) P=.000	.2325 (.192) P=.001	.2662 (.192) P=.000	.2322 (.192) P=.002	.1312 (.193) P=.069	.1980 (.193) P=.006	.2510 (.193) P=.000	.2919 (.193) P=.000
ISC	.0659 (.183) P=.363	.1065 (.192) P=.141	-.0272 (.193) P=.707	.0001 (.192) P=.999	-.0840 (.192) P=.247	.1417 (.192) P=.050	.0223 (.192) P=.759	.0157 (.193) P=.828	.0028 (.193) P=.970	.0493 (.193) P=.436	.0127 (.193) P=.860

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD12	ACAD13	ACAD14	ACAD15	ACAD16	ACAD17	ACAD18	ACAD19	ACAD20	ACAD21	r
ASSOC	-.1158 (.194) P=.108	-.1198 (.183) P=.087	-.0324 (.194) P=.654	.0433 (.192) P=.551	-.0498 (.193) P=.481	-.1910 (.193) P=.008	-.1762 (.193) P=.014	.0570 (.194) P=.430	-.0483 (.194) P=.504	-.1385 (.194) P=.054	.1772 (.184) P=.009
FRIENDS	-.0022 (.191) P=.976	.0187 (.190) P=.797	-.0432 (.191) P=.553	.0304 (.189) P=.678	.0008 (.190) P=.991	-.0409 (.190) P=.575	-.1082 (.190) P=.137	.0344 (.191) P=.636	.0662 (.191) P=.363	-.0494 (.191) P=.498	.1044 (.191) P=.151
LIVED	-.0378 (.194) P=.600	.0604 (.193) P=.404	.0040 (.194) P=.956	-.0026 (.192) P=.972	-.0219 (.193) P=.762	.1062 (.193) P=.142	.0728 (.193) P=.314	.0049 (.194) P=.946	.0952 (.194) P=.187	-.0127 (.194) P=.861	-.0516 (.194) P=.475
VISIT	.0314 (.194) P=.663	.0938 (.193) P=.184	.0394 (.194) P=.586	.0510 (.192) P=.482	.0177 (.193) P=.607	.0817 (.193) P=.259	.0499 (.193) P=.491	.1213 (.194) P=.092	.1334 (.194) P=.064	.0665 (.194) P=.357	.1325 (.194) P=.065
COUNS	-.0388 (.194) P=.592	.0381 (.193) P=.598	-.0709 (.194) P=.326	.0465 (.192) P=.522	.0703 (.193) P=.332	-.0459 (.193) P=.526	-.0140 (.193) P=.846	-.1077 (.194) P=.135	-.1269 (.194) P=.078	-.1459 (.194) P=.042	.1844 (.194) P=.010
FIRST	.1152 (.190) P=.113	.0294 (.189) P=.688	.1535 (.190) P=.034	.1339 (.188) P=.067	-.0235 (.189) P=.748	.0087 (.189) P=.905	.0430 (.189) P=.557	.0549 (.190) P=.452	.0836 (.190) P=.251	-.0437 (.190) P=.549	.0011 (.190) P=.988
NEXT	-.0886 (.189) P=.228	-.0465 (.188) P=.527	.0935 (.187) P=.201	-.0003 (.187) P=.996	.1318 (.187) P=.071	-.0650 (.188) P=.375	.0883 (.188) P=.228	-.0320 (.189) P=.662	.1048 (.189) P=.151	.0434 (.189) P=.554	.0599 (.189) P=.413

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOC31	SOC32	SOC33
AGE	.0731 (.193) P=.313	.1697 (.194) P=.018	-.0089 (.183) P=.902	-.0032 (.194) P=.964	-.0450 (.194) P=.534	.1368 (.194) P=.057	.1572 (.193) P=.029	-.0150 (.193) P=.836	.0224 (.194) P=.757	.0790 (.194) P=.273	.0794 (.194) P=.271
SEX	.0677 (.186) P=.358	-.2526 (.185) P=.001	.1793 (.185) P=.015	.0266 (.186) P=.719	.0621 (.186) P=.400	.0447 (.186) P=.545	.1435 (.185) P=.051	.0327 (.185) P=.659	-.0229 (.186) P=.756	-.0120 (.186) P=.870	-.0205 (.186) P=.781
MARITAL	.0463 (.193) P=.523	.1131 (.194) P=.116	-.0662 (.193) P=.360	.0436 (.194) P=.546	.1270 (.194) P=.078	.0514 (.194) P=.476	.0389 (.193) P=.592	.0431 (.193) P=.552	.0486 (.194) P=.492	-.0215 (.194) P=.766	.1591 (.194) P=.027
STUDENT	(.192) P=.	(.193) P=.	(.192) P=.	(.193) P=.	(.193) P=.	(.193) P=.	(.192) P=.	(.192) P=.	(.193) P=.	(.193) P=.	(.193) P=.
FACULTY	.1257 (.193) P=.082	.0322 (.194) P=.655	.0621 (.193) P=.391	-.0334 (.194) P=.644	-.0141 (.194) P=.846	-.0308 (.194) P=.670	.0318 (.193) P=.661	-.0523 (.193) P=.470	-.0013 (.194) P=.985	.0018 (.194) P=.980	.0071 (.194) P=.921
ACVR	-.0249 (.193) P=.731	.0703 (.194) P=.330	-.0485 (.193) P=.503	-.1718 (.194) P=.017	-.0638 (.194) P=.377	-.0826 (.194) P=.252	.1161 (.193) P=.108	-.1387 (.193) P=.054	-.1153 (.194) P=.109	-.0470 (.194) P=.515	.0255 (.194) P=.724
MS	-.0450 (.193) P=.534	.0554 (.194) P=.443	-.0644 (.193) P=.374	.0211 (.194) P=.771	.0057 (.194) P=.938	.0250 (.194) P=.729	.0016 (.193) P=.982	-.0134 (.193) P=.853	-.0014 (.194) P=.984	.0475 (.194) P=.511	.0057 (.194) P=.938
CC	-.0221 (.191) P=.560	-.0682 (.192) P=.347	-.0487 (.191) P=.503	-.0080 (.192) P=.912	.1156 (.192) P=.110	.0390 (.192) P=.591	.0297 (.191) P=.683	.0235 (.191) P=.747	.0286 (.192) P=.694	-.0660 (.192) P=.363	.0731 (.192) P=.314
FOR	.0190 (.193) P=.793	.1127 (.194) P=.118	.0467 (.193) P=.519	.0873 (.194) P=.226	.0982 (.194) P=.173	.1128 (.194) P=.117	.0985 (.193) P=.173	.0881 (.193) P=.223	.1418 (.194) P=.049	.1111 (.194) P=.123	.1432 (.194) P=.046
TOEFL	.1802 (.192) P=.012	.2365 (.193) P=.001	.1174 (.193) P=.105	.1316 (.193) P=.068	.1532 (.193) P=.033	.2567 (.193) P=.000	.3202 (.192) P=.000	.2784 (.192) P=.000	.3173 (.193) P=.000	.3780 (.193) P=.000	.2597 (.193) P=.000
ISC	-.1307 (.192) P=.071	.0469 (.193) P=.517	.0407 (.192) P=.575	-.0067 (.193) P=.946	.0361 (.193) P=.618	.0807 (.193) P=.264	.0619 (.192) P=.394	.0727 (.192) P=.316	.1595 (.193) P=.027	.0673 (.193) P=.353	.0299 (.193) P=.680

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ACAD23	ACAD24	ACAD25	ACAD26	ACAD27	ACAD28	ACAD29	ACAD30	SOC31	SOC32	SOC33
ASSOC	-.0784 (.193) P=.279	-.0436 (.194) P=.546	-.1127 (.193) P=.119	-.0876 (.194) P=.252	-.0236 (.194) P=.743	-.3057 (.194) P=.000	-.1819 (.193) P=.011	-.1116 (.193) P=.122	-.1911 (.194) P=.008	-.3223 (.194) P=.000	-.2635 (.194) P=.000
FRIENDS	.0014 (.190) P=.885	.0633 (.191) P=.384	-.0762 (.190) P=.286	-.0904 (.191) P=.214	-.1145 (.191) P=.115	-.2620 (.191) P=.000	-.1447 (.190) P=.046	-.1452 (.190) P=.046	-.1573 (.191) P=.030	-.1626 (.191) P=.025	-.1412 (.191) P=.051
LIVED	-.0710 (.192) P=.327	-.0633 (.194) P=.381	-.0234 (.193) P=.747	.0700 (.194) P=.332	-.0796 (.194) P=.270	-.0280 (.194) P=.699	-.0017 (.193) P=.982	.0306 (.193) P=.673	.0676 (.194) P=.349	.0399 (.194) P=.581	.0356 (.194) P=.623
VISIT	.1875 (.193) P=.009	.0721 (.194) P=.318	.0169 (.193) P=.815	-.0210 (.194) P=.771	.0754 (.194) P=.296	.0222 (.194) P=.759	.1109 (.193) P=.125	.1040 (.193) P=.150	.0957 (.194) P=.184	.1943 (.194) P=.007	.1713 (.194) P=.017
COURS	-.0779 (.193) P=.282	-.0723 (.194) P=.317	-.1326 (.193) P=.066	-.0139 (.194) P=.848	-.0883 (.194) P=.221	-.1258 (.194) P=.081	-.0878 (.193) P=.224	-.1388 (.193) P=.054	-.2127 (.194) P=.003	-.0888 (.194) P=.218	-.0523 (.194) P=.388
FIRST	-.0463 (.189) P=.527	.0282 (.190) P=.700	.0074 (.189) P=.919	.0851 (.190) P=.243	-.0261 (.190) P=.721	.0222 (.190) P=.761	-.0112 (.189) P=.879	.1397 (.189) P=.055	-.0212 (.190) P=.772	.0448 (.190) P=.539	.0281 (.190) P=.700
NEXT	.1755 (.188) P=.016	.0014 (.189) P=.984	.0396 (.188) P=.589	.0955 (.189) P=.191	.0959 (.189) P=.190	.0253 (.189) P=.730	.0234 (.188) P=.750	-.0442 (.188) P=.547	-.0503 (.189) P=.492	-.0079 (.189) P=.914	.0797 (.189) P=.276

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
AGE	.0791 (.194) P=.273	.0748 (.193) P=.301	.0754 (.193) P=.297	.0465 (.194) P=.520	.1142 (.194) P=.113	.0760 (.193) P=.281	.1285 (.193) P=.075	-.0291 (.191) P=.680	.0268 (.194) P=.710	.0957 (.193) P=.186	.0484 (.194) P=.503
SEX	.0978 (.186) P=.184	.1228 (.186) P=.095	.0524 (.186) P=.477	.0148 (.186) P=.841	-.0373 (.185) P=.613	-.0048 (.185) P=.948	.0030 (.186) P=.967	.1357 (.183) P=.087	.0321 (.186) P=.664	.1001 (.185) P=.175	-.0745 (.186) P=.312
MARITAL	.0186 (.194) P=.786	-.0512 (.193) P=.398	.1207 (.193) P=.070	-.0021 (.194) P=.977	-.0050 (.194) P=.345	.0307 (.193) P=.672	.0368 (.193) P=.612	-.0841 (.194) P=.248	.0732 (.194) P=.310	-.0101 (.194) P=.890	.0655 (.194) P=.365
STUDENT	(.193) P=.	(.192) P=.	(.192) P=.	(.193) P=.	(.193) P=.	(.192) P=.	(.192) P=.	(.190) P=.	(.193) P=.	(.192) P=.	(.193) P=.
FACULTY	-.0230 (.194) P=.750	-.0038 (.193) P=.858	.0126 (.193) P=.862	-.1168 (.194) P=.105	-.0841 (.194) P=.244	.0516 (.193) P=.476	-.0738 (.193) P=.308	-.0866 (.191) P=.405	-.0608 (.194) P=.400	-.1034 (.193) P=.152	.1407 (.194) P=.050
ACVR	-.0905 (.194) P=.209	-.1355 (.193) P=.060	.0123 (.193) P=.866	.1006 (.194) P=.163	.0428 (.194) P=.554	-.0146 (.193) P=.841	.1193 (.193) P=.098	.0891 (.191) P=.270	-.0223 (.194) P=.757	.0936 (.193) P=.195	-.1127 (.194) P=.118
HS	.1343 (.194) P=.062	.0008 (.193) P=.991	-.0635 (.193) P=.381	.0545 (.194) P=.450	-.0553 (.194) P=.444	.0127 (.193) P=.861	.0818 (.193) P=.258	-.0758 (.191) P=.237	.0102 (.194) P=.887	-.0389 (.193) P=.591	-.0525 (.194) P=.468
CC	-.0642 (.192) P=.376	.0084 (.191) P=.808	.0403 (.191) P=.579	-.0160 (.192) P=.825	-.1064 (.192) P=.142	-.0731 (.191) P=.315	-.0610 (.191) P=.402	.0463 (.191) P=.527	-.0900 (.192) P=.215	.0438 (.191) P=.548	.0903 (.192) P=.213
FOR	.1320 (.194) P=.067	.0768 (.193) P=.288	.0921 (.193) P=.202	.1105 (.194) P=.125	.0789 (.194) P=.274	.1069 (.193) P=.139	.1094 (.193) P=.130	.1225 (.191) P=.091	.0865 (.194) P=.230	.0641 (.193) P=.376	.0135 (.194) P=.851
TOEFL	.2086 (.193) P=.004	.1217 (.192) P=.093	.1296 (.192) P=.073	.0863 (.193) P=.233	.1832 (.193) P=.011	.1971 (.192) P=.006	.1124 (.192) P=.121	.0397 (.190) P=.587	.0927 (.192) P=.200	-.0315 (.193) P=.664	.0401 (.193) P=.580
ISC	-.0353 (.193) P=.626	-.1268 (.192) P=.080	-.0004 (.192) P=.995	-.0191 (.193) P=.792	.1317 (.193) P=.068	.0377 (.192) P=.604	.1191 (.192) P=.100	-.0017 (.190) P=.982	.1197 (.193) P=.097	.0445 (.192) P=.540	.0517 (.193) P=.475

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	SOC34	SOC35	SOC36	SOC37	SOC38	SOC39	SOC40	SOC41	SOC42	SOC43	PERS44
ASSOC	-.3842 (.194) P=.000	-.0367 (.193) P=.612	-.1327 (.193) P=.066	-.0914 (.194) P=.205	-.1180 (.194) P=.101	-.1595 (.193) P=.027	-.0794 (.193) P=.272	-.0512 (.191) P=.482	-.1163 (.194) P=.106	.0335 (.193) P=.644	-.0773 (.194) P=.284
FRIENDS	-.2919 (.191) P=.000	.0240 (.190) P=.743	-.0430 (.190) P=.556	.0495 (.191) P=.487	-.0864 (.191) P=.235	-.0053 (.190) P=.942	.0828 (.190) P=.256	-.0546 (.189) P=.457	.0718 (.190) P=.323	-.0685 (.190) P=.348	-.0626 (.191) P=.389
LIVED	.0737 (.194) P=.307	.0865 (.193) P=.231	.0261 (.192) P=.718	.0299 (.194) P=.679	.0355 (.194) P=.623	-.0067 (.193) P=.926	-.0525 (.193) P=.468	-.0553 (.191) P=.448	-.0046 (.194) P=.949	.0337 (.193) P=.642	-.1072 (.194) P=.137
VISIT	.2041 (.194) P=.004	.0499 (.193) P=.491	-.0887 (.193) P=.220	.0598 (.194) P=.408	.0501 (.194) P=.488	.0688 (.193) P=.341	-.0462 (.193) P=.524	.0759 (.191) P=.237	.1301 (.194) P=.071	.0237 (.193) P=.744	.0894 (.194) P=.215
COUNS	-.1235 (.194) P=.086	.0682 (.193) P=.346	-.0531 (.193) P=.463	-.0042 (.194) P=.954	.0509 (.194) P=.481	.0237 (.193) P=.723	-.0387 (.193) P=.593	-.0636 (.191) P=.382	-.0636 (.194) P=.379	-.0943 (.193) P=.192	-.0986 (.194) P=.171
FIRST	-.0854 (.190) P=.241	-.0102 (.189) P=.889	-.0651 (.189) P=.373	-.0095 (.190) P=.897	.0497 (.190) P=.495	-.0336 (.189) P=.646	.0075 (.189) P=.919	.0586 (.187) P=.426	-.0534 (.190) P=.465	-.0185 (.189) P=.800	.1465 (.190) P=.044
NEXT	.0144 (.189) P=.844	-.0666 (.188) P=.364	-.0052 (.188) P=.943	.0035 (.189) P=.962	-.0552 (.189) P=.431	.0046 (.188) P=.950	.0847 (.188) P=.136	.1207 (.186) P=.101	.0071 (.189) P=.923	.0305 (.188) P=.678	.1263 (.189) P=.083

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
AGE	.1272 (.194) P=.077	.1556 (.194) P=.030	-.0251 (.193) P=.729	-.1246 (.191) P=.086	-.0564 (.190) P=.440	-.0582 (.190) P=.425	.1050 (.189) P=.190	-.0543 (.192) P=.454	.0246 (.192) P=.735	.0276 (.191) P=.705	-.0231 (.193) P=.750
SEX	.0266 (.186) P=.718	.0856 (.186) P=.240	.1268 (.185) P=.085	.2209 (.184) P=.003	.1349 (.183) P=.069	.0870 (.183) P=.242	-.0130 (.181) P=.862	-.0547 (.184) P=.461	.1234 (.184) P=.095	.1798 (.183) P=.015	.2619 (.185) P=.000
MARITAL	-.1210 (.194) P=.093	-.0054 (.191) P=.940	.1382 (.193) P=.055	-.0913 (.190) P=.209	-.1082 (.190) P=.137	.1437 (.190) P=.048	-.1165 (.189) P=.110	.0796 (.192) P=.272	.0327 (.192) P=.652	.0598 (.191) P=.411	.0623 (.193) P=.389
STUDENT	(.193) P=.	(.193) P=.	(.192) P=.	(.190) P=.	(.189) P=.	(.189) P=.	(.188) P=.	(.191) P=.	(.191) P=.	(.190) P=.	(.192) P=.
FACULTY	-.0928 (.194) P=.198	-.0581 (.194) P=.421	.0482 (.193) P=.497	.0310 (.191) P=.670	-.0095 (.190) P=.696	-.0953 (.190) P=.191	-.0340 (.189) P=.642	.0406 (.192) P=.576	.0585 (.192) P=.420	.0168 (.191) P=.818	-.0713 (.193) P=.325
ACVR	.0302 (.194) P=.676	.0732 (.194) P=.310	.0291 (.193) P=.688	-.2050 (.191) P=.004	-.0896 (.190) P=.219	.0224 (.190) P=.759	.0481 (.189) P=.511	-.0422 (.192) P=.562	-.0295 (.192) P=.684	-.0668 (.191) P=.359	-.0039 (.193) P=.957
HS	.0653 (.194) P=.358	.0320 (.194) P=.658	.0498 (.193) P=.491	.0436 (.191) P=.550	.0420 (.190) P=.565	-.1282 (.190) P=.078	.0362 (.189) P=.621	.0056 (.192) P=.938	.0554 (.192) P=.445	.0434 (.191) P=.551	.0149 (.193) P=.837
CC	-.0757 (.192) P=.296	-.0687 (.192) P=.344	-.0091 (.191) P=.901	-.0368 (.189) P=.615	-.1186 (.188) P=.105	.0887 (.188) P=.226	-.0302 (.187) P=.681	.0164 (.190) P=.822	.0191 (.190) P=.794	-.0190 (.189) P=.795	.0317 (.191) P=.664
FOR	.0853 (.194) P=.237	.0891 (.194) P=.217	.0974 (.193) P=.178	.0644 (.191) P=.376	.0763 (.190) P=.295	.0555 (.190) P=.447	.0822 (.189) P=.261	.0911 (.192) P=.209	.0693 (.192) P=.340	.0818 (.191) P=.261	.0184 (.193) P=.799
TOEFL	.0792 (.193) P=.274	.0795 (.193) P=.272	.1690 (.192) P=.019	.1344 (.189) P=.085	.2905 (.190) P=.000	.0493 (.188) P=.500	.0538 (.191) P=.463	.1058 (.191) P=.145	.1053 (.191) P=.147	.2202 (.190) P=.002	-.0331 (.192) P=.649
ISC	.0291 (.193) P=.688	.0226 (.193) P=.755	.0093 (.192) P=.898	.0193 (.190) P=.791	.0629 (.189) P=.390	.0631 (.188) P=.388	-.0132 (.188) P=.857	.0407 (.191) P=.576	.0887 (.191) P=.174	.1170 (.190) P=.108	.1114 (.192) P=.124

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	PERS45	PERS46	PERS47	PERS48	PERS49	PERS50	PERS51	PERS52	PERS53	PERS54	PERS55
ASSOC	-.0074 (.194) P=.918	.0177 (.194) P=.807	-.0870 (.193) P=.229	-.2050 (.191) P=.004	-.0931 (.190) P=.201	-.0155 (.190) P=.832	.0080 (.189) P=.913	.0447 (.192) P=.538	-.0359 (.192) P=.621	-.0238 (.191) P=.744	-.1023 (.193) P=.157
FRIENDS	-.0127 (.191) P=.861	-.0115 (.191) P=.874	-.0220 (.190) P=.753	-.0612 (.188) P=.404	.0213 (.188) P=.771	-.0682 (.187) P=.354	.0261 (.187) P=.723	-.0232 (.189) P=.751	.0604 (.189) P=.409	-.1177 (.188) P=.108	-.0071 (.190) P=.923
LIVED	.0724 (.194) P=.316	-.0044 (.194) P=.951	-.0330 (.193) P=.649	-.1459 (.191) P=.044	-.1162 (.190) P=.110	-.0987 (.190) P=.175	-.0464 (.189) P=.526	-.0541 (.192) P=.456	-.1178 (.192) P=.104	-.0894 (.191) P=.219	.0461 (.193) P=.524
VISIT	.0350 (.194) P=.628	-.0082 (.194) P=.810	.0237 (.193) P=.744	.0377 (.191) P=.604	-.0725 (.190) P=.320	-.0852 (.190) P=.243	-.0659 (.188) P=.367	.0727 (.192) P=.317	.0764 (.192) P=.292	.0665 (.191) P=.361	.0378 (.193) P=.602
COUNS	-.0055 (.194) P=.939	-.0980 (.194) P=.174	-.0257 (.193) P=.723	-.1714 (.191) P=.018	-.1274 (.190) P=.080	-.1009 (.190) P=.166	.0103 (.189) P=.889	-.1411 (.192) P=.051	-.1647 (.192) P=.022	-.1191 (.191) P=.101	-.0544 (.193) P=.452
FIRST	.1089 (.190) P=.135	.1790 (.189) P=.013	-.0002 (.189) P=.998	-.0833 (.187) P=.257	-.0004 (.186) P=.996	-.0001 (.186) P=.999	.0529 (.185) P=.474	.1497 (.188) P=.040	.0822 (.188) P=.262	-.0284 (.187) P=.699	.0499 (.189) P=.495
NEXT	.0380 (.189) P=.604	-.0262 (.189) P=.720	-.0341 (.188) P=.642	-.0379 (.186) P=.608	-.0074 (.185) P=.921	.0522 (.185) P=.480	.0398 (.184) P=.592	-.0292 (.187) P=.691	.0298 (.187) P=.686	-.0426 (.186) P=.564	-.0311 (.186) P=.571

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	AGE	SEX	MARITAL	STUDENT	FACULTY	ACVR	HS	CC	FOR	TOEFL	ISC
AGE	.0000 (.194) P=.186	-.0825 (.186) P=.257	.0344 (.194) P=.634	(.193) P=.	-.1558 (.194) P=.030	-.4981 (.194) P=.000	.1405 (.194) P=.051	-.2246 (.192) P=.002	-.0663 (.194) P=.359	.1167 (.193) P=.106	.0720 (.193) P=.320
SEX	-.0825 (.186) P=.257	1.0000 (.186) P=.	-.0056 (.186) P=.939	(.185) P=.	-.0548 (.186) P=.458	-.0222 (.186) P=.764	.0255 (.186) P=.730	-.0728 (.184) P=.326	-.0597 (.186) P=.345	-.1427 (.185) P=.053	-.0516 (.185) P=.486
MARITAL	.0344 (.194) P=.634	-.0056 (.186) P=.939	1.0000 (.194) P=.	(.193) P=.	.0475 (.194) P=.511	-.1064 (.194) P=.140	-.0285 (.194) P=.694	.0751 (.192) P=.300	.0073 (.194) P=.919	.1426 (.193) P=.048	-.0557 (.193) P=.442
STUDENT	(.193) P=.	(.185) P=.	(.194) P=.	1.0000 (.193) P=.	(.193) P=.	(.193) P=.	(.193) P=.	(.191) P=.	(.193) P=.	(.192) P=.	(.192) P=.
FACULTY	-.1558 (.194) P=.030	-.0548 (.186) P=.458	.0475 (.194) P=.511	(.193) P=.	1.0000 (.194) P=.	-.2896 (.194) P=.000	-.1688 (.194) P=.019	.1383 (.192) P=.056	-.0981 (.194) P=.174	.0760 (.193) P=.294	-.0708 (.193) P=.328
ACVR	.4981 (.194) P=.000	-.0222 (.186) P=.764	-.1064 (.194) P=.140	(.193) P=.	-.2896 (.194) P=.000	1.0000 (.194) P=.	.1157 (.194) P=.108	-.1539 (.192) P=.023	-.0207 (.194) P=.774	-.1493 (.193) P=.018	.0552 (.193) P=.446
HS	.1405 (.194) P=.051	-.0255 (.186) P=.730	-.0285 (.194) P=.694	(.193) P=.	-.1558 (.194) P=.030	-.4981 (.194) P=.000	1.0000 (.194) P=.	-.2570 (.192) P=.000	.0201 (.194) P=.781	-.1631 (.193) P=.023	.0425 (.193) P=.557
CC	-.2246 (.192) P=.002	-.0728 (.184) P=.326	.0751 (.194) P=.300	(.191) P=.	.1383 (.192) P=.056	-.1688 (.194) P=.019	-.019 P=.	1.0000 (.192) P=.	.0988 (.192) P=.173	-.2069 (.191) P=.004	-.0527 (.191) P=.469
FOR	-.0663 (.194) P=.359	-.0697 (.186) P=.345	.0073 (.194) P=.919	(.193) P=.	.0981 (.194) P=.174	-.0207 (.194) P=.774	.0201 (.194) P=.781	-.0988 (.192) P=.173	1.0000 (.194) P=.	.1187 (.193) P=.100	.0393 (.193) P=.588
TOEFL	.1167 (.193) P=.106	-.1427 (.185) P=.053	.1426 (.193) P=.048	(.192) P=.	.0760 (.193) P=.294	-.1493 (.193) P=.038	-.1631 (.193) P=.023	-.2059 (.191) P=.004	.1187 (.193) P=.100	1.0000 (.193) P=.	-.0330 (.192) P=.650
ISC	.0720 (.193) P=.320	-.0516 (.185) P=.486	-.0557 (.193) P=.442	(.192) P=.	-.0708 (.193) P=.328	.0552 (.193) P=.446	.0425 (.193) P=.557	-.0527 (.191) P=.469	.0393 (.193) P=.588	-.0330 (.192) P=.650	1.0000 (.193) P=.

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	AGE	SEX	MARITAL	STUDENT	FACULTY	ACVR	HIS	CC	FOR	10EFL	ISC
ASSOC	-.0068	-.0014	.1733	(.193)	.0840	.0455	-.1272	.0668	-.0387	-.0954	-.0382
	(.194)	(.186)	(.194)	(.193)	(.194)	(.194)	(.194)	(.192)	(.194)	(.193)	(.193)
	P=.925	P=.985	P=.016	P=.	P=.244	P=.519	P=.077	P=.357	P=.592	P=.187	P=.598
FRIENDS	.1116	.0887	-.0510	(.190)	.0250	.0875	-.0259	-.0506	-.0666	-.1019	-.0585
	(.191)	(.183)	(.191)	(.190)	(.191)	(.191)	(.191)	(.189)	(.191)	(.190)	(.190)
	P=.124	P=.233	P=.483	P=.	P=.731	P=.229	P=.722	P=.489	P=.360	P=.162	P=.423
LIVED	.1816	-.1112	.0171	(.193)	-.1104	-.0157	.1678	-.1259	.0609	.1149	.0464
	(.194)	(.186)	(.194)	(.193)	(.194)	(.194)	(.194)	(.192)	(.194)	(.193)	(.193)
	P=.011	P=.131	P=.813	P=.	P=.126	P=.828	P=.019	P=.079	P=.359	P=.112	P=.522
VISIT	-.0846	-.0130	.0435	(.193)	.1193	.1177	.0321	.0295	.0476	.1635	-.0786
	(.194)	(.186)	(.194)	(.193)	(.194)	(.194)	(.194)	(.192)	(.194)	(.193)	(.193)
	P=.241	P=.860	P=.547	P=.	P=.097	P=.102	P=.656	P=.685	P=.510	P=.018	P=.277
COUNS	-.1045	-.0210	-.0204	(.193)	.0911	.1057	-.0151	.1064	.0878	-.0821	-.1063
	(.194)	(.186)	(.194)	(.193)	(.194)	(.194)	(.194)	(.192)	(.194)	(.192)	(.193)
	P=.147	P=.776	P=.778	P=.	P=.207	P=.143	P=.835	P=.142	P=.224	P=.257	P=.141
FIRST	.1009	-.1186	.0481	(.189)	-.0296	-.0106	-.0703	-.0255	-.0481	.1354	.1458
	(.190)	(.182)	(.190)	(.189)	(.190)	(.190)	(.190)	(.188)	(.190)	(.189)	(.189)
	P=.166	P=.111	P=.510	P=.	P=.685	P=.884	P=.335	P=.728	P=.510	P=.063	P=.045
NEXT	.0941	-.0316	.1132	(.186)	.0509	.0900	-.0150	.0768	-.1132	-.0881	-.0804
	(.189)	(.181)	(.189)	(.186)	(.189)	(.189)	(.189)	(.187)	(.189)	(.188)	(.188)
	P=.198	P=.673	P=.121	P=.	P=.487	P=.318	P=.338	P=.286	P=.121	P=.229	P=.273

Alpha = 0.05
 Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKAS Questionnaire Items

	ASSOC	FRIENDS	LIVD	VISIT	COUNS	FIRST	NEXT
AGE	.0068 (.194) P=.925	.1118 (.191) P=.124	.1875 (.194) P=.011	-.0846 (.194) P=.241	-.1045 (.194) P=.147	.1009 (.190) P=.166	.0941 (.189) P=.198
SEX	-.0014 (.186) P=.985	.0887 (.183) P=.333	-.1112 (.186) P=.111	-.0130 (.186) P=.860	-.0210 (.186) P=.776	-.1186 (.182) P=.111	-.0316 (.181) P=.673
MARITAL	.1733 (.184) P=.016	-.0510 (.187) P=.483	.0171 (.184) P=.813	.0435 (.194) P=.547	-.0204 (.194) P=.778	.0481 (.190) P=.510	.1132 (.189) P=.121
STUDENT	(.193) P=.	(.180) P=.	(.193) P=.	(.193) P=.	(.193) P=.	(.189) P=.	(.188) P=.
FACULTY	.0840 (.194) P=.244	.0250 (.191) P=.731	-.1104 (.194) P=.126	.1193 (.194) P=.097	.0911 (.194) P=.207	-.0256 (.190) P=.685	.0509 (.189) P=.487
ACYR	.0465 (.194) P=.518	.0875 (.191) P=.229	-.0157 (.194) P=.828	-.1177 (.194) P=.102	-.1057 (.194) P=.142	-.0106 (.190) P=.884	.0900 (.189) P=.218
HS	-.1272 (.194) P=.077	-.0259 (.191) P=.722	.1678 (.194) P=.019	.0321 (.194) P=.656	-.0151 (.194) P=.835	-.0703 (.190) P=.335	-.0150 (.189) P=.838
CC	.0668 (.192) P=.357	-.0506 (.189) P=.489	-.1269 (.192) P=.079	.0295 (.192) P=.685	.1064 (.188) P=.142	-.0255 (.188) P=.728	.0768 (.187) P=.296
FOR	-.0387 (.194) P=.592	-.0666 (.191) P=.360	.0609 (.194) P=.399	.0476 (.194) P=.510	.0878 (.194) P=.224	-.0481 (.190) P=.510	.1132 (.189) P=.121
TOEFL	-.0954 (.193) P=.187	-.1019 (.190) P=.162	.1149 (.193) P=.112	.1595 (.193) P=.018	-.0821 (.193) P=.257	.1354 (.189) P=.063	-.0881 (.188) P=.229
ISC	-.0382 (.183) P=.598	-.0585 (.193) P=.423	.0464 (.193) P=.522	-.0786 (.193) P=.277	-.1063 (.193) P=.141	.1458 (.189) P=.045	-.0804 (.188) P=.273

Alpha = 0.05
Number in parenthesis = number of respondents

Table L-1 (Continued)

Intercorrelational Analysis of HKSAS Questionnaire Items

	ASSOC	FRIENDS	LIVED	VISIT	COUNS	FIRST	NEXT
ASSOC	.1000 (194) P = .	.3632 (191) P = .000	-.1142 (194) P = .113	-.0212 (194) P = .770	-.0831 (194) P = .249	-.0138 (190) P = .850	.0655 (189) P = .370
FRIENDS	.3632 (191) P = .000	1.0000 (191) P = .	.0043 (191) P = .953	-.0700 (191) P = .336	-.0051 (191) P = .944	-.0213 (197) P = .772	.0451 (186) P = .541
LIVED	-.1142 (194) P = .113	.0043 (191) P = .953	1.0000 (194) P = .	-.0371 (194) P = .607	.1187 (194) P = .099	.1495 (190) P = .039	-.1225 (189) P = .093
VISIT	-.0212 (194) P = .770	-.0700 (191) P = .336	-.0371 (194) P = .607	1.0000 (194) P = .	.0850 (194) P = .238	-.1610 (190) P = .026	.0468 (189) P = .523
COUNS	.0831 (194) P = .249	-.0051 (191) P = .944	.1187 (194) P = .099	.0850 (194) P = .238	1.0000 (194) P = .	-.0939 (190) P = .198	-.0689 (189) P = .346
FIRST	-.0138 (190) P = .850	.0213 (187) P = .772	.1495 (190) P = .039	-.1610 (190) P = .026	-.0939 (190) P = .198	1.0000 (190) P = .	.1066 (189) P = .144
NEXT	.0655 (189) P = .370	.0451 (186) P = .541	-.1225 (189) P = .093	.0468 (189) P = .523	-.0689 (189) P = .346	.1066 (189) P = .144	1.0000 (189) P = .

Alpha = 0.05
Number in parenthesis = number of respondents