CHAPTER 3

METHODOLOGY

3.1 Introduction

College choice processes and college choice behaviours have been studied from both macro- and micro- perspectives by previous researchers abroad. However, little has been researched in these areas locally, in particular the preferences and needs of students and parents, and their degree of satisfaction with the chosen college.

This study of college choice factors and students' satisfaction with the chosen college is intended to shed light on the various efforts by recruitment personnel and enrolment management employed by institutions to attract and retain students. Assumptions about prospective students may not have been accurate, and hence efforts and strategies utilised by institutions may not be the most efficient in recruitment and enrolment management endeavours.

This chapter describes procedures employed to study college selection factors. It includes research design, exploratory interviews with students and parents, formulation of questionnaires, sample selection, survey administration procedures, strategies for data analysis and the model of study.

3.2 Research Design

A key characteristic of this study is the use of both student and parent samples. This provides a more comprehensive research in examining the needs and preferences, similarities and differences of the two key decision-makers and their behaviours in the college choice process.

Another highlight of this study is that it employs both interview and questionnaire methods to enhance the strength of the research design. The study began with exploratory interviews to gather data regarding influential variables considered in the college choice process by local samples, thus ensuring choice factors were adequately captured for investigation in this study. This was followed by the questionnaire method which could offer greater anonymity to respondents and enable the collection of a greater quantity of data in a standardised format within a short period of time.

The following section describes how the research design was developed for this study.

3.2.1 Rational for a Parent Sample

Examining factors affecting college choice and the degree of satisfaction with the chosen college is a matter of exploring the objectives, preferences and experiences of students and parents. As shown by previous researchers (Litten and Brodigan, 1982; Krukowski, 1985; Carnegie Foundation for the Advancement of Teaching, 1986; Wanat and Bowles, 1989; Annis and Rice, 1993; Quade, 1994), college choice is not determined solely by students, but also by significant others, especially their parents. As shown by Murphy (1981), Hossler et al. (1989), and Hossler and Schmit (1992), parents rule out institutions which they cannot afford financially or they do not like, thus confining students to choosing from a set of colleges pre-determined by parents. As parents are the most influential figures in the college selection process of students, and since there has not been much research conducted to examine factors that have an influence over parents' college choice, this study has incorporated a parent component in the college choice survey. The decision about a particular college may be due to the preference of parents and hence any explanations based solely on data collected from students may not be accurate. By examining choice factors from the perspectives of both students and parents, a comparison can be made between their preferences and needs which in turn, is anticipated to provide more comprehensive explanations as to why a particular institution is preferred.

3.2.2 Multiple Methods of Data Collection

This research has incorporated the use of interviews and questionnaire. Multiple methods, combining qualitative and quantitative techniques, were selected to gather full information on student and parent characteristics and perspectives (Kohn, 2000).

The exploratory interviews were intended to compare responses obtained from local samples with those gathered in the literature review and to investigate whether choice factors obtained from the literature review adequately represented local samples on the college decision making process. The interview method was selected as it could provide the researcher with opportunities to clarify any uncertainties in the questions or to respond directly to the respondents. Furthermore this method allowed the researcher to obtain in-depth information in order to understand the college choice behaviour better and finally to formulate coherent concepts needed in the development of a quantitative instrument, namely a questionnaire for this study (Miles and Huberman, 1994; Kumar, 1996).

To ensure data obtained from the exploratory interviews were comparable across respondents, structured interviews were held with a pre-determined set of questions prepared for students and parents. These questions were presented in a person-to-person setting during the exploratory interviews with students and parents (Kumar, 1996; Neuman, 2000).

Responses collected from the exploratory interviews were classified into categories based on similar concepts or themes (Neuman, 2000). Labels assigned to these

categories were drawn primarily from the literature review. The six categories under study were adapted from the literature review. These categories were later used as the headings for each section of the questionnaire developed.

Responses from the exploratory interviews, together with choice factors found by past researchers (which were common to the responses emerging from the exploratory interviews and relevant to the Malaysian context) to influence college choice, were used to generate the survey questionnaire.

A questionnaire survey was chosen for this study as it is cost effective in terms of time, human and financial resources, and it can measure multiple variables and gather standardised responses besides offering greater anonymity (Tuckman, 1972; Kumar, 1996; Neuman, 2000). The self-administered questionnaire method enabled this study to collect information from a large sample over a short period of time with limited manpower and financial resources. Also, as part of the study entailed sensitive questions, and to maximise accurate responses from respondents, this mode of data collection which offers anonymity was found most suitable for this research. In addition, as this study investigated multiple choice factors and their correlation to the demographic variables, and the correlation between choice factors and the degree of satisfaction towards the chosen college, the questionnaire method which possesses the features required for testing multiple hypotheses and correlation, was the most suitable for this study.

However, the questionnaire method limits chances to clarify uncertainties with the respondents and hence creates the uncertainty of whether choice factors are adequately understood in the survey. To address this limitation of the questionnaire method and to

ensure a comprehensive range of factors is addressed in this research, exploratory interviews were carried out before the development of the questionnaire.

The survey in this study has taken into consideration the inclusion of: (1) parental effect and choice factors influencing parents, to understand and to compare the preferences of students and parents in the college selection process, (2) measure of students' and parents' satisfaction level towards their chosen college, (3) choice factors considered in the literature reviewed, specifically those relevant to the Malaysian context, (4) the responses obtained from the exploratory interviews using local samples (including those found common to choice factors in the literature reviews, and those not found in the literature reviews but are relevant to Malaysian context), (5) source of categories drawn from literature reviewed, and (6) choice factors grouped according to similar concepts and placed under separate categories.

Two sets of questionnaires were developed for this study:

- (1) the College Choice Student Survey, which was to examine the factors influencing the student selection process
- (2) the College Choice Parent Survey, which was to gain insight on the variables considered by parents that affect college decision making, and their advice to their children.

This study intends to shed light on the needs and preferences of students and parents, and the implications which are useful to the management of private colleges and Government policy makers.

3.3 Exploratory Interviews

The following section delineates the Exploratory Interview process and its findings.

3.3.1 Procedures of Interview

"Personal experience can be an excellent starting point for the testing of knowledge" (Frey, Botan, Kreps, 2000: 8). Based on personal observations throughout fifteen years of work experience in the educational sector, the researcher formulated two questions as the interview protocol. The first asked the respondents to recollect the choice factors during college selection and guided them through their selection experience and process. The second gauged students' academic ability based on the acceptance by local universities for those who had applied, and also investigated reasons for non-attendance at local universities for those who had been accepted. As this was a person-to-person interview, it could be embarrassing for some student and parent respondents to disclose their own or their children's 'STPM' results (or its equivalent) if they had not done well. This could result in these potential respondents not participating in the exploratory interviews. To avoid losing any potential respondents, the second pre-determined question gauged the student's academic ability based on his or her acceptance by the local universities without asking for details of examination results. In addition to responses gathered from the exploratory interviews, demographic information (gender, age, college, and others) of each respondent was recorded at the beginning of each interview.

The interviews were conducted on an individual basis by the researcher in the respondents' homes, outside a private college or in a church compound. Students and parents were interviewed separately. All interviewees were informed of the purpose of the study at the start of each interview. Responses from the interview were recorded verbatim. The researcher recorded all responses word-for-word using pen and paper as

field notes. Where the respondents spoke too rapidly, the researcher requested the answers to be repeated to ensure complete speech was recorded. Verbatim recording was chosen to ensure details were recorded which might be important later. As stated by Neuman (2000) it is better to err by including everything than to ignore potentially important details. Verbatim responses in this study provided descriptive and detailed information which aided in the identification of variables and the development of the survey questionnaires.

Table 3.1 below presents the two pre-determined questions asked in the Student Exploratory Interview.

Table 3.1 Student Exploratory Interview Protocol

Interview Schedule: Structured Questions with Students

Question 1: (i) What factors did you consider when you selected the college which you are now studying in? (to the undergraduate respondents).

(ii) What factors will you consider when you are selecting the college you wish to study at? (to the pre-college student 1).

Question 2: Did you apply to local public universities before applying to the present private college? (to the undergraduate respondents).

Summaries of all student responses are presented in Table C1 of Appendix C (Student Exploratory Interview Summary). Table C1 presents each respondent's verbatim responses along with his or her demographic information such as Gender, Age, Standing (year of study), Field of Study, Degree conferred upon graduation, Name of College, and Name of Twinning University.

I A pre-college student is one who is currently pursuing a pre-university course or someone who has completed the pre-university level course and is waiting to gain admission into an undergraduate programme.

During the exploratory interviews with parents, two pre-determined questions were presented to the respondents. Table 3.2 below presents the two pre-determined questions asked in the Parent Exploratory Interview

Table 3.2 Parent Exploratory Interview Protocol

Interview Schedule: Structured Questions with Parents/Guardians

- Question 1: (i) What factors did you consider when you helped your child to select the college which he/she is now studying in? (to the parent respondents).
 - (ii) What factors did you consider when you helped your sister/brother to select the college which he/she is now studying in? (to the guardian respondents).
- Question 2: Did your child or your sister/brother apply to local public universities before applying to the present private college?

Summaries of the parent exploratory interviews are presented in Table C2 of Appendix C (Parent Exploratory Interview Summary) together with each respondent's demographic information such as Parent Gender, Relationship, Student Gender, Age, Standing (year of study), Field of Study, Degree conferred upon graduation, Name of College, and Name of Twinning University.

3.3.2 Interview Sample

The interview sample in this study consisted of students and parents were friends, or students whom the researcher happened to meet. A total of eleven private college students and seven parents (father, mother or guardian) were interviewed. The student sample consisted of two pre-college students, seven students of Year 1, one student of Year 2 and one of Year 4. These students came from six private colleges, namely Asia-

Pacific Institute of Technology (APIIT), Sunway College (Sunway), Inti College (Inti), Kolej Damansara Utama (KDU), Systematic College (Systematic) and Metropolitan College (Metropolitan). The parent sample comprised six parents and one guardian. The first three pairs of respondents were parents and their children, whilst the fourth was a pair of sisters. The remaining three parent respondents were not related to any of the student respondents. In the following presentation, Student 1 was related to Parent 1, Student 2 was related to Parent 2, until Student 4 and Guardian 4. However, Student 5 to Student 11 were not related to Parent 5 to Parent 7.

The pre-college students were included in the interview sample to capture a broader range of influential factors in the college choice process, should the pre-college students and the undergraduate students differ in the choice factors considered. Students who had just been admitted to a college or were in the process of choosing a college were believed to have fresher memory of the selection process and the choice factors considered (Quade, 1994). The interview samples consisted of seven Year I students who had just made a college decision with their parents and two pre-college students who were in the process of making a college selection. This represents 81.8% (nine out of eleven) of the sample and hence, this should present a reasonably accurate view of the college selection process and choice factors considered.

3.3.3 Procedure for the Analysis of Interview Responses

From the responses of the exploratory interviews, it was noted that certain institutional and individual attributes were important choice factors. Some of these factors were consistent with the factors highlighted in the literature review, whilst others were specific to the local context.

To manage the mass of qualitative data, Tuckman (1972), Boyatzis (1998), and Neuman (2000) suggested the massive information be condensed into categories by identifying the underlying similar themes or concepts. Such categories were subsequently labelled. Hence, responses with similar underlying themes or concepts obtained from the exploratory interviews and literature review were grouped into the same categories.

Among the seven categories found in the literature review, six were selected for this study as the underlying concepts of interview responses matched these selected six. The thematic categories selected were: (1) Study Option, (2) Prestige, (3) Location, (4) Financial Consideration, (5) Institutional Attributes, and (6) Individual Attributes / Source of Information.

Of these six categories, three were re-named to encompass a wider scope of underlying themes found in the exploratory interviews (Boyatzis, 1998). Location was re-named Logistics to indicate the country of the twinning university, and whether the twinning university is situated is a city or is a suburb, in addition to distance between college and home, as described in the literature review. Individual Attributes / Source of Information was re-named as Source of Influence to make the meaning of this category clearer to respondents. In this study, Individual Attributes referred to the individual characteristics of student respondents in their decision-making ability and the degree to which a student is influenced by various sources during the college choice process. Institutional Attributes was re-worded as Institutional Characteristics, as the latter was more widely used.

After the adaptation of the labels, the 6 thematic categories established for this study together with their definitions are presented as follows:

3.3.4 Operational Definitions of Categories

- (A) Study Option refers to the choice of studies, specialisation, programmes and colleges as suggested in the literature review. In this study, it also includes the structure of the twinning programme, that is the duration for which a student studies at the private college and subsequently at the twinning university to complete the entire degree, and the timing of the start of a programme, that is, at which part of the year a programme commences. Some respondent statements taken from the exploratory interviews which illustrate this category are: (1) I want to do a course in Information Technology, (2) Coventry University at Inti offers a Computer Science degree course, (3). APHT has a 3+0 degree programme, (4). Sunway-Monash's next intake is in February the following year whereas both Charles Sturt and RMIT will commence their programmes in September which means I do not have to wait too long.
- (H) Prestige refers to college status associated with the programmes offered or the career prospects of its graduates, admission rates into good postgraduate schools, research opportunities and publication, its academic faculty and the age or length of establishment of an institution as described in the literature review. In this study, prestige also refers to status associated with the twinning university and recognition by local statutory bodies. Some examples taken from the literature review and exploratory interviews are (1) 'Status' was referred to by students as a prestigious institution which will lead to securing high paying jobs and admittance into top postgraduate schools (Krukowski, 1985), (2) academically talented students desired a reputed college which is high in ranking and provides research opportunities (Wanat and Bowles, 1989), (3) I will have to consider whether the programme will be recognised by the Ministry of Education and/or the Public Services Department, (4) Many people say graduates in this programme can find jobs easily,

- (5) the course my daughter takes must have good prospects, (6) Sedaya has an established history of more than 10 years.
- (C) Logistics refers to the location of the college in terms of distance between college and home, and the location at which an institution is situated whether in a city or a town, as described in the literature reviewed. In this study, logistics has included the location of the twinning university and its distance from the resident country, and the accessibility of the institution by highways or public transport. Some responses taken from the literature review and exploratory interviews are: (1) students indicated preference for colleges/universities located in the metropolitan, business and professional activity centred areas for assurance of good connections with industries to provide their graduates with good job opportunities (Krukowski, 1985), (2) I prefer to go to Australia as it is not too far from home, (3) we live in Subang and it is so near to our house, (4) I prefer a city and RMIT University is situated in the city centre of Melbourne. My parents want me to work for one year in Melbourne after my graduation to gain some foreign exposure, (5) although Sedaya is not near my house, it is easily accessible by highway, (6) the location of the College is important because it must be easily accessible by public transport.
 - (D) Financial Consideration refers to the total costs incurred in the course of study measured in terms of fees, net cost after deducting scholarships or financial aid received as suggested in the literature review. In this study, financial consideration also includes the currency exchange rate of the country of the twinning university. Some responses taken from the exploratory interviews to illustrate this category were: (1) the tuition fee is not too expensive, (2) my father works in Inti and he gets 50% staff discount for my tuition fee, (3) I will consider the country of the twinning programme as it affects tuition fee. Since the currency exchange rates of

Australia, New Zealand and Singapore are lower compared to those of some other countries, the tuition fees of these three countries' twinning programmes are cheaper.

- (E) Institutional Characteristics refers to the attributes of a college in terms of its facilities, college environment, extra-curricular activities organised by the college, college population, class size, quality of its teaching faculty and administrative staff, and the friendliness of its admissions counsellors as suggested by past Some examples taken from the literature review and exploratory researchers. interviews are: (1) preference for small colleges as students perceived large institutions as providing less personal attention and portraying the feeling of community (Wanat and Bowles, 1989), (2) one of the criteria that emerged as important in a college selection in Coccari and Javalgi (1995) study is studentteacher ratio, (3) Buffington et al. (1987) showed that the students' relationship with administrators exerts an influence on college choice for private, less selective liberal arts colleges, (4) although Sunway tuition fee is slightly higher, the facilities are much better than KDU's, (5) Metropolitan College students look studious and not the playful type, (6) I like the college environment which is neat and clean, (7) I did compare the quality of lecturers, Sedaya's music lecturers were qualified and mostly full time.
- (F) Source of Influence refers to the individual characteristics of a student as reflected in his or her ability to make decisions or the degree to which a student is influenced by various sources during the college choice process. Sources of influence in this study include parents' influence, student's decision, family members' influence, peers' influence, alumni's influence, secondary school counsellors' influence, or influence of an education consultant at a counselling

service centre. Some illustrations taken from literature review and the exploratory interviews are: (1) one of the sources of information or types of influence emerging from the Braxton (1990) study was guidance counsellors, (2) I have heard a lot of good things about APIIT from my friends, (3) I just support my daughter's decision financially and morally, (4) My daughter prefers Inti because she has a few friends in that College, (5) I discussed with my parents which college to join, (6) I spoke to the Enrolment Counsellor and the Academic Dean of Queen's University at Metropolitan College and their recommendation of the RMIT Programme has made me consider this programme.

Using the six thematic categories established, interview responses of students and parents were grouped into these categories according to similar underlying themes or concepts.

Table C3 in Appendix C presents the Categorisation of Student Exploratory Interview Responses. Table C4 in Appendix C depicts the Categorisation of Parent Exploratory Interview Responses.

The six categories established and the categorised responses were used to formulate the headings and choice factors in the survey questionnaires respectively. As the sample size of the exploratory interview is small due to resource constraint, to capture a comprehensive set of factors considered during the college choice process, variables found by past researchers to influence college choice and which were relevant to local context were also included as choice factors in the development of survey questionnaires.

From the exploratory interviews and literature review, a total of 29 choice factors and

established Of these 29 choice factors, 24 were drawn from the literature review and these had also been found in the exploratory interviews. The remaining five factors had emerged during the exploratory interviews. The two career aspiration factors were drawn from the literature review. Table C5 in Appendix C presents the Sources of Category and Choice Factors of the Student and Parent Questionnaires.

3.3.5 Result Analysis of Exploratory Interviews with Students

A total of eleven students consisting of seven females and four males were interviewed. From the categorised responses, frequency counts were performed to examine which categories were most considered by students. "Prestige" registered the highest number of responses of eight compared to "Study Option" and "Financial Consideration" which recorded six responses each. Both "Institutional Characteristics" and "Source of Influence" each received a response of four and three respectively. "Logistics" recorded two responses. Table 3.3 below presents the results of student exploratory interviews.

^{2 &}quot;Career Prospect" and "Interest in the Field of Study" were not choice factors but career aspiration factors. These two factors are factors that affect the decision on the field of study. For instance, a student may have the interest in Medicine but may not have the academic ability to pursue this field of study. Hence, he or she will have to choose a field of study which is achievable by his or her academic calibre. As for career prospects, a student may have the interest and the academic ability to pursue a Fine Arts course, but due to the perceived poor career prospects (low income), he or she may be persuaded to be an Accountant, which has more promising perceived career prospects. For these reasons, "Career Prospects" and "Interest in the Field of Study" are only precursors of a decision on the course of study, they are not a choice factor of college selection (Kohn, 2000).

These two career aspiration factors will give us an insight into determining whether interest or career prospects dominates. This is important as their relative weightage can change if the values accepted by a particular society changes with time. This is not the primary area of investigation but documented for academic interest.

Table 3.3 Results of Student Exploratory Interview
(In Descending Order of Importance)

Ranking	Category	Student Interview Responses (Frequency)		
1	Prestige	8		
2	Study Option	6		
2	Financial Consideration	6		
1	Institutional Characteristic	4		
1	Source of Influence	3		
4	Logistic	2		

Based on the limited sample, it appeared that "prestige" was regarded as the most important category considered by students in the college choice process, followed by "Study Option" and "Financial Consideration"

3.3.6 Result Analysis of Exploratory Interviews with Parents

A total of seven parents were interviewed. From the categorised responses, frequency counts were performed to examine which categories were most considered by parents in the college choice process. Results showed that both "Logistics" and "Source of Influence" recorded five responses each and these were the highest categories considered by parents in the process of helping their children in the college selection process. "Financial Consideration" recorded four responses whilst "Study Option" and "Prestige" registered three responses each. Only one parent considered "Institutional Characteristics" in their college choice process.

Table 3 4 below presents the results of parent exploratory interviews.

Table 1-4 Results of Parent Exploratory Interview (In Descending Order of Importance)

Ranking	Category	Student Interview Responses (Frequency)	
	Logistics	5	
L	Source of Influence	5	
	Financial Consideration	4	
1	Prestige	3	
1	Study Option	3	
	Institutional Characteristics		

Hased on the limited sample size of seven, it appeared that "Logistics and "Source of Influence" are categories considered most important by parents in helping their children during the college choice process. This was followed by "Finance", "Study Option", "Prestige" and "Institutional Characteristics"

3.3.7 Conclusion of Exploratory Interviews

3.3.7.1 Descriptive Results

From the descriptive results of exploratory interviews, the following findings were noted. Comparing the student and parent interview responses, it was noted that the two most important categories considered by these two samples were different in terms of number of responses. Nevertheless, "Financial Consideration" appeared to be of equal importance as it was ranked third by both students and parents.

Comparing student interview responses with past findings by other researchers, it was consistent that "Prestige" surfaced as one of the most important criteria considered. A slight variation was recorded between the findings in the literature review where parents

were most concerned with "Financial Consideration" and those in the exploratory interviews where parents indicated "Logistics" to be most important. Parents in the exploratory interviews had appeared to be concerned about the distance between home and college, in addition to their concern over the country of the twinning university. As the sample size of student and parent exploratory interviews was limited, findings from this section cannot be generalised.

Nevertheless, as presented in the earlier section, the purpose of the exploratory interviews was not meant for statistical result analysis but merely to identify local categories to ensure that the questionnaires developed were comprehensive

3.3.7.2 Formulation of Survey Questionnaires

Of all the reported interview responses, it was noticed that the array of choice factors considered by students and parents was the same, irrespective of the ranking of importance of such factors. Hence, survey questionnaires formulated for students and parents will contain the same choice variables. Also, the College Choice Student Survey and the College Choice Parent Survey questionnaires were developed based on the exploratory interview responses and choice factors found in the literature review and those relevant to local context, as assessed through the exploratory interviews

3.4 The Questionnaire

Both the College Choice Student Survey and the College Choice Parent Survey consisted of four sections as depicted in Table 3.5. The College Choice Student Survey is presented in Appendix A, and the College Choice Parent Survey is presented in Appendix B

Table 3.5 Section Headings, Categories and Items Contained in the College Choice Student and Parent Survey Questionnaires

Student	Parent
1 Demographic Information	1 Demographic Information
(ii) Name of College (iii) Name of Ewinning University (iii) Field of Study (iv) Year of Study (v) Nationality (vi) Ethnicity (vii) Gender (viii) Age (ix) Student's Residence While Attending College (x) Hometown (xi) Academic Status upon Admissions (xii) High School Results used for the Application for Admissions (xiii) Acceptance by Local Universities (xiv) Reasons for Choosing a Private College	(ii) Name of College (iii) Name of Twinning University (iii) Gender (iv) Nationality (v) Ethnicity (vi) Relationship with Student (vii) Student's Age (viii) Student's Field of Study (ix) Student's Year of Study (x) Other Children Attending or Attended the same College (xi) Student's Residence While Attending College (xii) Student's Hometown (xiii) Student's Academic Status upon Admissions (xiv) Student's High School Results used for the Application for Admissions (xv) Student's Acceptance by Local Universities (xv) Reasons for Choosing a Private College
2. Factors in deciding a College Choice (i) Study Option 6 items (ii) Prestige 4 items (iii) Logistics 2 items (iv) Financial Consideration 2 items (v) Institutional Characteristics 9 items (vi) Source of Influence 8 items	2 Factors in helping your child in a College Choice (i) Study Option - 6 items (ii) Prestige - 4 items (iii) Logistics - 2 items (iv) Financial Consideration - 2 items (v) Institutional Characteristics - 9 items (vi) Source of Influence - 8 items
Awareness of College Resources (i) Availability of Program of Study (ii) Availability of 3+0 Option (iii) Availability of Scholarship/Financial Aid (iv) Availability of Dormitory	3 Awareness of College Resources (i) Availability of Program of Study (ii) Availability of 3+0 Option (iii) Availability of Scholarship/Financial Aid (iv) Availability of Dormitory
4 Degree of Satisfaction on the Choice Factors in relation to the Chosen College (i) Prestige 4 items (ii) Logistics 2 items (iii) Financial Consideration 2 items (iv) Institutional Characteristics 9 items (v) Source of Influence 7 items	4. Degree of Satisfaction on the Choice Factors in relation to the Chosen College (i) Prestige - 4 items (ii) Logistics - 2 items (iii) Financial Consideration - 2 items (iv) Institutional Characteristics - 9 items (v) Source of Influence - 7 items

Section 1 comprised questions pertaining to respondents' demographic information, such as 'gender', 'ethnicity', 'age', 'hometown', 'residence while attending college', and others

Section 2 was formulated based on the six categories established containing the 29 choice factors and two career aspiration factors. In this section (Factors in deciding a college choice of the Student Questionnaire versus Factors in helping your child in a college choice of the Parent Questionnaire), two career aspiration and four choice factors related to the availability of the field of study, programme of study and the structure of study, were classified under Study Option. The Prestige category contained four choice factors reflecting status of the programme of study, the twinning university and the college offering the twinning programmes. The Logistics category represented two choice factors indicating the location of the twinning university and the college. Fee and financial awards/aid were two choice factors classified under the Financial Consideration category. Institutional Characteristics contained nine choice factors referring to attributes of an institution, such as the availability of dormitory, college facilities, college environment, extra-curricular activities, college size, class size, quality of lecturers, friendliness of Enrolment Counsellors or Admissions Officer and the quality of Administrative Support Staff. The eight choice factors embedded in the Source of Influence category reflected various types of influences a student is subjected to parents' influence, student's decision, family members' influence, peers' influence, alumni's influence, high school counsellor influence, education consultant influence. The Source of Influence indicates an individual's ability in making a decision and the extent to which he or she is influenced by significant persons. An individual's ability in decision making is indeed an individual attribute. Another variable reflecting an individual's characteristic, namely "meeting the minimum entrance requirements" is also included in the Source of Influence Section of the survey questionnaires. To facilitate comprehension by respondents, the item "Source of Influence" is used in the survey questionnaire in lieu of "Individual Characteristics"

The Choice factors and Career Aspiration Factors (not for analysis purposes) of Section 2 were measured as a function of degree of importance by the five-point Likert Scale (from "Not Important", "Slightly Important", "Important", "Quite Important" to "Very Important"). This was followed by the ranking of the three most important factors among the 31 factors (29 choice and two career aspiration factors) presented

Section I examined students' and parents' degree of satisfaction towards the chosen college. It began with a question investigating the overall satisfaction level on their chosen college. This was followed by the four factors related to the Awareness of College Resources which were measured on a two-point scale consisting of "No" and "Yes", as college resources were either available or non-available.

The "Availability of the Field of Study" was not assessed for its awareness of availability as this aspect was covered by the assessment of the "Availability of Programme of Study" (the specialisation of a study is reflected in the "Programme of Study" chosen by a student)

Section 4 examined the degree of satisfaction with the chosen college. In this section, the respondents were asked to indicate their levels of satisfaction with the institutional and individual factors using a five-point Likert Scale (from "Not Satisfied", "Slightly Satisfied", "Satisfied", "Quite Satisfied" to "Very Satisfied.")

3.4.1 Results of Validity and Reliability Analysis

These questionnaire items were tested for validity and reliability using item-whole correlation and Cronbach's Alpha respectively

In the Student Survey, correlations of each item with the total <u>institutional</u> score yielded significant r values for all items on the Ratings of Importance. The results are presented in Appendix D, Table D1 Validity Analysis of the Ratings of Importance of Institutional and Individual Factors. Similar results were obtained in a validity analysis of institutional items in the Parent Survey.

Validity analysis of the individual factors indicated significant correlations for all items on the Ratings of Importance except "Student's Decision" in the Student Survey. While a low p value was observed for this item in the Parent Survey, it was significant at p < 0.05. These results are presented in Table D1 of Appendix D.

Validity analyses of the <u>institutional</u> and <u>individual factors</u> indicated significant correlations for all items on the Degree of Satisfaction in both the Student and Parent Surveys Results of Validity Analysis of the Degree of Satisfaction are presented in Table D2 of Appendix D

Reliability analyses of both the Student and Parent Surveys reported Alpha's values ranging from 0.73 to 0.92 on the (i) Ratings of Importance of Institutional Factors and Individual Factors, and (ii) Degree of Satisfaction of Choice Factors, as shown in Table D3. Appendix D. Thus, both questionnaires have indicated satisfactory reliability

3.4.2 Operational Definitions of Choice Factors

(A) Study Option

Availability of field of study – availability of the disciplines of studies a student undertakes which leads to his / her specialisation, for examples: Engineering, Computer Science / Information Technology, Accountancy, Management Studies, Economics, Mass Communication, and others.

- 2 Availability of the programme of study a course of study offered by a private college, for example: twinning programme with a particular university.
- 3 Availability of 3+0 option a twinning arrangement whereby a student can complete the entire three years of study at the local private college.
- 4 Timing of the start of the programme of study the duration between the completion of the previous course of study and commencement of the subsequent programme of study

(B) Prestige

- 5 Recognition of the programme of study by the Ministry of Education and/or Public service Department approval granted to programmes offered by institutions of higher learning needs the approval of the statutory authorities to ascertain its quality and relevance to the demand of various professions in the country.
- 6 Reputation of the Programme of Study prestige associated with the programme of study perceived by students or parents. The prestige referred to in this study includes good career prospects after graduation, achievements of alumni in terms of societal and career status, acceptance rates into good postgraduate schools.
- 7 Reputation of the twinning university prestige associated with the twinning university perceived by students or parents. The prestige measured in this study includes number of research publication by its faculty staff, quality of its teaching faculty.

Reputation of the college - prestige, as perceived by students or parents, of the private college offering the programme of study or how long the institution or college has been in existence

(C) Logistics

- Ountry of the twinning programme country of the partner university from which a twinning programme originates. This factor encompasses distance between home and the twinning university, and the currency exchange rate of country of the twinning university.
- 10 Location of the college proximity between student's home and the chosen college.
- (D) Financial Consideration
- 11 Fee tuition fee of the programme of study.
- 12 Availability of scholarship/financial aid availability of scholarship/financial aid provided by a private college or its twinning university as merit awards to outstanding students or as financial support to the lower income students.
- (E) Institutional Characteristics
- 13 Availability of dormitory hostel or residence/ rented home from a private college for its students' accommodation.
- 14 Facilities of the college facilities provided by the private college in support of a student's studies such as library, computer laboratories, and others.

- 15 College environment the perceived environment as a place of study measured in terms of types of students, cleanliness, safety.
- 16 Extra-curricular activities activities organised by a private college for its students' participation such as sports, clubs or societies, and others
- 17 College size the student population of a private college.
- 18 Class size the class size measured in terms of student-lecturer ratio.
- 19 Quality of Lecturers the faculty staff's qualifications, relevant experience, and their approachability.
- 20 Friendliness of Enrolment Counsellor/Admission Officer at the College the impression perceived by students or parents in terms of approachability, friendliness, informed knowledge of a college's Enrolment Counsellors.
- 21 Quality of the Administrative Support Staff support provided by administrative staff of a private college throughout a student's course of study.
- (F) Source of Influence
- 22. Parents' influence parents' influence over a student's college selection. This includes parents' advice and recommendation on the choice of a programme or an institution.
- 23 My decision /Child's decision the decision of a student on an institution.

- 24 Family members' influence the influence of extended family members over a student's college choice Extended family members refer to siblings, and others.
- 25 Peers' influence the influence of friends over a student's college choice. This influence includes friends' recommendation for a particular college or programme.
- 26 Alumni influence the influence of former graduates of the same university or programme over a student's college choice. Such influence encompasses an alumni's recommendation of a college, or alumni's career achievements which inspires the student
- 27 High School Counsellor influence the influence of former high school counsellors over a student's college choice selection
- 28 Influence of Education Consultant the influence of an Education consultant at any private education service centre over a student's college choice.
- 29 Meeting the minimum entrance requirements minimum entrance requirements set by an institution which a student needs to meet in order to be granted admissions.
- 3.4.3 Operational Definitions of Demographic Factors and Academic Ability in the Ouestionnaires

The following were key terms in the questionnaires. Definitions of the respective key terms are presented below:

Gender. Gender of students

Jender of Parents/Guardians. Gender of natural or adoptive parents or legal guardians of the students (Quade, 1994)

Relationship. Relationship between the student and the parent/guardian respondents

Student Age Group. Students' age was categorised into three groups: Group 1 (17 to 19 years old), Group 2 (20 to 21 years old) and Group 3 (22 + years old).

Year of Study. The student's current year of study in the undergraduate programme. The two twinning programmes under study were 3-year first degree programmes. Students indicating Year 4 in this survey were those studying a second specialisation in an undergraduate degree.

Academic Ability. Students' academic ability was based on a student's admission status and his/her English and Mathematics results at SPM/"O" Level. During data coding, Normal Status was assigned "1" whilst Conditional Status was assigned "2" for Question 11, Admissions Status of a student. Similarly, for Question 12 (1) English results (2) Mathematics results, the following codes were assigned for both English and Mathematics results: grades of A1 and A2 were assigned "1", C3 and C4 were assigned "2", C5 and C6 were assigned "3", and P7 and P8 were assigned "4". These 3 items of a student were then added up based on the codes assigned for the

These 3 items of a student were then added up based on the codes assigned for the above questions. If a student obtained a code of three, he or she was considered a 'Good' student. If a student obtained a code between four and six, he or she was considered an 'Average' student. If a student obtained a code between 7 and 10, he or she was considered a 'Poor' student. Table 3.6 depicts the Coding Process of Academic Ability. Table 3.7 presents Academic Ability Status as a Function of the Summation of Coding.

Table 3.6 Coding Process of Academic Ability

Admission Status	Code Assigned (a)	English Results	Code Assigned (b)	Maths Results	Code Assigned (c)	Summation of Codes (a)+(b)+(c)	Academic Ability
Normal	1	A1 A2	1	A1 A2	1	3	Good
Normal	1	C3 C4	2	C3 C4	2	5	Average
Conditional	2	C5 C6	3	C5 C6	3	8	Poor
Conditional	2	P7 P8	4	P7 P8	4	10	Poor

Table 3.7 Academic Ability Status as a Function of the Summation of Coding

Permutation of the	Codes Representing	Status of Academic Ability
Summation of Codes	Academic Status	
(a) + (b) + (c)	(a) + (b) + (c) =	
1+1+1	3	Good
1+1+2	4	Average
1 + 2 + 2	5	Average
2+2+2	6	Average
1+3+3	7	Poor
2 + 3 + 3	8	Poor
2+3+4	9	Poor
2 + 4 + 4	10	Poor

3.5 Procedure for Survey Administration

The researcher sought consent from five private colleges in the Klang Valley to carry out the survey. The purpose of the survey together with the College Choice Student Survey (Appendix A), the College Choice Parent Survey (Appendix B) and the covering letter to parents/guardians were sent to the Senior Management of these five colleges. One month before the survey, all four colleges rejected the researcher's

pplications except a private college located in the Klang Valley, Selangor, Malaysia herein after it shall be referred to as College A).

College A imposed a condition that the researcher was to remain anonymous as she was a staff member. The researcher hired a research assistant to conduct the survey on her behalf. The research assistant, male, aged 22 was a third year student in another private college in Subang Jaya. Briefing was provided by the researcher to the research assistant on how to conduct a questionnaire survey, the purpose of the study, the objectives to be achieved and on survey administration procedures.

The survey started on 18 March 2002 and lasted for 3 weeks in College A. To ensure the student samples covered students from different years of study, the College administrators had selected classes to be surveyed. The research assistant entered each scheduled class during the last 15 minutes. Students were briefed about the purpose of the study, the two components (student and parent) of this research, and the importance of the research findings to the public. The questionnaires were distributed by the research assistant after the briefings and the completed questionnaires were collected back immediately. When respondents submitted the completed survey individually to the research assistant, he handed to each respondent an envelope containing a covering letter to the parents/guardians, the College Choice Parent Survey and a postage-paid envelope addressed to the researcher. Student respondents had the liberty not to accept the Parent Survey envelope. For those who took the Parent Survey, they were asked to pass the College Choice Parent Survey to his/her parent/guardian for completion. Instructions on how to return the completed College Choice Parent Survey were given at the start of the student survey. The same instructions were also stated in the covering letter to parents/guardians and these were again printed at the end of the College Choice Parent Survey questionnaire. Channels for returning the completed Parent Survey by parents/guardians were: (1) to the research assistant stationed at College A through their child/ward, (2) to be dropped in a Survey Box placed in the offices of Programme I and Programme II through their child/ward, (3) by post using the enclosed postage-paid envelope addressed to the researcher. At the end of the survey period, the research assistant was stationed in College A for another two weeks, from eight to 20 April, 2002 to receive the completed questionnaires from students.

3.6 Survey Samples

This section describes the two samples of the survey, namely student and parent samples.

3.6.1 Student Survey Sample

The sample population comprised students in College A. At the time of the study, College A had an undergraduate student population of 867. Table 3.8 presents a breakdown of the student population of College A by Nationality, Ethnicity, Gender and Programme. As shown in Table 3.8, 95.8 % of the students were Malaysians with 87.5% Chinese, the highest ethnicity among all races in the College. The gender ratio at College A was 43.4% males and 56.6% females. College A specialises in Business Studies and Information Technology related courses. It offers two twinning programmes of foreign university (herein after the two twinning programmes shall be referred to as Programme I and Programme II). Students sampled in this study were students from Programmes I and II ³. Programme I had a student population of 191 whilst Programme II comprised 676 students.

The student questionnaires were administered to 363 undergraduate students from Year 1 to Year 4 in both Programmes I and II. Of the 363 questionnaires administered, 260 students i.e. 72% of students completed and returned the questionnaires. Among the

260 respondents, 147 Programme I students and 113 Programme II students participated n the survey.

From the survey, it was found that 96.9 % of the student sample were Malaysian nationals among whom 90.5% were Chinese. The gender ratio of the student sample was 35.8% males and 64.2% females. In terms of nationality and highest ethnicity, the survey sample was representative of College A undergraduate student population. The survey sample composition is presented in Table 3.8

³ Programme I is an Australian undergraduate programme and its twinning university is located in Melbourne. Programme I twinning university is renowned for its Business, Design and Architecture, and Information Technology courses. Programme I has all its courses offered at College A approved for 3+0 structure by the Statutory Bodies. Programme II is an Australian undergraduate programme and its twinning university is situated in Perth. Programme II twinning university is reputed among Western Australian universities for its Business Courses. Programme II courses are offered under the arrangements of 1+1, $1 \frac{1}{2}+1 \frac{1}{2}$, 2+1, $2 \frac{1}{2}+\frac{1}{2}$, 3+0 structures as not all its courses offered at College A have been granted 3+0 option by the Statutory Bodies.

Γable 3.8 Demographic Information of College A's Undergraduate Population and the Student Samples

	College A		Student Sample		
	(N)	(%)	(N)	(%)	
Nationality					
(1) Malaysian	831	95.8%	252	96.9%	
(2) Others	24	4.207	8	3.1%	
	36	4.2%	8	3.176	
Ethnicity					
(1) Malay	36	4.2%	11	4.2%	
(2) Chinese	759	87.5%	235	90.5%	
(3) Indian	27	3.1%	4	1.5%	
(4) Others	45	5.2%	10	3.8%	
Gender					
(1) Male	376	43.4%	93	35.8%	
(2) Female	491	56.6%	167	64.2%	
Programme					
(1) Programme I	191	22.0%	147	56.5%	
(2) Programme II	676	78.0%	113	43.5%	
Students' Residence While Attending College A			College A		
			(N)	(%)	
(1) Parents' Ho	ouse		151	58.3%	
(2) Relatives' House			14	5.4%	
(3) Friend's House			1	0.4%	
(4) Renting a Room			93	35.9%	
(5) Dormitory			0	0.0%	

3.6.2 Parent Survey Sample

A total of 327 College Choice Parent Survey questionnaires were distributed to student respondents. Of the 327 surveys distributed, a total of 58 parents/guardians (a return rate of 18%) completed and returned the College Choice Parent Survey questionnaires. This parent sample comprised parents or guardians of student respondents in the

tudent Survey from College A. It was not possible to identify student-parent/guardian elationship because anonymity was observed for these two samples.

The parent / guardian sample comprised 100% Malaysians with 86.2 % Chinese. The gender ratio of parents/guardians was 46.6 % males and 53.4% females. 51.7% of the espondents were parents of Programme I students whilst 48.3% were of Programme II students. Findings showed that 98.3 % of the respondents represented parent-student relationships whilst only 1.7% were of the guardian-sister relationship.

Γable 3.9 presents a breakdown of Parent Sample by nationality, ethnicity, gender, programme and relationship with student respondents.

Table 3.9 Demographic Information of Parent Sample

	Parent Sample		
	(N)	(%)	
Nationality			
(1) Malaysian	58	100.0%	
(2) Others	0	0.0%	
Ethnicity			
(1) Malay	0	0.0%	
(2) Chinese	50	86.2%	
(3) Indian	6	10.3%	
(4) Others	2	3.5%	
Gender			
(1) Male	27	46.6%	
(2) Female	31	53.4%	
Programme			
(1) Programme I	30	51.7%	
(2) Programme II	28	48.3%	
Relationship			
(1) Parent-Student	57	98.3%	
(2) Guardian-Sister	1	1.7%	

3.7 Procedure of Survey Data Analysis

3.7.1 Coding

The questionnaires were coded and entered into the system by the researcher. The following codes were assigned to the five-point Likert Scale during the coding process:

Under Section 2 of Choice Factors for all six categories, the degree of importance of 29 choice factors and two career aspiration factors were assigned the following codes - "Not Important" was assigned "1", "Slightly Important" was assigned "2", "Important" was assigned "3", "Quite Important" was assigned "4", "Very Important" was assigned "5"

Under Section 3 of the Resource Availability for the Study Option category - "No" was assigned "1", "Yes" was assigned "5".

Under Section 4 of Choice Factors for the remaining five categories (Prestige, Logistics, Financial Consideration, Institutional Characteristics, and Source of Influence) – the degree of satisfaction on the choice factors of the attending college were assigned the following codes – "Not Satisfied" was assigned "1", "Slightly Satisfied" was assigned "2", "Satisfied" was assigned "3", "Quite Satisfied" was assigned "4", "Very Satisfied" was assigned "5".

3.7.2 Variable Selection for Data Analysis

The following demographic characteristics and variables from the Student and Parent Survey were analysed:

From the Student Survey, the following variables were analysed:

The independent variables used in the analysis of the student data included factors taken from the "Demographic Information" section: gender, age, year of study, academic ability.

- (1) Under the section "Factors in Deciding a College Choice" the 29 choice factors listing the attributes of institutions and individual characteristics.
- (2) Under the section "Degree of Satisfaction" the "Overall Satisfaction Level "on the chosen college; the degree of satisfaction on the 24 items listing the institutional and individual factors. Note that the individual factor, "Meeting the Minimum Entrance" is not assessed for its degree of satisfaction as all respondents in this survey have met the minimum entrance requirements and hence have qualified to study at College A where this survey was conducted.

From the Parent Survey, variables from the following section were analysed:

- (1) Under the section "Factors in Helping Your Child in a College Choice" the 29 variables listing the institutional and individual attributes.
- (2) "Degree of Satisfaction" the "Overall Satisfaction Level" on the child's chosen college; the satisfaction level on the 24 institutional and individual factors, excluding the item on "Meeting the Minimum Entrance requirements". Of note is that all respondents in this survey were parents of students at College A who are qualified to enter this college where the research was conducted.

3.7.3 Method of Survey Data Analysis

Using the Statistical Package for the Social Sciences software package version 10.0, data from the survey were analysed to yield (a) frequencies for demographic information such as gender, age group, year of study and academic ability, (b) descriptive results (frequencies, means and standard deviations) for the degree of importance and satisfaction on the choice factors with the chosen college.

The two student samples of Programme I and Programme II were analysed using ANOVA to investigate whether they were equivalent in terms of gender, age group, year of study and academic ability.

To analyse Hypothesis 1, ANOVA was performed on the mean ratings of 29 choice variables with gender as the independent factor. Means ratings of both gender were compared to investigate whether these choice variables were significantly different from one another.

To test Hypothesis 2, ANOVA was performed on the 29 choice variables using age group as the independent factor. The mean ratings of the three age groups were compared to examine whether significant differences exist among these choice factors.

To analyse Hypothesis 3, ANOVA was carried out on the 29 choice factors with year-of-study as the independent factor. The mean ratings of the three year-of-study groups were compared to indicate whether these choice variables were significant different from each other.

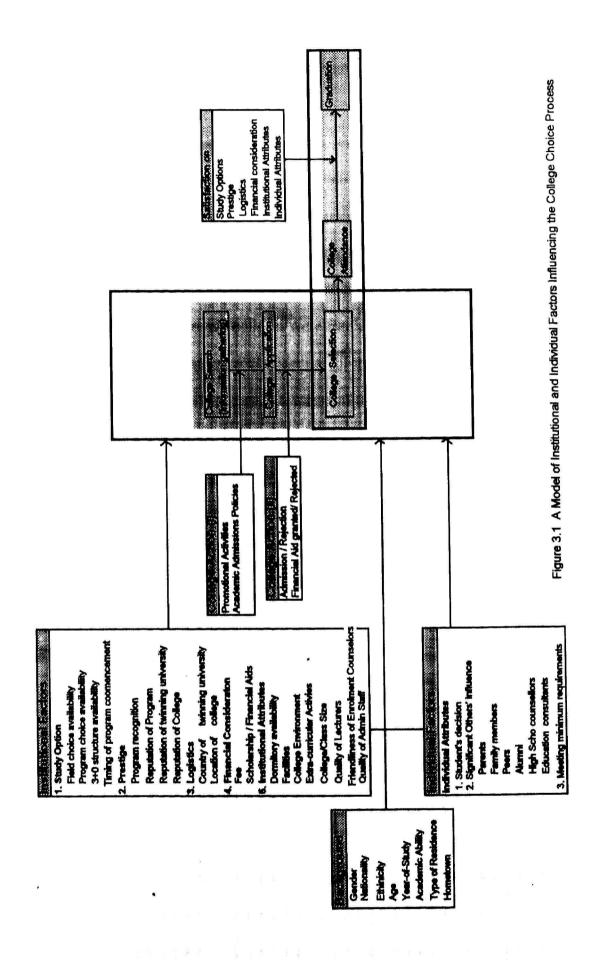
To test Hypothesis 4, ANOVA was performed on the 29 choice factors using academic ability as the independent factor. The mean ratings of the three academic-ability groups were compared to examine whether there was any significant difference between these choice variables as a function of academic ability.

Hypothesis 5 was tested using ANOVA to compare the means of the student and the parent ratings for each choice factor and to indicate whether these factors were significantly different from each other. Using the combined data of student and parent samples as the independent variable, ANOVA analysis was performed on the 29 choice -factor ratings of students and parents.

To analyse Hypothesis 6, Multiple-regression was performed separately on the importance ratings of choice factors of student and parent samples against the total satisfaction level (dependent variable) of College A. Coefficients obtained from Multiple-regression are used as indications to assess the extend to which choice factors of students and parents contribute to "Total Satisfaction" with College A. The "Total Satisfaction" of students and parents towards College A were computed by the summation of the degree of satisfaction on the 24 choice factors. "Total satisfaction" of students and parents were computed separately.

3.8 Model of the Study

Some items in the "Background", "Institutional Factors", and the "Individual Factors" of the proposed model presented in Figure 2.3 of Chapter 2 had been replaced by choice factors and categories established in the survey questionnaires. Figure 3.1 presents the Model of Institutional and Individual Factors Influencing the College Choice Process developed and used in this study.



3.9 Problems Encountered

3.9.1 Problems Encountered during Student Survey

In order to understand and identify the influential institutional and individual factors in the college choice process, 21 out of 29 choice variables in the study probed into students' and parents' perception of and the level of satisfaction of the institutional attributes of the college where the survey was conducted. As the researcher was working for a private college, all four colleges except College A where she worked, refused permission for the survey to be conducted. Despite the researcher's reassurance that the results of this survey were for academic purposes and that confidentiality would be observed, these four private colleges were fearful that the researcher, being a staff of their rival college, was gathering confidential information on their students and parents for other purposes. Such apprehension was confirmed by the refusal of her friend, the Chief Executive Officer of one of the four colleges disallowing the survey to be Reasons provided by these colleges for disapproving the conducted in that college. survey to be carried out at these colleges were: (1) the survey might alert their students and parents to certain attributes which these colleges were lacking (for instance, whether the Programme offered was recognised by the Ministry of Education and JPA, and others), (2) the survey was a means to gather confidential information by another competitor college, (3) demographic information and responses of students and parents were confidential data of their clients and of these colleges, (4) the survey might reveal the weaknesses of a college to its competitors (measured by the fourth section in the questionnaire: the satisfaction level of students and parents towards their chosen college).

As a result of the above constraints, the survey was confined only to one private college. As the researcher was a staff of the college where the survey was conducted, the Senior Management of College A had asked the researcher to remain anonymous so

as to avoid misinterpretation by students or parents that this exercise was initiated by College A. College A further advised that information such as parental education level and parental income (measure of Socioeconomic Status - SES) was not to be collected as this was sensitive personal information of their clients'. Thus, the two independent variables, parental educational level and the parent's SES were dropped from the original survey designed by the researcher.

To remain anonymous, the researcher had engaged a research assistant to administer the survey. College A scheduled classes consisting of Year 1 to Year 3 students. The research assistant was to administer the survey in the last 15 minutes of these scheduled classes. College A had instructed that the survey was to be administered once in each of the scheduled classes. Hence the number of respondents in each session would depend on the attendance of the specified classes on that day, and the willingness of these students to participate in the survey. This rule laid by College A had limited the actual number of respondents as not all students were present for classes during the 3 weeks when the survey was conducted.

3.9.2 Problems Encountered during Parent Survey

A College Choice Parent Survey questionnaire was distributed to each student respondent at the end of every survey. It was common for many of the student respondents to refuse to take home a copy for their parents' participation. Other difficulties included parents' unwillingness to participate or parents' failure to return the completed questionnaires by post or through their children/ward to the research assistant stationed at College A, or through their children/ward by dropping it in the Survey Box placed in the offices of Programmes I and II. The final number of respondents in the College Choice Parent Survey was small (58). Hence, it may not be accurate to generalise the results of this parent survey.

3.10 Summary

The two instruments formulated for this study - the College Choice Student Survey and the College Choice Parent Survey - had been designed to investigate the significance of various choice factors based on several studies of previous researchers and on the exploratory interviews conducted by the researcher. The survey also examined the degree of satisfaction of both students and their parents with the respective choice factors of the chosen college.