CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, research design, data collection, sampling frame and analysis procedure will be discussed in order to meet the objectives of the study. Descriptive research is being used to attempt to describe the characteristics of the population through the information obtained from the questionnaire which is the primary data. Data collected were then analysed through various form of analysis such as factor analysis, reliability of scale, descriptive statistics and hierarchical multiple regression.

3.2 Questionnaire Design

The questionnaire is divided into two sections. Section A is developed for the Supervisors and consists of thirty two questions. Here the supervisor is asked on their opinion in regards to the student's performance and abilities under their supervision. For example, do they agree that this student is able to carry out the responsibilities assigned to him/her? Section B is developed for the students and is divided into two parts - Part (1) and Part (2). Part (1) consists of five questions which is about collecting information about the respondent's profile or rather the demographic factor. Part (2) actually consists of one hundred and twenty three questions, where respondents are asked on about their perception relating personality, peer relations, attitude towards school, emotional intelligence and cultural orientation.

Likert scale which is also known as Summated Rating Method developed by Rensis Likert is used in Section A and Part (2) of Section B. Respondents are to answer on how strongly they agree or disagree with the constructed statements in the questionnaire. In this questionnaires respondents' are allowed to choose from seven alternatives namely from 1 = strongly disagree up to 7 = strongly agree.

3.3 Sampling and Procedure

Sampling is a process of using a small number or a portion of the population to make conclusion about the population. Cooper and Schindler (2006) described sampling as the process of selecting some elements from a population to represent that population. As far as population is concerned, is important for us to determine on the size of the sample to ensure that would generate statistically generalisable result. Thus, the number of academic employees and students in UCSI University is sufficient for us to conduct this research and the sampling design process consists of the following;

Once the decision to sample has been finalized the first thing is to identify the target population. Population according to Zikmund (2003), is the complete group of specific population elements relevant to the research project. Therefore in this research the target population is UCSI University which began as the Canadian Institute of Computer Studies in 1986 until in September 2008 it was fully conferred full university status by the Malaysian Ministry of Higher Education. A total of 45 academic programmes is being offered by UCSI university through it five faculties namely Faculty of Medical Sciences, Faculty of Applied Sciences, Faculty of Engineering, Architecture and Built Environment, Faculty of Management and

Information Technology and Faculty of Music, Social Sciences and Design. Today it has about approximately 9000 students which are from locally and internationally.

Sample can be defined as a subset or some part of a larger population and sampling frame is actually a list of elements in which the sample may be drawn. Therefore in actual fact this list acts as the working population for this research because in sampling the process involves using a small part of the whole population to make conclusion about the whole population.

The sampling frame here consists of three hundred sixty six students and one hundred and twelve lecturers who act as the supervisor for them. These students are selected because they are working for the university either as a co – operative assignment or as a scholarship student. They are each assigned a supervisor to oversee their work assignment. As most of them are scholarship students, therefore they need to contribute back to the university. Their contribution would be in the form of work assigned to them by the supervisors. It is through this supervision, the supervisors will be able to gauge the performance of these students.

Basically there are several ways of taking a sample and normally it is group into probability and non probability sampling. In probability sampling, every element in the population has a chance of being selected or in other words it is called a known non - zero probability of selection. As compared with probability sampling, in non probability sampling, the chances of every element in the population selected are not known.

The sample technique select for this research is a non probability sampling known as judgment sampling. Judgment sampling occurs when the researcher select the members from the sample because they conform to certain criteria. In other words, the researcher is using her experience to select the individual based on her judgment about the required characteristics of the sample members. This sample was selected because of the following:

a) most of the respondents are scholarship students.
b) they have work assignment given to them and a supervisor is assigned to monitor their progress.
c) the work assignment matches the objective of this research because it is through the work assignment, supervisors can monitor the students personality, relations with peers, attitude towards this school as a learning institution and their emotional intelligence.

The sample size consists of four hundred seventy eight respondents of which three hundred sixty six are students and one hundred twelve supervisors who are currently studying and working in UCSI University respectively and the respondent's list of the is provided by the Student's Affairs department, in which the Director has approved for the use of this research. The list consists of the respondent's name, identification number, contact number, their current semester together with what courses which they are taking. Lastly other information which is on the list is their personnel e – mail address which is indeed very helpful to the researcher.

3.4 Data Collection Procedure

Data collection can be carried out in a variety of ways, in different environment or setting and most important from different sources. In fact, they are many ways to collect data such as distributing questionnaires, conducting personal interview, through observation of individuals either with or without recording and publications of journal. Here in this research, primary data were collected by using structured questionnaires and secondary data is obtained from publications of journals, textbooks, newspaper, the Emerald and the ProQuest website.

Before the sampling process takes place, a pilot test was conducted to serve as a guideline before the larger study is conducted. The data collected here are informal and any findings will serve as a guide for the researcher to modify the questionnaire accordingly.

Based on the list, the three hundred and sixty six students were contacted through e-mail by the researcher and the questionnaire was given using the self-administered questionnaire technique through e-mail attachment to the e-mail address stated on the list. Meanwhile, the one hundred and twelve supervisors on the other hand were given the questionnaires personally by the researcher. The researcher delivered the questionnaires to the supervisors in the various departments of the university.

The reasons for choosing to send the questionnaire to students via e-mail are as follows:

i) It was almost during semester break and all the students would be going back to their home towns or going away for holidays.

ii) Due to the students being at various faculties across both campuses, it was not possible to meet or gather the students at one location to administer the questionnaire. All the students have differing time tables and classes.

iii) It is faster to administer and to obtain response from respondents.

iv) It is cheaper as it does not involve any cost in distribution or collection.

Zikmund (2003), mentioned a few benefits of incorporating a questionnaire in an e-mail. This includes the speed of distribution, lower distribution and processing costs, faster turnaround time, increased flexibility and less handling of paper questionnaires.

For the supervisors, the researcher used self-administered technique where the questionnaire for the supervisors were printed and matched with the respective students they were supervising. Therefore the supervisors each received a set of questionnaire for each of the students they supervised. For example if supervisor A is supervising 3 students, he/she will receive 3 sets of questionnaires as they need to be evaluated against the individual student.

They are some difficulties in obtaining back the questionnaires from the students as some of the e mail addresses were no longer valid and the researcher had to contact the students by telephone to obtain their current e-mail address. The process took about a month as most of the students were either on semester break or currently doing their co-op work with external companies and some of the students is currently at their home town in which they do not have internet facilities. Of the total student questionnaire sent out, one hundred eighty nine students responded via return e-mail of the survey, which is about fifty two percent. Of this one hundred eighty nine students who responded only one hundred sixty nine can be considered as the balance of twenty students could not be matched with the supervisors. The researcher discovered during the course of conducting the survey, that some of the supervisors had not even seen the students before or would have either left the institution or were on maternity leave. This also explains the number of supervisors who responded. Of the one hundred and twelve supervisors listed only seventy two responded which is about sixty five percent.

3.5 Selection of measures

This section will explains how the research variables were measured.

a) The Big 5 Personality Traits (student personality)

Under this variable, forty questions are listed in the questionnaire for the respondents to indicates the importance of Personality Traits in relations to themselves using a 7 – point scale which is from 1= strongly disagree to 7 = strongly agree. The questions basically cover area about the personality of the respondent's such as how do they handle stress, their time management, are they outgoing and full of energy or do they tend to be lazy and lack of enthusiasm.

b) School Attitude Assessment Survey – School Factor

As comparison with Personality Traits, they are thirty four questions in School Factor which highlight on how important is the school factor to the respondents.

Areas which is being asked here is about their opinion about the lecturers, university environment and lastly about their commitment towards their own studies. Respondents are to indicate the importance of each question using the 7 – point scale.

c) Emotional Competence Inventory – Emotional Intelligence

Unlike the above two variables, this variable here seeks to find out how the respondents handle their emotions in different setting or environment. Areas such as do they need someone to praise them when they get their job done or when they are feeling crappy, they do not know what the reason behind it are. Worst still if they mess up the situation, how they would react to it. Overall the seventeen questions in this variable are for the respondents to indicate on the relative importance of Emotional Intelligence using the 7 – point scale.

d) Peer Relationship

This variable intends to identify how the respondents perceive the importance of Peer Relationship in their current university life. Do they enjoy participating in the extracurricular activities and what type of students they prefer to mix with such as those who share similar interest in their study, those with leadership or those who just hang around doing nothing. Also the respondents are asked on their opinion how well they contribute to group discussion. As compared with the three variables above, this variable only has ten questions for the respondents to answer using the 7 – point scale.

e) Cultural Dimension Item – Cultural Orientation

The last variable used in this research is on the area of cultural and it consists of twenty two questions. Basically it seeks to identify on how the respondents view group as compared to individual, such as is group success or group welfare more important than individual's success or individual welfare. The respondent also is asked on their opinion in regards to group acceptance. On the other note, the importance of culture in working environment is also being address in this section. Questions such as how managers and employees should behave and carry themselves in the work place are also being asked to the respondents. Issues such as loyalty, power, decisions, rules and regulations and gender are some of the areas being raised here.

Table 3.1

Source of questionnaire and Cronbach Alpha value.

Dimension	Item number in questionnaire	Source (Year)	Reliability reported in previous studies
Big Five	44	**Kusterer (2009)**	.75 to .9 and average above 80
School Factor	25	**Kusterer (2009)**	at least .70 or higher.
Peer Relations	7	**Kusterer (2009)**	.73 and .62
Cultural	22	**Clugston, Howell, Dorfman (2000).**	power is .70 uncertainty is .81 Collectivism is .77 Masculine is .86

3.6 Data Analysis Techniques

In this data analysis, the following methods or techniques were used which is factor analysis, reliability of scale, descriptive statistics for demographic and hierarchical multiple regression.

a) Factor analysis

Concepts such as intelligence cannot be measure directly and often this is true in social science research, where we cannot measure directly on the variables of major interest. Therefore factor analysis was developed by Charles Spearman (1904) to discover the unobserved traits or latent traits, which is also known as factors. These factors are not directly measurable but instead hidden random variables which presume to indicate the subject performance on a given set of observed variables

For example in this research, one of the objectives is to determine the role of emotional intelligence in soft skills development and within the Emotional Intelligence variable seventeen questions were prepared for the respondents to answer. But do the seventeen questions really fall into this variable or not? Thus, the purpose of factor analysis is to summarize this information into a smaller set of data without any loss of information. At the end of it, maybe only thirteen questions are related to emotional intelligence while the other four are related to other variable.

Overall, factor analysis seeks to explain the correlations among the set of variables use in this research. They could be a link or even no link at all between these variables such as does personality and relationship with peers influence soft skills development. If correlations do exist among these two variables, then the next step is to determine can this correlation be explained by a common dependence or other variables.

b) Reliability test

Reliability is defined as the degree to which measures are free from error and therefore yield consistent results (Zikmund, 2003). Therefore if we apply reliability over time and across situations, the result has to be similar. Cooper and Schindler (2006), explained that reliability is a necessary contributor to validity but is not a sufficient condition for validity.

The best method to measure internal consistency reliability is Cronbach's Coefficient Alpha because it is a common measure used to estimate the reliability of indicators. According to Hair, Black, Babin, Anderson and Tatham (2006), a coefficient alpha was computed and the result was compared with the 0.7 level recommended as reliable. Is important to ensure the characteristic of measurement are accurate and precise and consistent to support the validity of the measurement used. If the test is not valid, then the result of this research cannot be used at all.

c) Descriptive statistics for demographic

Descriptive statistics were used to summarized or describe the information such as who, where, what, when, and how about a sample or population. Basically there are few alternative methods to explain and present the data forward and one of them is identified as frequency distribution. Since a large number of questionnaires were send out to respondents, the data need to be collected back will definitely be huge. Therefore, frequency distribution will organize and summarized the data into number of times a particular value of a variable occurs. It is to obtain the number of responses associated with different values of one variable and to express these counts in percentage terms.

d) Hierarchical multiple regression

According to Cooper and Schindler (2006), multiple regression is used as a descriptive tool in three situations as listed below:

1. It is used to develop a self-weighing estimating equation to predict values for a dependent variable from the values for several independent variables.
2. Controlling the confounding variables to better evaluate the contribution of the other variables.
3. To test and explain causal theories.

Multiple regressions are a statistics techniques used to analyze the relationship between a single dependent variable and few independent variables. Thus the objective of using multiple regressions is to predict the dependent variable from one or more independent variables. However, if the research only involves one dependent variable and one independent variable, the statistics technique is referred as simple regression. If the research involves experimental study, the variables are referred as independent variable (IV) and dependent variable (DV). But if is a non – experimental study, the variables are called predictors and criteria variable.

Since this research has identified four independent variables which is personality, peer relations, school factor and emotion intelligence together with soft skills as a dependent variable, multiple regression analysis is the most suitable statistics techniques to analysis the relationship between them. However an important point to note is that both the variables which is the independent and the dependent has to be continuous scale at interval or ratio. Interval scale is use to measure the distance in units of equal intervals, besides arranging the units in order according to their magnitudes. For example, as far as interval scale is concerned forty eight is not four times greater than twelve. It is just the interval distance of four times greater. Similarly, in this study the researcher can only indicates the magnitudes of each independent variable towards the dependent variable, but it cannot determine the actual strength of each independent variable towards the dependent variable. Assuming that both personality and emotional intelligence has an influence towards soft skills development, but it will not be able to explain which one has the greater influence on soft skill development.

All the data collected through the distribution of the questionnaire are computed into the computer using Statistical Package for Social Science (SPSS) Program Version 17.0. Findings for all variables are reported in the tables and written description.