

Understanding First Year Undergraduate Achievement in a Post-1992 University Science Department

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Abstract

The purpose of this study was to address the under-researched theme of achievement among students in a post 1992 university in the UK. The findings are based on a case study of a cohort of first year (FY) undergraduates in a science department in a post 1992 university. Three key research approaches were deployed within this case study, namely, grounded theory, phenomenography and survey research. These three distinctive approaches have been framed within a broad interpretivist perspective in which subjectivity is managed through researcher positionality and the triangulation of data where appropriate.

The research findings demonstrate that the point of registration at higher education (HE) institutions does not constitute a successful student because such a constitution is a process of becoming, involving complex meaning-making processes over time. These processes are characterised by a movement from 'outsider and potential achiever' to 'insider and reflexive achiever'. Important phases within this movement are those of: attending; being engaged and solving self-identified difficulties. In the light of the evidence gathered and the review of the existing scholarship, a detailed exploration and theorisation of these phases is offered.

The preoccupation with students who fail in some way has led to a lack of research into those who succeed. This research has sought to overcome this lack by exploring the active meaning-making processes that lead undergraduates to achieve. A dynamic is identified between students' reflexive management of their FY experience and aspirations to achieve and the institutional context. This dynamic is also held to undermine the notion of students as customers awaiting satisfaction, suggesting instead that students be regarded as reflexive actors in the shaping of undergraduate achievement. This study presents a novel alternative to the prevalent deficit model in the relevant research which tends to treat students as passive bearers of diverse

levels of readiness for undergraduate study. It also offers an alternative to the prevailing research on why students fail to progress or stay at university.

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Chapter 1 Introduction

1.1 Research Project Initiation Context

Current Higher Education (HE) in the UK has changed from an elite system to an educational system embracing wide access. In the early 1960s, only 6% of the under 21 age group went to university in England; while in 2003 the figure for people between the age of 18 and 30 entering HE increased to around 43% towards a target of 50% by 2010 (DFES, 2003). There have also been changes in the UK undergraduate population, which comprise an increasing number of mature students and students from under-represented groups. For example, 23% of the full-time first degree students start HE at or over 21 years old. The percentage of young undergraduates from low socio-economic backgrounds also increased by 1.5% from the academic year 2002-03 to the 2007-08 academic year (HEFCE, 2009).

The great expansion of HE and the changes in the nature of the undergraduate population in the UK cannot be separated from the widening participation (WP) policy, which has been introduced into UK HE since the 1990s. WP is defined as 'extending and enhancing access to HE experiences of people from so-called under-represented and diverse subject backgrounds, families, groups and communities and positively enabling such people to participate in and benefit from HE' (Watson, 2006, p.4). It aims to provide university study opportunities for everyone who has potential and can benefit from HE irrespective of their demographic background. WP has become a national strategic aim in the UK due to the critical role played by HE in the country's social and economic development and it is believed to benefit the nation by improving social justice and enhancing its global economic competitiveness (HEFCE, 2009).

However, the emphasis on widening participation also brings universities great challenges caused by an increasingly diverse student body. Here, the notion of

a diverse student body means the wide ranges of differences in current students groups in HE, such as the differences in students' age, social classes and ethnic backgrounds. This is different from the more specific way of using "student diversity" in the literature referring only to traditionally under-represented groups in HE (Hockings, 2010). The diversity of the student body challenges the suitability of traditional academic perceptions and pedagogical theory whose formulation was developed within the context of traditional HE students. Such students were typically white, recent high-school learners from middle class families. "Academically engaging" more diverse student body is hard to accomplish (Hockings, Cooke and Bowl, 2007). Issues like students' transition and integration into life in HE have emerged as "problems" in student HE experience. One of the most critical issues coming out of this context is student non completion rates, especially among FY undergraduate cohorts. According to reports from the Higher Education Statistics Agency, FY undergraduate dropout rate in UK universities was 14.3% for mature students and 7.1% for young students during the academic year 2005/06, which increased respectively to 14.8% and 7.4% during the academic year 2007/08. The increasingly high FY undergraduates' dropout rate and the inclusion of course completion rates in the funding allocation process (HEFCE, 2007) make the FY undergraduate experience one of the most researched fields in UK educational studies.

1.1.1 The Significance of the FY Undergraduate Experience

The prevalence of research on the FY undergraduate experience is not constrained within UK HE. A large body of research on the FY undergraduate experience dates back to the 1970s and has become an increasingly relevant issue in many countries for the last two decades. Various national and international research projects have been initiated to improve the FY undergraduate experience all over the world, such as The First Year Experience Project at the University of Queensland in Australia, The STAR (Student Transition and Retention) Project in the UK and the multi-site international project on argumentative skills in first year undergraduates (Andrews *et al*, 2006). The reason for all this research effort is because it has

been widely acknowledged that undergraduates' FY experience in HE is critically important, both economically and educationally, for individual students, institutions as well as the whole of society (Adamson and McAleavy, 2000).

Three levels of economic loss can be caused by FY undergraduates' dropout. For individual students, entering FY HE requires them to pay tuition fees and other related costs as well as to contribute time to academic study instead of paid jobs. Therefore, withdrawal from FY HE means they pay all the above financial cost for no tangible return. At an institutional level, students' recruitment and enrolment both need great financial investment. Apart from this cost, failing to progress students onto the second year means even more financial loss such as tuition fees and accommodation rent. While considering the issue at a social level, each undergraduate position in the university is generated and partly funded by social tax and hence FY undergraduate non completion leads to financial waste in terms of generating study opportunities. Further, it also means financial loss for the future social economy because graduates are more likely to gain employment and less likely to be social benefit claimants than those who do not have a degree (Swail, 2004).

Viewing the FY undergraduate experience from an educational perspective, it can be argued that FY HE is the transition stage which prepares for undergraduates' further development in HE. They adjust into university life and learn to develop themselves into independent learners during FY HE. Undergraduates' FY performance also, to some extent, indicates their future performance in the rest of their university study (Harvey, Drew and Smith, 2006). Therefore, being successful in FY HE means a better chance of development for individual students in the rest of their university study. Meanwhile, enhancing the FY undergraduate experience also enables institutions to provide effective and high quality educational experience in the future. Finally, the FY HE experience, together with other stages of HE, prepares a highly skilled workforce which has a greater potential to contribute to society.

1.1.2 Institutional Context and Research Project Initiation

Within the national WP context in UK HE, post-1992 universities are more challenged by the diversity of their student bodies than pre 1992 universities and their student continuation and projected achievement rates have been found to be relatively low compared to pre 1992 universities (NAO, 2002). The institution where this research project is based is one such post-1992 university and “has the highest percentage of students from backgrounds which have been historically under-represented in higher education” (Hockings, 2005, p.7) This University is located in the UK West Midlands and plays an important role in regional social and economic regeneration. It has developed strong partnerships with local education partners and business, which encourage a great number of local pupils and professionals to further their study in the University. It has also established strong links with overseas universities and has over 3,800 international students studying within it from more than 100 countries. Based on the University’s Annual Report 2008, there are about 23,000 students enrolled with the institution. Almost half of its students are studying part-time and there is a wide range of ethnicities within the student body in which 56.8% describe themselves as white.

This institution consists of 4 campuses, with 9 academic schools and 9 research institutes and centres across the University. The academic provision in academic schools is supported by a range of central support departments such as IT Services and Learning and Information Services. As far as teaching and learning activities are concerned, this University embraces vocationally focused curricula and encourages blended learning. It has established a teaching and learning environment which includes modern facilities and a virtual learning environment.

This research project is part of the University’s successful Enabling Achievement in A Diverse Student Body Centre of Excellence bid whose aim is to support and enable the achievement of students from diverse backgrounds.

The research project was initiated within the School of Applied Sciences (SAS), one of the 9 academic schools in the University. There were a total of 2048 students registered in SAS during the academic year 2007 /2008, of which 637 were FY undergraduates. Of the FY undergraduates in SAS, 532 were home students (84%) and 105 international students (16%). The vast majority (86%) of SAS FY students was studying full time and 14 % were part time students. There were almost twice as many female students (65%) as males students (35%). Only 58% of SAS FY undergraduates were under 21 years old and the remainder were either 21-24 (23%) or over 25 years old (19%). The ethnicity of the students ranges across 13 categories, with Black, Asian and Other totaling 45% and White 43%. The other 12% were not known. The students' academic backgrounds were also very diverse, holding 27 different types of entry qualifications. Around half of the students (51%) were living with their parents. The FY undergraduate retention rates within the School were 85.2% during 2005/6-2006/7, 81.9% during 2006/07-2007/08 and 84% during 2007/8-2008/9.

In general, students in SAS during the time of this study were required to take 4 modules per semester. They were expected to study a total of 40 hours per week, around a quarter of which were class contact hours. Class contact hours comprised mainly lectures, with some workshops, practicals, seminars and tutorials. Assessments included examinations, coursework and practical reports. Within the School, academic support was available for the students in a number of different ways. For queries relating to school regulations, they could go to the Student Support Office for help. All students were allocated a personal tutor to provide them with academic guidance and support. The students could contact staff through an on-line appointment booking system or by email. Electronic systems were also available to support students' self study out of class contact hours.

The preliminary research proposal was initiated with the aim of developing a model of pedagogical practice which would enhance achievement in a diverse student body, and suggested action research as its study design. However, it was intended that the researcher appointed to actually conduct the research, would have the freedom to orientate it towards their interests provided it

addressed the overarching theme of enabling achievement in a diverse student body. Stimulated by my Masters degree study which is on educational leadership and innovation, I found myself very keen on furthering my knowledge and skills in educational research and was fascinated by the nature of this research project when looking for a PhD study opportunity. After successfully gaining this studentship, I modified the research aim and drew up a new research proposal based on a literature review as well as on my personal experience and interest which is discussed in the following section.

1.2 Researcher's Positionality

The researcher's personal beliefs and values as well as his or her intellectual goals, epistemological and ontological perspectives all influence the design and conduct of a research project (Maxwell, 2005). My personal life experience and professional background have contributed to the choice of this research topic and to the shape of its research design. They are reflected as in the following paragraphs to achieve the 'knowing responsibility' described by Doucet and Mauthner (2002, p.134):

A wide and robust concept of reflexivity should include reflecting on and being accountable about personal, interpersonal, institutional, pragmatic, emotional, theoretical, epistemological and ontological influences on our research, and especially about our data analysis process.

(in Cousin, 2009, p.19)

First of all, my personal experience of growing up made me interested in the constructive nature of life experience. Even now, I still feel a little surprised when I look back at how far I have gone on the journey of academic study. I still remember that going to university had never been part of my life plan until I grew into a teenager. This is because my family background and my childhood experience made me believe I did not have the gift of natural intelligence to pass the entrance examination to higher education. However, due to my failure to get into a vocational training course after junior high middle school, I had no

other choice but to fight for my way into university study. Since then, my confidence in my intellectual capability has built up little by little as a consequence of my performance in academic study, which was graded excellent. Now I am a PhD student and I do think I have deliberately challenged myself more to better myself. All the changes in my perception about myself and the achievements I have made so far make me realize how life experiences can be evolving processes constructed by all the people involved in them. It also generates a very intriguing question in my mind, which has also greatly influenced this research. That is the issue of my perception about my intellectual ability: how does it come into being, change and subsequently affect my life experiences? This leads my research interest into exploring the reality in students' perception, including its formulation and impact on their FY HE experiences.

Further, as an international student coming from China, I noticed quickly that there is a big difference between undergraduates here in the UK and those in China. For example, undergraduates here may withdraw from HE voluntarily, which is almost unimaginable in China. Also, undergraduates here seem generally much more keen and active in social activities whereas academic study is the overwhelming focus for the majority of undergraduates in China. Therefore, I have been very curious about how undergraduates in the UK perceive HE and why they behave in the ways they do. I am interested in finding answers to these questions in my mind, and this has driven me all the way through my PhD study.

Finally, my professional experience as a teacher makes me realize the variety of students' experience within the same classroom from the same course. I used to work as a teacher in a private educational organization after completing my first degree study in China. At that time, I spent a great deal of time in lesson preparation and tried my best to be a good teacher. However, the academic performance of some of my students and their evaluation feedback made me feel confused about all the effort I had invested into my job. Sometimes I even felt that those underachieving students were not teachable. But was that true? Was it their fault that they were underachievers? Should

they be held responsible for all their underachievement? Did they expect themselves to be underachievers? What about those students with good academic performance in my class? What was playing the key role in making the difference between successful students and those not successful? These questions kept popping into my head and I have always been really keen to find out the answers.

My personal, educational and professional backgrounds, as described above, have also influenced my identity as a researcher in the data collection and analysis process. While acknowledging the potential impact of my biographical features, such as age, gender and ethnicity, on my field identity as a researcher, I would like to address my positionality as a concept that is always in flux and created in the research process. This is because, as argued by Cousin (2010), researcher reflexivity is negotiated in context rather than fixed.

By disclosing my identity as a student in the same University and presenting myself as a casual friendly young female international student, I minimized the power imbalance between me and my research participants. This put me in an equal position while interviewing the students and they accepted me more as a friend who would like to represent their voices. They were fairly open to me when talking about their positive and negative experiences with the University and in their personal life. Some of them even perceived the interview as my homework and responded as if doing a personal favour. For example, one interviewee said she would not reflect to the staff in the same way as she did to me because she knew her reflection was important for me and it was only for me.

Meanwhile, the differences in the cultural and educational backgrounds between me and my research participants enabled a conversational style of communication in my data collection and analysis process. For example, while doing the interviews, I have asked the students to explain some of the terminologies they used when talking about their education experiences. I have also tried to paraphrase what they said during the interview to make sure I understood them correctly. Similarly, some of the students who were interested

in doing postgraduate study in the future asked me about my experience as a PhD student. These interactions make the whole data collection and analysis process a learning process for me and my research participants.

1.3 Overview of the Thesis

This thesis consists of 8 chapters. Following this introduction chapter, chapter 2 literature review will provide the literature context within which this research project is conducted. This chapter firstly discusses similarities and differences among the theoretical models on FY undergraduate experience. Then it reviews the empirical studies on FY undergraduate experience by examining a variety of factors which are identified as critical to FY undergraduate experience in the literature. It goes on to discuss the limitation of the deficit perspective dominant in existing relevant research and justifies the necessity of studying FY undergraduate experience from a non deficit perspective, which instead focuses on students' achievement. Finally, it rationalizes the importance of studying FY undergraduate achievement from student perspectives by discussing the concept of FY undergraduate achievement in the literature and the objectives of HE.

Chapter 3 is concerned with the methodological issues of this research project. After stating the research questions, this chapter describes the research project's conceptual framework which illuminated its research question generation and research design. It then goes on to justify the reasons of adopting an interpretative case study design combining three individual studies in this project. Details about the research implementation are provided by explaining the reasons for using particular research methods for individual studies and describing the sampling and data collection process. Before addressing the ethical concerns at the end of this chapter, criteria of research trustworthiness assessment are discussed, against which the trustworthiness of this research project is defended.

In Chapter 4 the grounded theory study data analysis and results are presented. The first part of the chapter sketches the process of data analysis

on the semi-structured interviews, such as initial coding, focused coding and memo writing. The findings of this study are then presented in detail in the second part of the chapter. After identifying the overarching category emerging from data analysis, the four major categories relating to the FY undergraduate achievement making process are further described, along with extracts from the interview transcripts. A tentative grounded theory of FY undergraduate achievement is summarized at the end of this chapter.

Chapter 5 reports the data analysis and findings of the phenomenography study. It firstly describes the five principles guiding the data analysis process and the three analytical stages the process goes through. The findings of this study are then presented in three sections. Section 1 outlines an overall picture of FY undergraduates' different ways of experiencing HE and the structural relationship among them. The various ways of experiencing HE and the structural relationship are then described in detail respectively in section 2 and section 3. A summary together with a brief discussion of the phenomenography study findings is given at the end of the chapter.

Chapter 6 presents the questionnaire survey findings and consists of five sections. The data analysis process is described in section 1. Survey participants' backgrounds are summarized in section 2 by an analysis of their demographic data. Section 3 and section 4 of this chapter report the distribution patterns of the survey participants' experiences and emotional responses relating to the FY undergraduates' achievement making process identified in the grounded theory study. Findings in these two sections are presented in bar charts and tables compiled from the descriptive analysis results in SPSS. An overall summary of the survey findings is provided in section 5.

Chapter 7 considers the overall findings from this research project in the light of the theoretical framework developed in Chapter 2. The discussion is structured around the 3 research questions followed by a consideration of the implications drawn from this research project which might inform future design of the FY undergraduate experience.

Chapter 8 is the conclusion chapter of this thesis. Following a brief retrospection on the research background and the research design, the contribution to knowledge made by the research is reviewed from both theoretical and practical perspectives. Then the research is evaluated in terms of its methodological design and data analysis, followed by the agenda proposed for further research. Finally, key concepts emerging from this research are summarized and recommendations are made for the application of the research findings in practice.

Chapter 2 Literature Review

2.1 Introduction

This chapter provides the literature context for the current study. The research reviewed here extends back to the middle of the last century and was identified by using the following key words: “first year experience”, “student retention” and “achievement in higher education” in research engines and databases. References in journal articles were also tracked for snowballing purposes. Endnote was used for information storage.

This chapter consists of six sections. Following this introduction, theoretical models and empirical studies addressing various aspects of FY undergraduate experience in the literature will be reviewed. In keeping with the new trend in studying FY undergraduate experiences, the two perspectives employed in relevant research will be discussed. Drawing on the implications from sections 2.2 – 2.4, section 2.5 will illustrate the necessity of exploring the FY undergraduate achievement from the student perspective. This perspective is the gap in the literature which this research aims to fill. Finally, key points emerging from the literature review will be briefly summarized in section 2.6.

2.2 Theoretical Models of FY Undergraduate Experience

The desire for theoretical models to understand the student dropout process has prompted much research effort in various research disciplines since the middle of the last century. Broadly, theoretical models on undergraduate retention have been constructed drawing on theories in the fields of social science, industry organization, economics and psychology. Six key theories are reviewed here, namely: i) integration theory, ii) cultural capital theory, iii) student attrition theory, iv) full structural model of student retention, v) psychological models of student retention, and vi) residential university and commuting university student departure models.

2.2.1 Integration Theory

One of the most influential theoretical models on FY undergraduate experience study is the longitudinal model of student dropout developed by Tinto (1975, 1993). The model presents the process of student dropout as

A longitudinal process of interactions between the individual and the academic and social systems of the college during which a person's experiences in those systems (as measured by his normative and structural integration) continually modify his goal and institutional commitments in ways which lead to persistence and/or to varying forms of dropout.

(Tinto, 1975, p.94)

Tinto's (1975, 1993) model of student dropout has its roots in Durkheim's concept of *anomie* from his study *Suicide* (Durkheim, 1961), which Tinto combined with the concept of cost-benefit analysis in the economics of education. On the one hand, Tinto (1975, 1993) attributed students' dropout to the lack of social integration into the institutional social system and into the prevailing institutional values. Durkheim (1961) referred to this kind of lack of social integration as a state of anomie. On the other hand, it pointed out that students' withdrawal can also be related to their level of academic integration deriving from the academic features of institutions.

According to Tinto's integration theory (1975, 1993), students' social integration consists of multiple dimensions: it occurs in individual student interaction with his or her social environment, including peers, faculty and administrative staff. At the same time, students' academic integration relates to their grade performance and intellectual development. Lack of social integration could lead to students' voluntary dropout while failure in academic integration is normally associated with compulsory dropout. Meanwhile, integration theory also drew attention to the external impact on student withdrawal based on cost-benefit

theory. This is because students may consider withdrawal due to the perceived greater benefit of conducting alternative activities.

Although Tinto's integration theory (1975, 1993) drew on individual psychological factors such as student perceptions of HE experience and their characteristics and dispositions (e.g. educational expectations and goal commitment) to explain the variation in student dropout patterns, his theory is fundamentally sociological due to its emphasis on the structural impact of various social forces on student retention (Braxton, 2000).

2.2.2 Cultural Capital Theory

Another sociological perspective is provided by Berger (2000), who revised Tinto's integration theory by applying Bourdieu's (1977) concept of cultural capital into the study of the undergraduate experience. Berger (2000) developed a framework to view student retention, which was based on the class reproductive effects of the uneven distribution of cultural capital. Cultural capital has been conceptualized by McDonough (1997) as a symbolic resource, which has no intrinsic value itself, but can be used to obtain, or be transformed into, highly valuable or scarce resources. It is also symbolized as a type of knowledge that is valued within the middle classes but not taught formally in schools. Cultural capital includes habits, life style, social and educational credits for example and is one of the key concepts in Bourdieu's theory of social reproduction. The interaction between individual and organizational social reproduction implies that student retention is critically influenced by the congruence between students' habitus, shaped by their previous life experience, and their institution's organizational habitus. The concept of 'habitus' comes from the work of Bourdieu (1993) and describes a set of values, practices and norms which people assimilate as part of who they are and how they operate. In making sense of social class variation in scholastic achievement, Bourdieu argued that middle class children tend to share the same habitus as school teachers and schools and that this eases their transition from home to school. In contrast, working class children experience a friction between their own habitus and that of the school. Unlike the middle

class child, they are less likely to feel that they 'fit in' and this holds back their achievement. From the theoretical perspective of social reproduction, possession of higher levels of cultural capital, either at organizational or at individual level tend to have a positive influence on persistence. Students are more likely to persist in the institutions with forms of cultural capital which correspond to their own (Berger, 2000).

2.2.3 Student Attrition Theory

Bean (1980) constructed a student attrition model containing elements from industry and organization theories. It derived from Price's (1977) organization turnover theory and combined attitudinal variables from job satisfaction theory by Locke (1976). The underlying assumption behind it is the potential similarity between staff turnover in work organizations and students' dropout (Bean, 1983). There are four categories of variable in this student attrition model: i) student background variables; ii) the organizational determinants; iii) intervening variables such as satisfaction and institutional commitment; and iv) dropout, the dependent variable. According to this industrial model of student attrition, student background variables influence their interaction with the organization, which subsequently affect students' satisfaction. Student dropout is directly influenced by their satisfaction and institutional commitment. The key propositions made by Bean (1980) are: i) students' background information deserves attention in attempts to understand their interaction with the institution environment; ii) students' perceived value about education and the institution affects their satisfaction with their HE experience; iii) students' dropout is influenced by their level of institutional commitment, which relates to their level of satisfaction.

This student attrition model was revised by Bean (1983) and based on the newly modified turnover model developed by Price and Mueller (1981). The new student attrition model distinguishes itself from other theoretical models mainly in the following respects. Firstly, students' background variables were omitted in accordance with the revised causal model of turnover. Secondly, the specification of intent to leave rather than institutional commitment is argued to

be the immediate precursor of attrition. Finally, it proposed a one way causal ordering of the variables and suggested students' satisfaction is determined by specific student organizational interactions (Bean, 1983). Ten variables affecting student satisfaction were identified in Bean's organizational theory. They are: participation, communication, distributive justice, routinization, integration, grades, practical value, development, courses and membership in campus organizations. Besides satisfaction, students' intent to leave is also influenced by marriage and opportunity.

2.2.4 Full Structural Model of Student Retention

Economic theories have also been employed to explain students' experience in HE. The early integrative models developed by Voorhees (1985) and Nora (1990) examined the relationship between financial aid and students' persistence. However, they failed to clarify the processes by which finances affect undergraduate retention. (St. John *et al.*, 2000) Cabrera, Nora and Castaneda (1992) filled this gap by revising the student integration theory and student attrition theory with an economic perspective. The structural model constructed by Cabrera, Nora and Castaneda (1992) proposed that finance affects undergraduates' academic and social integration and has a direct effect on their institutional commitment and goal commitment and hence their persistence decision. Finance constitutes an effect through students' ability to pay and their cost and benefit perceptions of staying in HE (Braxton and Hirschy, 2005).

2.2.5 Psychological Models of Student Retention

The dynamic between structure and agency is the concern of sociology, whereas psychology is more concerned with the individuals level. One of the key psychological models on student retention was developed by Bean and Eaton (2000) based on four psychological theories, attitude-behaviour theory, coping behavioural theory, self-efficacy theory, and attribution theory. According to Bean and Eaton (2000), undergraduates enter HE with an array of psychological characteristics which interact with the institutional environment and evolve as a consequence of this interactive process. Psychological

consequences such as positive self-efficacy, reduced stress, increased efficacy and internal locus of control increase students' scholarly motivation and lead to academic and social integration, institutional commitment and intent to persist. As indicated by this theoretical model, the nature of students as psychological beings is placed at the foremost position because "the social environment is important only as it is perceived by the individual" (Bean and Eaton, 2000, p.58).

Slightly different from Bean and Eaton (2000), the student involvement theory constructed by Astin (1984, 1999) highlighted the behavioural aspects of student experiences in HE. The key hypothesis in the student involvement theory is that students' learning outcome of an educational programme is determined by the quality and quantity of their involvement in it. FY undergraduates' withdrawal, therefore, can be attributed to their lack of involvement into the HE experience. Involvement means "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984, p.518). While acknowledging the importance of the motivational aspect of involvement, Astin (1984) stressed the behavioural sense of involvement and argued that "it is not so much what the individual thinks or feels, but what the individual does, how he or she behaves, that defines and identifies involvement" (p.519).

2.2.6 Residential University and Commuting University Student Departure Models

Braxton, Hirschy and McClendon (2004) constructed two middle range institution related theories on undergraduate retention based on synthesizing sociological, organizational, economic and psychological models of student retention. One was developed by revising the Integration theory of Tinto (1975, 1993) and aimed to illustrate student departure in traditional residential institutions; while the other one was constructed to explain student retention in commuter institutions according to studies on commuter institution student experience.

At traditional universities, the critical factors influencing student departure are: students' entry characteristics including gender, ethnic background, socio-economic status, academic ability, academic background, parental education and financial concerns; students' initial goal commitment; Initial institutional commitment; students' perception of institutional experience which contains institution's commitment to students welfare, institutional integrity and communal potential; students' proactive social adjustment; students' psychosocial engagement; students' social integration; and students' subsequent institutional commitment.

Due to the great diversity in student cohorts at commuter institutions, the structural impact on their HE experience is different from that on the experience of traditional undergraduates. This is because, in Tinto's (1993) view, for those non-traditional students, more often than not responsibility as a student is being added on top of other daily duties, such as work loads as an employee or family responsibilities. Braxton, Hirschy and McClendon (2004) argued that the pattern of student retention at commuter institutions is different from that of traditional residential institutions. Influential factors in the commuter university student departure theory include: student entry characteristics such as gender, family background, academic background, motivation, locus of control, self-efficacy, empathy, anticipatory socialization and student initial institutional commitment; external environment such as support from work and family; institutional environment including academic communities and students' perception of the institution's commitment to student welfare and institutional integrity; and students' subsequent institutional commitment.

In my view, the line drawn between traditional residential and commuter universities is too simplistic. The above variables assigned for the two types of institutions are unlikely to be present in either of them alone.

2.2.7 Summary

The importance of the FY undergraduate experience has initiated theory construction in terms of undergraduate retention. Generally, this theory

construction process has drawn on theoretical perspectives from sociology, organization theory, economics and psychology. For example, integration theory and cultural capital theory are two typical theories illustrating student retention from a sociological perspective. Student attrition theory tends to explain student retention from an organizational perspective. The full structural model of student retention employed an economic perspective in the interpretation of student retention. Although these theoretical models tried to illustrate student retention from different perspectives, all of them present the undergraduate experience as an interactive process which is shaped by forces from three dimensions: individual psychology, institutional environment and wider social context. Braxton, Hirschy and McClendon (2004) confirm this conceptual perspective by developing residential university and commuting university student departure models based on synthesizing theoretical models from all these four perspectives. Further, by differentiating student departure between residential and commuting institutions, they also reveal another critical point in understanding the undergraduate experience. That is the institutional context, the context of a certain type of pre-existing social structure decided by certain norms or rules. As Giddens (1984) pointed out, human actions are performed within and predetermined by the context of pre-existing social structure which varies from one context to another.

Despite the consensus that undergraduate dropout is the result of an interactive process influenced by students' individual psychology, institutional environment and wider social context, it seems that agreement has not been reached among these theoretical models about the extent to which factors in these three dimensions affect students' departure. Subsequent empirical studies which have been designed to validate the propositions put forward by these theoretical models are reviewed in the following section.

2.3 Empirical Studies on FY Undergraduate Experience

The idea of improving student retention has prompted a number of empirical studies on FY undergraduate experience. Student retention is commonly regarded as "a measure of the percentage of students who gain a course credit

or an award based on the number who registered for a course or an award” (Ashby, 2004, p.66). It has been a key theme in FY undergraduate experience research as undergraduates are more prone to withdrawal during the first year compared to the rest of their time in HE. FY undergraduate retention is defined, in this thesis, as the proportion of registered FY undergraduates completing or progressing onto the second year study in the same institution. As indicated by this definition, it represents an institutional perspective and is different from the concept of student persistence, which relates to students who continue in HE no matter whether in the original institution or by transfer to another one (Berkner, *et al.*, 2000). Although Ashby (2004) claimed it as only one of the three dimensions in understanding the student retention concept, this institutional perspective definition is clearly dominant in existing literature on the FY undergraduate experience and hence is employed as the working definition in this thesis.

A substantial number of empirical studies in the undergraduate first year experience has been done to investigate factors that are considered to be influential or decisive in student retention. Studies trying to find the single determining factor in undergraduate first year retention have been revealed as invalid (Martinez, 2001) because “non-completion appears to be a result of a complex decision-making process with an array of factors impacting on the student” (Adamson and McAleavy, 2000, p535). According to the empirical studies, this collection of factors consists of students’ individual features, institutional experience and external factors.

2.3.1 Individual Features

Students’ individual features examined in first year undergraduate retention studies can be classified into two categories:

- i) Demographic factors, e.g. ethnicity, gender, age, parents’ educational backgrounds and socioeconomic status, and pre-entry educational experience;
- ii) Student personal characteristics, e.g. determination to succeed, self esteem,

goal orientation, self-efficacy, self-commitment, capacity for adjustment

The effect of demographic factors on undergraduate first year retention has been a contentious topic in the literature. A great number of studies indicate that demographic factors are influential. For example, research by Van den Berg and Hofman (2005) showed that ethnic minorities are at higher risk of withdrawal than ethnic non-minority. Bowl (2003) pointed out gender differences in mature students' withdrawal by suggesting that female mature students are more likely to withdraw for family reasons because of the conflict between family responsibilities and studies. Meanwhile, compared to traditional students who have family members completing HE, research shows that first-generation students experience more problems in HE involvement (Thomas and Quinn, 2007) and mature students are more likely to have financial difficulties though not fitting-in is also a serious problem faced by them (Yorke and Longden, 2008). Concerning pre-entry education experience, Birch and Miller (2006) argued that students' secondary school characteristics and university entrance score had a great impact on their first year performance and retention.

However, not all research evidence agrees with the above findings. For example, Adamson and McAleavy (2000) argued that non-completion was not strongly determined by social-economic circumstances in respect of their study population. They also asserted that students' previous educational achievement was not a good indicator of future withdrawal either. Their first observation is supported by research findings in Fike and Fike (2008) which denied gender and ethnicity as significant predictors of retention; while the second assertion is confirmed by Rowley, Hartley and Larkin (2008), which obtained similar findings in their study on FY psychology students. They pointed out that students without A-level qualifications felt as confident about their understanding of the subject knowledge as those with A-level qualification at the end of the course, though students with A-level qualifications felt better prepared at the beginning. Besides, both of these two groups experience common difficulties during their FY study, such as in research methods, statistics and the scientific nature of the course.

As with demographic factors, the impact of factors related to students' personal characteristics on retention are also controversial. Personal characteristics have been acknowledged by a large number of studies as playing critical roles in undergraduates' first year retention. Gull (2001) suggested that students with strong determination and self-identity were quite likely to complete their studies no matter how opposing their personal circumstances were (in Roberts *et al.* 2003, p.3). Mackie (2001) examined the difference between leavers and doubters and found that the difference existed in the level of individual commitment which plays a critical role in students' withdrawal decisions. He found that students' commitment would be decreased by pessimistic feedback during their integration process into HE if they were not strongly committed at the very beginning. In responses to "what made you stay?", students studied by Roberts *et al.* (2003) also indicated that career motivation and within-individual factors such as goal orientation, self efficacy and increased adjustment capacity are more important than the support received.

Nevertheless, Martinez (2001) concluded that empirical evidence in the literature only showed minor differences between the motivation of withdrawers and persisters with respect to factors such as educational aspirations and self esteem. Nora *et al.* (1996) also argued that compared to ethnicity and gender, factors such as educational aspirations and attitudes towards learning were not found to be as important in explaining students' persistence.

In contrast to the above views emphasizing the impact of individual factors on student withdrawal, some other studies in the literature maintain that it is not sound to concentrate on students' individual factors as largely causal (Yorke, 2001) and that attention should focus on students' current experiences rather than blaming students' pre entry characteristics for withdrawal from HE (Adamson and McAleavy, 2000). Adamson and McAleavy (2000) pointed out that first year undergraduates are generally keen to start and have well-justified reasons to embark on HE, and Rickinson and Rutherford (1995) revealed that the majority of the school leavers actually wished to remain in higher education. Why, then, does the initial positive motivation and the inclination to stay not

prevent students from dropping out? Reasons can be detected from the research findings in Mackie (1998). According to Mackie (1998), while individual factors such as motivation are important to students' decisions to persist, institutional experiences such as teaching and learning, support, sense of belonging can greatly influence the integration process.

2.3.2 Institutional Experience

Research investigating the relationship between student retention and the institutional environment argue that institutional experience plays a key role in students' decisions on continuing their studies. As former secretary of education, David Blunkett, maintained, there are "unacceptable" variations in the rate of drop-out which are linked more to institutional culture and practices than to the personal and demographic background of the students (Thomas, 2002, p. 424). Three key concepts relating to students' institutional experience in the FY undergraduate retention literature are students' satisfaction, academic and social integration and Institutional support.

Students' Satisfaction

Students' satisfaction is a key concept in the FY undergraduate retention literature for its impacts on institution recruitment, retention and funding (Douglas, Douglas and Barnes, 2006). The underlying assumption of studies relating to this concept is that students' dropout is attributed to their dissatisfaction with the institutional experience, which has been maintained by an array of research findings in the literature. For example, Martinez (2001) identified two key dimensions where withdrawing students are different from persisting students. These are evaluation of the institutional experience and level of satisfaction with certain aspects of the institutional experience.

Satisfaction as a concept in undergraduate retention literature considers students as customers or consumers and consequently shares many ideas in customer satisfaction theories in marketing literature (Gaffney-Rhys and Jones, 2008). According to Parker and Mathews (2001), consumers' satisfaction is often interpreted as "a feeling which results from a process of evaluating what

was received against that expected, the purchase decision itself and/or the fulfilment of needs/ wants” (p.38). As indicated in this definition, the concept of satisfaction is, in the context of HE, closely related to students’ expectation, evaluation and attitudes towards institutional experiences. As a consequence, students’ expectations towards the HE experience and negative institutional experiences generating dissatisfaction have become a research focus for studies aiming to prevent students’ dropout through fulfilling student satisfaction.

The importance of understanding and managing students’ expectations has been highlighted in Gaffney-Rhys and Jones (2008) who consider it as a determining factor in shaping levels of students’ satisfaction with their HE experience. Research on students’ expectations has identified significant changes in undergraduates’ expectations of the HE experience in past decades. One of the big changes is that current students seek a more flexible relationship with HE. They tend to incorporate life outside campus into the HE experience. As argued by James (2002), more and more students work part time while studying at university and many students need to fulfill family duties in addition to responsibilities as an undergraduate student. Further, with students’ increasing contribution to tuition fees, there is a tendency in current students to perceive their experience in HE with consumerist orientation. This tendency results in students’ expectation of more “spoon feeding” teaching and “Value for money” service. These changes can be attributed to the widening participation context, which leads to the great variety of students’ expectations and potential mismatch between some students’ expectation and their HE experience. While some student expectations are appropriate, others are not so realistic or practical which results in wrong course choices or unnecessary disappointment (Gaffney-Rhys and Jones, 2008). Therefore, it has been argued that universities should be more open to their prospective students (Cook, Rushton and Macintosh, 2006 b) and FY undergraduates need to be well informed about their coming HE experience to make sure that they start HE with realistic expectations. (Ramsden, 2008)

The majority of satisfaction-related studies have been designed to identify

students' positive and negative experiences in HE to inform future institutional practice. According to findings from these studies, students' negative experiences vary in terms of impact on their withdrawal decisions. The negative experiences which have critical effects have been related to induction, academic learning experience and non-academic support. As far as induction is concerned, early in the 1980s, Lewis (1984) found that disorientation is a major problem which confuses students about programme information and course structures. With further recent studies on induction, more specific problems have been uncovered which give specific explanations about disorientation in induction, such as information overload, information not delivered in a user-friendly way, and overly bureaucratic processes (Harvey, Drew and Smith, 2006). Negative experiences relating to the academic learning experience includes the suitability of module content, timetable issues, assessment (Martinez, 2001), and teaching style and strategies (Yorke, 2000). For example, a rather "laid back" teaching style has been criticised as confusing and resulting in student disengagement (Yorke, 2000). Inadequate non-academic support such as financial advice and guidance are also identified as negative experiences which lead to FY undergraduate dropout. On the contrary, some institutional experiences, although identified as negative by withdrawing students, is not critical to their dropout decision. For example, in a Learning and Skills Development Agency (LSDA) report, Martinez (2001) noted that lower levels of satisfaction among withdrawing students is not different from completing students in terms of institutional facilities (e.g. canteen, library, etc). This view is in accordance with the research findings of Yorke (2000), which revealed that fewer than 10% of the participants cited institutional resources as an influence on leaving.

Academic and Social Integration

In addition to student satisfaction, some studies in the literature tend to address the impact of students' institutional experience through the concept of academic and social integration. This is derived from Tinto's integration model of students' retention reviewed in section 2.2.1. According to Tinto (1975), student integration into HE can be understood generally from two aspects, namely academic integration and social integration, and their retention is fundamentally

decided by their level of integration into the two domains. Following the integration model, a large amount of research has been conducted to study the factors influencing the FY student integration process. Factors affecting students' academic integration have been identified by empirical studies as interaction with staff and peer student (Krause, 2001), study habits (Harwood and McLaughlin, 2006), teaching strategies, and curricula (severiens and Schmidt, 2009), As far as students' social integration is concerned, influential factors include accommodation, learning communities (Inkelas *et al.*, 2007), institutional administration and support systems (Burnett, 2007). This is consistent with Tinto's (1975) report, which pointed out that students normally complete the social integration process by various semi-formal or informal contacts with their peer students and staff within the institution.

The arguments for the importance of academic and social integration have existed in the literature for a long time. Some research findings suggest that poor academic performance results in drop out (Astin, 1993) while others argue that social integration is more influential to students' withdrawal decision than academic integration (Bers and Smith, 1991). However, Harvey, Drew and Smith (2006, p.47) summarized, so far the variety of research evidence only indicates that "social and academic factors both play a role in withdrawal and it would be precipitous to prioritize one over the other in the face of diverse research evidence, that used different data collection techniques".

Despite the prevalence of the integration model of students' retention, Barefoot (2000, p.17) reminded us that "Tinto's concept of academic integration implies that student must possess the requisite academic skills to do college work in order to engage in ongoing academic conversation and to feel validated as a member of the academy." In other words, Tinto's concept of academic integration indicates the need for students fitting into a given academic framework. This one way integrating perspective is challenged by the scholarship on inclusive learning and teaching as helpfully synthesized in Hockings (2010). For example, by exploring teachers' and students' conceptions of learning and teaching in a pre-1992 university and a post-1992 university, Hockings, Cooke and Bowl (2008) found that students were engaged

most when teachers create an inclusive teaching and learning environment which takes account of their experiences and ways of knowing. This means that teachers need to link with the aims of the course to students' knowledge background and life experiences. This allows the teacher to harness the students' experience to the academic curriculum. (Hockings, Cooke and Bowl, 2009) This perspective is supported by the research finding presented in Ertl *et al.* (2009). By comparing the HE experience between students with vocational education and training (VET) and those with academic qualifications, Ertl *et al.* (2009) argued that there was a great need in VET students for support and guidance that drew on their vocational background and experiences. They needed advice on how to integrate their vocational background and experiences into academic learning in HE, which can only be provided by academic staff. However, it seems this need has not been fully aware of by academic staff in all HE institutions. While acknowledging the diverse needs of learners in the WP context in the literature, there is little evidence showing that teaching approaches have been adapted to address these needs. (Gorard *et al.*, 2006) Teaching staff either do not understand their students' needs enough or do not take it seriously enough to address it effectively. As Hounsell and Hounsell (2007) reported, despite interactive teaching and learning strategies designed to engage students, the students from non traditional backgrounds in their study still struggled more than their peers from traditional backgrounds. The difficulties reported by the students, such as those of part time work and educational background, were read by the teachers as an inevitable inequality that could not be fixed to accommodate the students.

Academic and social integration has been an important research focus in the FY undergraduate experience. However, this focus tends to centre on the influence of the institution on the students or on the students lack of 'readiness' for undergraduate education. In Hockings, Cooke and Bowl's (2008) and Hockings' (2010) perspective, the problem with this last notion of readiness is that it suggests a deficit position for the students; her work presses the case for thinking about students as bringing in a diversity of experiential resources that can be linked to the academic curriculum. This view of students as potentially *active* in the learning process suggests a more dynamic process

between teachers, students and the institution so that they mutually shape each other. It is important to stress Hounsell and Hounsell's (2007) finding that it is not enough to encourage interactive pedagogies without harnessing these to the experiences and knowledge students bring into higher education. Thus the question of academic and social integration needs to be distanced from a deficit explanation in order to conceptualise both students and teachers as active contributors to the integration process.

Institutional Support

In order to tackle the problems identified in withdrawing students' negative experiences or failure to integrate into HE, finding ways to help students' transition, subsequently, becomes another crucial topic in FY undergraduate retention research. As reviewed in the following sections, a substantial amount of case studies and evaluation studies have been conducted to identify effective institutional policy and practice in terms of easing FY undergraduates' transition into HE. (Cook *et al.*, 2006 a) Tinto (2003) also suggested improving integration and retention through the following six strategies: i) expect students to succeed; ii) provide early and frequent feedback; iii) help students to form attachments; iv) support active and collaborative learning; v) build a college environment supportive of academic, social and personal development; vi) make retention issues core and not "add-on".

Studies aiming to inform HE practitioners of effective institutional support can be classified into three categories, namely induction, study skills support, and non-academic support. Induction as a key factor in institutional support has been found to be critical in terms of FY undergraduates' retention. One of the principal directions in induction research is to introduce innovative induction strategies to enhance student retention. For example, Edward and Middleton (2002) described a task-oriented induction for engineering students, which aimed to offer students a challenging, supportive and enjoyable learning experience. Norton *et al.* (2008) presented a residential induction programme, which was designed to promote students' social interaction with fellow students and staff in a trip environment. In addition to introducing innovative approaches to induction, researchers also make instructive suggestions by evaluating their

new induction strategies, such as Edward (2001).

Study skills support provided by institutions ranges from one weekend pre-entry programme (Fergy *et al.*, 2008) to a built-in academic year study module (Harwood and McLaughlin, 2006). Virtual learning environments have also been established to introduce essential study skills to support students' transition into HE (Chalk *et al.*, 2008). Key study skills identified as critical to FY undergraduates are time management skills, communication skills, team work skills, writing skills and problem solving skills (Tinto, 2003). In spite of these empirical research findings showing that study skills support positively contributes to student transition into HE, Lea and Street (2006) argued that conceptualizing learning in HE from the study skills perspective is not comprehensive enough to help improve undergraduates' academic experience substantially. By exploring students' writing in higher education, Lea and Street (1998, p.171) identified the impact of identity and institutional relationship of power and authority in undergraduates' academic study:

These writing practices and genres are not simply concerned with technical matters in which 'appropriate' skills are acquired and novices becomes members of an expert community, [...]. All three (ways of looking at student writing originating from both students and staff), we argue, are located in relations of power and authority and are not simply reducible to the skills and competences required for entry to , and success within, the academic community.

Accordingly, they suggested perceiving learning in HE from an academic literacies perspective, which "views learning as issues at the level of epistemology and identities rather than skill or socialization" (p.158).

Various types of non-academic support have also been provided by institutions to enhance FY undergraduate retention. This is because the FY undergraduate experience includes not only academic integration but also social integration. Students' satisfaction with the HE experience is influenced by other factors besides teaching and learning issues. Non-academic support includes cultivating a student-friendly institutional habitus and setting up student support

services. Institutional habitus relates to “the impact of a cultural group or social class on an individual’s behaviour as it is mediated through an organization” (Reay *et al.*, 2001, p.2). It should be understood not only as the culture of an institution but also as concerned with relational issues and priorities in institutional governance and pedagogy. Traditional institutional habitus assumes that the habitus of the dominant group is the correct habitus and treats all students as if they possess or should possess it. This is reflected in the teaching, learning and assessment strategies. For example, many university teachers see lack of cultural capital or study skills as a deficit of non-traditional students. (Hockings, Cooke and Bowl, 2008) However, according to Thomas (2002), students with diversified backgrounds will only be able to feel accepted and involved when the institution’s habitus is inclusive and values diversity and variety, and this in turn will enhance students’ achievement in HE. Hockings, Cooke and Bowl (2007) confirmed this view point by suggesting the development of an inclusive HE learning environment, where the diversity of students’ social, cultural and educational background are valued and taken into account in curriculum and assessment design as well as pedagogical practice. Therefore, under the current widening participation context, an inclusive institutional habitus is highly desired to replace the traditional one. Can an inclusive institutional habitus just be adopted? Thomas (2002) argues that it cannot since institutional habitus involves what she considers to be a set of complex and diverse predispositions and it takes time for people within the institution to change concepts and adjust to them. Therefore, institutions need to encourage widening participation with strategies developed holistically from their own institutional contexts. In addition to friendly and diversity-celebrating institutional habitus, designated student support services are needed to contribute to student retention by providing advice and guidance concerning issues such as financial affairs, psychological counselling, and careers (Barefoot and Gardner, 2005). Facilitating the building of student friendship networks has also become a priority for non-academic support as close friendships have been shown to be factors preventing students’ withdrawal (Woodfield, 2002). Extra-curricular opportunities such as the creation of student societies and studio environments have been provided to promote student social interaction and integration (Westwood and Davies, 2008)

The above three foci, induction, study skills support, and non-academic support, show that the content of support being provided by institutions improves FY undergraduates' retention. Besides the nature of contents, relevant studies have also explored effective forms of support delivery. Institutional support is more effective when it is delivered in a holistic way. In other words, university wide efforts are desired for effective support delivery (Pitkethly and Prosser, 2001). Efficient communication and cooperation among various departments has been identified as a critical issue in terms of enabling holistic institutional support. Further, some research evidence shows that support embedded in students' daily academic activities better facilitate FY undergraduates' retention. For example, to learn study skills within the subject context and to embed students' social integration into group work tasks has been suggested to be an efficient way to support delivery (Barefoot and Gardner, 2005). Finally, including students as part of the support delivery process is crucial as support provision is less effective without students' participation. This means students need to be well informed about the availability of support which needs to be well designed to ensure students' attendance. For example, students have been found to feel reluctant to attend tutorials which are long-drawn-out and repetitive of what they have learnt already (Cook and Naughton, 2006) According to Tinto (2003), support should be interactive and easy to approach, reflecting the variety of students' needs within specific institutional contexts.

2.3.3 External Factors

The research of Christie and Dinham (1991) provided evidence for the importance of external factors in students' daily lives. They suggested external experiences must be placed alongside institutional experiences in the analysis of first year undergraduates' social integration and hence in the explanation of their persistence. They maintained that external factors interact directly with institutional experiences to affect social integration. These findings are supported by Nora *et al.* (1996), who acknowledged that external environmental supportive factors, together with institutional experiences and academic achievement, contributed the most to students' persistence decision.

The influential external factors to students' HE retention mainly refer to finance, family issues and career opportunity. For example, Nora *et al.* (1996) illustrate the importance of financial issues by asserting that financial assistance which students get will help them out both in paying tuition fees and in relieving financial pressures; Mackie (2001) further explained that it is the longer term financial worries driving students away from HE instead of shortage of money during HE study. As far as family issues are concerned, students may drop out because of homesickness, lack of family support, and family responsibilities. Especially for those students with learning difficulties, their families' engagement with their HE is most likely to improve their commitment and encourage their persistence (Cook *et al.*, 2005). Career opportunity is another crucial external factor which, however, has not been much researched. Adamson and McAleavy (2000) suggested that withdrawal may not be a negative choice for students if a mismatch exists between their perceived career needs and their educational courses. This raises the consideration of whether educational benefits gained by students in HE can be accredited in their career development.

2.3.4 Summary

Empirical research on the FY undergraduate experience has been conducted with underlying intentions to improve student academic performance and retention. Factors influencing FY undergraduate retention have been identified relating to individual student features, institutional experience and external factors. Both demographic factors and personal characteristics as features of individual students have been found influential to their FY retention. Within the dimension of institutional experience, key concepts to student retention are student satisfaction, academic and social integration and institutional support. External factors like finance, family issues and careers opportunities have also been identified as being crucial to FY undergraduate departure. As revealed in this literature review, no single factor has been identified as decisive in FY undergraduates' academic performance or retention. Findings from empirical research confirm the implication of the theoretical models reviewed in section 2.2 by indicating that FY undergraduate experience is shaped by the interplay

of students' individual features, institutional experiences and external factors and, consequently, students' performance is the result of the interaction among factors from these three categories. Further, the lack of consistency in empirical research findings about the actual impact of particular factors on the FY undergraduate experience might be due to the differences in institutional context, such as the particular characteristics of sample student cohorts. As Tinto (2006) argued, the FY undergraduate experience varies in different institutional contexts and hence needs to be understood within the institutional context.

2.4 Changing the Research Perspective in the Study of the FY Undergraduate Experience: from Deficit Perspective to Non-deficit Perspective

2.4.1 Deficit Perspective

As reviewed in section 2.3, the majority of FY undergraduate experience studies fall into the two research categories of Martinez (2001). They are “firstly, research that investigates the perceived problems of drop-out or failure to achieve qualifications goals, and secondly research that identifies possible solutions: how providers can improve or raise retention and achievement rates” (Martinez, 2001, P1). However, it seems that the second research category extends from the first one and both of them employ a deficit perspective, which focuses on students' negative HE experience and tend to attempt to improve FY undergraduate experience through getting rid of deficiencies. This conventional research perspective on the study of the FY undergraduate experience can be attributed to the key theoretical models reviewed in section 2.2. Most of the relevant empirical studies seek to verify and elaborate these theories and have subsequently been carried out from this perspective. For example, Yorke (2000) carried out surveys of non-completion students in six institutions in the north-west of England to investigate influential factors on students' withdrawal. Choosing the wrong field of study, financial problems and dissatisfaction with a number of aspects of the student experience emerged as the main influences on the respondents' withdrawal. Baird (2002) conducted a

study aiming to identify student withdrawal factors in an Irish college. The two main withdrawal-related issues identified by staff and students were course choices/compatibility and commitment. The underlying rationale of studies from this deficit perspective is that retention would be improved by identifying difficulties and sorting out problems in the FY HE experience of those dropout students.

2.4.2 Non-deficit Perspective

Despite the dominant role of the deficit perspective, more and more research evidence shows that focusing only on withdrawing students and their reasons for dropping out, limits the value of research into the FY undergraduate experience. This is the case for several reasons not least of which is that students' withdrawal is a decision making process owing a great deal to an evaluation of the specific context and does not necessarily happen as a result of negative experiences in HE.

According to Martinez (2001), students' dropout could either be a rational decision or a reactive decision to difficulties. As far as the first situation is concerned, withdrawal could even be a right decision for some students at that particular point in time. As Adamson and McAleavy (2000) suggested, students' withdrawal is not necessarily a negative phenomenon and might be taken as one of the choices students make at a particular point of life time. For those students who withdraw with a rational decision, more than often their key reason for dropout is for reasons other than negative experiences in HE. Therefore the value of exploring their negative experience in HE is limited in terms of informing FY undergraduate experience policy and activities designed to improve student retention.

Even when students decide to withdraw as a reaction to difficulties, research shows that it may not be the actual difficulties which result in their dropout. As Mackie (2001) argued, identifying specific or negative factors only was not enough because the common feature of leavers and doubters was the inability to cope with a variety of problems instead of specific problems. Roberts *et al.*

(2003) confirmed this argument by suggesting that both leavers and persisters encountered similar problems in their first year HE studies while the difference between them is that persisters manage to cope better. They also pointed out that doubting, an indicator of dropping out, was formulated in the process of students' interpretation of their HE experience. They argue that persistence is largely facilitated by within-the-individual factors such as goal orientation, its antecedent, self efficacy, and an increased ability to adapt to the new environment over the first year reshaped by students' HE experience. Therefore, targeting students' withdrawal decisions actually means investigating the ways by which dropout students interpret and cope with the HE experience. This could, in turn, increase our understanding of students' dropout, but would not be able to inform us of the efficient ways in interpreting and coping with the HE experience which lead to retention. As Tinto (2006 p.6) argued "Leaving is not the mirror of staying and knowing why students leave does not tell us, at least not directly, why students persist."

The above discussion reveals the partiality of deficit perspective studies in terms of their effectiveness in enhancing FY undergraduate experiences and highlights the need to adopt a non-deficit perspective, which explores what makes FY undergraduates remain on their course of study and how they cope successfully with the difficulties they experience in HE. By taking this non-deficit perspective, studies can focus on the phenomenon of student success by investigating the reasons contributing to their success and strategies which build on what the students have learnt from them. It implies a potential for institutions to take the opportunity to focus on ways of supporting students by enhancing their initial commitment. It also enables institutions to work with students by building on their strengths (Harvey, Drew and Smith, 2006) and hence develop their skills and improve their adaptability (Rickinson, 1998), which is also one of the purposes of HE and a responsibility of universities (Mackie, 2001).

2.4.3 Summary

The majority of existing studies on the FY undergraduate experience have been

conducted from a deficit perspective, focusing on dropout or underachievement within the student experience. However, understanding reasons for students' departure does not necessarily explain the phenomenon of students' persistence or success. The limitations inherent in studies designed from a deficit perspective, suggests that there is a need to change the perspective of research into the FY undergraduate experience from a deficit perspective to a non-deficit perspective. This is confirmed by the comments of Dr Tony Cook, Director of the STAR project, quoted by the HEA (2009): "focusing on those at risk merely changes who is at the bottom of the pile. We need to raise the whole pile".

2.5 Understanding FY Undergraduate Achievement from the Students' Perspective

Adopting a non-deficit perspective in studying the FY undergraduate experience means conducting research which focuses on students' success and achievement. What then does achievement mean as a concept in FY HE?

2.5.1 The Concept of FY Undergraduate Achievement in the Literature

As reviewed in section 2.2, research on the FY undergraduate experience has been conducted, generally, around two themes which are student retention and student academic performance. Although "Enhancing FY Undergraduate Achievement" has been taken as an instrumental goal in studies on both of the two themes, few of these studies clearly define the meaning of FY undergraduate achievement in their research. Based on the way "Achievement" has been interchangeably used with other terms in research on either of these two themes, it has been found to be implicitly imbued with two meanings. For studies on students' retention, the underlying assumption regarding FY undergraduate achievement is completing FY HE; while for studies on students' academic performance, FY undergraduate achievement is represented by assessment grades. So is it appropriate to employ these assumptions as the operating definition of FY undergraduate achievement in this research project? This question has to be answered by being situated within a larger context of the objectives of HE. This is because achievement is an objective-related

concept and, therefore, the concept of achievement in HE can not be understood separately from objectives of HE.

2.5.2 Objectives of Higher Education

Educational objectives refer to the goals which undergraduates are expected to achieve as a result of instruction (Krathwohl, 2002). Early research carried out by Bloom (1956) identified three domains of educational objectives. They are cognitive objectives (thinking), affective objectives (feeling) and psychomotor objectives (doing). Since then, many HE objective taxonomies have been constructed based on modifying Bloom's model to various degrees. However, most of these taxonomies tend to illustrate the objectives in a cognitive domain. Although Bloom's taxonomy of HE objectives identifies the importance of the development of students' emotional feelings and skill development, it has been criticized by Romiszowski (1981) as neglecting the difference between knowledge and skills (Carter, 1985). Drawing on Romiszowski (1981), Carter (1985) constructed a taxonomy of objectives for professional education and argued for broadly developing students from three aspects: knowledge, skill and personal qualities, which contain a number of specific objectives subsumed under each domain. As far as the knowledge aspect is concerned, students are expected to grasp both factual knowledge like facts and principles and experimental knowledge such as experience and abstraction; The Skills domain concerns the acquisition of mental skills, information skills, action skills and social skills; Another objective domain concerns students' personal qualities development, which include developing their mental characteristics, attitudes and values, personality characteristics and spiritual qualities.

Because the concept of educational objectives has been defined as intention of instruction, it has been criticized as neglecting the dichotomy between learning and teaching intentions with a suggestion that it should be replaced by the concept of learning outcomes (Miller *et al.*, 1998). Learning outcomes, according to Eisner (1979 p.103), "are essentially what one ends up with, intended or not, after some form of engagement" and represent more comprehensive learning results which it may not be possible to specify by

instruction objectives (Allan, 1996). Allan (1996) criticized the partiality of assessing students' achievement against conventional teaching objectives and suggested replacing those objectives with learning outcomes which include subject-based outcomes, personal transferable outcomes and generic learning outcomes. Subject-based outcomes subsume learning objectives and directly relate to the content being taught in a given context. Indirectly related to subject-specific outcomes, both personal transferable outcomes and generic learning outcomes are, to a certain extent, personal outcomes. Personal transferable outcomes contain those professional skills such as communication skills and problem-solving skills; while generic learning outcomes refer to the development of students' cognition, such as critical thinking and information synthesising. The notion of focusing on students' learning outcomes puts students at the centre and intends to define objectives of HE beyond the classroom. This perspective is confirmed and advanced by sociologically based studies which expand the scope of undergraduate learning outcomes beyond classroom activities (Brenan and Jary, 2005). However, although the general concept points out that students' learning does not limit itself to within the classroom and hence the individualized dimension of students' learning in HE, the actual HE learning outcomes specified in the literature are still embedded within the framework of learning in terms of mastering subject knowledge and professional skills. This then seems not as inclusive as the professional education objective taxonomy of Carter (1985).

The educational objectives identified in Carter (1985) are strongly supported by student development theory. Student development theory is not a single theory but a family of theories which fall into 4 broad categories: cognitive structural theories, psychosocial theories, person-environment interactive theories and humanistic-existential theories (Nifakis and Barlow, 2007). The Psychosocial theory of student development (Chickering, 1969, Chickering and Reisser, 1993) is one of the representative theories in this family. The Student development theories perceive undergraduates' development in HE as a progressive process towards complexity and competence. It assumes that students' total environment is educational and hence should be used to develop students to their full potential. Based on student development theory, the

purposes of higher education consist of promoting self-understanding, building on skills and increasing knowledge, which are consistent with the three broad categories of educational objectives of Carter (1985): Personal qualities, skills and knowledge.

Further, although the taxonomy of Carter (1985) was developed over two decades ago, the multiplicity of HE objectives articulated in it also seems to be firmly confirmed by current educational policy designers. For example, Professor Paul Ramsden, former chief executive of the Higher Education Academy, suggested in his advisory report for educational policy decisions over the next 10 to 15 years that HE curricula are desired to be transdisciplinary, to challenge students to their limit and to build on students' problem solving ability and international perspective (Ramsden, 2008). He also pointed out that graduates from HE need to be equipped with the ability to embrace complexity and uncertainty as well as issues of diversity. All his propositions suggest the demand for multiple objectives in HE practice.

According to the above discussion, the meanings assigned to FY undergraduate achievement as reviewed in section 2.5.1 seem to be too narrow to serve as instrumental goals in directing studies aiming to enhance FY undergraduate achievement. Taking students' completion as the evaluation criterion for their success has been criticized by Ashby (2004). She pointed out that students' completion is an assessment for the institution and is more concerned with students' commitment to the institution. Students do not have to complete the whole course to achieve learning goals and may withdraw with achievements from their own perspective even though they are defined as students lacking achievement from the institution's perspective. As far as academic grade is concerned, it only represents one of the many objectives of HE and hence should be regarded only as one aspect of FY undergraduate achievement. The lack of a clear definition of FY undergraduate achievement in the literature and the deficit models implicit in current assumptions reveal a need for research on the meaning of FY undergraduate achievement. Subsequent research aiming to enhance student success in FY HE can then focus in a clearly defined direction.

2.5.3 Students' Perspective in FY Undergraduate Achievement

As indicated in section 2.5.1, FY undergraduate achievement in the literature has been examined predominantly from the institutional perspective. However, the student perspective in understanding FY undergraduate achievement has been revealed as necessary both in studies on FY undergraduate experience in section 2.2 and section 2.3 and in the concept of learning outcomes discussed in section 2.5.2. For example, the Integration theory of Tinto (1975, 1993) asserted that students' perceptions of their HE experience is influential to their performance and behaviour at university. The concept of student satisfaction which relates to students' expectations, evaluation and attitudes towards HE experience also reveals the significant role played by students' own perceptions in their HE experience. Further, Allan (1996) observed that Undergraduates' actual learning outcomes are much more than what would have been taught. Expressive outcomes, another important dimension of students' learning outcomes, result from personalized learning experiences and relate to students' personal aims and experiences. This personalized dimension of learning outcomes seems difficult to identify from perspectives other than that of the students.

The preceding discussion suggests that the FY undergraduate experience cannot be fully understood without taking the students' perspective into account (Harvey, Drew and Smith, 2006). Especially within the current widening participation context, undergraduates start HE with much more diverse backgrounds and possessing new identities and expectations as consumers (James, 2002). This means that current FY undergraduates may experience university in ways which are significantly different from their former generations, which further confirms the need to explore current FY undergraduates' perspectives on the meaning of achievement and their achievement making process. As Ramsden (2008 p.1) argued, "we will not be able to take the student experience forward unless we see it as a joint venture between students and those who provide higher education."

2.5.4 Summary

FY undergraduate achievement in the literature has long been defined from the perspectives of all other HE stakeholders except students. For example, it has been assigned the meaning of retention and academic achievement, which are not comprehensive enough or even necessarily suitable to be taken as instrumental goals to guide research into the FY undergraduate experience, according to the variety of objectives of HE suggested in the literature. Further, literature on HE objectives also identifies the personalized dimension of undergraduate learning outcome construction, which reveals the significance of the student perspective in FY HE achievement construction. This reemphasizes the necessity to understand FY undergraduate achievement from the students' perspective while its importance has been indicated by FY undergraduate retention studies. Accordingly, it would be of great value and to understand achievement from FY undergraduates' own perspective, and consequently, there is a need to conduct research on what achievement means to students in FY HE and how they perceive the process of achieving during their FY HE.

2.6 Summary of Literature Review

The importance of the FY undergraduate experience has inspired both theoretical and empirical research to understand and improve students experience in FY HE. Theoretical models being developed in the literature mainly draw on perspectives from sociology, organization theories, economic theories and psychological theories. Reviewing these theoretical models within the framework of Giddens' (1984) structuration theory, it suggests that FY undergraduate experience need to be viewed as a complex interactive process shaped by students' individual psychology, institutional environment and wider social context and students' patterns of experience may differ according to the types of institutions.

Intrigued by the theoretical models, empirical studies have been conducted to either test them or further develop them to inform practice. These empirical studies are normally designed around two themes, namely FY undergraduate

retention and FY undergraduate academic performance. A range of specific factors have been identified by the empirical research findings as influential to FY undergraduate retention or academic performance. However, no single factor has been found significant enough to play a determinant role.

Reviewing theoretical and empirical studies on the FY undergraduate experience, there is a dominant trend to explore it from a deficit perspective. However, focusing on studying the experience of withdrawing students does not necessarily inform us as to why and how students succeed in FY HE. The limitation of exploring FY undergraduate experience from a deficit perspective implies the need for research from a non-deficit perspective focusing on the phenomenon of student success or achievement.

Meanwhile, the multiplicity of HE objectives identified in the literature suggests that the current working concept of FY undergraduate achievement seems too narrow to inform effective practice in terms of enhancing students' FY HE experience. In addition, the personalized dimension of learning outcomes indicates that a thorough understanding of FY undergraduate achievement cannot be achieved without consulting students' own perspectives. Accordingly, there is a need for research into the meaning of FY undergraduate achievement and how FY undergraduates make achievement from the student perspective.

This literature review has explored a variety of perspectives on FY undergraduate experience. Much of the focus of this literature is on questions of retention and there is a tendency to equate this with achievement. In addition, the literature tends to look for influencing factors at the levels of pre-entry structures (e.g. family and prior education), institutional arrangements (is it hospitable, etc.), students' satisfaction as customers and individual motivation. In considerable measure these perspectives could be said to offer a deficit model of the student experience and a corrective response for the institution. There are exceptions in the literature, for instance, Harvey, Drew and Smith (2006), Hockings (2010), Roberts *et al.* (2003) and Tinto (2006) and this thesis seeks to advance the work of these theorists in centring the research

on the students' perspective of achievement in FY higher education. The research questions addressed in this study distance themselves from a deficit model or a notion of students as customers awaiting satisfaction. Instead, the aim is to capture the meaning making processes of students in relation to achievement. The assumption underpinning this aim is that students are likely to be determining much of their FY experience but we know little about the content of this determination.

Chapter 3 Methodology

3.1 Statement of Research Questions

Informed by the literature review of the previous chapter, the research questions of this study are as follows:

1. What does “Achievement” mean to FY undergraduates?
2. What is FY undergraduates’ achievement making process?
3. What are the influential factors that affect FY undergraduates’ achievement and by what means do they make an effect?

In practice, the generation of these research questions is also enlightened by the researcher’s ontological and epistemological position because social research questions and research implementation cannot be separated from the researcher’s ontological assumptions (Bryman, 2008). Gray (2004) also argues that the researcher’s ontological and epistemological stance affects the methodology they adopt, which in turn influences the research methods they employ in their research. Therefore, in this methodology chapter, I would like firstly to illustrate the epistemological and ontological perspectives which contribute to the generation of research questions and research design in this project. Then I will discuss the overall research design and the research strategies. Finally, I will describe the data collection methods and processes. The last part of this chapter will present a discussion of the trustworthiness of this study and relevant ethical issues.

3.2 Conceptual Framework

This research project is broadly embedded in interpretivism, in particular enlightened by postpositivism and constructivism. This is consistent with my personal theoretical perspective as a researcher, which is elaborated in the following sections. Due to the variation in understanding and defining theoretical perspective concepts (Koro-Ljungberg et al, 2009), there is no clear

or universal definition for these three terminologies in the literature and they have been used at various theoretical levels. As Crotty (1998) pointed out, not only the puzzling range of theoretical perspectives, but also the inconsistent use of terminologies in the theoretical literature cause problems for researchers considering which theories to use in research designs. Therefore, the conceptual framework of this research is constructed based on the essential meanings of interpretivism, postpositivism and constructivism distilled from a range of intellectual work as illustrated in the following sections.

3.2.1 Epistemological Position: Interpretivism

Although interpretivism is referred to in Outhwaite (2005) as a “label for research approaches”, it has largely been used in the literature to represent an epistemological position. Epistemology concerns theories of knowledge and how people obtain knowledge (Jary and Jary, 2000). Interpretivism, as one of the most influential epistemological positions, emphasizes the priority of understanding social actors’ interpretation of social reality and the necessity of interpreting the social world from their perspectives. According to Bryman (2008), approaches to obtain people’s subjective meaning behind their behaviours are needed because people, as research objects of social science, are different from those in natural science. In other words, interpretivism recognises a difference between natural reality and social reality and hence requires the use of different methods in social science studies compared to natural science studies which are dominated by positivism.

In the context of their individual emphasis on different aspects of social reality, the intellectual heritages of interpretivism include three different branches: Weber’s notion of *verstehen*, the hermeneutic-phenomenological tradition and symbolic interactionism (Bryman, 2008). However, a discussion of the differences between them is beyond the scope of the present study because it is the overlapping principles within these three branches that have been adopted to inform the methodology of this research. In other words, all these three theoretical perspectives promote relationship, interpretation, meaningful

understanding and interaction, which outline the rough image of interpretivism. Meanwhile, all of them fundamentally share the same epistemological stance which argues for the interdependence between the researcher and the phenomenon being investigated and encourages social science researchers to interact with those they study.

As illustrated by Cousin (2009), within the framework of interpretivism, the researchers acknowledge the impossibility of complete objectivity and consequently own up to their subjectivity in the research process. However, the degree and the way of inserting themselves into the research process could vary from researcher's stance to researcher's stance. This is because interpretivism is an epistemological framework which links a range of ontological stances. In other words, individual researchers' ontological positions also have great impact on how a piece of research is designed, conducted and reported. The ontological stance behind the present research project is discussed in the next section.

3.2.2 Ontological Position: Post-positivism & Constructivism

Ontology is the branch of philosophy which concerns the nature of fundamental existence in the world. According to Lawson (2004), ontology as the study of being has dimensions and foci. Social ontology, then, could be defined as "the study of what is, or what exists, in the social domain or the study of what all the social entities or things that have in common" (p.2). Two of the major social theories that shed light on the current research's ontological position are post positivism and constructivism, which, discussed as follows, to some extent are opposites but are also compatible under certain circumstances.

Post positivism assumes a critical realist ontological position and asserts both the existence of a reality out there and the incomplete accessibility of the reality. Due to the tension between these two natures of reality, post positivism calls for multiple measurements or observations in approaching the reality to capture it as much as possible (Denzin and Lincoln, 2003). Post positivism is

reductionistic and seeks theory verification. Conventionally, research conducted from post positivism comprises quantitative studies utilizing accurate measurement and theory testing (Creswell, 2009).

Constructivism is embedded in relativist ontology and argues for the multiplicity of reality due to the variety of meanings constructed by human beings influenced by individual contextual circumstances (Cousin, 2009). Social constructivism highlights the complexity of subjective meanings constructed by individuals and consequently focuses on understanding the realities perceived by individuals based on their own interpretation of the situation being researched. Constructivism is contextual and seeks patterns of meaning. Studies within constructivism are normally qualitative and theory generating (Creswell, 2009).

As indicated by the above illustration, the fundamental dispute between post positivism and constructivism is whether there is only one single social reality out there or whether there are multiple realities within individuals. This dispute also results in the subsequent differences in research focus and procedure from these two ontological positions. However, I think these two opposite ontological stances are compatible if reality is perceived as a contextual concept consisting of both the nature of singularity and multiplicity. Reality is a multiple nature concept within the dimension of collective construction; whereas it is a single nature concept within the context of individual construction though it is beyond complete objective reflectivity. In other words, the post positivistic stance and constructivist stance are opposites but united in my opinion. They are two ontological positions emphasizing different aspects of the nature of reality in different contexts but compatible within a comprehensive view of the nature of reality.

As a matter of fact, the compatibility of these two ontological stances also identifies itself in the fact that both of them can be epistemologically embedded in an Interpretivist paradigm, the epistemological framework discussed in the prior section. This is because both post positivism and constructivism hold that knowledge is constructed based on interpretation, and both of them

acknowledge the value-ladenness of inquiry and theory-ladenness of facts though the latter values it to a higher degree than the former (Tashakkori and Teddlie, 1998).

3.2.3 Conceptual Framework and Research Design

According to the influence from constructivism, in the current research I aimed to explore the multiple realities of FY undergraduate achievement among students. I have designed it with the assumption that people could interpret a social phenomenon differently both at a particular point in time and at different points in time. Their belief in what is real is based on their own interpretation of experience, which then provides them with the basis for further decision-making or actions. As far as the phenomenon of FY undergraduates' achievement is concerned, it is inseparable from the meaning of achievement assigned to FY HE by FY undergraduates, the roles students play during their FY experience construction and their interaction with the institutional provision as well as external environments. Inspired by this assumption, the three research questions listed at the beginning of this chapter were generated.

Meanwhile, informed by the ontological stance of post positivism, this research also assumes the single reality of FY undergraduate achievement within individual student's perception, though it is impossible for this to be approached directly without mediation. While acknowledging its value-laden nature, I have designed this research with the aim of getting as close as possible to the single reality of the FY undergraduate achievement within individual students' perceptions. In other words, I, in this research, try to identify the reality of FY undergraduate achievement as closely as possible to the reality constructed by the research participants.

Epistemologically guided by interpretivism, I intend to approach the phenomena being studied through interpreting the meaningful understandings assigned to it by the people involved. In other words, it is the subjective meanings

underneath FY undergraduate achievement that I wish to explore in this research and it is the deep understanding and theoretical insights about the FY undergraduate achievement that I intend to strive for through searching for answers to the research questions. In order to fulfil these inquiries effectively, I have designed this research with a preference for verbal data, such as transcripts and diaries, which provides richer data in a language sense compared to the quantitative data favoured by positivists. This inclination for seeking meaning through verbal data suggests that this research project should be conducted as a qualitative inquiry. Nevertheless, qualitative inquiries can be conducted in more than one way. Further, a research design cannot be made only based on the researcher's theoretical preference and hence on its philosophical positions though they have a great influence on the choice of research methodology. The choice of research design and strategies also needs to be based on consideration of other factors, which will be discussed in the following section.

3.3 Research Design-Interpretative Case Study

The philosophical stances reviewed above provide this project with its theoretical paradigm, based on which its research design and methodology can be further developed. According to Maxwell (2005), in addition to its theoretical paradigm, the way in which a research project is conducted also needs to draw insights from a review of the literature and to consider factors such as the aim of the study and the nature of its research questions.

As far as this particular project is concerned, the institutional context, informed by the literature review, is an important factor which deserves serious consideration in the methodology design. The literature review in chapter 2 shows that institutional context plays a significant role in understanding students' HE experience. It highlights the importance of including the characteristics of both the institutional environment and enrolled student cohorts in the design of studies into the FY undergraduates experience. As

Adamson and McAleavy (2000) argued, the specific institution and course context is important to both study design and the analysis and interpretation of the data gathered. Also, as stated in chapter 1, the overall aim of this research project is to develop a student-centred model for managing students' acclimatisation to higher education and their subsequent achievement, particularly in the context of a post-1992 university science department. Therefore, data analysis and discussion in this research project needs to be based within the context of the particular post-1992 university and the sample cohort of FY science undergraduates.

Considering the above issues, case study seems to be the most suitable research design for this particular research project. However, the definition of case study is diverse in the literature due to the conflation of the case study research process with the study unit and the investigation product (Merriam, 2009). For example, Stake (1995, 2005) emphasizes the particularity and complexity of the unit of study and defines case study as the study of the particularity and complexity of a single case within bounded circumstances; while Yin (2008) defines case study by relating to its nature as a way of enquiry. According to Yin (2008, p.18), "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." Although various definitions of case study have focused on different aspects of its nature, there is a consensus among them. That is that a case study is primarily concerned with particularistic, descriptive and heuristic analysis of a single unit within a bounded system (Merriam, 2009). This primary concern of case study design matches well with the nature of the present research project and consequently I have chosen it to provide a framework for data collection and analysis for the research project.

By adopting case study as its research design, it means this research project is conducted in a way which reflects the five distinctive features of case study research design implied by its primary concern. First of all, this research project

focuses on the analysis of the phenomena of FY undergraduate achievement from students' perspective, which constitutes the single unit in the case study design. It is designed to explore the holistic nature of FY undergraduate achievement and the relationship between its components. No matter what data being collected or data collection methods and analysis techniques being adopted, they need contribute to the understanding of the phenomena, FY undergraduate achievement, as a whole. This is because the distinguishing feature of case study is its integrity rather than simply a loose collection of traits (Sturman,1994).

Secondly, the phenomenon studied in this research project has a bounded context. Specifically, it is localized in a post-1992 UK university science department. This sets up the boundary system for this research project. Consequently, it is a necessity for this project to explore the contextual features of the science department FY undergraduates in this post-1992 UK University, such as their demographic and academic background. Besides delimiting the object of study, these features also enable data analysis and interpretation within context, which contribute to the justification and evaluation of knowledge generated from case study.

Thirdly, as indicated by the above two features, this research project concentrates on the phenomenon of FY undergraduates' achievement in this post-1992 UK university science department rather than achievement within other time or space boundaries. This particularity of research focus sets up the first level of sampling in this research project, the case to be studied, and subsequently determines the sampling framework for the next level of sampling. As Merriam (2009) explained, a second level of sampling needs to be conducted within the case unless it is planned to interview all the people or to analyze all the documents within the case.

Fourthly, adopting case study research design also means that rich description of the nature of the case is an inherent part of research findings in this project.

This suggests that the data collected needs to be sufficiently detailed and extensive to capture the comprehensiveness of the FY undergraduate experience. It is also desirable for the study to be longitudinal to reflect the process of FY undergraduates making achievement.

Finally, it is an aim of this research project that its findings should be heuristic to illuminate people's understanding not only of the FY Science undergraduates achievement in the post-1992 university under investigation, but also of other students' achievement under similar circumstances. In order to achieve this goal, this research project needs to examine emerging relationships among factors in the phenomenon of students' achievement. This will enable further opportunities to gain insights as to what achievement means to students and how they make it, which indicates the theory seeking nature of this research project.

Employing case study as a research design framework rather than as a research strategy in the current study means that, within this research design, specific research strategy (ies) or approach (es) need to be chosen to direct data collection, analysis and interpretation of findings. This is because there are no specific data collection or analysis methods unique to case study research and the case study researcher can employ any research approach as long as it is appropriate and practical (Bassey, 1999).

After reviewing the literature on research methodologies, I have developed a mixed research methodology combining both qualitative and quantitative approaches to seek answers to the research questions in this research project. This is because a mixed research methodology can better capture the comprehensiveness of a case by the gathering and analysis of data in different ways and from different perspectives. Being mixed in different forms, mixed methodology can benefit a piece of research in many ways, such as by triangulating research findings, providing complementary information, informing sequential study, initiating different perspectives, and

expanding the research scope (Creswell and Clark, 2007). Particularly in this research, I have decided to use qualitative and quantitative approaches in a sequential way, with the prior informing the latter while the latter also complements and expands on the prior. The specific qualitative and quantitative approaches adopted are presented and justified in the following sections.

3.3.1 Qualitative Approach

According to Tesch (1990), qualitative approaches used by researchers can be reduced into four broad categories: investigations of the characteristics of language; investigations of the discovery of regularities; investigation of the comprehension of the meaning of text or action; and varieties of reflection. As illustrated in section 3.1, rather than focusing on language characteristics or evaluating organizational programmes, in this research project I am fundamentally interested in understanding the meaning of students' accounts and actions, which falls into Tesch's (1990) third category. In particular, the qualitative approaches used in this research are inspired by grounded theory and phenomenography, two of the typical research strategies within this category.

Grounded Theory

“The grounded theory approach is a qualitative research method that uses a systematic set of procedures to develop an inductively derived grounded theory about a phenomenon.” (Strauss and Corbin, 1990, p.24) The characteristics of grounded theory methodology which separate it from other qualitative methodologies can be discussed from four aspects: study aim; sampling method; data analysis; and research focus. In the following paragraphs I will attempt to justify the employment of grounded theory in this research by referring to its features from these four aspects.

Firstly, in grounded theory methodology, the aim is to facilitate researchers in generating novel pragmatic theories rather than testing theoretical hypotheses

or developing rich descriptions of particular phenomena. As Creswell (1998) explained, theory generation is the ultimate goal of grounded theory studies so that “an abstract analytical schema” can be developed to explain phenomena within a specific context. This is exactly in accordance with the second aim of the present research, which is to explore the FY undergraduates’ achievement making process. The literature review chapter showed that most FY undergraduate experience studies have been carried out from a deficit perspective, aiming to investigate the reasons for students’ withdrawal. The lack of theoretical models in illustrating FY undergraduates’ persistence and achievement highlights the need for research from this perspective and hence the appropriateness of using grounded theory to address this gap in the literature.

Secondly, the sampling method of grounded theory, namely theoretical sampling, makes it a valid and effective methodology in terms of theory development and model establishment. Rather than deciding sample size before data collection and analysis, the theoretical sampling method uses findings from initial data collection and analysis to inform further sampling and data collection. It requires the researcher to collect data and analyse them simultaneously so that he or she can make the decision for further sampling and refine the theory being developed (Glaser, 1999). This particular process, as Charmaz (2000) maintained, sets up a clear boundary between the categories and helps researchers identify the properties of categories, relevant context, specific conditions for a particular phenomenon and subsequent consequences. As far as this study is concerned, theoretical sampling would assist and guide the recognition of attributes of FY undergraduates’ achievement, the identification of the features of a supportive environment for competent students’ performance, the discernment of specific conditions for fulfilling and sustaining achievement and consequently the attainment of a comprehensive understanding of students’ achievement making process.

Constant comparative data analysis and concurrent memo writing also make grounded theory distinct from other research methodologies. Merriam (2009)

revealed this distinctive feature of grounded theory by commenting that sometimes, even studies which concern no theory generation are claimed to be grounded theory studies because of their use of the constant comparative data analysis method. Constant comparison method is a data analysis technique which helps researchers identify categories, develop them and finally link them into theoretical models. There are two types of comparison in this analysis process, namely instances or objects comparison and theoretical comparison (Strauss and Corbin, 1998). By constantly comparing similarities and differences between objects or theoretical categories, the researcher is able to better understand the properties, context and conditions for a phenomenon as well as its possible consequences (Ryan and Bernard, 2000). In grounded theory, this analysis process is required to be explicitly recorded in memos, which play a guiding role in both data analysis and theoretical sampling. Memos are defined by Glaser (1998, p.177) as “the theorizing write-up of ideas about substantive codes and their theoretically coded relationships as they emerge during coding, collecting and analyzing data and during memoing”. By memoing what is going on, data is theoretically abstracted into concepts. These concepts are then compared in memos to identify whether there are relationships among them and how they are related to each other. Simultaneously, researchers also note down in memos their own reflections on the data analysis process and their analytical decisions on what to do next to further data analysis (Cousin, 2009). Consequently, memos help the researchers raise questions for further exploration and assist the theoretical sampling and data collection process in grounded theory research. In a similar way, memo writing facilitates the process of raising codes into conceptual categories. By memoing, the properties of each category are defined and the conditions are specified, under which the categories develop, are maintained, and change; the researchers also note the consequences of each category and its relationships with other categories. (Charmaz, 2002)

Finally, the pragmatic focus of grounded theory promotes its prevalence in social science research. As Denscombe (2003) pointed out, practice (human interaction) and what is practical (pragmatic philosophy) are the main concerns of grounded theory study. These particular aspects of grounded theory

influence the research focus on the field work and on explaining relationships between various elements of a phenomenon within a specific context. Also it is this research focus that makes grounded theory so popular in studies on perceptions and interpersonal relationships. Creswell (1998) confirmed this view by emphasizing the importance of the process of individual actions and interactions within a context in grounded theory studies. Furthermore, the pragmatic nature of grounded theory findings also contributes to its attractiveness to social science researchers. Theories in sociology can be broadly divided into two groups in terms of the level of abstraction. One group consists of grand theories, which refers to those theories with universal generalisability; the other one is composed of middle range theories, named by Merton (1967) to set up a middle point between theories in the traditional sense and empirical findings (Bryman, 2008). The theories generated by grounded theory methodology normally belong to middle range theories, which have subject discipline specialities and consequently might be more useful in practice. This practical focus of grounded theory methodology fits very well into the needs of the present research, which aims to enhance FY undergraduate achievement by understanding the interactive process in undergraduates' FY experience.

The features discussed above make grounded theory one of the most frequently used qualitative research methodologies. Although criticism of grounded theory exists in the literature, it is derived fundamentally from disputes over ontological stances. For example, grounded theory has been criticized due to the positivistic assumptions of its supporters and the positivistic logic inhabited within the method itself (Charmaz, 2000). Grounded theory was firstly established by Glaser and Strauss (1967) and later developed into two different directions with the view split between the two authors. Although Anselm Strauss, together with Juliet Corbin, has moved grounded theory away from Barney G. Glaser's traditional positivist position, their claim for grounded theory still falls into post positivism, which is challenged, similarly to Glaser's version of grounded theory, by postmodernism and post structuralism. However, this clash among research paradigms should not be taken to reduce the value of grounded theory as a research approach. As Charmaz (2006)

argued, grounded theory can make a positive contribution to studies from different research paradigms. It is the researchers' ontological and epistemological stances that decide the specific way by which it is used in a particular piece of research.

Phenomenography

Phenomenography is defined as “an approach aiming at the mapping of the qualitatively different ways in which people experience, conceptualize, perceive, and understand various aspects of, and various phenomena in, the world around them” (Marton, 1988, p.179). I have chosen this to explore the sample students' perceptions of their HE experience in this research due to its distinctive research objectives, theoretical assumptions and subsequent methodological features.

First of all, Phenomenography is a methodology for studies focused on understanding experience, which highlight how things are experienced by the people who are involved (Marton, 1994). As far as the research objective is concerned, there are two broad dimensions. One is to study the nature of a phenomenon itself; the other one is to study how a phenomenon is perceived by the human beings involved. Phenomenography falls into the second of these two dimensions (Marton and Booth, 1997). This means that the focus in Phenomenography is on understanding how a phenomenon is experienced by the people involved rather than the actual phenomenon itself. This is consistent with the perspective of the current research project, attempting to understand FY undergraduates' experience from their perspective. Its aim is to explore how the research participants perceive their HE experience rather than what is actually going on during their experience in HE. Although the achievability of the phenomenographical research objective has been questioned in the literature due to the tendency of equating peoples' accounts of experiences with their actual experiences in Phenomenography studies, there is no way to obtain the data about people's ways of experiencing a phenomenon other than asking them to describe it themselves (Orgill, 2008). Moreover, Cousin (2009) suggested that phenomenographic studies do not yield a final truth from their

research findings as it is impossible to extract the pure voice of research participants. Rather, the categories of description being constructed in phenomenography should be claimed as heuristic devices to further people's understanding of a phenomenon rather than as authentic representations of reality.

Further, phenomenography is concerned with the variation in ways of experiencing certain phenomena (Marton and Booth, 1997) due to its focus on finding the delimitation and whole quality of conceptions (Svensson, 1997). That is to say, phenomenography is particularly concerned with differences rather than commonality and in the variability of collective experience rather the richness of individual experience (Trigwell, 2006). However, variations are not identified for their own sake in phenomenography studies. One of the underlying assumptions of the phenomenography approach is that some ways of experiencing a phenomenon are more efficient than others in relation to some given criterion. The different ways of experiencing a certain phenomenon represent different capabilities for dealing with that phenomenon (Marton, 1994). Accordingly, the aim in adopting a phenomenography approach is to present a set of logically interrelated descriptive categories in their outcome space, which not only describes various ways of experiencing but also tells which way is more efficient in handling the phenomenon (Marton and Booth, 1997).

These particular research objectives enable phenomenography to contribute effectively to this research by identifying and explaining differences among FY undergraduates' achievement in HE.

Where theoretical assumptions are concerned, those of phenomenography are compatible with those underpinning this research and hence there is congruity between the methodological features of phenomenography and this research design. The nature of conceptions assumed in phenomenography determines its explorative feature, which fits this research design very well. For

phenomenography, conceptions connect to the relations, which are uncertain in terms of both the conceptualized delimitation of the objects and the meaning of the objects (Svensson, 1997). The uncertainty and variation of relations mean they need to be explored from case to case and hence the explorative feature of phenomenography research. These assumptions about conception in phenomenography are consistent with those of constructivism, which theoretically informs the design of this research. As Cousin (2009) argued, phenomenography is underpinned by constructivism as both of them acknowledge the constructive nature of people's perceptions of phenomena and subsequently the existence of variation among perceptions as the consequence of individuals' social and personal background influence.

In addition, methodologically the interpretive feature of phenomenography also contributes to this research project. The interpretive feature of phenomenography relates to its epistemological position of seeking for meanings. However, by seeking for meanings, phenomenography aims to reach a 'summary expression of the content or meaning of data as close to data as possible' (Svensson, 1997, p.167) and, as a consequence, it encourages researchers to "bracket" their personal presumption in data analysis. "Bracketing" one's personal presumption in phenomenography research has been criticized by Webb (1997) for portraying the researchers' position in research as being neutral which is by no means possible. Nevertheless, this is not the case from the Post positivist point of view, which elucidates the research design of this project. For post positivists, bracketing presumption is not to portray an absolute neutral position of the researcher. Rather, it is a tool used to remain faithful to the data as much as possible. This is because post positivism assumes the external reality and subsequently encourages researchers to try to get as close as possible to external reality while acknowledging the impossibility of avoiding their subjective interpretation during the research process.

The historical roots of phenomenography shape it as a research approach

combining elements of several old research traditions while not totally agreeing with any in terms of ontological, epistemological and methodological assumptions (Svensson, 1997). Although it has been questioned in the literature for this reason, phenomenography has established its significance by contributing successfully to empirical studies in education and other social science contexts. Due to its research objective and theoretical and methodological relevance to this research as illustrated above, phenomenography was decided to be included as part of this research design.

3.3.2 Quantitative Approach

The quantitative approach need not be ruled out for case studies and on the contrary might effectively make a beneficial contribution. As Verma and Mallick (1999) argued, quantitative data deserve a place in case studies in terms of widening the range of research evidence and complementing findings from qualitative approaches. In this research, I decided to employ survey as the quantitative approach to provide contextual information for the research and to complement the qualitative research findings.

Survey is a research approach in which the aim is to provide quantitative description of the population sample. Survey is very popular in social science research and is considered to be superior to other quantitative research methodologies in many aspects. Firstly, significant amounts of data can be collected from a large population in survey studies and it is a comparatively straightforward and user-friendly methodology to investigate people's attitudes and perceptions (Gray, 2004). Moreover, data are collected on a one-shot basis and thus survey is relatively low-cost and easy to carry out (Cohen and Manion, 2007). Finally, survey is especially suitable for descriptive studies, in which the aim is to examine distributive patterns involving a wide range of people characteristics and any relationships between these characteristics (Robson, 2002).

Due to the above advantages, I have selected survey in this research project to

complement the qualitative approaches by collecting data from a bigger sample to present the distributive patterns of students' perceptions identified in the qualitative study within the department. The purpose and method of using a questionnaire survey in this research project relate closely to its epistemological and ontological framework. Influenced by postpositivism, I deliberately seek to cross-check my interpretation of the realities in students' perceptions identified in the grounded theory study and phenomenography study. Therefore, I designed the questionnaire based on qualitative research findings and tried to distance myself from the survey data collection process by issuing self-completing questionnaires to the sample students. Meanwhile, the design of the questionnaire, as can be seen in Appendix 5, is greatly informed by constructivism, highlighting the subjective meanings of circumstances perceived by sample students. The information gathered and patterns identified in the survey will provide background information which relate to the whole research project and which also help readers to understand the qualitative research findings holistically.

Enlightened by interpretivism and informed by the literature review, this research is designed as an interpretative case study which employs a combination of qualitative and quantitative approaches. It can be viewed as a research project consisting of three individual studies being conducted sequentially. The following section will present data collection methods and processes for each of these studies.

3.4 Data Collection Methods and Process

In order to meet the needs of different approaches and research questions, several data collection methods were considered during the first six months after the research project started. Four data collection methods, namely observation, focus group, written texts and questionnaire were piloted. Based on critical reflection on the piloting processes, I decided to employ one-to-one interviews, written texts and questionnaires to collect data for the three individual studies in this research project.

3.4.1 Piloting Data Collection Tools

In order to improve the quality of the research project, four initial data collection methods considered for research implementation were piloted. Due to the resource limitation, participants on whom these methods were piloted were chosen based on convenient sampling strategy.

Observation

In the pilot study, observation was conducted on a cohort of FY undergraduates in the School of Health during their Induction week. The field notes taken during observation sessions were very informative in terms of understanding students' interaction with the induction programme. However, reflecting on the pilot process, it seemed neither practical nor appropriate to adopt observation as a data collection tool in the main study. One reason is that this research does not only concern students' classroom experience but also their experience outside the classroom. This means that I also needed to observe students outside the classroom context if observation was to be employed. The other reason is that observation focuses on overt behaviour and describes what happens instead of why it happens (Denscombe, 2003). This is not consistent with the focus of this research which is to understand students' perception and interpretation of their first year university experience. However, this pilot study benefited from my presence in the induction process and activities. Not only did it help me know more about the research context, but also it helped the students to gain a better understanding of my study, which in turn encouraged their active contribution to my further data collection.

For the above reasons, I decided to observe the sample students' induction week at the beginning of the main study. However, rather than taking it as part of the systematic data collection process for the research project, I took it as an opportunity to familiarise myself with my sample students and to gain some understanding of their programme without interrupting their major study. Induction sessions for Pharmacy students were chosen to be observed with

convenient sampling strategy. I obtained permission to access the induction sessions before the start of induction week. Written field notes were taken during the observation to minimize the impacts of observation on students. The observation was unstructured due to my aim of using it to enable me to obtain a general understanding of the research context without previous bias or constraint.

Focus Group

Focus group was initially selected as the data collection method for the grounded theory approach. The participants were recruited from FY undergraduates in the Geography and Environmental Science Department. Three focus groups were organized during their field trip at the end of FY study in order to take advantage of the opportunities presented by residential activities to recruit participants and gather them together for focus groups. The sample students were grouped into High Risk, Medium Risk and Low Risk groups according to their performance in their FY study. Each focus group lasted about one hour and the moderator was a popular student personal tutor.

Altogether 9 students came to the first focus group. However, its success was constrained by the focus group discussion remaining at a surface level. Based on the audio file of the first focus group, I had a discussion with the moderator and added several questions for the other two focus groups. As a consequence, the second focus group discussion was richer than the first one. However, it had only 3 participants. Seven students turned up for the last focus group, which was the richest one due to the deeper level of students' reflection and good interaction within the group. Nevertheless, it was still difficult to probe for more information from individuals due to the form of group discussion, especially for those who are naturally quiet and shy.

Through this pilot study, I learnt that gathering several students together to conduct focus groups could present time constraints. Further, the focus group size needs to be carefully controlled because it could affect the depth of

reflection of individual participants. Moreover, the experience of less assertive participants could be overlooked as they are more likely to find it difficult to make contributions in group discussions. Finally, it is difficult to interrupt an ongoing discussion to further probe interesting comments from individual participants, which is necessary for the grounded theory research approach. Accordingly, I decided to replace focus group with one-to-one interviews as the data collection method for the grounded theory approach in the main study.

Written Texts

It was decided that data for the phenomenography study should be initially collected from students' reflective writing on their FY HE experience. This decision was made based on the observation of Moon (1999) on two ways of reflection. According to Moon (1999), reflecting on experiences can be broadly classified into two forms: collective reflection and individual reflection. To triangulate the collective reflections in focus groups, I decided to adopt a data collection tool to gain students' individual reflection in the phenomenography study. While deciding the specific data collection method, I had a chance to read some of the FY undergraduates' reflective writing on their FY HE experience in the School of Sports, Performing Arts and Leisure. I tried phenomenographic analysis on them and found them very telling and informative, although they were prepared and handed in for module assessment. This data collection method was therefore adopted in the main study. More rationales for using written texts as data collection tool for the phenomenographic approach are discussed in section 3.4.3.

Questionnaire

According to the sequential design of mixed methodology, a questionnaire was designed based on the qualitative research findings in the main study. According to Cohen and Manion (2007), there are, broadly, two ways of piloting questionnaires, namely data focusing pilot and format focusing pilot. The former is intended to reduce large number of items in a questionnaire to a manageable size through statistical analysis on a sizable number of respondents. Due to the

subordinate position of the quantitative study in this research and the resource limitation, the questionnaire was piloted in the latter way, which focuses on the format of questionnaire design, improving it by gaining a small amount of feedback. Firstly, feedback from my supervisory team was obtained on the questionnaire design. Then the modified version based on feedback was piloted on 5 people. They were asked to fill in the questionnaire without interruption to check the time needed for completion. After completing the questionnaire, they were asked to comment on the clarity of the wording of questions and instructions, etc. Considering the diversity of the research sample in the main study, I deliberately chose 5 people with different demographic background, including 1 under 21 years old, 2 between 21 and 25 years old, 1 between 26 and 30 years old and 1 between 36 and 40 years old. 3 of them were females and 2 were males, including two international students. More details of the questionnaire design and changes made based on the pilot study are discussed in section 3.4.4.

3.4.2 Study One: Grounded Theory Study

Data Collection Tool

I used one to one Interviews to collect data for the grounded theory study in this research. According to Denscombe (2007), interviews are especially suitable for, and have been widely used in, qualitative studies designed to understand participants' perceptions, feelings and experiences. Compared to other data collection methods such as observation and questionnaire, the interview is more direct, more flexible and potentially better able to gather more information-loaded data (Robson, 2002). Its direct two-way communication allows researchers to adapt questions to follow up critical responses and elicit tacit perceptions from interviewees (Arskey and Knight, 1999).

The interviews in this research were designed as semi-structured in-depth interviews taking account of the characteristics of grounded theory methodology. As discussed previously, grounded theory facilitates researchers in generating dense novel theories, and requires them to enter the field with

fairly open-minds. Accordingly, a fully structured interview is too fixed for a grounded theory study to make full use of its power and potential in theory generation. An unstructured interview, on the other hand is too open for the sampling and data analysis processes in grounded theory studies because both theoretical sampling and constant comparison analysis keep narrowing down the focus of interview questions so that specific data can be obtained for the theoretical frameworks being developed. These limitations actually reinforce the suitability of using semi-structured in-depth interviews in grounded theory studies. As Charmaz (2002) argued, grounded theory studies need data collection methods which are flexible as well as focused. Semi structured in-depth interview combines flexibility and control in its question design and implementation, which enables grounded theory researchers to collect rich informative data without losing control in the research process.

In line with constructivist grounded theory methodology, the interview questions in this study were designed based on the principles suggested by Charmaz (2002) (see Appendix 3). According to Charmaz (2002), grounded theory interview questions need to be exploratory, context oriented, cross-checkable and probing of theoretical insights. As can be seen in Appendix 3, nearly all the proposed questions were designed to ask questions in an exploratory way, avoiding confusing academic jargon and considerate of the characteristics of first year undergraduates. Overlaps between questions were used to help cross-check participants' answers as well as allowing the return to previous themes deserving further exploration. For example, overlap exists between Q4: What do you think is achievement in Higher Education? What would represent achievement of First Year study in Higher Education for you? and Q5: What do you think has contributed most to this achievement and your ability to succeed the first year study? in terms of students' understanding of achievement. Similarly, critical events in the interviewees' FY HE experience are explored in both Q1: How would you describe your university experience so far? and Q2: Is it the same as you expected before starting? What are the difference between your expectation and your experience?

Sampling and Data Collection Process

Following Charmaz (2002), theoretical sampling was used in this study to sample participants for data collection. The whole process was carried out in two stages, at the end of the first semester and at the end of the second semester. At the first stage, 6 FY undergraduates from the sample framework, namely the School of Applied Science, were interviewed based on theoretical sampling methods. First of all, several students were randomly chosen from those who had signed the informed consent form for participating in interviews. They were emailed for interview appointments and three of them replied to my email and came for the interview. Based on brief reflections on my first round of interviews, another three sample students were selected to be interviewed before the Christmas holiday. After initial analysis on the 6 interviews, 5 more students were interviewed based on theoretical sampling methods near the end of the second semester, which brought the categories emerging from the data analysis into saturation. The demographic details of the interviewees and more information about the sampling process is recorded in the memo (see Appendix 6)

3.4.3 Study Two: Phenomenography Study

Data Collection Tool

As Titscher *et al.* (2000) asserted, data do not always need to be collected, as it is often possible to use materials that are already available. In this research, students' reflective writing which was written for their Personal Development Plan module was analysed as a data resource for the phenomenography study. Reviewing the literature, it seems that undergraduates' reflective writing essays have rarely been used as a data resource in studies in higher education. There may be two possible reasons. The first one is that reflective writing as a form of document is very similar to memos or diaries in terms of their highly subjective nature. This excludes them from being considered as data resources in most empirical studies; the second reason, which probably is also the main one, is that reflective writing as a learning facilitator has only relatively recently been

widely introduced into higher education.

Nonetheless, the rare use of reflective writing in previous studies should not preclude its use in this research. According to Merriam (2009), two important criteria for choosing data resource are i) the relevance of data it contains to the research question and ii) the level of its accessibility. Reflective writing here means a piece of written work done by the students as a vehicle for reflection on their personal development. It functions similarly to a learning journal (Moon, 2006), or progress file or record of achievement (Cottrell, 2003), which include students' perceptions of the significant issues and moments in the process of their learning and achievement. Appendix 4 shows the reflective writing essay guideline. Denscombe (2003) argued that reflective writing is a valuable source of subjective accounts of personal experience which show the writers' understanding of the events. Merriam (2009) confirmed this view by maintaining that personal accounts provide reliable data in terms of people's attitudes and beliefs, as the events reflected in personal accounts are decided by no one else but the writers themselves. The students' reflective writing essays used in this research relate closely to the research question of this study and are therefore considered to have great potential to provide rich informative data about FY undergraduates' perceptions of experience and achievement in HE.

Written texts are not as widely used as interviews in phenomenography studies although they have already been used in some research with phenomenography methodology design. The use of reflective writing instead of interviews in this study can be justified by referring to the second criterion of data resources. Considering the research aim in looking for variation within collective experiences, theoretically it is better to have a relatively large sample in phenomenography studies, to maximize the variation within the collective experience of the sample population. Reflective writing in this research was required to be handed in as a compulsory element of module essay assessment. It therefore shares the advantages of most of other forms of documentary data resources in that it is easy to access, stable and non reactive. Compared to interviews, reflective writing essays are more suitable for this study because they provide relatively large amounts of information which

might need great effort and time to collect, they enable the researcher to collect data systematically, and they ground the investigation in the context of the problem being investigated (Merriam, 2009).

Samples and Data Collection Process

The sample for the phenomenography study comprises all the FY undergraduates who registered on the Personal Development Plan Module (Personal and Study Skills 1) in the target academic department, the School of Applied Science. As part of student skill development, self reflection was introduced to FY undergraduates during their induction week. They were required to hand in and upload their Initial reflective writing about their HE experience to their ePortfolio (Pebble Pad) right after Induction Week. At the end of their first semester, the same cohort of students was asked to complete another piece of reflective writing about their HE experience and again upload it into their ePortfolio. Based on the Informed Consent Form returned, I downloaded the reflective writing from those students who had agreed to participate in this study on to my computer. Altogether 44 initial self reflection and 42 FY self reflections were downloaded ready for analysis.

3.4.4 Study Three: Questionnaire Survey

Data Collection Tool

As discussed in section 3.3, the survey methodology in this research is primarily used to complement the main qualitative studies. This indicates that essentially a wide range of quantifiable standard data is needed in the survey study in this research project. It has been widely acknowledged that, compared to other data collection instruments, questionnaires are easy to use, efficient, easy to code and analyze, economical, lack the bias of interviews and can assure anonymity (Munn and Drever, 1999). I therefore decided to employ questionnaires with standard closed ended questions in this survey study.

I designed the questionnaire employed in this survey based on the research findings from previous qualitative studies. It consists of three parts. There are

10 questions in Part I to obtain participants' background information, such as demographic background, current personal circumstances as well as their perceptions of HE during FY undergraduate study. Information collected in this part was designed to provide a contextual understanding of the distributive patterns of responses in others parts of the questionnaire. Part II and Part III were fundamentally designed around the grounded theory study findings. In Part II, the students' achievement making process is deconstructed into 20 questions following 5 themes, namely Going to academic sessions, Doing self study, Socializing with peer students, Solving self-identified problems and Criteria in evaluating FY achievement in HE. For each question, participants are asked to select as many applicable answers as possible, but to pick out one of the most applicable at the end. The choices being listed in the questionnaire are the influential factors identified by the interviewees in the grounded theory study. By providing survey participants with the opportunity to choose both applicable answers and the most applicable answer, their responses to questions in Part II were intended to indicate the priority of these influential factors in FY undergraduate achievement process while at the same time capturing the comprehensiveness of the interaction between students and the external environment. Further, participants were also given chances to add in comments if there is no choice applicable to their situation. The aim of this was to gather additional factors from wider participants to supplement the limited number of interviewees in the grounded theory study. Part III consists of 11 questions to complement Part II by depicting the variation of participants' emotional reaction to the interactive achievement making process.

Sampling and Data Collection Process

The questionnaires, with informed consent forms, were distributed to all Pharmacy, Pharmacology and Pharmaceutical Science students at three of their large overlapping induction sessions at the beginning of their second year. It provided a good opportunity to invite a large number of students to participate in the survey. Access to these three induction sessions was negotiated beforehand with the lecturers. Students were asked to stay and complete the questionnaire in the classroom right after each induction session finished. It took individual participants around 20 minutes to finish the questionnaires and

the completion rate was 94% (n=128).

3.5 Trustworthiness in Case Study Research

The evaluation of research quality is about assessing its trustworthiness (Lincoln and Guba, 1985). However, trustworthiness assessment could have different meanings in different research paradigms because it involves examining the component parts of individual studies. As Merriam (2009) argued, trustworthiness evaluation criteria need to be employed based on research objectives, research design, and presentation of findings. In this section, in the context of debates about research evaluation criteria in the literature, I will firstly illustrate the criteria appropriate for this research project by discussing the similarity and differences among various criteria. I will then justify the trustworthiness of this research against the criteria being employed.

3.5.1 Criteria in Trustworthiness Assessments

Validity, reliability, and generalizability are three key concepts in research quality evaluation. Conventionally, validity has been defined as the extent to which findings of a piece of research match the reality. Reliability refers to the extent to which the findings remain the same when the research is re-conducted and generalizability means the extent to which research findings can be applicable beyond the research sample (Robson, 2002). However, employing the conventional meaning of these three concepts as universal criteria in research evaluation has been criticised as problematic. For example, Bassegy (1999) questioned the appropriateness of using the conventional concept of validity and reliability in case study research evaluation. This is because, initially, these three criteria were developed to evaluate research within a positivist paradigm and consequently reflect the theoretical assumptions of positivism, such as objectivity and the fixed nature of reality. Therefore, it has been argued in literature that either the conventional meaning of validity, reliability and generalizability needs to be reconceptualised or alternative criteria need to be employed to evaluate research which is not designed from a positivist perspective.

One of the most representative and influential arguments against using the concepts of validity, reliability, and generalizability universally was put forward by Lincoln and Guba (1985). Lincoln and Guba (1985) argued that qualitative research holding different views to reality and knowledge should be evaluated from the perspective consistent with the theoretical assumptions underpinning its research paradigm. In addition, different names need to be applied to evaluation concepts if necessary. Lincoln and Guba (1985) developed four terms to replace the epistemic criteria relating to the positivism research paradigm. They are credibility, transferability, dependability and confirmability, equivalents for the conventional terms internal validity, external validity, reliability and objectivity. In line with Lincoln and Guba (1985), Connelly and Clandinin (1990 p.7) proposed apparency, verisimilitude, and transferability as alternative criteria. Malterud (2001) suggested that three overall standards for qualitative research could be relevance, validity and reflexivity and Wolcott (1994) argued for the pursuit of “understanding” rather than validity as the ultimate value in research evaluation.

Despite the varieties of terminology by which quality criteria are defined, it seems to me that the essence existing in the concept of research assessment is to achieve trustworthiness by providing positive answers to the following three questions:

1. Are the research findings true reflections of reality?
2. Is the research conducted in a way which is sufficiently trustworthy to produce truthful findings?
3. Are the research findings applicable to other contexts?

Question 1: Are the research findings true reflections of reality?

As revealed in the wording of question 1, the meaning of reality sets up the basis on which the quality of research findings can be judged. Internal validity in a conventional sense is only appropriate for a positivism research paradigm where reality is conceived as a single, fixed existence independent from human perception; while it becomes inappropriate for interpretive studies due to the

intrinsic constructive nature of social reality and the legitimate multiple interpretations of a phenomenon implicit in this paradigm. As Lincoln and Guba (1985 p.295) explained:

When naïve realism is replaced by the assumption of multiple constructed realities, there is no ultimate benchmark to which one can turn for justification-whether in principle or by a technical adjustment via the falsification principle. “Reality” is now a multiple set of mental constructions.

Accordingly, for studies in the interpretivism paradigm, question 1 can be rephrased into a more specific form: Are the research findings true reflections of the perspectives of those involved in the phenomenon being investigated? Ensuring research quality subsequently means developing a research design which is efficient in exploring human perceptions and generating findings which faithfully represent the complexity and comprehensiveness of social reality constructions.

Question 2: Is the research conducted in a way which is trustworthy to produce truthful findings?

Traditionally, this question is answered by testing whether research findings are replicable, which composes the conventional meaning of reliability. Again, this notion is based on the assumption that “there is one single reality” and “the logic relies on repetition for the establishment of truth” (Merriam, 1998, p.205). Due to the difference in theoretical perspectives, this conventional sense of reliability is not suitable to be applied within an interpretivism research paradigm, which takes neither social reality nor the social actors’ understanding as static. However, examining the repeatability of results is not the only way to answer question 2. Yin (2003) pointed out another approach to interpreting reliability, which puts the emphasis on examining research process rather than testing research findings. An answer to question 2 can then be generated by examining whether data gathered are analysed in a rigorous way so that results can be considered to be consistent with data collected (Merriam, 2009). Also documenting the data analysis process can be a practical strategy in terms of

enhancing the trustworthiness of a piece of research.

Question 3: Are the research findings applicable to other situations?

Generalizability, which is also known as external validity, has been adapted widely to answer question 3. Conventionally, it implies the application of research findings free of time and context conditions from a sample to a population, which is normally achieved through researchers' strict control of situational factors and sample size. However, generalizability in this sense is not applicable in an interpretivism paradigm because the aim of interpretive studies is NOT to produce generalisable abstract universal knowledge (Erickson, 1986). For interpretive studies, generality lies in particularity and knowledge of social reality can never be context free. Therefore, whether it is possible to apply research findings from one particular study into other situations depends on the similarity between the particular research context and the context where the research findings are intended to be applied. This concept corresponds with both naturalistic generalization (Stake, 1995) and transferability (Lincoln and Guba, 1985), two of the key alternative criteria suggested for use within an interpretivism paradigm. In keeping with this concept, the answer to question 3 can be sought in examining whether researchers have provided contextual information detailed enough to enable careful comparison to the users' contextual conditions, provided that the users are confident about the credibility of research findings.

Following the above discussion, I would argue that interpretive research can be specifically evaluated by examining:

1. Whether research design is efficient in exploring human perceptions and in generating findings faithfully representing the complexity and comprehensiveness of social reality constructions;
2. Whether data are analysed in a rigorous way so that results can be considered to be consistent with data collected;
3. Whether enough details about the research context are provided to enable sound comparison to its potential users' contextual conditions.

This is also supported by the assertion of Merriam (2009) that the evaluation of the quality of a piece of research, quantitative or qualitative, can be approached through examining its conceptualization and the process by which it is completed. These, then, are the three criteria against which this research has been designed and conducted, and which also provide the framework for its evaluation, as follows.

3.5.2 Trustworthiness of the Research

The case for the trustworthiness of this research is based on efforts made in its research design, data collection, analysis process, and research presentation.

Several elements in the research design enhance the trustworthiness of the research. First of all, two of the data collection tools, in-depth semi structured interview and reflective writing, provide this research with an effective means of access to “reality” within the interpretivism research paradigm. These tools allow access to participants’ perceptions directly and obtain a true reflection of participants’ perspectives as long as the participants are honest or frank throughout the data collection process. As Lincoln and Guba (1985 p.295) argued,

Those constructions (of reality) are made by humans; their constructions are in their minds, and they are, in the main, accessible to the humans who make them.

Secondly, this research design includes three individual studies, consisting of multiple data sources and methodologies to seek a comprehensive and in-depth understanding of the phenomenon being researched. Data were collected within the same sample framework but under different specific conditions and were subsequently analysed both inductively and deductively. Rather than employing the three methodological approaches strictly as a form of triangulation, I have used them to explore the phenomenon being researched from different angles of a crystal (Richardson, 1997). For example, inductive analysis of the interview data in the grounded theory study aimed to

theorizing the essence of students' achievement making process; while deductive analysis of students' reflective writing in the phenomenography study were included to understand students' achievement as the outcomes of and in relation to their FY HE experience. The survey was designed based on the qualitative studies both to cross-check the credibility of my interpretation of the reflections of sample students and to add an extra layer of their distribution pattern among the sample students. By utilizing three distinctive studies, this research design extends triangulation as an alternative way of validating research findings and enables a crystallization process as discussed in Denzin and Lincoln (2000). According to Denzin and Lincoln (2000, p.6),

“Crystals are prisms that reflect externalities and refract within themselves, creating different colors, patterns, arrays, casting off in different directions (Richardson, 2000, p934). In the crystallization process, the writer tells the same tale from different points of view. [...] Viewed as a crystalline form, as a montage, or as a creative performance around a central theme, triangulation as a form of, or alternative to, validity thus can be extended.”

Thirdly, both the interview questions and requirements in reflective writing were designed to be flexible and general, with the aim of allowing participants to compose their own answers with as few restrictions as possible. Descriptive statistical analysis was also conducted on quantitative data to enlarge the inclusiveness of the research. All these strategies were designed to increase the chances of capturing the diversity and comprehensiveness of the case being studied.

Implementing the research design in a systematic way also contributed to its trustworthiness. As presented previously, I went to students' induction week to familiarize myself with the case context. I also tried to make the interviews happen in an equal and friendly way in order to remove any emotional restriction on participants' frankness with me. Meanwhile, during each individual interview, I tried to paraphrase and summarise interviewees' responses to them on site to minimise misinterpretation in data analysis stage. While in the

process of data analysis, memos were used to help me to be reflective and to make a critical check possible on the consistency between the results and data (see Appendix 6). I also tested my analysis through the theoretical sampling process by checking findings from prior interviews with the following interviewees. For example, when I identified that FY achievements varied in levels in students' perception in the memo, I deliberately asked the next interviewee whether he thought FY achievements vary in levels. Regular supervisory meetings and seminars were also organized to obtain feedback and comments on the research findings. Finally, I have clarified my assumptions, theoretical orientations and the potential personal biases being imposed onto the study in my dissertation, in order to help the reader judge the credibility of my research findings.

This research is not designed for grand generalization or statistical generalization. However, it does aim to achieve fuzzy generalization due to its theory-seeking nature. Fuzzy generalization, defined by Bassey (1999, p.46), is:

The kind of prediction, arising from empirical enquiry, that says that something may happen, but without any measure of its probability. It is a qualified generalization, carrying the idea of possibility but no certainty.

In order to assist the reader to decide whether the research findings are transferable to their context, in other words to enhance its fuzzy generalizability, this research is presented with detailed sample features and contextual condition information. It gives general background information about the case institution and department in addition to the characteristics of sample students in individual studies. At the same time, while presenting and discussing research findings, contextual conditions are included as they are part of the theoretical model being constructed.

3.6 Ethics Issues

Basse (1999) argued that conducting research in an ethical manner includes showing respect for democracy, showing respect for truth and showing respect for persons. Specifically, showing respect for democracy mainly concerns subjecting researchers' freedom of collecting data to the samples' freedom of participating in research; showing respect for truth means ensuring the trustworthiness of research as far as possible and showing respect for persons involves seeking participants' cooperation in providing data and permitting the use of data analysis results for publication. As showing respect for truth was addressed in section 3.5, in this section only ethical issues related to this research in terms of respect for democracy and respect for persons will be discussed. Generally, three approaches have been taken to encourage and ensure sample students' informed voluntary participation in this research.

Approach 1: Distributing detailed informed consent forms to sample students before research implementation

As seen in appendix 1, by reading the Informed Consent Form, sample students in this research were informed about the identity and contact information of the researcher, the purpose of the research and methods of data collection, and the reason for their being invited to participate. They were also notified about the anonymity and confidentiality of participants' identity, the benefits of participation, and that participation was voluntary. Providing the above information before research implementation ensured that the sample students were able to make an informed decision about whether and how to take part in this research project.

Approach 2: Ensuring participants' anonymity and confidentiality both during and after research implementation

During data collection, questionnaire data were gathered anonymously and each interview appointment involved only the researcher and individual interviewee. All data collected were stored securely and are only accessible to the researcher. The interview audio records were downloaded to the researcher's laptop and were deleted from the digital recorder after each

interview because the digital recorder was shared among several researchers. Meanwhile, as promised in the informed consent form, participants were given pseudonyms which are used in all verbal and written records and reports relating to this research.

Approach 3: Reminding participants' of their freedom in deciding the extent and depth of information provision at the time and throughout the whole data collection process

Efforts were made to ensure that interview participants felt equally powerful to the researcher in terms of control over the interview process. A brief friendly, casual conversation took place before each interview. In these conversations, I deliberately declared my identity as an international student and exchanged university experience with participants. The interviews were conducted in a relaxed atmosphere, with drinks and biscuits being offered. I also reminded the participants of their freedom to refuse to answer any questions, particularly when I felt the questions could be sensitive even though related to the research topic. For the questionnaire survey, which was implemented one year after the initial informed consent forms were issued, further informed consent forms (see Appendix 2) were distributed to the sample students again together with the questionnaires.

3.7 Summary

In this chapter, I have shown how the conceptual framework of this research project is broadly embedded in interpretivism, especially influenced by both post positivism and construtivism. This particular conceptual framework has enlightened the generation of research questions and informed the research design in this research. In particular, in this research I have adopted interpretative case study as a framework for its research design and evaluation. Within this framework, I have conducted three individual studies with a combination of qualitative and quantitative approaches. Their implementation is in sequential order for complementary purposes. Data were systematically collected by semi structured one to one interviews, written texts and questionnaires. The entire research design is summarized in *Table 3.1*.

| | | | |
|-------------------------------|-------------------------|--------------------|-----------------------|
| Research design | Interpretive case study | | |
| Research approach | Qualitative approaches | | Quantitative approach |
| | Grounded theory | Phenomenography | Survey |
| Data collection method | Interview | Reflective writing | Questionnaire |

Table 3.1 Research Design

The trustworthiness of this research is grounded in its research design, data collection and analysis process and research presentation. It has also been conducted in an ethical manner by showing respect for democracy, truth and persons.

Chapter 4 Grounded Theory Study Findings

4.1 Data Analysis

As illustrated in chapter 3, grounded theory data analysis is distinctive due to its two features: constant comparison and concurrent memo writing. However, although there is a consensus in developing constant comparison by writing memos, the specific procedures for the implementation of constant comparison vary in the literature. Strauss and Corbin (1998) introduced three sequential steps of coding using the constant comparative method, namely open coding, axial coding and selective coding. Nevertheless, Glaser (1992) degraded the value of axial coding and argued for the employment of theoretical coding to weave the codes of strong analytic sense together and integrate them into a theoretical story. According to Charmaz (2006), both axial coding and theoretical coding could either benefit or do damage to data analysis in grounded theory studies depending on the skills of the individual researchers using them. Rather than using an explicit framework as guidance, she therefore suggested that, after initial coding and focused coding, the essential thing is to follow the leads defined in the empirical data and raise focused codes to conceptual categories by the constant comparative method. It is also through this process that the relationships among conceptual categories earn their way into the theory being developed. This suggestion is consistent with the illustration by Glaser and Strauss (1967) of using the constant comparative method because these authors prioritize empirical data in grounded theory development. Drawing on instructions of Charmaz (2006) and Glaser and Strauss (1967), data analysis in this study has gone through five analytical processes, namely initial coding, focused coding, comparing incidents applicable to each category, integrating categories and their properties as well as delimiting theory. Memo writing was conducted to facilitate the five analytical processes.

4.1.1 Initial Coding

Initial coding in my study started after each interview was transcribed. It was

done manually in the margin of printed copy of interview transcripts. Initial coding concerns “fragments of data-words, lines, segments and incidents” (Charmaz, 2006, p.42). It is similar to the stage of open coding suggested in Strauss and Corbin (1998). According to Charmaz (2006), the priority in initial coding is to keep an open mind to data rather than match them to pre-existing theoretical concepts. In order to fulfill this requirement, three strategies were employed during my initial coding process. They are line by line coding, coding as actions, and using *in vivo* codes. With line by line coding, I summarized each line of interview transcripts with a short name, which functions as the label for its essential meaning. Also I tried to code data as actions instead of topics and the labels used were mainly *in vivo* codes which are specialized terms coming from the interviewees. These three strategies forced me to keep my mind on the data and focus on what they are about. Further, by coding data as actions, the experience of interviewees becomes more vivid and their actions and meaning becomes more explicit, which prepares the data to be further analyzed in next stage.

4.1.2 Focused Coding

According to Charmaz (2006, p.57), “focused coding means using the most significant and/or frequent earlier codes to sift through large amounts of data”. Compared to initial coding, researchers at this stage consider larger segments of data and synthesize them with the codes with the most analytic power. Normally, the frequency of initial codes indicates their significance in an analytic sense. However, this is not the case all the time. As Cousin (2009) pointed out, a less frequently quoted viewpoint might come from experience which is different from common experience. In other words, rather than insignificant, it might be the other dimension of a concept. Therefore, focused coding in my data analysis has been processed in an iterative way and been constantly refined based on further data collection.

Due to the iterative nature of analysis in the focused coding and the subsequent analytical processes, a QSR qualitative analysis software product called Nvivo was introduced into my data analysis from this stage.

4.1.3 Comparing Incidents Applicable to Each Category

The process of focused coding leads to the construction of theoretical categories based on the constant comparison of incidents. The properties of categories are generated while comparing the similarities and differences between one incident and another existing in the category. At this stage, the researcher starts to think about “the full range of types or continua of the category” (Glaser and Strauss, 1967, p106), such as its other properties, dimensions, conditions and consequences as well as how it relates to other categories.

4.1.4 Integrating Categories and Properties

Integrating categories and properties is achieved by comparing incidents with particular properties of a category. It consists of comparing incidents within the same category with a particular property of that category. During this process, the dimensions of a property are identified and categories and their diverse properties are integrated through the relations identified in various incidents. This process also enables a lift in theory development as researchers make related theoretical sense through constant comparison while integrating categories and properties (Glaser and Strauss, 1967). *Figure 4.1* shows an example of this process.

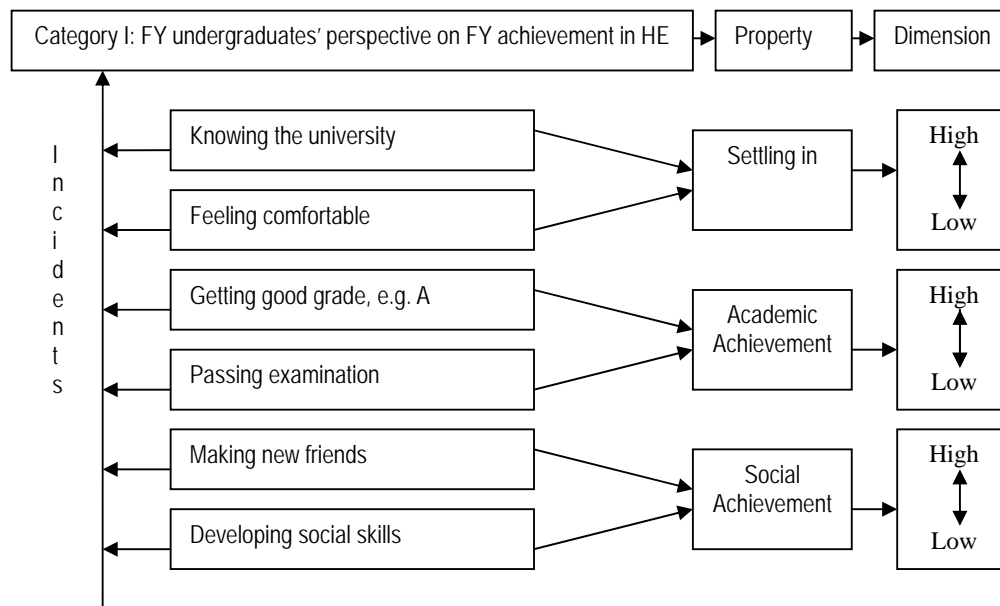


Figure 4.1 Integrating Categories and Properties

4.1.5 Delimiting Theory

Delimiting theory means using the constant comparative method to carry out reduction in grounded theory analysis (Glaser and Strauss, 1967). Basically, this analytic process keeps grounded theory analysis manageable by reducing the number of categories based on the identified underlying uniformity in the categories and properties already being constructed. It also helps the analysis reach theoretical saturation by outlining the boundary of the theory being developed.

4.1.6 Memo Writing

Charmaz (2006, p.72) argues that “memo-writing constitutes a crucial method in grounded theory because it prompts you to analyze your data and codes early in the research processes”. In this study, I started writing memos right after the first interview. Particularly at this stage, the following questions were used to prompt analytical thoughts in memo writing:

- What is going on in the interviewee’s FY experience?
- What is he or she doing and saying?

- What do the interviewee's actions and statements take for granted?
- What supports, maintains, impedes or changes their actions or statements?
- What are the connections?

(Adapted from Charmaz, 2006, p.80)

Guided by these questions, I summarized each of the first 6 interviewee's account of their experience in FY HE into an analytical story. It contains interpretations of the difficulties they went through and their achievement-making experience.

While constructing the analytical stories, certain concepts emerged as being more analytic compared to others and are recorded as potential focused codes. Meanwhile, by comparing transcripts of different interviews, more potential focused codes were decided on, as they were more frequently quoted than others by interviewees.

During the process of focused coding, memos were written to refine the focused codes being developed based on constantly comparing with data. This process of clarifying focused codes also led to seeking further data and contributed to the decision of raising some of the focused codes into theoretical categories through explicating their properties and dimensions in memos.

The process of refining categories constantly was also developed through memo writing. During this process, categories were integrated with their properties and a set of relationships among the categories were identified and included in theory construction.

4.2 Findings

In this section, the findings of my grounded theory analysis will be presented in categories. After outlining the overarching category, four of its component categories are described in details with relevant quotes from interview transcripts. These quotes and concepts emerged from the data analysis are

both presented in italics. Interviewees and interviewer have been labeled in shorthand. For example, S1 refers to student 1 and I refers to the interviewer. Demographic information about the interviewees is briefly summarized in *Table 4.1*.

| Interviewee | Age | Gender | Student Status | Accommodation |
|--------------------|------------|---------------|-----------------------|----------------------|
| S1 | Under 21 | Female | International Stu. | On campus |
| S2 | Under 21 | Female | Home Stu. | Off campus |
| S3 | Over 21 | Female | International Stu. | Off campus |
| S4 | Under 21 | Male | Home Stu. | Off campus |
| S5 | Over 21 | Male | Home Stu. | Off campus |
| S6 | Under 21 | Male | Home Stu. | Off campus |
| S7 | Under 21 | Female | International Stu. | On campus |
| S8 | Under 21 | Male | Home Stu. | Off campus |
| S9 | Over 21 | Female | Home Stu. | Off campus |
| S10 | Over 21 | Male | Home Stu. | Off campus |
| S11 | Under 21 | Male | Home Stu. | Off campus |

Table 4.1 Interviewees' Demographic Information

Fulfilling one's aims in FY HE has emerged from the data analysis as an overarching category which captures the essence of undergraduates' experience of achieving in FY HE in the post-1992 university science department. According to the interviewees, the whole experience of FY undergraduate achievement is about involving themselves in HE activities to fulfil their personal aims in FY HE. Students start university with various perspectives of FY achievement in HE. In other words, FY undergraduates' personal aims in FY HE are not identical. However, no matter how diverse these personal aims are, FY undergraduates try to fulfil them by involving themselves in HE, which is either eased or complicated by a range of influential factors. However, students' initial perspectives are not static. They may change with the impact of those influential factors and the involvement process. A series of FY experience outcomes result from this dynamic involving process. They are evaluated by individual students and will be taken as achievements

only if they fulfill his or her aim in FY HE.

As shown in *Figure 4.2*, this overarching category consists of four major categories, namely *FY undergraduates' perspective on FY achievement in HE, involving oneself in HE, influential factors* and *FY experience outcomes*. Section 4.2.1 to section 4.2.4 are distributed to further illustrate these four categories so that a detailed picture of the overarching category can be presented to enable a comprehensive understanding of FY undergraduates' achievement in the post-1992 university science department.

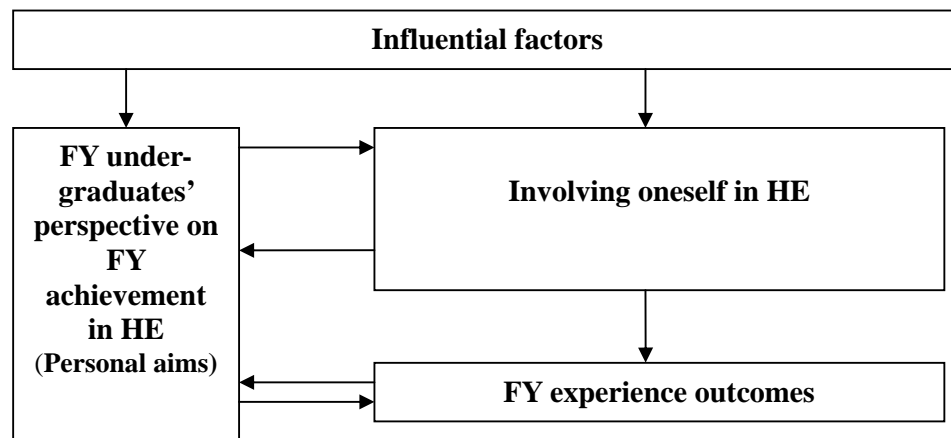


Figure 4.2 Fulfilling One's Aims in FY HE: Diagram to Show an Overview of the FY Undergraduate Achievement-making Process

4.2.1 FY Undergraduates' Perspective on FY Achievement in HE

Figure 4.3 displays the framework of FY undergraduates' perspectives on FY achievement in HE identified in the data analysis. According to the interviewees, FY undergraduates' achievements vary in *type* and each type of achievement has different *level*. The *evaluation criteria* for *type and level* move between *external value* and *personal value* dimensions which relate to individual students' personal circumstances such as their educational and life experiences.

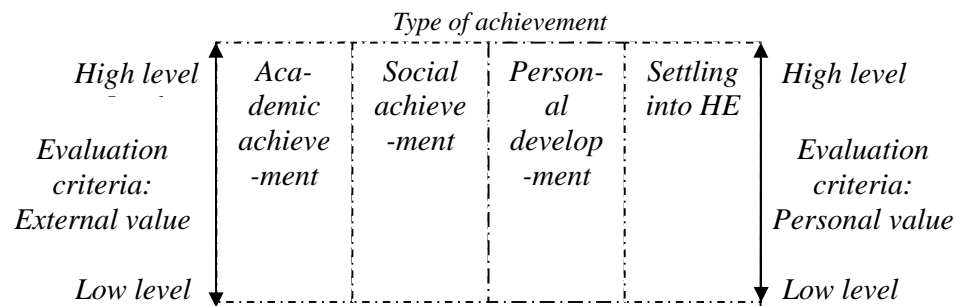


Figure 4.3 Framework of FY Undergraduates' Perspectives of FY Achievement in HE

Type

When asked what, in their perception, is FY achievement, the interviewees reported a variety of specific examples of FY achievement. These examples can be classified into four broad types: *academic achievement*, *social achievement*, *personal development*, and *settling into HE*. *Academic achievement*, in the students' perception, relates to subject knowledge, examination and doing one's best. It means learning subject knowledge, passing examinations and getting good grades, or doing one's best in academic study. *Social achievement* is considered by the students as making new friends, socializing with fellow students and having a good time as well as developing one's social skills. For the students, *personal development* means being independent, feeling happy about oneself, knowing who you are and being challenged to make improvement. As far as *settling into HE* is concerned, it means knowing how the university works, such as its assessment criteria and teaching and learning strategies, feeling comfortable in the new life routine and study environment, as well as getting prepared for the study in the rest of HE.

I: Then what about the first year achievement particularly?

S7: Of course my grades and things like that. And it will be a part from my knowledge, my grade and my course. It was like generally the university life. To find out how does it work. To feel comfortable in here. Because it is far from my home. And I am here absolutely alone without my friends, without my family. And I have to do everything on my own in different language, different country, different culture.

S11: But it's all about making new friends and meeting new people as well.

S1: For me achievement is to find out exactly how does the university work and what do they expect of my essays and my skills.

Level

Apart from *type*, FY achievements in HE may also be differentiated in students' perception by *Level*, especially in terms of *academic achievement*.

S8: If I do an essay or report and I get say B 12 in it, I'll class that as the high one; but if I get the next grade down, like B11, I class it as a high one and just C10 as the low one. Because, I don't know, because the boundary, isn't it? Between C and B?

S 10: My criteria? I am sort of aiming for like...I am saying I am on average because I am aiming for like B and C grades at the moment. So I am just saying if I hit that mark, I have done a medium, I've done a moderate achievement. Whereas if I go above it, I have achieved something more, I mean it is by accident.

Evaluation Criteria

The interviewees' *evaluation criteria* for the *type* and *level* of FY achievement fall into two dimensions, namely *external value* and *personal value*. Some tended to draw on external or objective criteria such as institution assessment grades to evaluate their level of achievement. Some interviewees believed FY achievement in HE is purely personal and assessed it by no other criteria other than personal pleasure.

I: Ok, like what you have said, there can be high level achievement or low level achievement. So what are the criteria you take to judge it is a high level achievement? What you have achieved is quite important or high level achievement?

S11: Say my exams, if I get 40%, then I have achieved something, but that's a low level achievement; Say if I get 80%, that's like high level achievement. I would say.

S9: Depends on how you are pleased with yourself you are or you have done something.

When *personal value* is concerned, individual FY undergraduates relate it to their personal circumstances before coming to University. This includes their *personal academic background* and non academic life experience. These can be influenced by their *personal habits and traits* as well as the process he or she went through to get involved in HE. In this dimension, new experiences and the amount of effort being made to overcome difficulties have been taken as key evaluation criteria by the interviewees.

S1: I think for many people it is important to or the important achievement is to get independent. They move from home. I had moved from home before I came here. So...that's not new to me. But to many people it is.

S9: Yeah. I think it should relate to the person themselves because I might say a B is an achievement. Somebody else might say they think an A is, you know, the only way that they achieve and anything, nothing or anything below that isn't; whereas you get some people that are more than happy with just getting Ds. It definitely depends on how you think of it. Given different people's circumstances, that's definitely going to have an effect on what they see as achievements.

I: So actually achievement has different levels. And these levels are actually related to your personal circumstances.

S9: Yeah. I would say so.

S9: Well, I've got through the first semester and which I thought was a good achievement because not only I had a gap year, but I also got a 2 year old son. So that's been a bit difficult.

[...]

S9: If it was only easy, the first semester, I probably wouldn't have that as an achievement. I would probably said like some of the examples you gave like being independent and actually you know I'll be more pleased with the grades I got rather than just be pleased at the pass if you know what I mean. But yeah, I would definitely have something else as my achievement if I didn't have such a difficult first six months.

As informed by the description above, *FY undergraduates' perspective on FY achievement in HE*, embodied by their personal aims in FY HE, provides the fundamental motivation for their actions and interactions in FY HE and subsequently guides the overall achievement-making process. This perspective also offers students a framework to evaluate their FY university experience outcomes, which changes along with their FY experience in HE as a consequence of influences from the other three major categories. These categories will be illustrated in the following sections.

S10: Well, for my overall degree, I am aiming to first class honours degree. I am aiming for the top grade in the degree. But with respect of the first year, I am not too worried about getting the top grade as long as I can get onto the second year and start focusing on the work there. That would be my achievement to get onto the second year. From the second year onward, then I will be highly focused and motivated to get a higher grade. Because I don't think there is much motivation to get a really high grade in the first year.

S10: Well, I analyzed the criteria for the marking, the Marking Criteria. And based on what grades I wanted, I put that much effort in.

I: Why didn't you expect to get A or B?

S8: Because I didn't get A or B in my A levels. Because I only got like C and Ds in my A levels.

I: Then why are you going to aim for A and B now?

S8: Because last semester, I've got C and D and I also got a B. And so I would like stick at that from now on.

4.2.2 Involving Oneself in HE

Involving oneself in HE means undergraduates physically and/or psychologically take part in HE related activities which prepare and enable them to *fulfil their aims in FY HE*. Based on the interviews, *involving oneself in HE* functions as a necessary coping strategy in the sample students' HE experience. According to the interviewees, FY undergraduates are faced with new study and life routines in HE. Therefore, they need to take part in order to know the routines, accustom into life in HE and get what they want out of it. Rather than a one time event, *involving oneself in HE* means going through a dynamic process throughout the FY undergraduates' experience in the University, which consists of three stages of involvement: *attending*, *being engaged*, and *dealing with self-identified difficulties* (shown in blue boxes in *Figure 4.4*). Each of these stages are accompanied by *emotional responses*. At each of the first two stages, involvement consists of two opposite dimensions, *being absent* and *attending*, and *being disengaged* and *being engaged*. At the third stage, involvement consists of *identifying problems*, *analysing problematic situations*, *adopting strategies*, and *evaluating*. *Emotional responses* resulting from this involvement process vary on a continuum of dimension ranging from *positive*, *neutral* to *negative*, as shown in *Figure 4.4*.

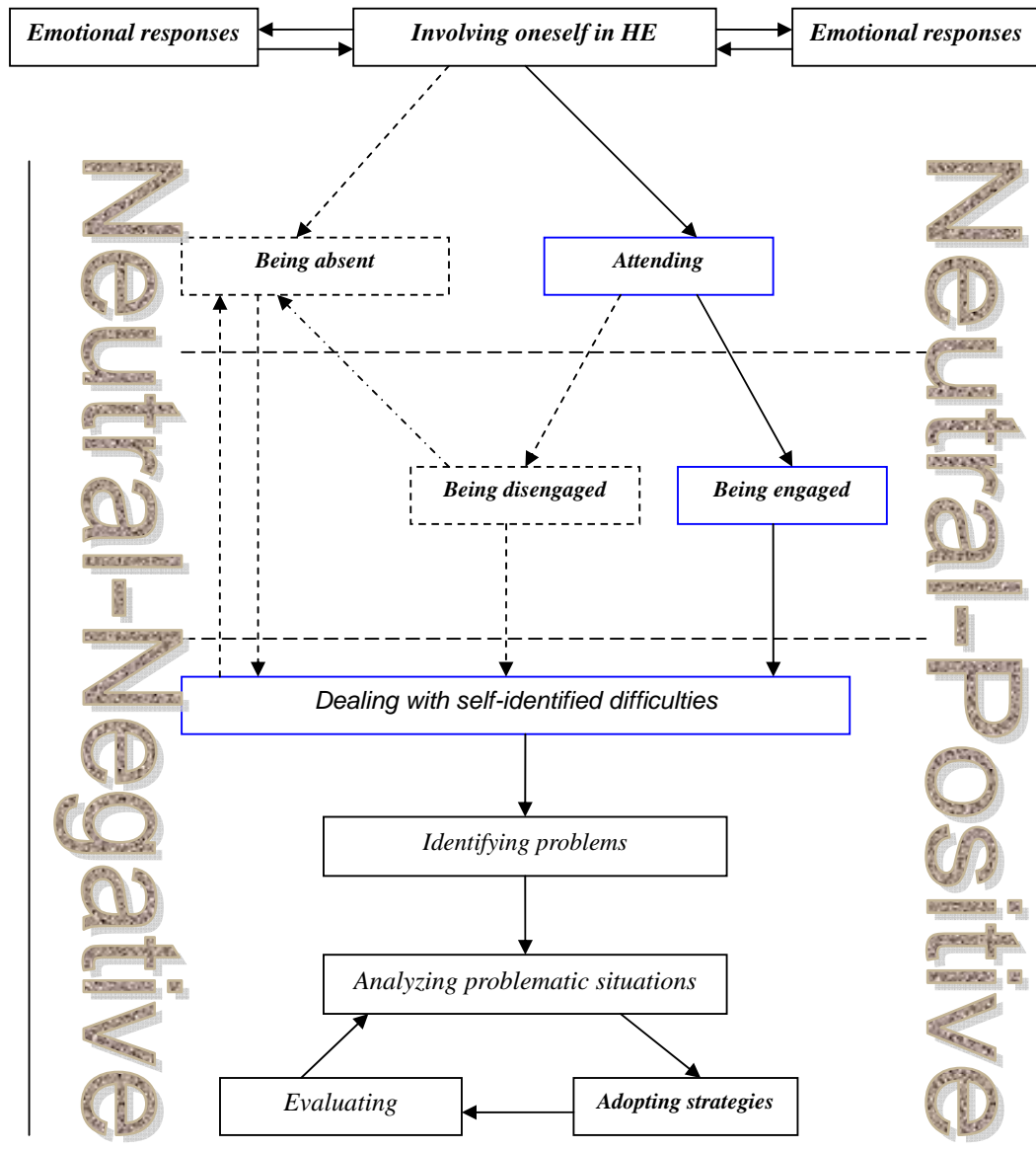


Figure 4.4: Process of *Involving Oneself in HE*

Attending

Attending means physically being present in an activity or carrying out directed activities, for instance, attending compulsory or optional institutional sessions and doing homework. *Attending* is the first stage and the most superficial level of involvement, which requires the least psychological input. Although *attending* does not necessarily mean that the students are emotionally attracted by or psychologically committed to the activities, it does provide a chance for FY undergraduates to gain a better understanding of the institution and HE. By

attending, FY undergraduates meet the basic requirements of attendance in HE and accustom themselves into their new start in university life. According to the interviewees, it helped them settle into HE and formed a basis for the next stage and level of involvement, *being engaged*, which is necessary to cope with higher level challenges in FY HE.

S3: To understand everything during the first year, to attend the lectures in the first year is very very important.

S7: I came to one session which was for whole international students. They told us where to go for help in particular cases.

S4: It is compulsory. But I've seen a lot of people that don't go. I have shown up to every one because I don't know what it might be and tell. It might be important. But they are relevant to what I am doing at the university. So yeah.

Theoretically, FY undergraduates are expected to take part in HE daily routines. However, as S4 mentioned above, not every FY undergraduate attends all academic sessions or does every piece of homework or self-study as required. *Being absent* is a phenomenon which exists in FY undergraduates' experience. Most of the time, *being absent* may result in *negative feelings* such as a feeling of being lost or underachievement because students miss the opportunities to receive essential information for further involvement in HE.

S7: I was here but I was really really ill. I had sore throat and high temperature. I was at home. I couldn't come here. Just couldn't get up from bed. So I was a bit lost with... I couldn't find out my personal tutor and I couldn't find out my timetable and I didn't know like... I wanted to come and see and talk to the lecturers and how the lecturers are going to do because I didn't know what to expect from them. It's like I knew what to expect from lecturers in Poland but I didn't know what to expect from them in here. What they expect from us, from the students. So I was a bit scared for the first few weeks. Because I didn't know what to do and where to go and...

Nevertheless, not all absence is due to poor physical conditions as experienced by S7. FY undergraduates, either deliberately or not, miss some academic sessions, socializing opportunities or self studies due to a variety of reasons. Detailed illustrations of the *influential factors* which either encourage or prohibit *attending* will be presented in section 4.2.3.

Being Engaged

Following the line of *attending* comes the second stage of involvement, *being engaged*. *Being engaged* in HE means that students interact with their external environment with great interest and a positive attitude, which eases the achievement making process and improves its productivity. While students are engaged in HE activities, not only are they physically present, their interest is also held so that they enjoy doing or being in the activities; hence they feel better able to concentrate and to involve themselves more in whatever activities they are *attending*. Through *being engaged*, FY undergraduates assimilate new knowledge, communicate with staff and make friends with fellow students. It enables them to fulfil their aims in FY HE.

S10: I found the lecture extremely interesting because it kept your attention.

S1: I think that when I was in the first two weeks or the first month, I learn how the university works. Then I feel more comfortable to sit down and study and concentrate about just study.

S3: Like the introduction week. I met them and just like that. They just come to me and we were talking. They were interested in that I came from Holland. They want to know everything about Amsterdam. So I asked them what they were doing and asked for information, what to do and...

However, *being engaged* does not naturally happen subsequent to *attending*. When *being disengaged* in HE related activities or daily routines, the interviewees reported finding it hard to concentrate, to learn or feel *attending* is pointless. This generated unpleasant feelings though it does not necessarily lead to *being absent* in future activities.

S5: There is one lesson I am not very interested in. And the teaching methods are quite difficult. It's, you know, some of the tutors I can't get into interaction and things like that. But... It's like when they try to teach you equations and mathematics and things, I am bored in the lecture hall. It's very hard to get it into your head.

S10: Yeah, I was having difficulties to concentrate on it.[...]I would imagine...I mean during the lecture at least half a dozen people just walked out. They just walked completely out. They didn't even bother staying for the lecture. I forced myself to stay just in case he did say something that was useful.

The *influential factors* which have a potential effect on the stage of *being engaged* will be illustrated in detail in section 4.2.3.

Dealing with Self-identified Difficulties

As described above, *attending* and *being engaged* do not happen all the time in FY undergraduates' experience. Moreover, with the increasing level of challenge, even *attending* and *being engaged* cannot guarantee a problem-free-involvement. In order to fulfil their aims in FY HE, undergraduates may also need to go through the stage of *dealing with self-identified difficulties*, which is another integrated part of the involvement process for most FY undergraduates according to the interviewees.

Dealing with self-identified difficulties refers to the process by which FY undergraduates deal with the obstacles preventing them from fulfilling their aims in FY HE. It occurs when FY undergraduates realize that the situations they are actually in are different from what they desire and simultaneously have no clear idea about how to progress into their desired situation. *Dealing with self-identified difficulties* is the most complex or advanced level of involvement as it requires the most effort from students compared to *attending* or *being engaged*. *Dealing with self-identified difficulties* normally generates the highest level of emotional response, such as either feeling frustrated or feeling proud. At this stage of involvement, FY undergraduates go through a problem-solving process which consists of *identifying problems, analysing problematic situations, adopting strategies, and evaluating*.

Most FY undergraduates tend to find FY HE is not a smooth journey in one way or another. A variety of specific problems or difficulties have been identified by individual students on their way to fulfilling personal aims in FY HE. This is due to the challenging nature of FY HE and the diversity of personal circumstances. For example, for those international students whose first language is not English, speaking English as a second language is most likely to be identified as a major difficulty especially during the first few months after starting HE.

S1: The language of course. Most for speak. I understand everything and I was very surprised about that I don't have any problem in understanding the language. But speaking it was very difficult.

While for those students who expected to be taught differently from the methods they actually experienced, it is this difference that has been identified by them as a specific problem in their FY HE experience.

S2: I find some of the actual teaching quite basic. And I expected to be more... (advanced) than what it is. [...] But the graph pad does everything for you. So you don't actually use your previous knowledge. And I find that really hard to understand. [...] The fact that they are not teaching the A level maths I was taught as in how to work out standard deviation and how to work out Chi-squared. They just give us a table and we get the results from that. We don't actually work it out ourselves.

After identifying problems, students start analysing problematic situations to work out how to get out of them. The adoption of coping strategies is decided based on individual students' interpretation of the problematic situation, for instance, the complexity of the problems at hand, the availability of coping resources and the quality as well as the efficiency and effectiveness of the coping strategy options.

I: Have you discussed these kind of topics or discussed any of your problems or difficulties with your classmates?

S10: One or two, yeah. But because of the technical nature of the questions I am putting forward, they wouldn't be able to answer them anyway because they...I need to ask someone who is full qualified, if you know what I mean. I suppose, I mean it is ok if I was just doing general layman type things. But if I want to know something of a technical nature, I prefer to go to someone who is qualified to give me an appropriate answer.

According to the interviewees, the strategies employed by FY undergraduates fall into two broad categories, *being self-reliant* and *seeking external assistance*. The category of *being self-reliant* includes strategies such as *adjusting oneself, self reflection and having a break*.

S11: but now I have learned that I need to like change myself and adjust myself. And be more open and try not to be shy.

S3: Yeah. That was the chemistry one. We did chemistry and there was a part I didn't understand. I wrote my self reflection about it.

S6: Just either go out or watch Tele. [...] Yeah, have a break. After the break, I feel a bit more willing to work again.

For much of the time, FY undergraduates are not able to solve problems all by themselves. On these occasions, *seeking external assistance* becomes a necessity in order to be successful in *dealing with self-identified difficulties*. Strategies such as *asking* and *collaborating* are both commonly used by FY undergraduates in difficult situations.

S9: Well I normally have a good bash on my own. But obviously sometimes it is not always possible, but I do go to seek help from not lecturers but the tutor she is really good to me. So she's been very helpful.

S11: If I find that I don't really understand anything, then I can ask the pharmacy staff at work. [...] Otherwise, I can always ask my friends and see what they say and how they figure it out. And as a last resource, I can go to the lecturers or email them.

After using a strategy to deal with a self-identified problem, FY undergraduates *evaluate* not only whether the problem has been solved to their satisfaction but also the effectiveness of the strategy being adopted. When problems are solved successfully, students are more likely to feel pleased, satisfied and even proud and the strategies used are kept for future reference. However, if problems are solved unsuccessfully, FY undergraduates either end with a sense of underachievement or go through the problem solving activity again with another strategy.

S7: I think yes. Because I was really afraid about language, about... and I think I am ok now with these. I still have a lot of things to do. But I can do on my own. And I had my first test some time ago and my mom was so proud of me because I got A16. And I was proud as well. Quite happy.

S1: So I realized that people thinks it is fine as long as they understand what I try to say. Then I feel more comfortable and then I started to talk much more.

I: So you found it difficult. But you tried to talk to your tutor. They said you didn't need to know it. So you just left it?

S2: No. I just find another way to get through it. I used like text books and my previous work and stuff like that.

As indicated by the descriptions above, the difficulties identified by FY undergraduates are individualized and a variety of coping strategies are

adopted based on students' individual circumstances. Further, whether students can get out of difficult situations successfully and their actions afterwards, are also subject to the effects of a series of *influential factors* such as resources available, their personal task value expectancy, habits and traits. These are presented in detail in section 4.2.3.

Emotional Responses

All the three levels of involvement arise with emotional responses, which occur both as a consequence of and/or as a potential start of undergraduates' interpersonal and intrapersonal interactions on their way to fulfilling personal aims in FY HE. The interviewees' tend to discuss their emotional responses through describing their feelings about FY HE experience. Based on the interviews, positive emotional responses include feeling satisfied or proud; while negative emotional responses include feeling bored or frustrated. Many of the interviewees used the terms easy and difficult in their answers to the interview questions about emotional feelings. Easy and difficult were related to both positive feelings and negative feelings during the interviews. Most of the time, easy indicated a feeling of satisfaction. However, it could be used to describe experience leading to negative feelings because students may feel they have not been challenged enough to achieve as much as they should. Similarly, difficult was normally used to describe experiences generating negative feelings. However, it was not necessarily always this way because it related to students being challenged in a stimulating way, which they perceived positively in terms of making achievement in FY HE.

S7: I'm satisfied with this course and this university. [...]. I feel easy. Since this first semester, I had everything in my high school. I finished in one of the best in Poland. So...it was really really hard. But... I had everything in high school. So all I had to do was to study language and to get to know with them with words and with vocabulary. That was it. So it was quite easy in the first semester. But I am satisfied.

S11: Yeah, you find something hard and then you'd find a way to trying to solve the issue. If you find something easy, then you are not really achieving anything because you are doing what you know.

Besides positive emotional responses and negative emotional responses, the interviewees sometimes appeared to be neutral in their description about feelings. For example, some of them described their feelings about FY experiences as different rather than classifying it into the category of good or bad. Although these neutral responses are more like status of mind or cognitive responses, they could affect students' emotions and further developed into positive or negative feelings. Therefore, in consistence with the interviewees' answers, these neutral responses are taken as a middle point between positive and negative emotional responses and are called neutral feelings in this thesis. Neutral feelings refers to the responses like feeling ok or confused, which are not as strong as positive feelings or negative feelings. They are normally generated when students experience situations as natural parts of the FY HE experience. For example, some interviewees might feel confused while experiencing the differences in various aspects between high school and university. However, this generated neither positive feeling nor negative feeling because they assumed it to be different and they just needed to get used to it.

S2: I find it quite confusing. The first couple of weeks. Because finding your timetable and then finding the rooms, trying to remember which room you were in last week. I find that all confusing. Because it is larger complex than my six form was.

I: So that's your first two weeks' feeling. What about after that?

S2: I got kind of used to it.

I: What about generally do you feel satisfied, happy or do you feel quite difficult?

S4: Apart from things like travelling to get here, commuting, everything else was all right. But that would be the main issues, time it takes to travel to university and get back.

Actually, the neutral responses given by some of the interviewees correspond to their affective investment. Affective investment refers to the intensity of one's emotional input and ranges from low level of affective investment to high level of affective investment. Low level of affective investment associates with a neutral response to situations; while high level of affective investment relates to either positive or negative emotional responses. Accordingly, the emotional response of the sample students in this study can be viewed as moving along two affective investment continuums. One ranges from neutral to positive. The

other ranges from neutral to negative. As indicated by the following comments, compared to lower level of involvement in HE such as attending (S11), solving self-identified difficulties normally has higher level of affective investment from students and generates stronger positive (S7) or negative feelings (S2).

S11: At the start, it was really really awkward. It was like really weird to come to university. Because It's a different environment. It's not like... I don't know...It's just really different. Like you are on your own. You have to like getting there and make friends because you don't know anybody.

S7: I think yes. Because I was really afraid about language, about and I think I am ok now with these. I still have a lot of things to do. But I can do on my own. And I had my first test some time ago and my mom was so proud of me because I got A16. And I was proud as well. Quite happy.

S2: I tried to. But I found the course very stressful. Because all they have given is a booklet. We work through the booklet, but the only way you can really know how to learn the stuff in the booklet is to keep going through the booklet. You have to keep going through the booklet. Because there is not much help that they actually give.

4.2.3 Influential Factors

FY undergraduates need to involve themselves in HE to fulfil their aims in FY HE. However, according to the interviewees, a number of factors emerge as intervening conditions which either eased or complicated FY undergraduates' involvement in HE related activities. These intervening conditions are *support, academic teaching, interpersonal relationship, accommodation, personal academic background, personal task value expectancy, personal organization and time management skills, and personal habits and traits*. This section will present details of these *influential factors* together with their impact on the three stages of involvement process described previously.

Support

A variety of support mechanisms which the interviewees received in university have been identified as critically important to their achievements in FY HE. These support mechanisms are broadly from two levels: *structural level* and *interpersonal level*.

Structural level support means support generated from the institutional structure. It is embodied by course structure, institutional facilities and resources and academic support services and activities, e.g. induction.

Firstly, how the course is structured, especially the timetable, influences students' time distribution in their daily life during FY undergraduate study. According to the interviewees, as FY undergraduates, they need time and energy to adjust themselves to HE routines, such as living independently and socializing with new people as an aspect of settling in. A *less intensive* course timetable enables them to be more flexible to cope with the new start in university. This was reported as a critical issue especially by interviewees who are non-traditional students.

S1: In a way, I think, I expected that would have more lectures and more essays to submit earlier. And... but... they are very friendly and make an easy start for us. [...] And it gave me...because it was difficult. There was more to settle, to set and get all the everyday to run. We have to buy food, register a doctor and stuff like that. And I have much energy to cope with that.

In contrast, a rather *Intensive* course structure, for instance heavy workloads, prohibits students from going out with fellow students, which could enforce a negative impact on FY undergraduates' social achievement making process.

S11: They are not really like into going out much because it is a really hard degree and you have to like get your head down and do a lot of work. It is like medicine. You have to like work everyday, like you know put efforts in it. You can't really go out every day. So can't achieve like friends that much and going out much and meeting people that much.

Secondly, the interviewees reported that the *facilities and resources provided by the institution*, such as the university website and teaching facilities play important roles in their involvement in HE. A *well equipped* campus provides venues for a variety of HE related activities and may also positively contribute to student *engagement* in the activities. Especially while students are *dealing with the self-identified difficulties*, the availability of information resources in the institution enables students to employ efficient strategies and get out of difficulties successfully. By contrast, the lecture hall is, for some students who

find it hard to concentrate, a place which has actually inhibited engagement with teaching activities.

S3: And WOLF is very very helpful. They will guide you how to write your essay, Even how to cope with your stress. So I can say WOLF is very very important. Without WOLF, I don't think you can manage.

S5: But... It's like when they try to teach you equations and mathematics and things, I am bored in the lecture hall. It's very hard to get it into your head. It's different when you are in a small classroom, you know what I mean. I don't know what makes the difference, but I'll see things, what I am learning and I work things around my head. When I learn something, I found it easier to do that in small rooms rather than a lecture hall.

Thirdly, according to the interviewees, they have benefited greatly from the *academic support services and activities* developed and provided by the institution while trying to involve themselves in HE. For example, the induction activities provided them with a valuable opportunity to know the university and their fellow students, which contributes enormously to their settling into the new life environment.

S3: It was induction week. Let say the second day, they have activities here. I attended the activities and there were like some games to do. Standing there and people were like just talking to me and I talked back. And then they asked me whether I am first year and so on. [...]Yeah, induction week is very very important.

Interpersonal support, support from the micro level, refers to the assistance offered between individuals. The most influential interpersonal support, according to the interviewees, comes from their fellow students and staff in the institution.

S1: I ask the teachers when they were around. And I ask my classmates too. And that helps me a lot. Everybody was very helpful and smiling all the time no matter how stupid my question was.

When *interpersonal support* is available and easy to access, students tend to feel reassured because it enables *asking*. *Asking* is one of the most commonly used coping strategies and functions most effectively when *dealing with self-identified difficulties*.

S1: Like in the first week, there was always some adults around, always some staff or some tutors. So there was always someone to ask.[...] That helps a lot because we could ask. If I have any question, I could ask at once instead of thinking about who should I ask for this stuff. We just ask.

Further, just by being aware of the availability of a variety of types of interpersonal support, students feel safe and positive about their HE experience as it enriches their repertoire of coping strategies.

S3: But now seems like you can go and search for help because they are always available to help you. Now I am coping and I am ok. I am no more stressed out like before or in the beginning.

However, *lack of interpersonal support* or *ineffective interpersonal support* could result in students' coping strategies failing to take effect. This could complicate FY undergraduates' achievement making process, which means that they may have to go through the problem solving process more than once to fulfil their aims in FY HE. Further, ineffective interpersonal support may also make students feel reluctant to *seek external assistance* or to use that strategy in the future and consequently decreases their repertoire of coping strategies.

S2: Because some of them are hard to get in touch with. Because when I emailed the tutors in the past, they'll email me and say I got to speak to a different person. And then I tried to get in touch with that person, and they send me to someone else. So I prefer to.... Because it happened to quite a few on my courses, trying to find information and being diverted to someone else.

Academic Teaching

Academic teaching was reported as a critical element which influences FY undergraduates' involvement in HE. This has been presented from two perspectives, the impact of *effective teaching* and the impact of *ineffective teaching*.

S11: Some lecturers are really really good. But you get some that just read out the slides.

According to the interviewees, *academic teaching* is effective when it is detailed, informative and stimulating. *Effective teaching* offers students an academic guidance to refer to and helps them assimilate subject knowledge

more efficiently. As a consequence, *effective teaching* keeps students *engaged* and eases their involvement in HE.

S2: *Because they go into so much detail. And then they say where you need to reference information from, where you can get it, different web pages. So it's using their knowledge basically to study from what they know and what they have taught.*

In contrast, *academic teaching* can be *ineffective* when there is lack of interaction or it is presented as a dictated lecture. *Ineffective teaching* provides no more information than what students can get through self study, which decreases the instrumental value of lectures. As a consequence, it could generate negative feelings among students and prevents students from *attending*. Further, *ineffective teaching* also complicates students' involvement in HE by failing to encourage students to be *engaged*.

S10: *Yes, they were obviously not very sure of themselves, which means the information is not getting passed along properly. I mean he gives us all the information, but he is not expanding on it much. He is just literally reading it off the screen.*

I: *So in terms of what aspect do you think it is difficult for you?*

S10: *It is difficult when you have not got enough information. The more information you have, the easier it is.*

S11: *If they are just going to read out the slides, you might as well just download it at home and read it yourself at home than coming in and sitting in the dictation lecture. So that has really putted me off from coming into lectures sometimes. Because I feel that I can learn it myself at home if they are just going to read out the slides and not going to give any extra information. [...] If they don't teach properly, then you feel that the place is rubbish and there is no need to be here because you can't really achieve anything without them teach you properly.*

Interpersonal Relationships

Interpersonal relationship has been identified by the interviewees as an influential factor which impacts on all the three levels of involvement, *attending*, *being engaged* and *dealing with self-identified difficulties*. The influence of *interpersonal relationship* has been explained by the interviewees from two perspectives: *positive relationships* and *negative relationships*.

Although the interviewees did not explicitly define *positive or negative relationships*, they clearly identified the benefits of being in relationships which are friendly and supportive. According to them, friendly and supportive relationships make FY undergraduates feel comfortable in the new life and environment. Especially when they encountered problems, they feel assured and encouraged by *positive interpersonal relationship* to seek external assistance.

S1: [...] So I talked to them. And they don't get angry if I said something wrong or do anything that. They were just smiling. As long as they understand what I try to say, that was the important thing. [...] Then I feel more comfortable and then I started to talk much more.

Further, the interviewees indicated the influence of *interpersonal relationship* on their FY HE achievement by pointing out the importance of socializing with people in the University.

S1: I think that it is important to find something social, get a social life too to cope with the study.

S11: But it's all about making new friends and meeting new people as well. Because you can't like do well in a degree if you haven't, like, if you are not getting on with the people you are learning with as well.

Accommodation

Accommodation has been indicated by the interviewees as an influential factor in their FY HE experience. The interviewees have differentiated their accommodation broadly into *staying at home* and *living away from home*.

Staying at home, according to the interviewees, means spending time in travelling and being geographically located a distance from staff and fellow students. It mainly has a negative impact on their social involvement and achievement because students who are *staying at home* tend to go home right after academic sessions. They are held back from *attending* social life in the university either because of time concern or due to their close bond with family members, which reduces their motivation to socialize with others, especially when the students do not value socializing in HE for its own sake.

S11: But if it is in term of coming to University, making friends and things like that, that as an achievement then [...] Yeah, meeting new people, making new friends and going out. At the moment, I am at home. And so I am not really achieving much at all because I am at home.

S2: I don't have a social life. Because I feel that I am at the university to study. And because I am living at home still. My social life is my home life. So everyone in my social life is in Birmingham instead of here.

Living away from home has been indicated by the interviewees as being beneficial not only to their social involvement in HE but also to their achievements in FY HE in terms of *personal development*. *Living away from home* provides more opportunities to meet new people and face the challenge to be independent, which is achievement in the perception of many students.

S11: I feel like I need to get way from home, meeting new people, getting confidence in myself, you know, getting a bit of independence. And I think it opens a few doors in your head as well if you, you get what I mean, if you move away from home. [...] And I think moving away from home is going to be hard. We'll get homesick a bit. I mean everybody does get homesick. But that's an achievement because it opens if you like your barriers and makes you stronger as a person.

Personal Academic Background

The effect of *personal academic background* on FY undergraduate achievement is not limited to students' knowledge level of a chosen subject. It also extends to the teaching and learning styles that FY undergraduates were accustomed to before starting HE. The variation in FY undergraduates' previous knowledge about a subject results in different levels of challenges students experience in academic study in FY HE. Some FY undergraduates come to university with a sound knowledge of the subject area, while others enter HE as mature students who may not have studied much in the chosen subject before. Compared to the latter, the former group are more likely to feel that FY HE is easy to cope with, especially during the first semester.

S2: I find it quite easy because all my lectures so far... I have covered previously in my A levels.

Besides previous knowledge about the chosen subject, the difference in teaching and learning style between HE and students' previous academic experience also leads to challenges for FY undergraduates.

S2: I was like what do they want from me? Because I am used to be told the title and.. Because I was taught differently. I was given the title. I have to find my own sources and write my own essay. And that's how I had to do it. But now we were given the sources and I have to do everything else on my own. And I find that confusing, need me to work to grasp the actual project.

S4: In comparison to the levels of education in High School and College, it's being a big leap. In terms of like especially responsibility, organization. It made more self reliable than I probably was before at college.

Personal Task Value Expectancy

During the achievement making process, FY undergraduates, either consciously or unconsciously, assign values to what they experience. Actions are only taken by individual students when the activities are expected to be *intrinsically valuable* or *extrinsically valuable*.

Involvement is conceived to be *intrinsically valuable* when the students enjoy the activities they attend. They express their willingness for *attending* or *being engaged* through genuine interest or enthusiasm.

S10: Not really. I mean I found the work very interesting and the subject very interesting. So it keeps my attention focused on what I want to do.

However, not all involvement is *intrinsically valuable* to students. When students do not see any intrinsic value in an activity, they may choose to be involved by persuading themselves of the extrinsic value of the activity. If they do not see the activity as *extrinsically valuable* either or they do not expect its extrinsic value is sufficient to maintain their motivation, they demonstrate *being absent* or *being disengaged*. Those who manage to motivate themselves by the extrinsic value in an activity tend to attribute their action to pressure, sense of responsibility, etc.

S11: There was one module that was really hard. I don't really enjoy the module as well. I did do well in my exam. And I got B11 I think it was. But the problem I had was learning it. Because if you don't enjoy it, you are not going to take it in. So what I did was, I had to put myself like, you know I told myself I need to like pass this module to get into what I want to do. I want to become pharmacist, I have to like learn this even though it may not be of use in the future.[...] I leave it to the last thing and then the pressure is on and then you have to do it.

S9: *Probably. I was not exactly always in that lectures. I found it boring. [...] Well, because I didn't know they were really going to do that much about it ... Just for the first few weeks, it was just like going through computer skills and that. You know, I know how to work on computers and you are not teaching me anything new. So I was in the case of if the train is delayed, I am not going to make a rush to get in there on time.*

Personal Organization and Time Management Skills

Personal organization and time management skills refers to skills in working efficiently and managing to do several tasks within the same period of time. According to the interviewees, *personal organization and time management skills* critically affect their *attending* in various HE activities such as doing homework and self study. This is especially relevant for those students who need to commit themselves to experiences which are not exclusively concerned with HE.

S9: *...Getting used to leaving him and coming back to Education and getting time to do my housework and look after Jack and do the studying, it was a bit of oohh...But now I have got my head around it. I've manage to find the time and the fact that this semester, we are only in like for a couple of hours each day. It's really helpful as well because I know when I am in the mornings I'm coming to the uni and I'm normally home by about 2 o'clock. And he is at the childminder until four. So I got those two hours in which I can get home and get some studying done and some housework whatever is needed. And my mother in law lives just around the corner. So if I need a bit much of time, what I do is just to give her a text and say like can you pick up our child from the Child minder please? So it gives me a few extra hours to get stuff done. So...I think organizing myself and fitting everything in and, you know, managing to go alone in itself is an achievement for myself.*

Lacking *personal organization and time management skills* impedes students' involvement in HE and consequently generates *negative emotional response* to HE experience; whereas the improvement of *personal organization and time management skills* eases students' involvement process by enabling them to find time to attend various activities and hence experience HE with a pleasant feeling.

S7: *The first month was quite difficult for me because I am not a very organized person. It was like oh I have to do lots of things at my own time. It was like ok I'll do it later or something. But now I know when I have time to study; when I have time for my own pleasures or when I have time for work. So now it is ok. But the beginning was very difficult. Like Oh I'm behind with some works or...*

because I couldn't find the time. But now it is ok

Personal Habits and Traits

Personal habits and traits means the usual or normal ways individual students behave or do things. According to the interviewees, the level of involvement and employment of certain coping strategies are greatly influenced by their *personal habits or traits*, which are formulated by their individual character and previous life experience. For example, *being confident and open to others* encouraged students to communicate with others in the new environment which enriches students' repertoire of strategies in terms of coping with difficulties. However, students who demonstrate *being shy and quiet* at the start of HE seem to be impeded in *settling in* especially with respect to the social aspects of university life.

S11: I need to try and make friends. I don't know, like getting involved a lot more. Because I am a shy person. And it's really hard for me to talk to people because I am shy, I want people to come to me.

S3: Like students, like if we have practicals, sometimes you meet students in the corridors. Sometime I just ask them what course are you doing?[...]So I just asked them what course are you doing? And most of them are doing pharmacy, biology, something like that. I asked for help, what to do.

Further, the interviewees also admitted that most of their initial reactions to a case or situation were based on their *personal habits or traits* unless they were aware of other options. For example, when being asked why he did not carry out self reflection in a written form while in difficult situations, S11 explained as follows:

S11: I don't know. Because it does not come into my head to do that, like to write down what I am finding hard. Because you think about it in your head instead of writing it down. But I think maybe writing it down is maybe one of the ways forward.

4.2.4 FY Experience Outcomes

Involving oneself in HE is not a one-time event for FY undergraduates. It carries on over and over again throughout their FY study in university. Consequently, a series of outcomes result from their FY experience. *Academic outcomes* have

been related by interviewees to *assessment results, understanding of subject knowledge and academic skills*. *Social skills and friendship being developed* have been categorised as *social outcomes*. *Confidence, motivation and independence* are the key three outcomes identified by the interviewees as *personal development outcomes*. *Knowledge about the campus and rules, as well as feelings about the new life in university*, have also been considered by the interviewees as outcomes from FY HE experience.

These *FY experience outcomes* are then evaluated by individual students within the framework of his or her *perspectives on FY HE achievements* as presented in section 4.2.1. They were identified along a continuum in FY undergraduates' perceptions, which varies from *underachievement* at one extreme to *achievement* at the other. When an FY experience outcome fulfils an individual student's personal aim in FY HE, it would be regarded as *achievement* by this student. However, if the outcome fails to fulfil his or her personal aim in FY HE, the student would classify it into the category of *underachievement*. For example, while catching up with other students is perceived as achievement by some students, others may not even take the completion of their FY study or the award of an 'A' grade as achievement if they think they have not been challenged enough to fulfil their aim in academic study.

S5: Catching up. Like I have said, at the beginning I've forgotten to get a lot of stuff. The achievement is I have caught up with everybody. And the fact that I have been doing my project and things. I've been doing them at a good level and with enough space. I gave myself enough time. Because I was especially recently I've been forced myself to be more motivated. At college I wasn't at all. So you know everything I am doing at the moment every single day I did something new that helps me is an achievement.

S11: Yeah, then it is not really an achievement. Because it is just something that passes time. I would gain probably a degree out of it. But I don't really achieve like the knowledge that I wanted to achieve.

I: So even if you got A grade, you wouldn't think that is really an achievement?

S11: No, because it was easy. Because if it was hard to get the A grade, then I learnt a lot to get to A grade,, then that's an achievement.

4.3 Summary of a Tentative Theory of FY Undergraduate Achievement

A tentative theory of FY undergraduate achievement has been developed based on the above findings and is summarized in *Figure 4.5*. It reflects the ways in which FY undergraduate achievement is perceived and made by FY undergraduates in a post-1992 university science department. *Fulfilling one's aims in FY HE* has been identified as the overarching theme which subsumes all the other four major categories. Individual students' personal aim in FY HE is embedded in the framework of perspectives on FY undergraduate achievement displayed in *category I*. FY undergraduate achievement is perceived variously in *type* and *level* and is evaluated by students against *external value* like institution assessment results and/or *personal value* relating to their personal circumstances. Despite the variations in FY undergraduate personal aims, individual students make achievement by *involving oneself in HE* as presented in *category II*. FY undergraduates' involvement in the HE experience can be viewed as a process containing three stages or levels, with each preparing the student for the next level of involvement. *Emotional responses* are generated along this process of involvement. This process of involvement is guided by the framework presented in *category I*, but has an impact on it by affecting the *personal value* criteria at the same time. In addition to contributing to the formulation of *evaluation criteria* in category I, the influential factors in *category III* have been identified as either easing or impeding students' involvement process in *category II*. These factors contain both environmental factors and students' personal factors. The former include *support, academic teaching, interpersonal relationships, and accommodation*; whereas the latter consist of students' *personal academic background, personal task value expectancy, personal organization and time management skills, and personal habits and traits*. A series of outcomes in *category IV* result from *category II*, the students' involvement process. These outcomes are then evaluated in the framework of individual students' perspectives on FY undergraduate achievement (*category I*) and the fulfillment of their personal aims by those outcomes is perceived as their achievement in FY HE.

This tentative theory suggests that within a diverse university context, FY

undergraduate achievement is not an externally defined universal concept for FY undergraduates. Neither is their achievement making process an externally determined process. Rather, FY undergraduate achievement relates to a self motivated, self regulated and self evaluated process, which is facilitated by institutional and external factors. This points to the relevance of Giddens's (1991) notion of *reflexivity of the self* in late modernity. In Giddens's (1991) view, growing numbers of people exercise control over their lives by asking themselves "What to do? How to act? Who to be?" (p.70). In other words, people have the room to invent themselves and the grounded theory study findings suggests that we are seeing a generation of reflexive students.

Given the similarity of institutional experience among student cohorts within the same department, it is both individual students' personal aims and the level of his or her involvement which explains the variations in their performance and achievement in HE. Individual students' personal aims guide their involvement, which concerns both their inclination to participate in activities and the level of involvement they want to commit to. Meanwhile, students' personal factors, such as their interpretation of certain experiences and their personal traits and skills, influence the way they involve themselves in an activity. Finally, the more students involve themselves and the higher the level of that involvement, the more likely they are to feel satisfied and believe that they have made achievement in FY HE. This does not only concern the actual outcomes resulting from their HE experience, but also for many students, it is the process of making the effort to attend activities, to engage in the HE experience and to solve problems which they perceive as FY achievement in HE.

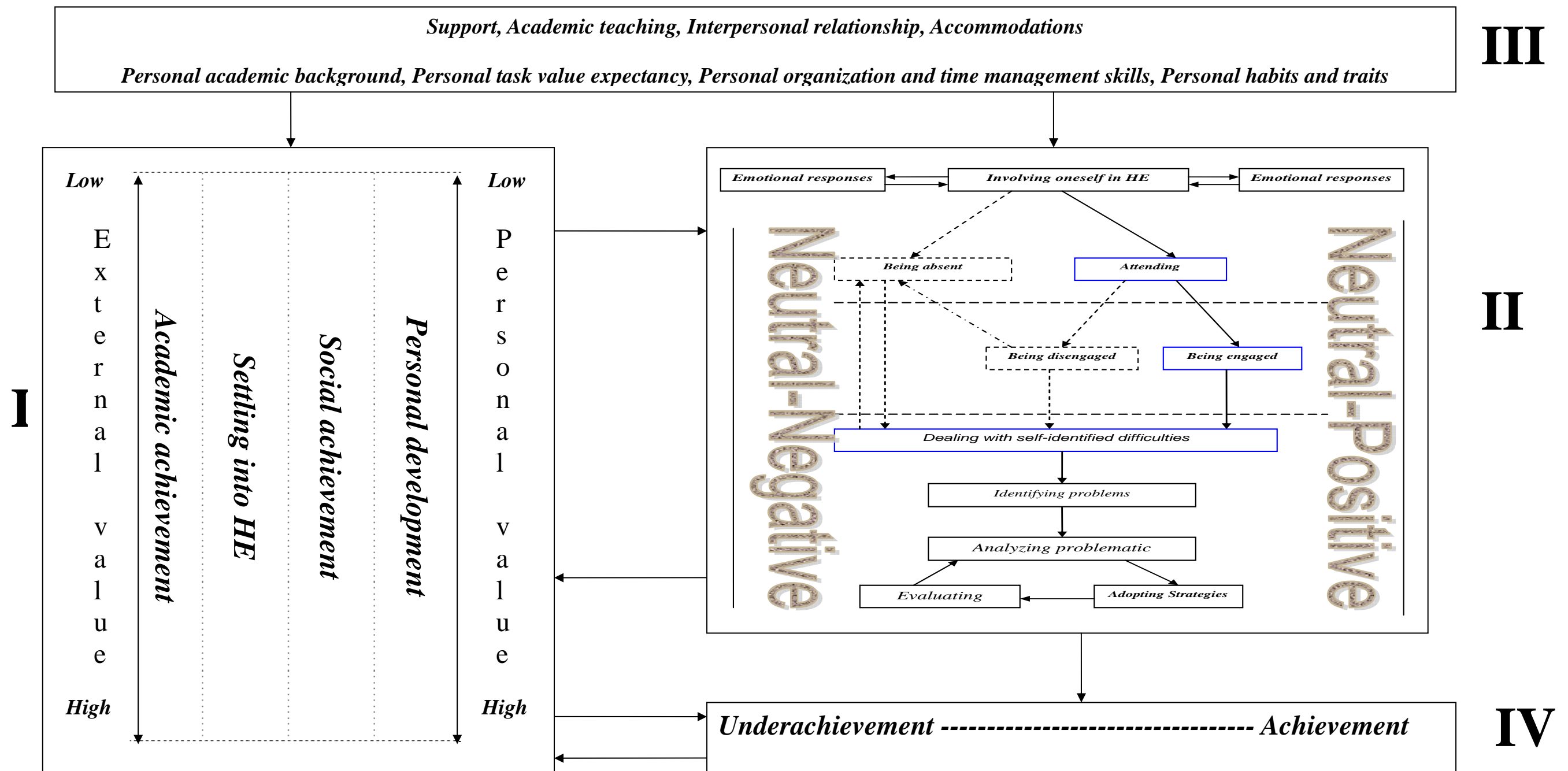


Figure.4.5 A Tentative Grounded Theory of FY Undergraduate Achievement

Chapter 5 Phenomenography Study Findings

5.1 Data Analysis

As previously illustrated in chapter 3, enabling readers to trace the data analysis process in qualitative studies is critically important in terms of establishing the study's credibility and trustworthiness. Accordingly, this section contributes to a detailed description of the steps taken in my phenomenography inspired data analysis, which aims to facilitate understanding of how the outcome space presented in this chapter was arrived.

Based on a literature review of the phenomenography approach, five principles about undertaking phenomenographic analysis have been identified to direct my data analysis in this study. Firstly, phenomenographic analysis should be explicitly directed by research question(s). This is because a particular piece of text can be interpreted in more than one way and whether one way of interpretation is plausible, mainly depends on the questions being asked of it (Barnacle, 2005). This principle has actually helped tremendously during my data analysis. While collecting data for this phenomenography study, I firstly used the 'grand tour' (Cousin, 2009, p.85) question 'What does HE mean to you?' prompting with a more specific question on achievement, namely, 'Besides grades and marks, what represents achievement for you in HE?' (see Appendix 4). Therefore, when it came to the stage of data analysis, I focus on exploring how FY undergraduates experience HE, which drew me back from distraction of other possible ways of interpreting the reflective writings. Another purpose for starting with this broad question was to search in the responses for a possible association between students' achievement and their different ways of experiencing HE as discussed in section 3.5.2.

Secondly, the researcher(s) should be prepared to bracket pre-conceptions and maximise the chance of the categories emerging from data. Phenomenographic analysis focuses on the relationship between the participants' perceptions and

the phenomenon as revealed in data (Walsh, 2000). As indicated, in order to ensure the trustworthiness of phenomenographic analysis, the researcher needs to be faithful to the data and allow the categories to emerge from data, rather than making predictions about categories and imposing them onto data (Barnacle, 2005).

Consistent with the second principle, the third principle in phenomenography analysis requires researcher(s) to go through an iterative process of organizing data, reorganizing data and constantly modifying categories against original data. A precise description of this process has been given by Akerlind (2005a) while presenting the common features of phenomenography analysis practice:

“The whole process is a strongly iterative and comparative one, involving the continual sorting and resorting of data, plus ongoing comparisons between the data and the developing categories of description, as well as between the categories themselves”

(p.324)

The fourth principle is about the detailed tasks a phenomenographer needs to complete during the iterative process described in principle three. These tasks include examining referential and structural aspects of various conceptions or ways of experiencing a phenomenon. Also, constructing categories of description and an outcome space, which reflects the structural relationship among these categories, is required. By completing these tasks, the different ways of experiencing a phenomenon can be understood as individually distinctive, within a holistic context. These tasks are integral parts of a phenomenographic study and reflect the nature and essence in phenomenographic analysis.

Finally, it is important to always remember it is the collective experience that is being defined in a phenomenographic study, rather than that of the individual person. In a phenomenographic study, individuals are only taken as ‘bearers of different ways of experiencing a phenomenon, and as the bearers of fragments of different ways of experiencing that phenomenon’ (Marton and Booth, 1997,

p.114). Therefore, a phenomenographic analysis requires interpretation of participants' utterance within two contexts: the individual context and the group context. The data analysis results need to reflect the variations at the level of collective experiences.

Guided by the above five principles, my data analysis was carried out in three stages: preliminary analysis, identifying referential dimensions and structural dimensions, and constructing categories of description and outcome space. These three stages constitute a funnel shape analytical process, with the analysis in each stage more rigorous than the previous one. Each of the stages, more or less, includes some elements of the others and the actual analysis, in practice, is more like an interweaving process of the three stages. However, this process is presented in ordinal stages in this thesis because each stage has a different emphasis and it is much clearer for readers to understand the process by depicting it in an ordinal way.

5.1.1 Stage I: Preliminary Analysis

Following principle two presented above, merging myself into data to interpret it from the students' perspective was the first priority during my analysis process. Accordingly, the preliminary analysis did not start until I had familiarized myself with the students' reflective writing. This is also supported by the aim of phenomenographical analysis, which is to study how a certain phenomenon is experienced by those who live in it rather than describing the phenomena in an objective way (Bowden and Walsh, 2000). Therefore, after downloading all students' reflective writing onto my computer and printing them out, I read data with an open mind several times until I felt confident in my preliminary understanding of the sample students' collective experience of HE.

While conducting the preliminary analysis, I read each piece of reflective writing carefully and made notes about individual student's reflection and gave a brief summary of his or her description of FY HE experience. After analyzing all the reflective writings within their individual context, I gathered all the notes and

summaries together, looking for variations in the overall meaning of HE experiences across all the reflective writing. I then compared the differences and similarities in the summaries and notes and classified them into tentative categories.

As can be seen from the description above, the primary aim of preliminary analysis is to help the researcher gain an understanding of the data, as a whole, through studying the students' reflective writing as a whole text in their individual entirety. Consequently, I focused on analysing data within students' individual context and did not study them at the collective level until later in the process. Even when I turned to the analysis at a collective level, the analysis is rather superficial as it was based on notes and a summary of individual students' reflective writing only, with no efforts being made to refer back to detailed reflection in the original data.

5.1.2 Stage II: Identifying Referential Dimensions and Structural Dimensions

At stage II, the analysis mainly concerns identifying referential and structural dimensions in FY undergraduates' ways of experiencing HE. Coming to this second stage of data analysis, I went back to individual student's reflective writings and started assigning them into the categories emerged from preliminary analysis. Due to the nature of constant modification of categories and the large number of texts being manipulated, NVivo was utilized to facilitate my data analysis at this stage.

By attempting to assign data into preliminary categories, my analysis arrives at the stage where expressions of experience are identified and grouped. Marton (1994) suggested that 'a certain understanding appears through two mechanisms'. When two expressions, different from each other at linguistic level, convey the same meaning, one way of understanding a phenomenon can be identified. Whereas, two expressions convey different meanings, the difference between them reflects two ways of experiencing. Based on these two mechanisms, I re-read students' individual reflective writing and assigned

quotes into applicable preliminary categories. For those quotes which seemed hard to classify into any of the preliminary categories, I made notes about them and initiated new categories to include them based on the notes. As a consequence, tentative categories were merged, split or deleted and new categories were established at this stage.

After one round of categorizing all the relevant quotes, I shifted my focus onto analyzing data at the collective experience level. This means I began to analyse the quotes extracted from individual reflective writing within the context of categories or 'the pool of meanings' (Marton, 1994). By analysing the quotes within the 'pool of meanings', they are decontextualized from their individual personal context. This helps ensure referential and structural dimensions of how FY undergraduates experience HE are identified at a collective level.

While analysing data within a category context or collective level, I adopted Akerlind's (2005b) 'themes of expanding awareness' as a heuristic tool to guide me in identifying dimensions of variation which ran across the different ways of experiencing. I looked for the difference among structural dimensions of various ways of experiencing and grouped the tentative dimensions of variation systematically into a set of themes of expanding awareness. By utilizing the 'themes of expanding awareness', I went beyond focusing on structural aspects of particular conceptions or categories. Rather, I explicitly started to identify the structural relationship among conceptions or categories before completing the construction of categories of description. There are critiques in the literature about analysing data in this way in a phenomenography study. These critiques assert that focusing on structural relationships too early may lead to a risk of forcing a structure onto the data (Akerlind et al. 2005). However, according to Marton and Booth (1997), 'structure presupposes meaning and at the same time meaning presupposes structure' (p.87). This observation indicates that no matter whether researchers realize it or not, the structural relationship among categories gradually come into shape in their mind while they focus on identifying the referential and structural aspects of categories. Therefore, the starting time for explicitly identifying the structural relationship should not be

taken as a criterion for deciding whether the structural relationship is being forced onto the data or not. Meanwhile, both the existence of a structural relationship and the variation of meanings among ways of experiencing a phenomenon are the underlying assumption of a phenomenography study (Trigwell, 2006). Therefore, in my opinion, as long as the whole analysis process is conducted with the researcher's faithful attitude to data, it is actually better to tentatively discern the structural relationship among different ways of experiencing on the way of identifying referential and structural dimensions in ways of experiencing a phenomenon. This is also encouraged by Akerlind (2005b), who argues that focusing on the structural relationship too late may result in the meaning and structure not adequately co-constituted in the outcome space.

Data analysis at this stage is an iterative process of shifting attention between students' individual reflective writing and the collection of expressions of meanings in categories. This is because every expression of meaning needs to be understood within a group context (Akerlind 2005a) and it is the underlying meaning of the quotes, rather than its linguistic expressions, that should be taken as differentiation criteria (Marton, 1994). Therefore, during the process of identifying referential and structural dimensions and iterative modification of tentative categories, I constantly went back and forth between individual reflective writing and the 'pool of meanings' and interpreted quotes under both of these two contexts.

5.1.3 Stage III: Constructing Categories of Description and Outcome Space

As mentioned above, evidence of categories development can be identified since the very beginning of my data analysis process. However, those categories at an earlier stage were only tentative categories, which were developed to assist data analysis. Consequently, no real efforts were made to construct categories of description until this final stage of analysis.

The construction of description categories and outcome space was carried out

following the three criteria of evaluating phenomenography study outcome space proposed by Marton and Booth (1997). According to Marton and Booth (1997), the categories of description in outcome spaces need to be distinctive in meaning, logically related and parsimonious in quantity. Guided by these three criteria, I constantly compared the final set of categories resulted from the second stage of analysis and looked for key qualitative similarities within and differences among these categories. By constructing the categories of description, I also looked for conformation or refuting evidence in the original data until the meaning of each category is stabilized.

Based on the themes of expanding awareness identified in stage II, structural relationships among the categories of description have been discerned and used to construct the outcome space for this phenomenography study. This final outcome space is a reflection of both the data and researcher's interpretation, as pointed out by Akerlind (2005b).

5.2 Findings

The findings of my phenomenography analysis of students' reflective writing will be presented in three sections. An outcome space constitutes section one to depict an outline of FY undergraduates' different ways of experiencing HE and the structural relationship among these different ways (see *Figure 5.1*). Section two will elaborate the categories of description, relating the referential and structural aspects of each category with relevant quotes from students' reflections. In the last section, the structural relationship among these categories of description will be illustrated in detail according to the themes of expanding awareness emerging from data. Relevant quotes from the students' reflective writing are presented in italics. Categories and themes of expanding awareness, constructed based on data analysis, are also presented in italics. The students' reflective writings are labelled in shorthand. For example, IR1 refers to initial reflective writing 1 and FS 1 refers to first semester reflective writing 1.

5.2.1 Outcome Space of FY Undergraduate Ways of Experiencing HE



Continuum of awareness about HE

Figure 5. 1: FY Undergraduate Ways of Experiencing HE

5.2.2 Categories of Description

Category 1: Experiencing a New Place

In this category, the overall meaning of HE is a *new place* for FY undergraduates. It is roughly symbolized as an educational organisation in students' mind and HE experience is, most often, referred to as *university life*. Students' focus of attention is the new environment, such as institution facilities and atmosphere created by staff and fellow students and new routines generated by HE, such as HE teaching and learning style, which is notably different from their previous experience. It is only in this category that HE experience is explicitly related to a particular institution.

I am very delighted that I have chosen this University. The atmosphere here is friendly and this makes this University magnificent especially for international students. (FS40)

When I came during the welcome week, I was very excited about meeting new people and certainly making friends, getting to know my way around the university and more importantly finding out more about the course that I was going to be doing for the next three years or so. (IR35)

As experiencing other new environments in life, students experience HE with feelings of nervousness in this category as they are not sure what to expect in HE. They explore the new environment and try to sketch an outline of it for themselves. They try to understand what is going on in this new place and adapt to it.

On the first induction week I was nervous to start of with. I didn't know how it was going to be like and how the people are going to be like and whether I was going to like it or not. I did ask some of the people who I knew went there about the university and got some positive feedback, but still felt like I wasn't going to fit in. After all it was a new place with new people from different parts of the city or even the world. (IR30)

I have to admit that it was pretty overwhelming when I first arrived at Wolverhampton. [...] Even now, after the first week of lectures, I still haven't fully realised that Wolverhampton is the place where I am going to spend my next four years. Also finding your way around the campus proved to be troublesome on some occasions. The actual course is just as I previously expected, hard, even in the first semester. [...]As for the city, it is very clean and well maintained.. [...] The library proved to be very useful for referencing and all the staff working there are always willing to help. [...] Even though I don't really know much about the Student Union, it often organises trips, concerts or student nights, therefore for people living on campus there is always something to do at night. (IR 33)

University brings a whole new lifestyle which requires a lot of adaptation to survive and excel. (FS18)

In this category, students feel satisfied if support systems are available to make the adjustment process easier. For example, effective induction week and efficient support from staff and fellow students are revealed as critical, beneficial factors in terms of generating a sense of satisfaction in this category. *Settling in* is regarded as the outcome and achievement when students experience HE as a *new place*. Students tend to connect the concept of *settling in* with a number of factors like making new friends, knowing the institution's environment such as the campus and regulations and life style.

My experience of going to University was very good. I made friends in my course and we got along fine. I thought that University would be hard but I did

not know that there would be so much help and resources around for the students; this made me feel at ease in settling into University life. (FS38)

When I first came to the University, I was a little unsure of what to do and where to go, however, I soon found out how helpful the members of staff are and had no problem in getting myself enrolled. With everything sign posted I had no trouble finding my way around campus, especially with the little campus maps we were given within our welcome packs, it was very useful when finding out which buildings are which for my lectures. (FS34)

Overall my first few weeks at university have been a success because I have settled quickly into my course and university life, met new people and feel confident about the year ahead. (IR 34)

Category 2: Coping with Assessment

In this category, HE is identified by FY undergraduates as a kind of assessment, which can be used to evaluate their academic capability or decide whether they are qualified to enter a particular field of career. The focus of students' attention is their performance in course tasks and assessment. The structural aspects of this conception relate to attendance, assignments or exams, module deadlines and grades.

To me higher education means for me to get a degree in something that I enjoy so I can get a job relating to it, and also for me to earn good money.(FS 7)

Over the coming months I believe that I am going to be bombarded with assignments and homework. My goal is to do them as soon and as quickly as I can to avoid the risk of not completing them on time or even submitting them at all. (IR 35)

I have found the first three months have gone well in terms of my other subjects: Scientific principals of sport, human form human function, Infection and immunity, microbiology and pathways to success. I have already received an A14 in Pathways, B10 in Infection, A16 in microbiology and I am expecting good results in coming tests. (FS 33)

In this category, students feel the pressure from being assessed and are nervous about their performance in assessments. Their first priority is to cope with assessment, which means they need to make compromises in relation to activities which they perceive to risk their performance in assessment. They try to fulfil assessment requirement and put in effort depending on their calculation

of the distance between their academic level and the aimed assessment results. They attend lectures, improve study skills to assist performance in assessment, work for deadlines and try to do the work early to avoid pressure.

But something I am very dissatisfied about is my planning of my own time. I had handled all my work in at time, but I have finished it just before deadline and it has been an unnecessary stressful because I have had plenty of time for all my work. The problem in the beginning was that I was nerves, it might sound a bit strange, but I was afraid that I couldn't do the work good enough and that made it difficult for me even to get started. (FS 41)

When I leave higher education I want to be able to work in Cancer Research in the Queen Elizabeth Hospital in Birmingham. To get there I need my degree. I don't socialise unless I am on holiday as other wise it will interfere with my work. (FS 37)

In line with the students' coping approaches in this category, pressure is something to be avoided and teaching and learning activities receive positive comments if they make coping with assessment easy. The outcome of HE experience in this category is connected to the techniques related to dealing with assessment. Gaining the degree is reflected as the biggest achievement, as it is perceived as passing an assessment in the labour market, which would lead them getting a job. Other achievements in HE besides the degree are defined as *meeting deadlines, completing work and gaining marks above one's expected outlook.*

I do hope that the university and other lectures that know about this course that can help and guide me through it and if have any major problems then I hope they can help me so that I can successfully pass and get my degree. My aims are that I am not going to leave my assignments until the deadline comes, I am going to be more organised and hopefully not lose any paperwork and also if I don't understand any lecture notes then I will make an appointment with the lecture and discuss any problems that I have got. (IR 13)

I perceive higher education as a path towards my goals, and grades/ marks as stepping stones leading me towards my future ambitions. I recognize my personal achievements in module tests and write-ups, when I gain marks above my expected outlook. (FS 32)

Besides grades and marks, achievements in higher education include, meeting deadlines, completing work, learning a variety of techniques and skills in practical's and software programmes being able to carry out a task successfully and to a good standard. (FS 3)

Category 3: Learning Subject Knowledge and Professional Skills

In this category, FY undergraduates are aware of HE in terms of furthering subject knowledge and professional skills. Their focus of attention is placed on details of various module contents and study skills being developed within the framework of course structure, for instance, IT skills, numerical skills and self reflection in terms of facilitating being a learner in HE. In this category HE may also be regarded as a means of preparing for a future career, like in *category 2*. However, HE is conceived more as learning subject knowledge and professional skills, namely professional training, in this category rather than simply acquiring a qualification. This also draws the boundary line between this category and the category of *experiencing HE as coping with assessment*.

It is a learning experience. You may not get top marks in all your modules, however I still feel that it is a huge achievement in order to go through university life. You will still gain invaluable experience and you will have gained many skills along your way. [...] I am learning new things everyday in university in all my modules. In this module I have learnt so many new skills as can be seen in my web folio.[...] Learning how to write scientific reports will help me tremendously in my other modules at university as I will need to write them up for all my modules as they all contain practical components. I already have many skills and strengths, which will help me, become a successful learner in Higher education along with my weaknesses, which I will be able to develop as a learner in higher education. (FS 29)

I am at University to broaden my knowledge of my favourite subject and gain more detailed understanding of what I have already learnt. With this knowledge I plan to work in the research centre of a hospital. (IR 41)

To me higher education means to study a subject in great depth and to gain a great understanding of it; I also see it as a place where and existing skills that you have will be improved and by the end you will be much more prepared for the career you are interested in. (FS 13)

Students mainly experience HE with enthusiastic feelings about HE in this

category, as they are learning new skills and knowledge which interest them. They reflect on subject knowledge and skills being learned, furthered and implemented within the framework of course structure. They pay more attention to the accumulation of concrete subject knowledge, hence may spend more time on extra reading. They expect to enhance their learning of subject knowledge and skills by practising within the framework of course structure. Assessment may be taken as a chance to practise what they have learnt and they intend to learn from assessment. They may also attempt to do assignments on time and to do adequate research rather than intend to work for deadline.

I have set myself some basic realistic goals, which will help me in university life. I intend to never be late for any lectures and always start my assignments on time, and allow myself plenty of time for implementation and research. I also intend to use my study time valuably and use the time for research or extra reading. I have set a goal of ensuring to increase my mathematical skills in my course, it has always been a weakness of mine and I intend to make it strength. [...] I am looking forward to my course and I look forward to learning more about a subject, which I would like to specialise in. (IR36)

The attribute that I have developed is reflecting on my learning by developing my ability to reflect on my progress. This was done by me completing my tasks that were set in Personal Study Skills and then reflecting on the work. This has helped me improve my weaknesses in a variety of topics which I did not do previously in my education at College. I have been able to use the feedback given to me for my Practical by my tutor, and use this feedback to good affect which has now helped me a great deal in my second practical. From the feedback given I gained an understanding of the biochemistry, genetics and physiology of the organisms involved in industrial biotechnology, which I had no understanding of before in my College years.(FS 38)

Difficulties are taken for granted in this category, as it is conceived to be part of the learning process. The learning outcomes of the HE experience are revealed as progressing in terms of academic knowledge and skills within course structure and developing as a student in HE. Achievement of HE for students in this category is defined as gaining new subject knowledge and professional skills.

We did very interesting experiments in the first semester, we grew bacterial colonies, synthesized simple drugs, had to find out the identity of unknown microorganisms or unknown drugs. At first it was difficult for me to put up with various laboratory techniques as I had no experience with that. As I gained some skills the work in laboratory started to be easier and more interesting. I also needed to improve my computer skills to create graphs to present the results of the experiments. Exercises I have done in Personal and Study Skills 1 module helped me a lot since I was not good at creating graphs, tables or performing mathematical operations on computer. Also statistics exercises were extremely helpful. I struggled a lot with statistics at the beginning but after I went through the handouts several times and borrowed a book on statistics I understood the principles. The instructions and exercises in the module were straightforward and easy to follow. Not only did I need to work on my computer skills, but also on my writing skills as I needed to write practical reports. It was quite difficult to write on academic level at first since English is not my first language. Therefore I appreciated I could practice these skills in AB1011 module. (FS 39)

I think the biggest achievement would be all the new things that I never knew before which I wanted to I will be able to have a reasonable knowledge and understanding in also the skills that come with higher education that I may not have had before.(FS 14)

Category 4: Individual Maturing Process

In this category, HE is experienced as a stage of life when adulthood starts. FY undergraduates are aware of HE in terms of maturing as an individual. The students' focus of attention in this category is their self as a person, in other words, their personality development and capability enhancement as an adult. When HE is experienced as an individual maturing process, the referential aspects of the previous three categories are combined and consequently their structural aspects are focused simultaneously in this category. For example, settling into HE may be regarded as individual adaptability exercise and subject knowledge and qualification are taken as the basis for complete independence in adulthood.

Higher Education is an important stage of my life. It is a time when I need to become an independent and responsible person. So far my parents have been taking care of me, helping me to make decisions etc., and now I have to take care of myself and make important decisions myself. (FS 39)

By going into higher education, it's not always about the grades and degrees. It's more about building oneself. Gaining confidence, and building self esteem. The university helps us do this and also helps us become a more mature individual. (FS 21)

Higher Education means to be me that you should do your best in your work so that you can get to a level where you feel proud of yourself .It also means that I am capable of getting to a level where I can stand on my own feet and gain a job which is associated with my degree. (FS 6)

In this category, students feel grown-up as individuals during HE and feel more self confident as a result of their overall improvement in ability. In this category, students change themselves for the better, rather than to fulfil external requirement. They learn from experience both within and outside the framework of course structure and reflect on the transferability of skills learnt from experiences. They build on themselves to establish an adult self identity.

Now that I am a higher education student I feel mature when it comes to getting the work done. I know now that a deadline, is a deadline therefore I work and organise myself to ensure I don't leave myself with too much to cope with come the deadline. [...] However the skills gained from higher education are not just aimed for my time at university there looking beyond higher education into a career. Because university to me is not just gaining academic skills even though they essential, but I wish to gain life experience which I have done already. Just by living away from home it has taught me to rely on myself, which I can and have transferred into my degree work. (FS 35)

Nonetheless, this motivated me to become more independent instead of relying on staff or other students and it pushed me to resolve situations and ask questions, it also allowed me to socialise with new students and make valuable friends. I also felt a sense of leadership as many of my other colleagues who suffered similar issues looked to me for assistance and help. Overall I am quite happy to be at the University of Wolverhampton and look forward to my course and achieving my best. (IR 24)

As revealed in students' quotes above, becoming mature means independence and responsibility. Therefore, difficulties in this process are not to be avoided but acknowledged and conquered. This self challenging process is perceived as part of the meaning of being in HE, which leads to a grown up and mature personality. The outcomes of HE in this category are fundamentally personal and reflected as development of ability to control one's life and self confidence.

HE achievements are defined by students as being confident about oneself and enhancement of individual ability.

Although grades are a very important part of higher education they are the only aspect of higher education you can take from university life into the real world. other aspects such as communication skills the ability to take charge of your own life and not have to rely on those around for me those are the achievements of higher education. (FS 30)

At the moment I feel deciding to stay living at home was a bad idea as I feel I am missing out on a part of the university experience, such as the parties though the main thing I feel I'm missing out on is not learning how to look after myself and the independence that living at university brings. (IR 16)

I feel that grades are a part of university but I feel that university is more about responsibility and character development and hope to achieve in both. (FS 1)

Category 5: Broadening One's Horizon

In this category, FY undergraduates are aware of HE in terms of its function in expanding the limit of their idea, knowledge and experience. This overall meaning applied to HE by students reveals the comprehensive nature of the referential aspect of this category. As a consequent, students' focus of attention goes beyond the institution, course of study, subject knowledge and individual self. It extends to a much wider context, which includes social and life context. Perceiving self as part of the wider context, students take HE as an opportunity to broaden horizon and gain an understanding of the real world and life at a general level. The students' focus of attention in this category covers a variety of experience in HE and its cultivating effect in formulating a holistic view of the world outside, as well as the meaning of life.

Higher Education does not only mean skipping from school to college or university, it is actually related to your personality as well. Higher Education gives us a chance to change and develop ourselves, it is like a turning point in one's life. Broadening of horizons of our thinking is a major part of higher education. It is completely a different and unique experience. (FS 5)

I came to university because it seemed like a challenge and because I wanted to broaden my horizon. (IR 42)

To me higher education is a means of opportunity, it enables you to experience and learn a variety of things that you might never come across outside university student life. Studying at this level enables you to take your life in whatever direction you want, many doors are open to you so that you may explore them and choose your direction rather than it being chosen for you. Higher education allows you to be in control of your life and achieve all the goals that you want to achieve. (FS 29)

In this category, students intend to connect their experience in HE with the world outside. For example, they may be interested in meeting people from various backgrounds and learn about the world associated with those backgrounds. Meanwhile, the students may also reflect on their HE experience within a wider social or cultural context.

I meet many different people at the university and I can discuss various issues with them and make new friends. For me, as an international student, it is also interesting to meet people from different countries and cultures as I can learn from them about their countries and traditions [...] Studying in England is also a good experience in terms of getting to know British education system which is different to that in the Czech Republic. Actually I have not studied at a university in my country but I keep in touch with my friends who study in the Czech Republic. As we exchange information about our studies, we find many differences. (FS 39)

Additionally, in this category students are particularly interested in developing their thinking capacity. They actively synthesize HE experience by drawing on various elements in life experiences and try to apply what is learnt in HE within a real life context. They see life consisting of multiple potential directions and subsequently intend to keep an open mind towards life long learning and constantly modify their choices of life directions.

Higher education has to provide me with the opportunity to consolidate my earlier learning and understanding. Not only within a work or professional setting but also in personal aspects of my life including social experience.

Higher education provides me with the opportunity to explore my levels of educational understanding and subsequently related to the vocational areas. My current and past experiences have been used as a marker and an indicator of where I would like to be in terms of my education and career developments.

My current perceptions of formed through my patterns of socialization and my integration within the professional and educational arenas that I have been in. Higher education is essentially the means to an end. It is a tool that enables people to develop their thinking capacity and to integrate into a professional formula of thinking.

In terms of self-perception, I attempt to use all of my life experiences as a mechanism for learning good, bad and indifferent. Some of my best forms of self-analysis have been achieved not through successful but where situations have been problematic. My capacity to assess and review my actions and myself are under constant review. In relation to this, I frequently seek the opinion of others personal and professional levels.

The under opinion principle for my personal development is in encompassed in the principle of using life experience as a method for personal and professional development and also to review my current and personal status in order to ascertain an appropriate direction. (FS 8)

HE outcome in this category is reflected as exceeding the limitation of course structure and leading to the development of students' cognition at a general level within a broader context. As well as subject knowledge and the skills and inner self knowledge that are gained in previous categories, HE also enables students to achieve an understanding of knowledge within a social and life context, which contributes to their personal value development. Achievement in HE for students in this category is their development in life insight and knowledge about the world *out there*.

Lastly, achievement to me means many things in terms of Higher Education. For example, grabbing an opportunity as it comes is an achievement because you may achieve something fruitful, if you don't try you will never know. Plus, putting in effort and dedication into something you know will benefit you in the long-term, even if you did find it tedious at times is an achievement, once you gain results. (FS 28)

Besides marks, exams and grades higher education means a time to make new friends, develop on old skills and learn some new ones and have a social life and discover new places out there. Its important to get the meaning of life as its not all about exams etc. (FS 16)

I met loads of people from all around the globe here, it is quite a nice experience, and here is exchange of thoughts between people from totally different cultures which is a distinctive experience. I got chance of my personal

and social development. I can say that I am a totally different and changed person now and I am glad being at right place. (FS 5)

5.2.3 Structural Relationships between the Categories

As revealed from the above descriptions, there is an inherent inclusive hierarchical relationship in the five categories of description. This relationship can be illustrated by demonstrating the variations in structural aspects of the five categories along the following three logically interrelated themes of expanding awareness:

- Focus of attention in HE experience
- HE learning activities
- HE outcome and achievement

Empirical evidence of this structural relationship has been summarized into *Table 5.1*.

Theme 1: Focus of Attention in HE Experience

Students' focus of attention while experiencing HE varies along a continuum, ranging from limited to expansive. In category 1, there is a clear specific focus on institution environment. Continuing in category 2 and category 3, students' focus of attention still remains with the institution, but its scope expands to the framework of course of study. In category 2, students' focus of attention is on course assessment, which results in a narrower focus of attention than that in category 3 in terms of the depth and breath of the mastery of subject knowledge. Category 4 brings individual maturing into the forefront of the awareness and expands the scope of awareness into personal character development, with the structural aspects of previous three categories being taken as integrated elements. In category 5, the focus on extending limitation of one's idea, knowledge and experience requires attention to a variety of experiences, both within and outside the institution. This is in addition to range in span of awareness to that found in category 4.

Theme 2: HE Learning Activities

In category 1, FY undergraduates actively adjust themselves into HE by

exploring the institution and new life routine after starting HE. In category 2, FY undergraduates bear in mind the institution's regulations and assessment criteria and learn what is required to meet the external criteria and regulations. They work for deadlines and their learning activity in HE is assessment driven. In category 3, FY undergraduates familiarize themselves with the institution to help themselves learning subject knowledge and professional skills. They take assessment as practice to check learning outcomes in HE and improve their understanding of knowledge and study skills through assessment. They pay more attention to accumulating subject knowledge and professional skills. Their learning activity in HE is either purely driven by intrinsic motivation or motivated by a combination of intrinsic and extrinsic reasons. In category 4 and category 5, students' HE learning activities are fundamentally driven by intrinsic motivation. However, their learning activities go beyond the limits of the particular institution, concrete subject knowledge and skills within the framework of course of study. In category 4, students learn to be a mature individual by developing their personality and overall capability. In category 5, they are particularly interested in expanding the limit of their ideas, knowledge and experiences, based on the activities taken in the previous four categories.

Theme 3: HE Outcome and Achievement

There are five dimensions in the theme of *HE outcome and achievement*, ranging from information about dwelling in an educational organization to knowledge about living in the real world. In category 1, the outcome of HE experience is knowing about the institution environment and regulations. *Settling into current institution* is regarded as the achievement in this category. In category 2, course work being done and assessment results represent outcomes of the HE experience. *Passing assessments and gaining qualifications* is perceived as achievement in this category. Learning subject knowledge and skills within the framework of the course of study is perceived as HE outcomes in category 3 and mastery of the subject knowledge and skills are regarded as achievement in HE. In category 4, the outcome of HE experience is reflected in terms of maturing as an individual. The achievement

is improvement in capability at a general level. Enriched understanding about life and living in the real world is reflected as HE outcomes in category 5 and changes or progress in life insight or understanding the world outside HE is believed to be an HE achievement.

| Themes of expanding awareness | Category 1 | Category 2 | Category 3 | Category 4 | Category 5 |
|--|---|---|--|---|---|
| | <i>Experiencing a new place</i> | <i>Coping with assessment</i> | <i>Learning subject knowledge and professional skills</i> | <i>Individual maturing process</i> | <i>Widening horizon</i> |
| Theme 1 Focus of attention in HE experience | . Institution . New life routines after stating HE | . Self - performance in assessment . Tasks & deadlines . Grades & results | . Subject knowledge . Key skills emphasised within framework of course of study | . Individual personality . Capability as a mature adult | . Limit of idea, knowledge and experience |
| Theme 2 HE learning activities | . Exploring the institution . Adapting to new routines and environment | . Working for deadlines . Being assessment or task driven | . Learning and practising subject knowledge and key skills . Learning from assessment | . Developing personal character . Enhancing overall capability | . Expanding one's horizon in social and life context |
| Theme 3 HE outcome and achievement | . Knowing about the institution and new life routine . Settling in | . Course work being completed as required . Passing assessment and obtaining qualification | . Learning subject knowledge and key skills . Increased understanding of the subject knowledge and key skills required in course of study | . Maturing as an individual adult . Changing self for better; overall capability enhancement | . Expanding awareness about life and the real world outside . Progress in life insight and knowledge of the real world |

Table 5.1 Structural Variations in FY Undergraduates' Ways of Experiencing HE

5.3 Summary

The implementation of a phenomenographic inspired approach in this research is jointly influenced by post positivism and constructivism. While trying to be as neutral and faithful to data as possible and by keeping distance in data collection and analysis, I acknowledge the constructivist nature of my interpretation in data analysis.

According to the sample FY undergraduates' reflective writing, five different ways of experiencing HE have been identified in this phenomenography inspired study. They are *experiencing a new place, coping with assessment, learning subject knowledge and professional skills, individual maturing process, and/or widening horizon*. These five different ways of experiencing HE reveal the variety in the sample students' expectations from HE, needs in HE and criteria taken to evaluate HE experience, which respond to the demographical diversity in students cohort in this post-1992 university science department. It indicates FY undergraduates experiences within a widening participation context are much more than academic experience and supports the complexity of FY undergraduates' retention issues identified in literature.

Similar to the concept of learning orientations developed in Beaty, Gibbs and Morgan (1997), the five categories of description identified in this study are not set out to type students. Rather, they represent the quality of relationships between students and HE. These are different from the concept of learning orientations which relates to learning approaches in university study. These five categories represent the sample students' focus of attention during HE experience and imply a set of criteria that students utilise when evaluating HE experience. They confirm the criteria relating to student learning conceptions in the literature, such as cognitive development, academic and professional development and personal identity and conception of self (Brennan, et al, 2008). The way of *experiencing HE as a new place*, identified in this study, highlights the role of the institution as an organization in FY undergraduates' perception and in their evaluation of HE experience.

Finally, the five ways of experiencing HE vary along three themes of expanding awareness. They are i) focus of attention in HE experience ii) HE learning activities and iii) HE outcome and achievement. Their structural aspects identified along these three themes of expanding awareness show that the more expansive students' awareness is, the higher quality students experience will be. With the expanding of awareness, students' learning moves from external learning to internal learning, which is more efficient according to learning theories. Further, only in category 5, students tend to interpret HE experience within a wider context as providing wider horizons.

Chapter 6 Survey Findings

6.1 Data Analysis

The data set being analyzed are based on questionnaire responses from 120 FY undergraduates. They are participants within the same sample framework as those participants in the qualitative studies. In other words, all of them are from the same School and the participants in the qualitative studies have also been invited to take part in this questionnaire survey. The data set contain the sample students' demographic data (such as age, gender, academic background), variables relating to their perceptions about FY HE experience (such as reasons of attending, self-identified difficulties and FY achievement), and the respondents' emotional response to their FY HE experience.

The majority of participants responses were consistent with questionnaire requirements and are inputted into SPSS as they are in the questionnaires. However, there are occasional responses which are ambiguous and have to be manipulated slightly for analysis. The manipulation principles are listed as follows and they have been employed in a consistent way in this survey data preparation.

- For Question 10 in Part I, the average grade is chosen to put into SPSS if three grades are selected; whereas the higher grade is chosen if two grades are selected because the higher grade is more difficult to achieve.
- Value of 'Not answered' is assigned to those self-contradictory answers and those leaving the answer space blank without explicating reasons; whereas value of 'Not applied' is assigned to those leaving an answer place blank for appropriate explicit reasons, for instance, by offering comments or other reasons.
- Both 'Not answered' and 'Not applied' are dealt with as missing values.

As explained in the methodology chapter, within its interpretive case study

framework, this survey is fundamentally designed to provide patterns of distribution among the sample students to complement previous qualitative studies. Therefore, the survey findings included in this chapter are results from descriptive statistical analysis and the emerged distribution patterns are presented under three themes, namely *background information*, *FY HE experience* and *emotional feelings*. Exploratory inferential statistics, specifically, Chi-square, has also been carried out to examine associations between some of the variables. However, the analyses of these results are only included in appendix (see *Appendix 7*) due to its subordinate position in this research. The questions driving the inferential statistic analysis are formulated based on the previous qualitative research findings and the descriptive statistic analysis results.

6.2 Background Information

This section provides some demographic information about the participants in this survey, including *age*, *gender*, *ethnicity*, *accommodation*, *student status*, and *academic background*. In addition, it also incorporates *students' perception of HE* at the beginning and the end of their FY of study, as well as their assessment grades representing their *academic performance* during their FY HE.

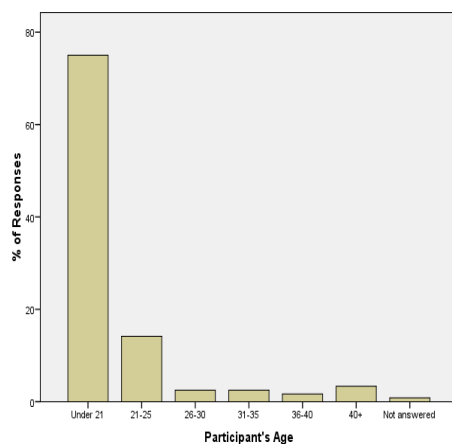


Figure 6.1 Participant's Age

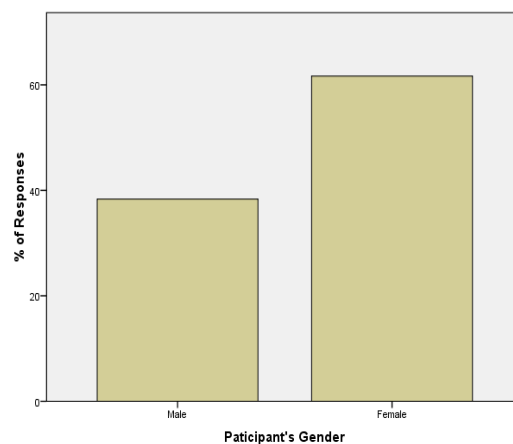


Figure 6.2 Participant's Gender

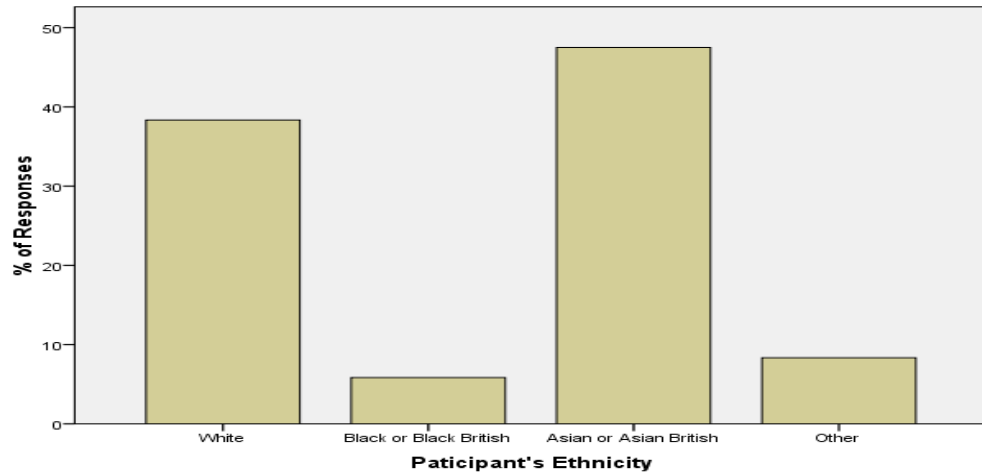


Figure 6.3 Participant's Ethnicity

As displayed in the bar charts on participants' age (Figure 6.1), gender (Figure 6.2) and ethnicity (Figure 6.3), almost one third of the sample students are mature students in this survey and the majorities are under 21 years old when they enrolled. There are 23.4% more female participants than male participants. A wide range of varieties exist in the participants' ethnicity. However, the majority of students are from Asian, Asian British or White backgrounds. Black or Black British and other Ethnicity are the minorities.

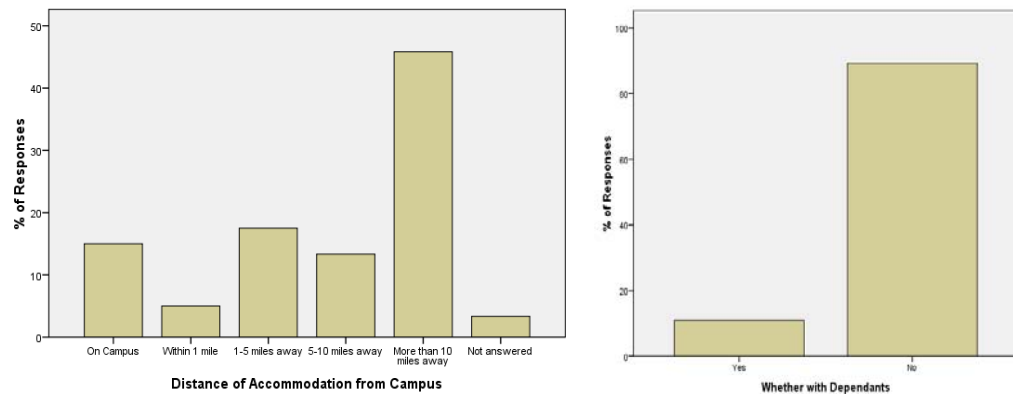


Figure 6.4 Distance of Accommodation from Campus Figure 6.5 Dependents

The respondents in this survey are pre-dominantly non residential students with nearly half living more than 10 miles away from the University (*Figure 6.4*). Although living at home, the majority of the respondents have no dependents that need their care in daily life (*Figure 6.5*)

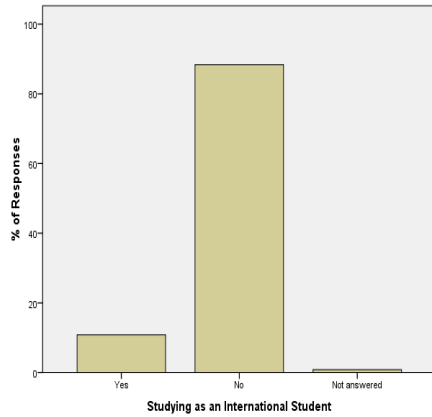


Figure 6.6 International Student

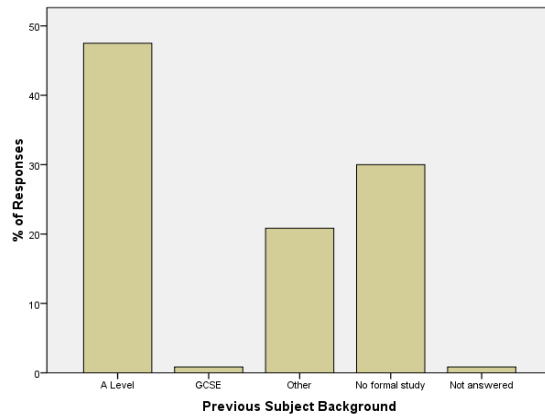


Figure 6.7 Subject Background

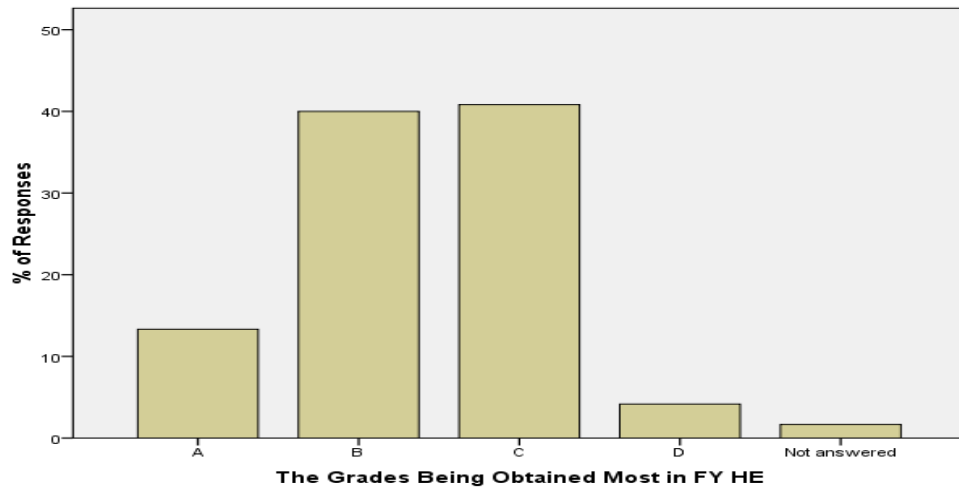


Figure 6.8 The Grades Being Obtained Most in FY HE

There are 10.8% of the respondents who classify themselves as international students. (*Figure 6.6*) Also a third of the respondents have no formal study on the subject before starting HE. (*Figure 6.7*) The majority of students obtained Grade B (40%) or Grade C (40.8%) in FY HE assessments, with a slightly bigger number of individuals getting Cs than Bs. (*Figure 6.8*)

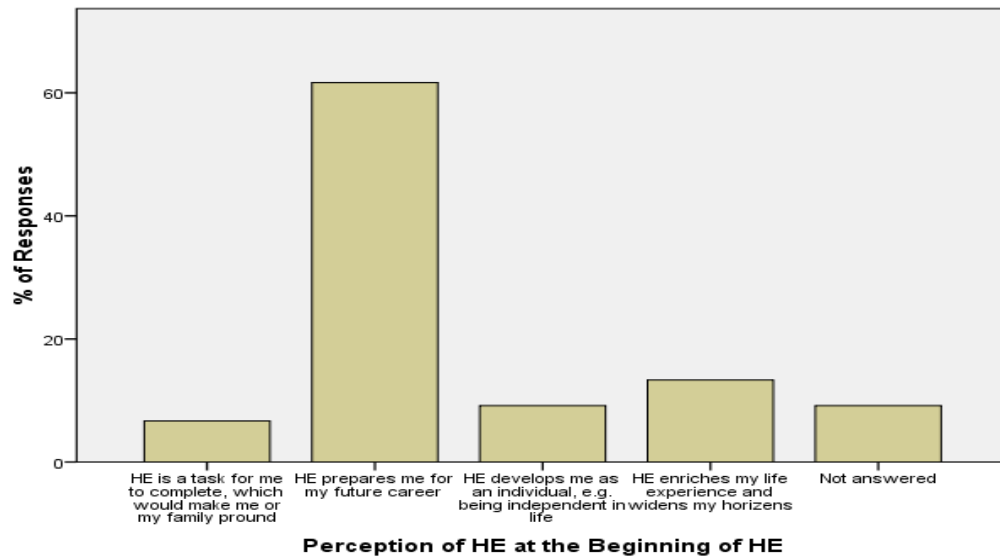


Figure 6.9 Perception of HE at the Beginning of FY HE

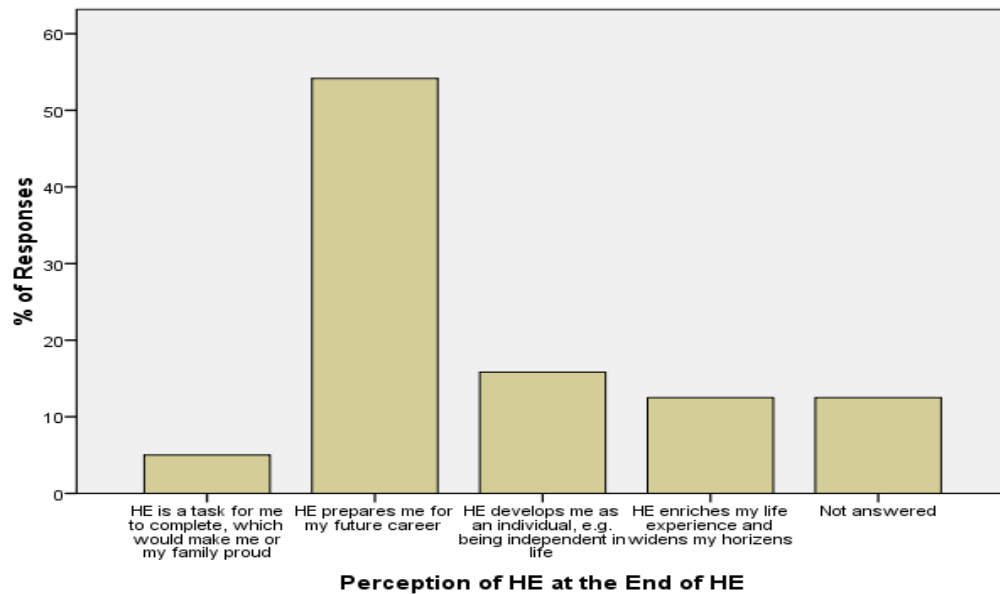


Figure 6.10 Perception of HE at the End of FY HE

Given a small number of missing answers about perceptions of HE at the beginning and the end of FY undergraduate study, the two bar charts above, *Figure 6.9* and *Figure 6.10*, show that there is similarity in the distributions of responses relating to students' beliefs about the meaning of HE at the

beginning and end of their first year. At both stages, more than half of the participants perceive HE as a preparation for future career. However, at the end of the first year there is an increased percentage of respondents who think HE develops them as an individual, as the percentage grows from 9.2% to 15.8%.

6.3 FY HE Experience

According to the grounded theory study, activities relating to FY undergraduate achievements are *going to academic sessions, doing self study, socializing with peer students and solving self-identified problems*. This section is going to present the distribution pattern of the sample students' experience relating to these activities, including their reasons for various level of involvement in these activities. In addition, this section will also depict the distribution pattern of the sample students' *criteria in FY achievement evaluation*.

In order to present the findings of this section in a reader-friendly way, the results from SPSS analysis have been restructured into 5 tables (see *Appendix 8*). These contain the distribution patterns of various variables as the only applicable answer, as one of the applicable answers and as the most applicable answer chosen by the respondents. For example, the participants have been required, firstly, to choose as many applicable answers as possible in a question. Therefore, an answer can be chosen not only on its own but also in combination with any of the rest of the three answers. The column labeled as *Only Applicable* consists of the percentage of the participants who selected those answers selected as the only applicable one to their situations. The percentage of all the respondents who picked a particular answer as one of their choices are added together and put into the column labeled as *Any Applicable*. The column labeled as *Most Applicable* contains the percentage of the respondents who chose a particular answer as the most applicable one to a question. Keywords in each answer are put next to the answer label in the tables to help readers make sense of the findings. Data in these tables are presented in graphs in this section to make it visually clearer.

6.3.1 Academic Sessions

Figure 6.11 to Figure 6.15 show the distribution patterns of conditions for the respondents' involvement into academic sessions.

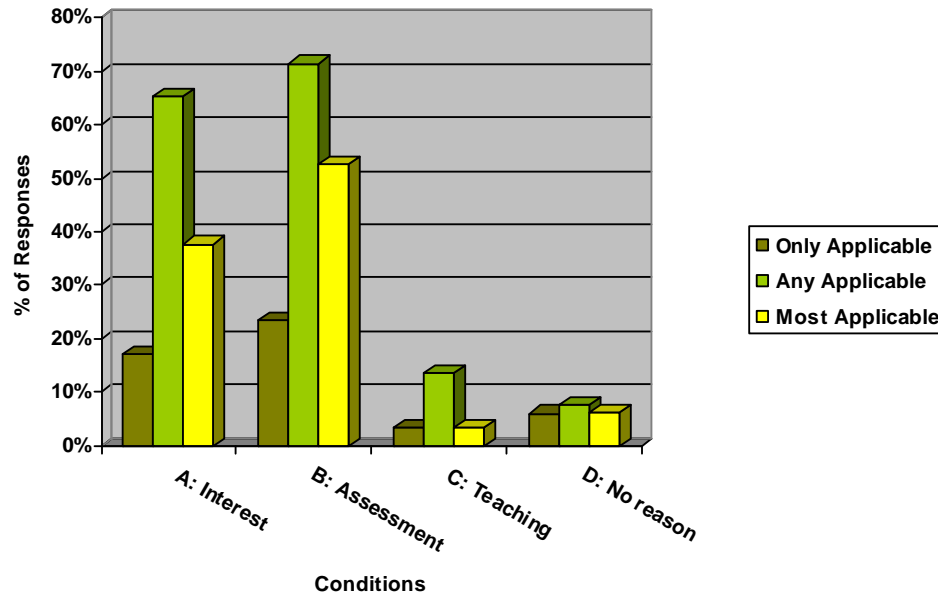


Figure 6.11 Conditions for Attending

According to Figure 6.11, combining the respondents making the only applicable choice shows that about half (50.1%) of the respondents attended academic sessions due to combined reasons. However, the respondents' answers to the most applicable reason reveal that slightly over half (52.6%) of them mainly attend academic sessions because they thought the sessions were important in terms of passing assessments. Following that, over one third (37.7%) of respondents expressed that their key reason for attending academic sessions were their interest in the subject knowledge in those sessions. The above two reasons have also been selected by the majority respondents, 71.5% and 65.5% respectively, as applicable to their conditions of attendance in academic sessions.

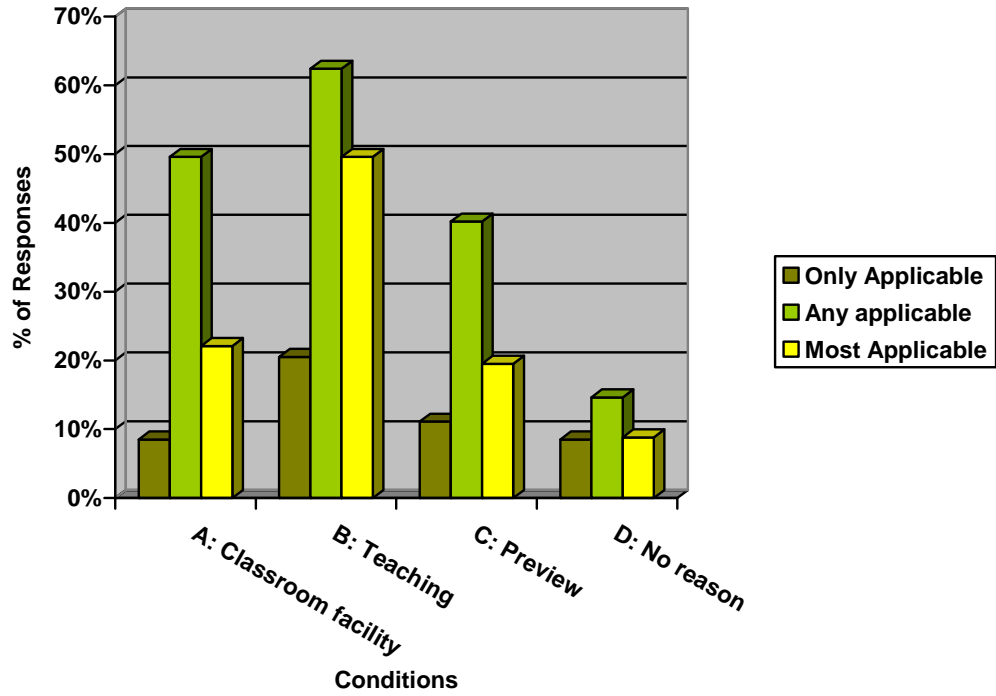


Figure 6.12 Conditions for enjoying

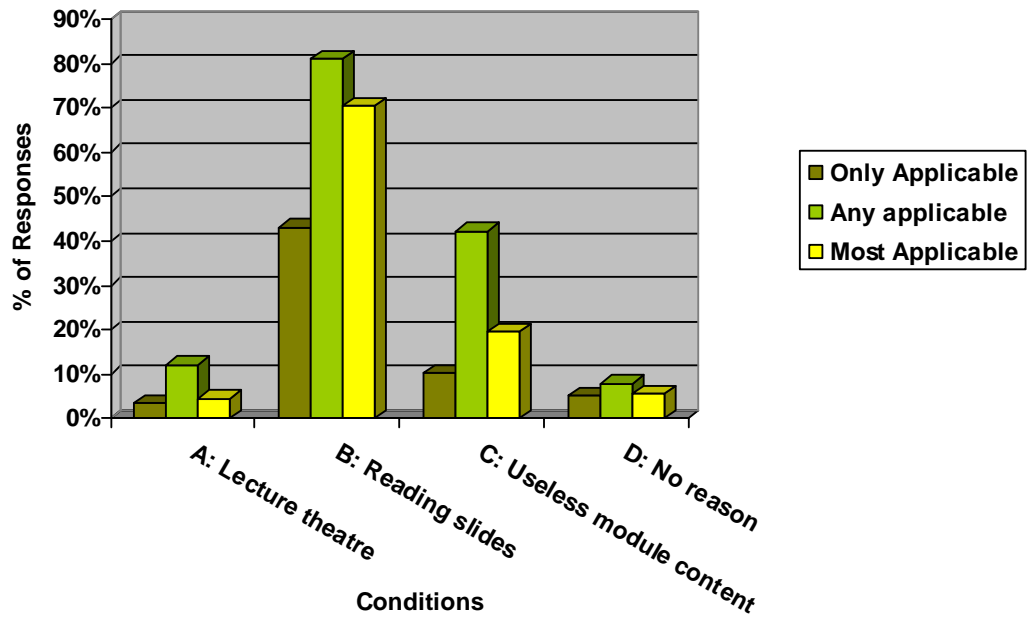


Figure 6.13 Conditions for not enjoying

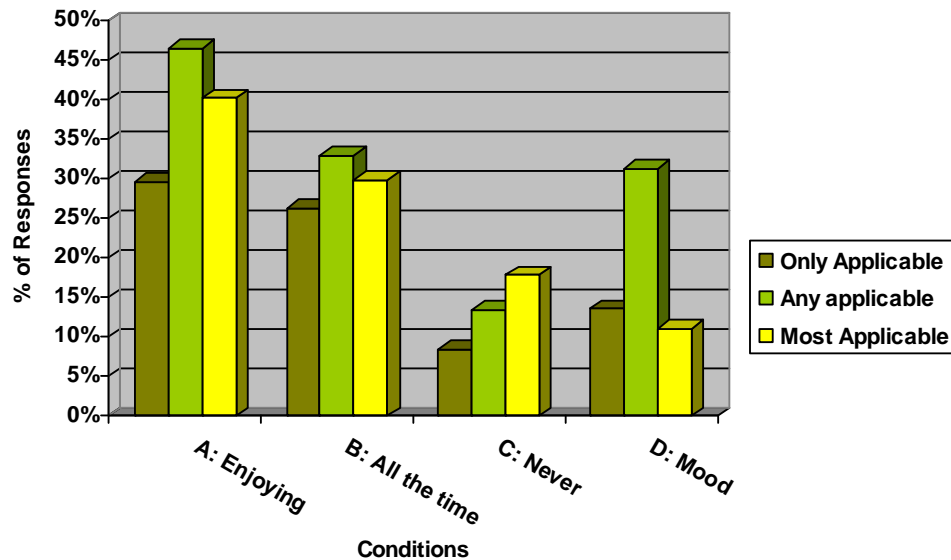


Figure 6.14 Conditions for Involving

Over half (62.4%) of the respondents attribute their enjoyment of academic sessions to academic teaching (*Figure 6.12*). They feel most likely to enjoy academic sessions when the session was taught effectively (e.g. group discussion and activities happen or the lecturer presented the subject confidently). Respondents feel least likely to enjoy a session when the lecturers were only reading off the slides. Nearly half (43.1%) of the respondents even singled it out as the sole reason for feeling least likely to enjoy academic sessions. Classroom and facilities made a difference to respondents' enjoyment of academic sessions. Although only 12.1% of the individuals perceived they felt least likely to enjoy the sessions when the sessions were delivered in a lecture theatre, 49.6% of the respondents feel appropriate session facilities contribute to their enjoyment of academic sessions to a certain extent. Further, feeling that academic sessions are enjoyable also has a moderate contribution to students' involvement in academic session according to *Figure 6.14*.

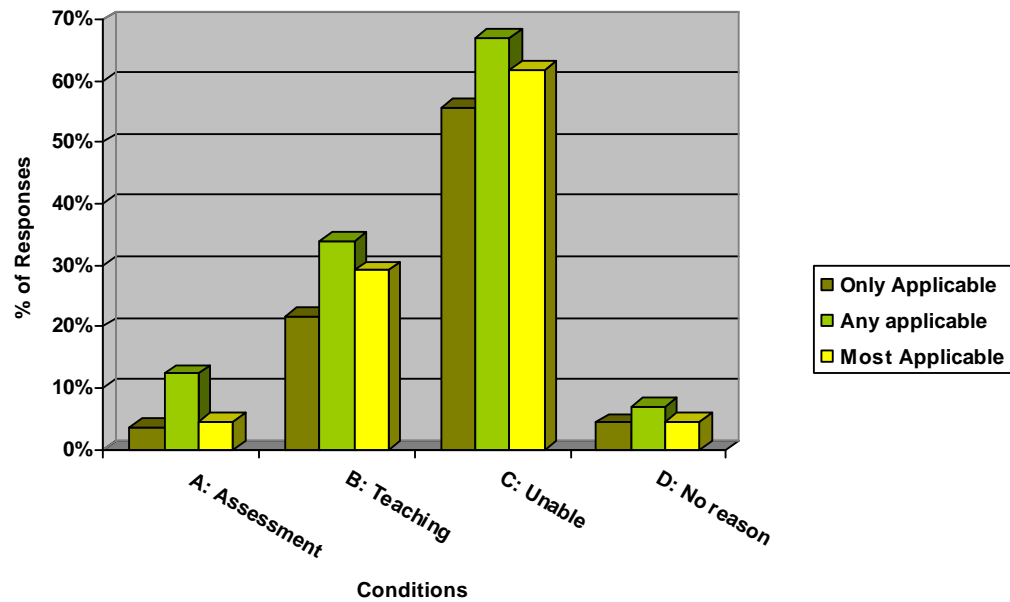


Figure 6.15 Conditions for Being Absent

Besides its great impact on students' enjoyment of academic sessions, academic teaching also accounts for about one third of students' absence in academic sessions, either as one of the applicable reasons (33.9%) or as the most applicable reason (29.2%). Only slightly over half (55.7%) of the respondents reported that the single reason for their absence from some academic sessions was they were not able to attend. (see Figure 6.15)

6.3.2 Self Study

Figure 6.16 to Figure 6.18 presents the distribution pattern of conditions for the respondents involving themselves in self study during FY HE.

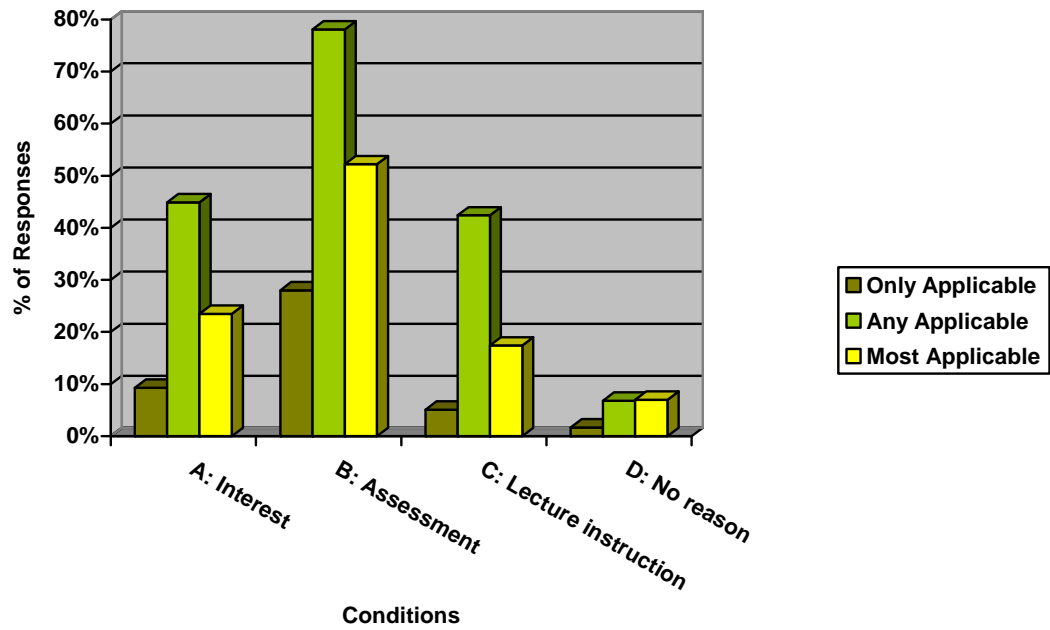


Figure 6.16 Conditions for Doing Required Self Study

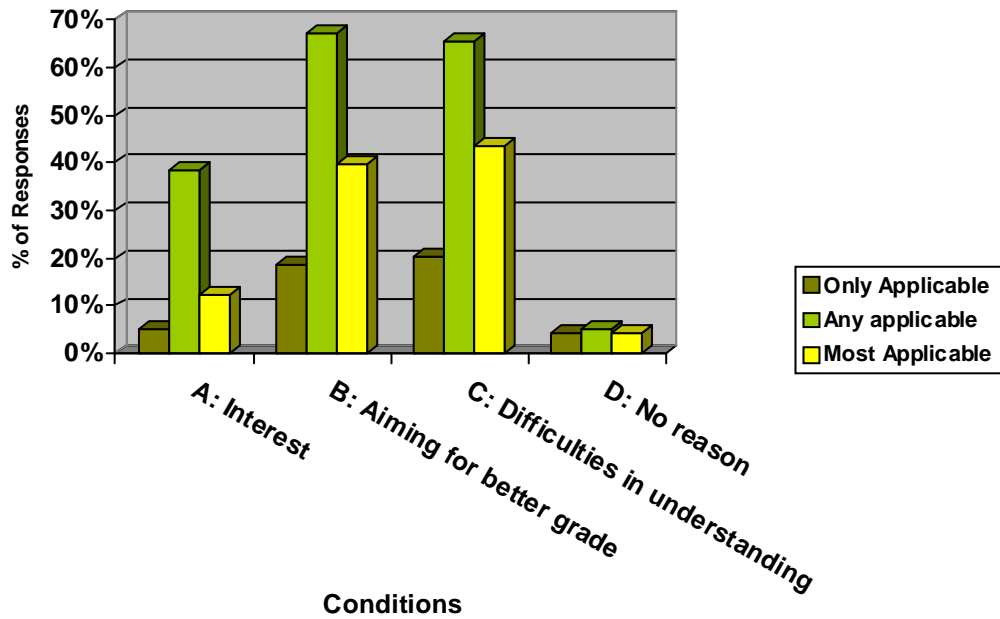


Figure 6.17 Conditions for Extra Self Study

According to *Figure 6.16* and *Figure 6.17*, adding up the number of respondents making only applicable choice shows that about half of the respondents indicated that they undertook required self study (55.9%) or extra self study (52.1%) for combined reasons. However, the majority (78.1%) said that one of the reasons for them doing required self study was to gain more understanding to cope with assessment. The most applicable reasons for the respondents doing extra self study were either because they were aiming for better grades in assessment (39.8%) or due to their difficulties in understanding the knowledge (43.4%). Interests in, or fascination about, subject knowledge was a less important reason for students doing extra self study when compared with reasons for them doing required self study.

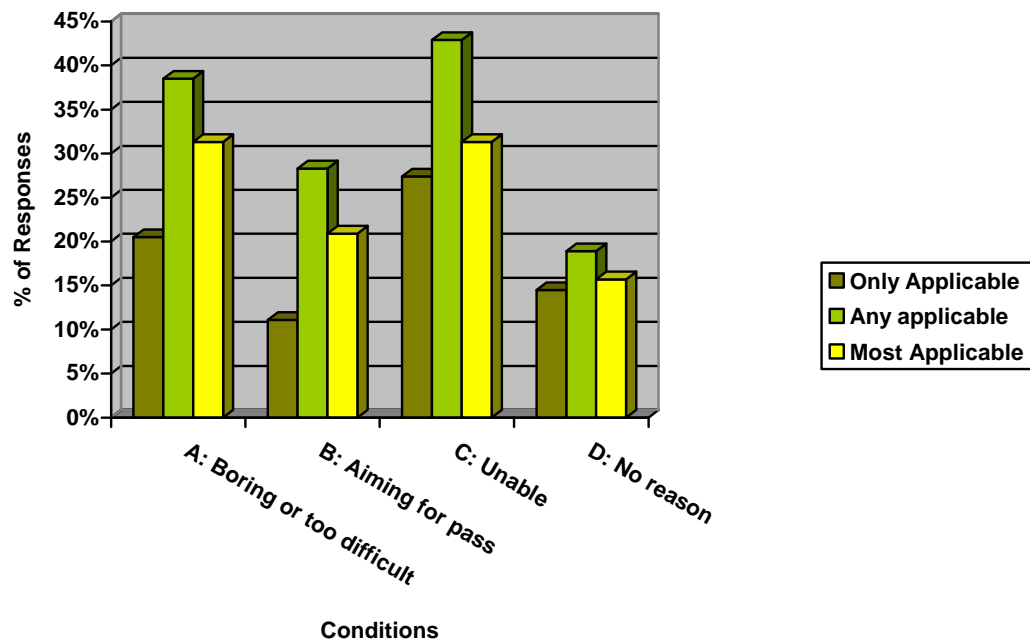


Figure 6.18 Conditions for Not Doing Self Study

Combining all the participants choosing only applicable reason, over two thirds of the respondents (73.5%) reported that they did not do self study for a single reason. However, it seems there is no reason for making a dominant effect among the respondents. About one third (31.3%) of individuals attributed their

lack of self study mainly to not being able to do as much as they wanted. Another one third (31.3%) expressed that they did not do self study because they felt the module was boring or too difficult. A slightly fewer number (20.9%) of respondents revealed that only aiming to pass the assessment hindered them doing much self study. Quite a few (15.7%) individuals expressed that most of the time they did not know why they did not engage in self study in their First Year of Higher Education study.

6.3.3 Socializing with Peer Students

55% of the respondents reported that they did not talk to a lot of people in university or attend social events, while 45% believed they had been socializing actively with others during FY HE study. Their reasons for socializing and not socializing with peer students are respectively shown in *Figure 6.19* and *Figure 6.20*.

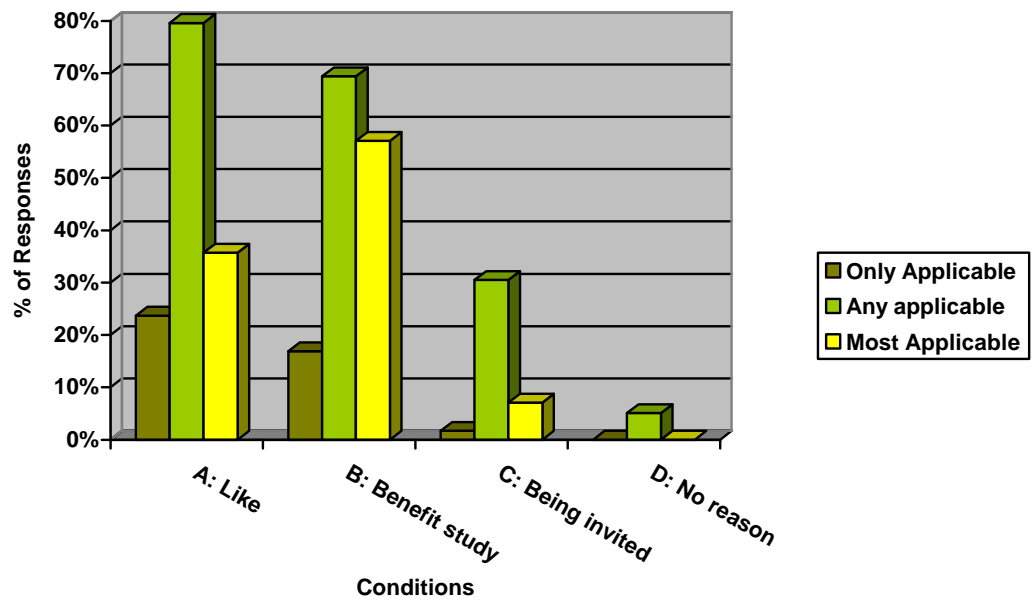


Figure 6.19 Conditions for socializing

Among those respondents who socialized actively with others, the majority attributed their involvement to liking making friends or going out (79.6%) and/or

they thought socializing with fellow students would benefit their study in university (69.4%). However, compared to the prior condition (35.7%), a moderately higher amount of individuals selected the latter one (57.1%) as the most applicable answer. (see *Figure 6.19*)

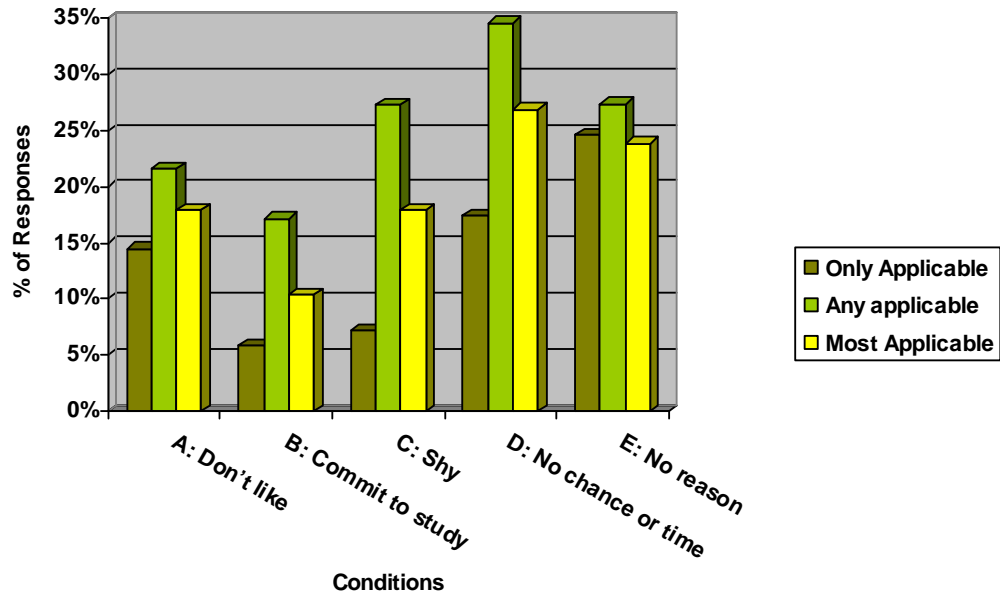


Figure 6.20 Conditions for Not Socializing

As shown in *Figure 6.20*, various conditions for not socializing distributed evenly among the respondents. Compared to the rest of the conditions, a slightly higher percentage of individuals expressed their lack of social involvement was due to not being provided enough chances or not having much time for socializing. A moderate amount (17.9%) of individuals were not active in socializing mainly because they are generally quiet and do not like socializing and/or too shy to talk to others first. The least amount of respondents (10.4%) did not socialize with others mainly due to voluntary commitment to academic study. Compared to conditions for social involvement (*Figure 6.19*), many more individuals indicated they were not clear about their reasons for being absent in social involvement.

6.3.4 Solving Self-identified Problems

Figure 6.21 to Figure 6.28 describes the distribution pattern of the participants' responses in relation to self-identified problems in FY HE experiences and their problem solving process.

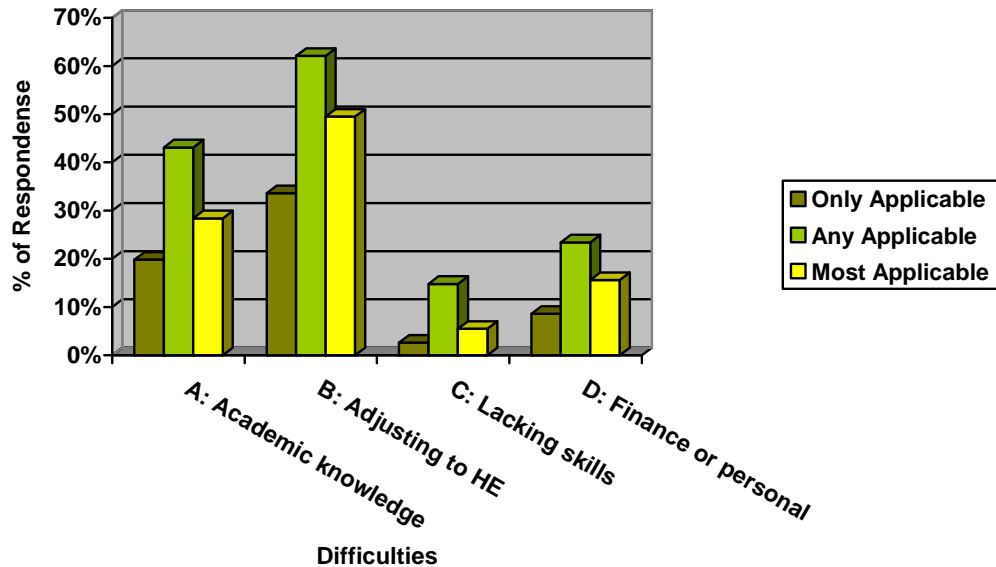


Figure 6.21 Self-identified Problems

As displayed in Figure 6.21, about half of the respondents (49.5%) said that the experience they found difficult was mainly related to adjusting to the new environment and university teaching and learning styles. Learning and understanding the required academic knowledge was also reported as a major difficulty by a third (28.4%) of the respondents. Relatively small numbers of individuals reported difficulties that related to lacking study, life skills, finance or problems in personal life.

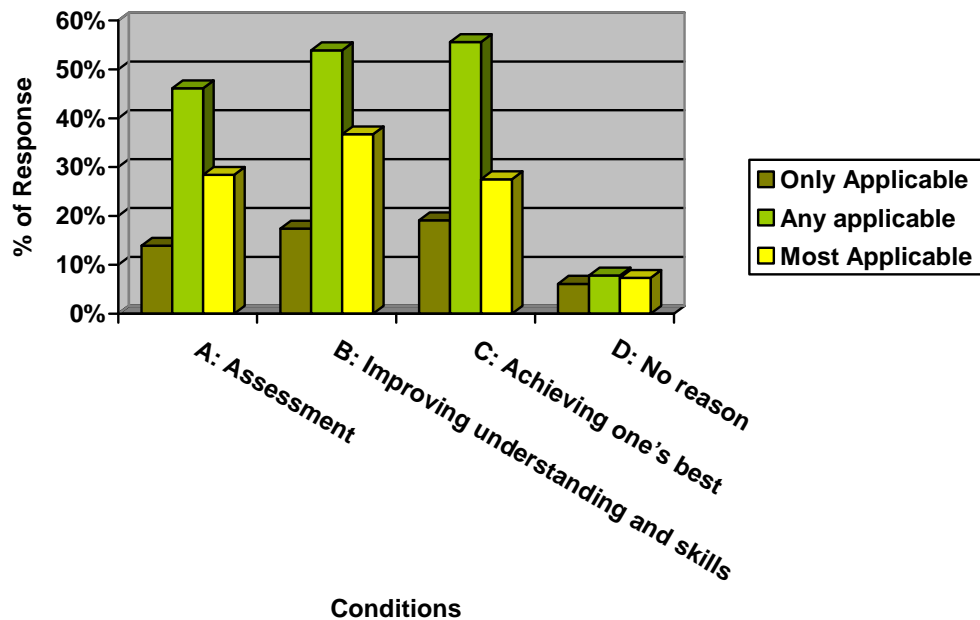


Figure 6.22 Conditions for Trying to Sort out Difficulties

Figure 6.22 shows that, combining the responses of participants choosing the only applicable category, about half (56.5%) of the respondents try to sort out difficulties based on a single condition. However, none of these conditions owns a dominant position as the only applicable condition, one of the applicable conditions, or the most applicable condition. Trying to achieve one's best or full potential is selected by only a few more individuals than the other two conditions, both as the only applicable condition and as one of the applicable conditions. However, improving oneself in terms of developing understanding and skills was chosen as the most applicable condition by the most respondents (36.7%), which is only about 8% higher than the other two conditions.

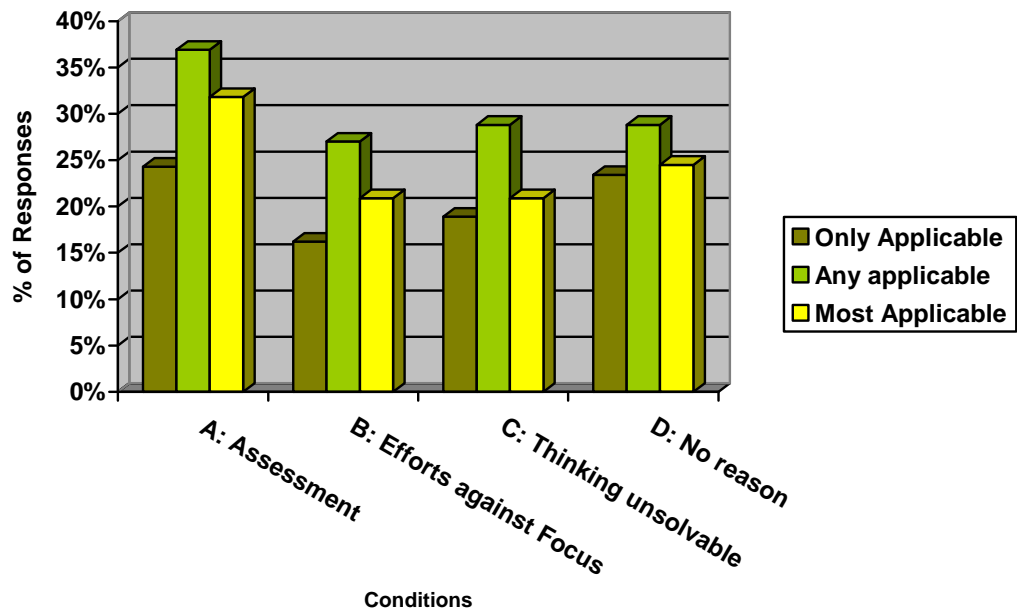


Figure 6.23 Conditions for Ignoring Difficulties

According to Figure 6.23, adding up the number of the only applicable choices, the majority of the respondents (82.8%) identified the only applicable condition for ignoring difficulties. However, similar to conditions for trying to sort out difficulties (Figure 6.22), none of the conditions play the determining role for the majority of respondents, though slightly more individuals expressed the view that they ignored difficult experiences because they did not think it would be a threat to completion of HE or results in assessment. Over a quarter (28.8%) of the respondents indicated that there were times when they were not clear about their reason for ignoring difficult experiences and making no efforts to sort difficulties out.

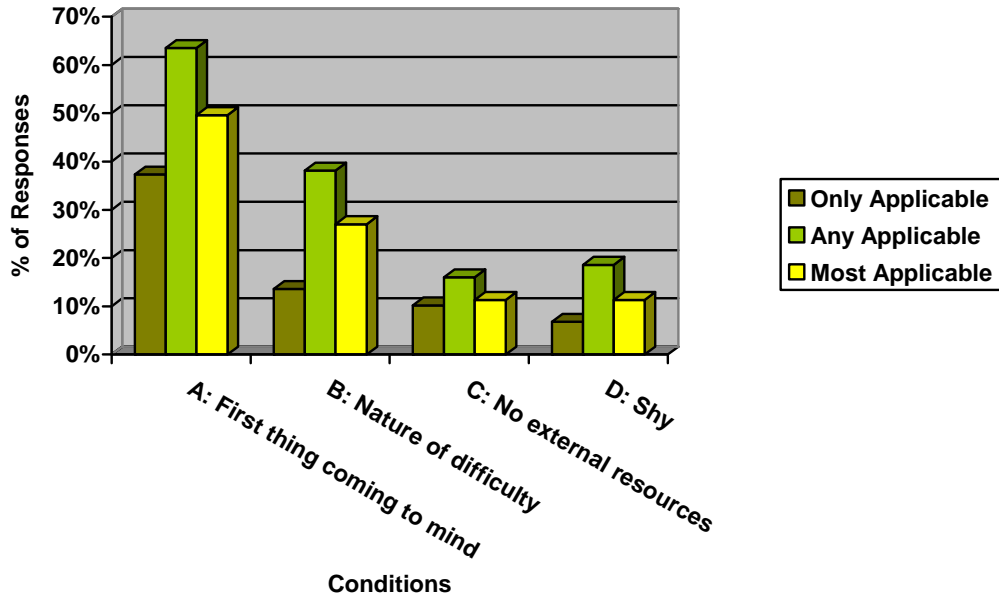


Figure 6.24 Conditions for Not Seeking External Help

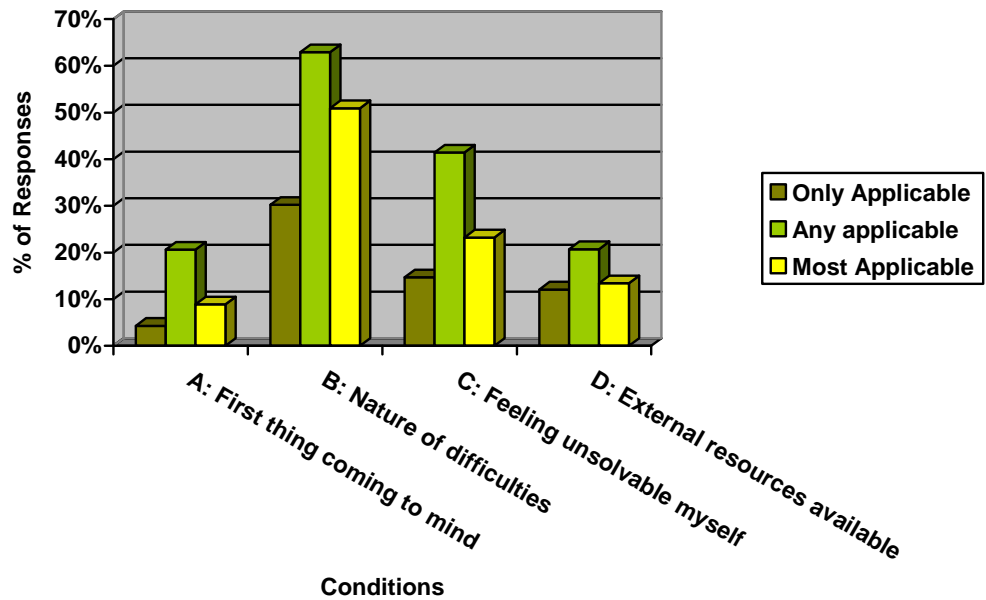


Figure 6.25 Conditions for Seeking External Help

Over half of the respondents (63.5%) said that they did not seek external help, more or less because solving problems by oneself was the first thing that came to mind in difficult situations. (see *Figure 6.24*) While about half of the respondents (50.9%) reported they sought external help, mainly because the nature of the difficulties suggested it to be the best solution. (see *Figure 6.25*) It seems that, according to *Figure 6.24* and *Figure 6.25*, the availability of external resources did not have much impact on whether the participants seek external help in difficult situations.

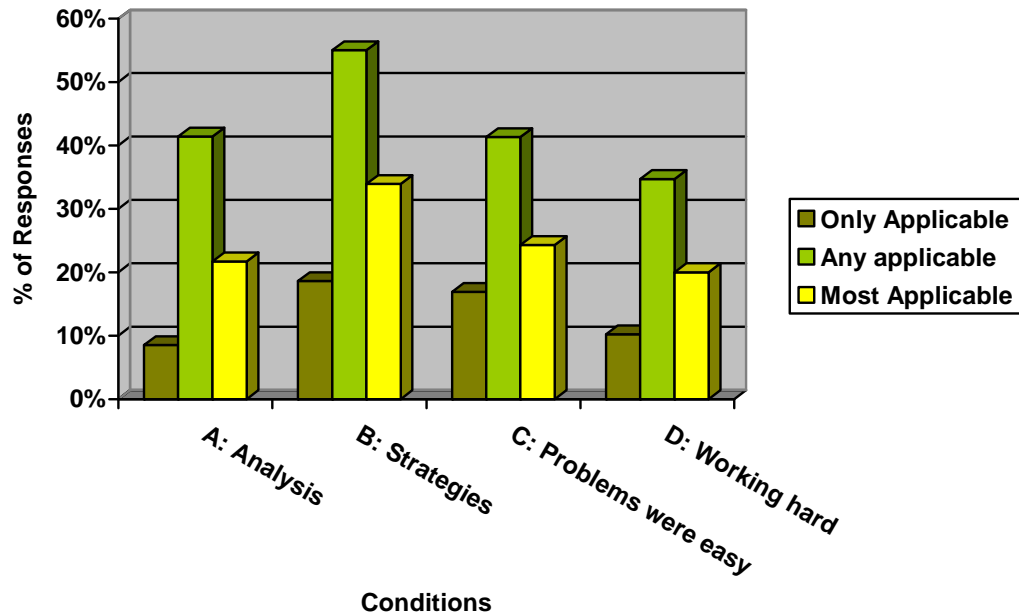


Figure 6.26 Conditions for Solving Problems to Satisfaction

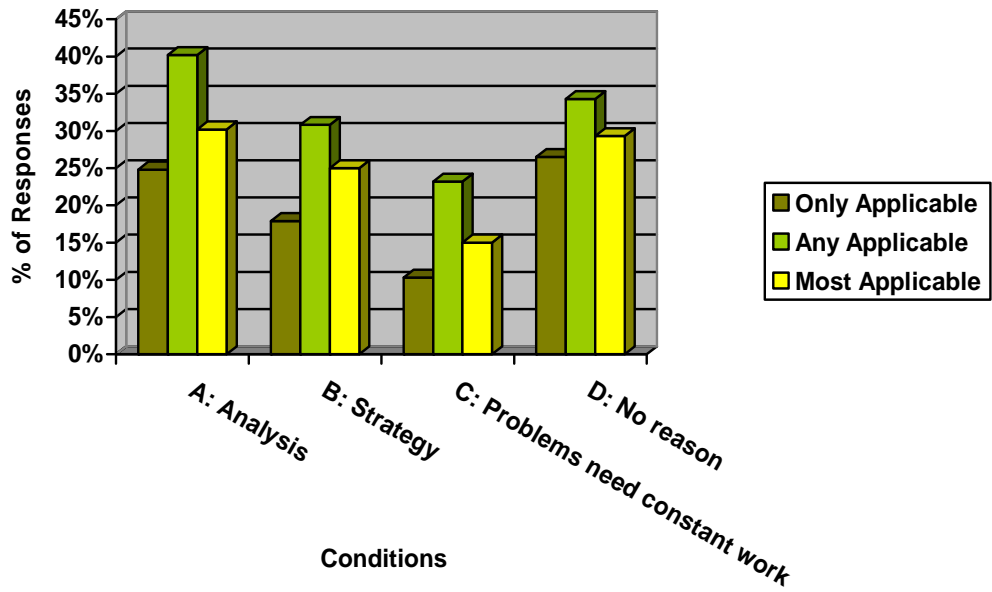


Figure 6.27 Conditions for Initial Failure in Solving Problems

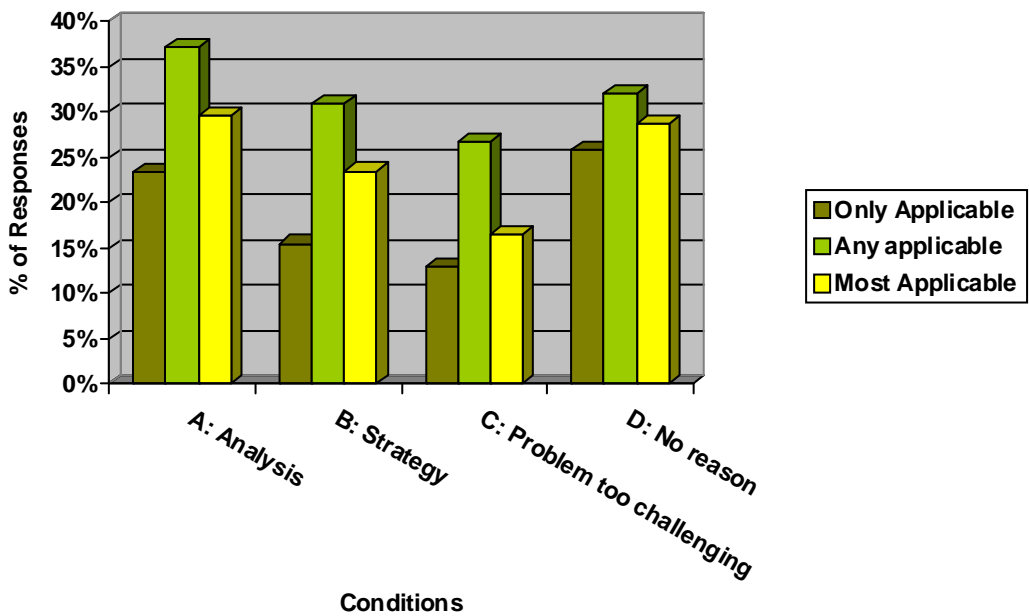


Figure 6.28 Conditions for Never Solving Problems to Satisfaction

According to *Figure 6.26*, nearly half (48.5%) of the respondents believed their successes in solving problems to their satisfaction results from more than one condition. Compared to *Figure 6.26*, *Figure 6.27* and *Figure 6.28* show that many more respondents related their failure to solve problems to a single applicable condition. Although *Figure 6.26* shows that there is no particular condition that creates a dominant percentage of respondents, a slightly larger number of respondents indicated that the strategies they took worked well and led to their success. Similarly in *Figure 6.27* and *Figure 6.28*, slightly more respondents believed it was their less rigorous analysis of the problem that resulted in their failure to solve problems to their satisfaction. According to *Figure 6.28*, only 16.5% of the individuals attributed their failure mainly to the challenging nature or level of difficult experience. Nevertheless, approximately one third of respondents revealed that they had never really thought about why they failed in solving some problems initially or why some problems have never been sorted out. (see *Figure 6.27* and *Figure 6.28*)

6.3.5 Criteria in Evaluating FY Achievement in HE

Figure 6.29 to *Figure 6.34* show the respondents' perspectives of their FY achievements in HE. The majority believed they have made achievement in FY HE academically, socially and personally. Both single condition and combined conditions have been related to by the respondents while assessing their FY achievement in HE. However, underachievement seems more likely to be attributed to a single condition compared to achievements.

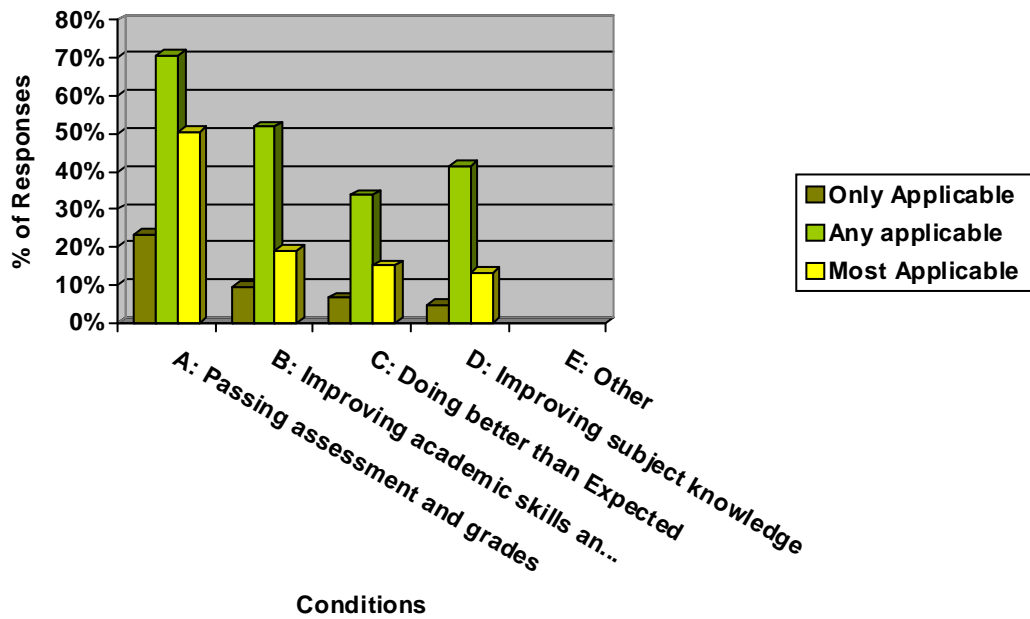


Figure 6.29 Conditions for Academic Achievement

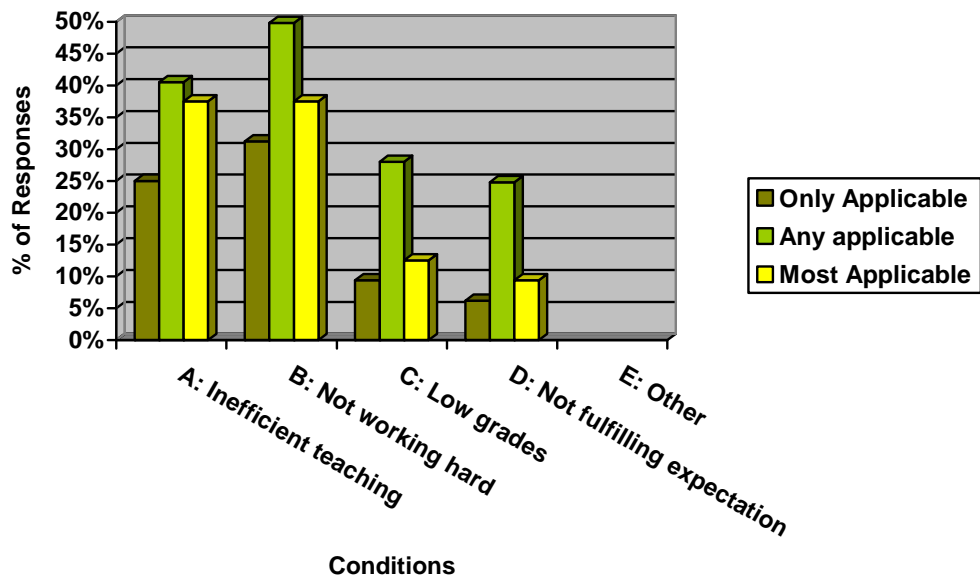


Figure 6.30 Conditions for Lacking Academic Achievement

In this questionnaire survey, 85.7% of the participants believed they made academic achievement, while 12.5% of them didn't think they made academic achievement in FY HE. As shown in *Figure 6.29*, approximately half (50.5%) of the respondents expressed that they had made academic achievement mainly because they passed all the assessments or achieved good grades in assessment. The rest of the participants' responses were evenly distributed amongst the other three options. According to *Figure 6.30*, there are two major conditions attributed to, by the most respondents, as leading to belief of academic underachievement. One is that the teaching or academic support was not effective or efficient; the other is that they did not work hard enough to achieve as much as they could have.

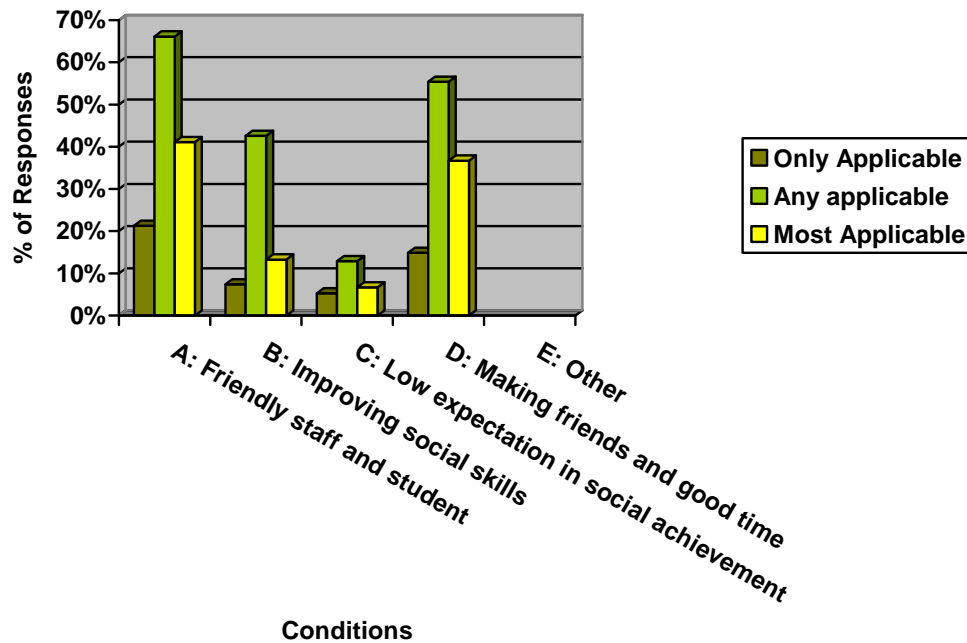


Figure 6.31 Conditions for Social Achievement

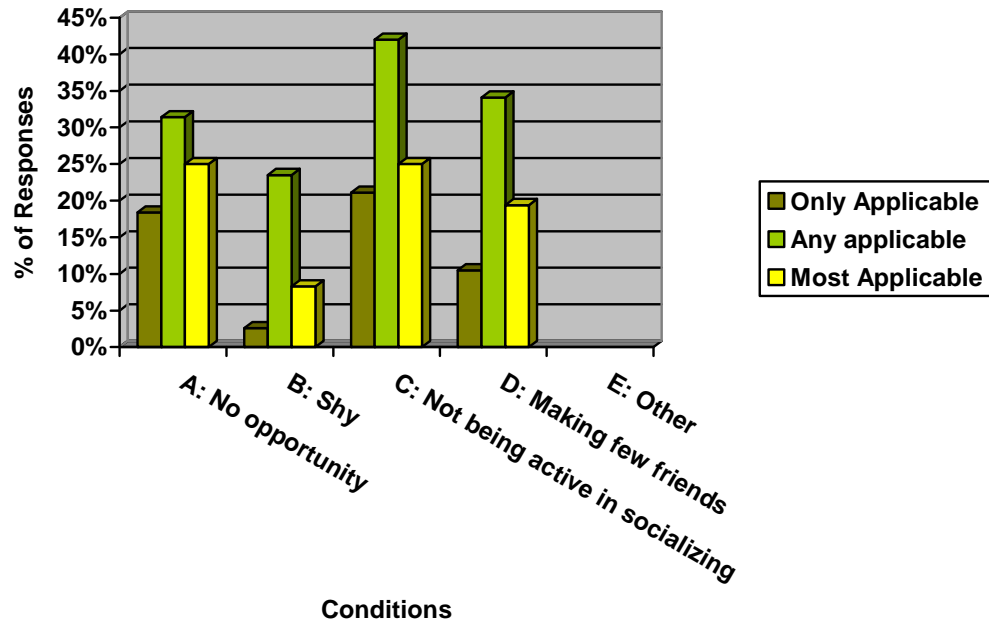


Figure 6.32 Conditions for Lacking Social Achievement

76.6% of the respondents expressed they made social achievement in FY HE, whereas 23.4% thought they did not. The two major conditions related to by most respondents when considering making social achievement are ‘staff and fellow students are friendly and supportive’ and ‘I have made some good friends and had a good time’, with the prior one owning slightly more individuals. (see Figure 6.31) There is no condition which is dominant in relation to social underachievement, though lack of involvement in socializing, either due to personal reasons (25%) or external reasons (25%), have been indicated by the most individuals as the most applicable answers in Figure 6.32.

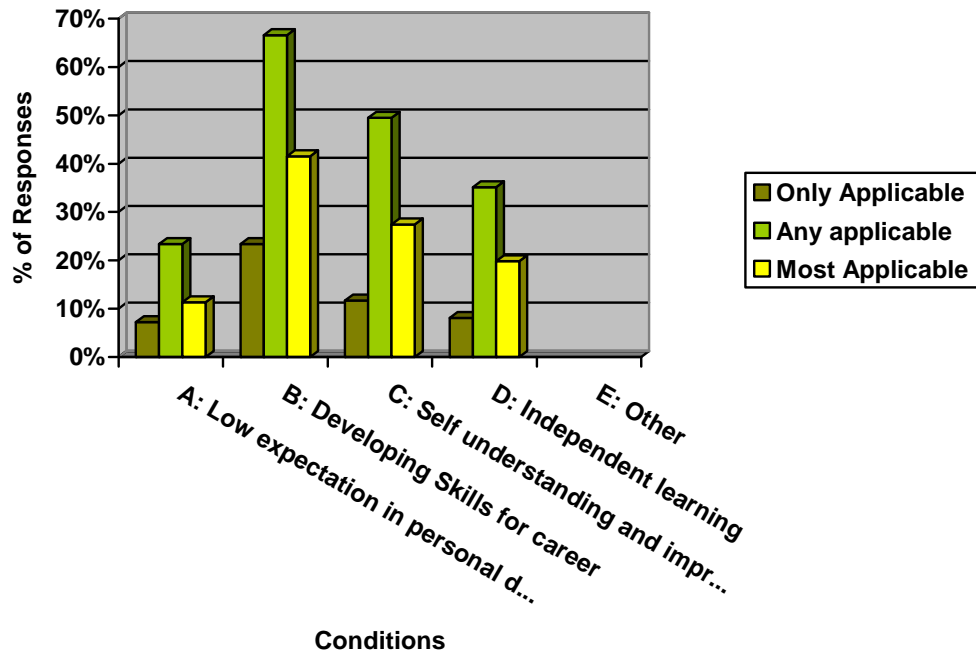


Figure 6.33 Conditions for Personal Development Achievement

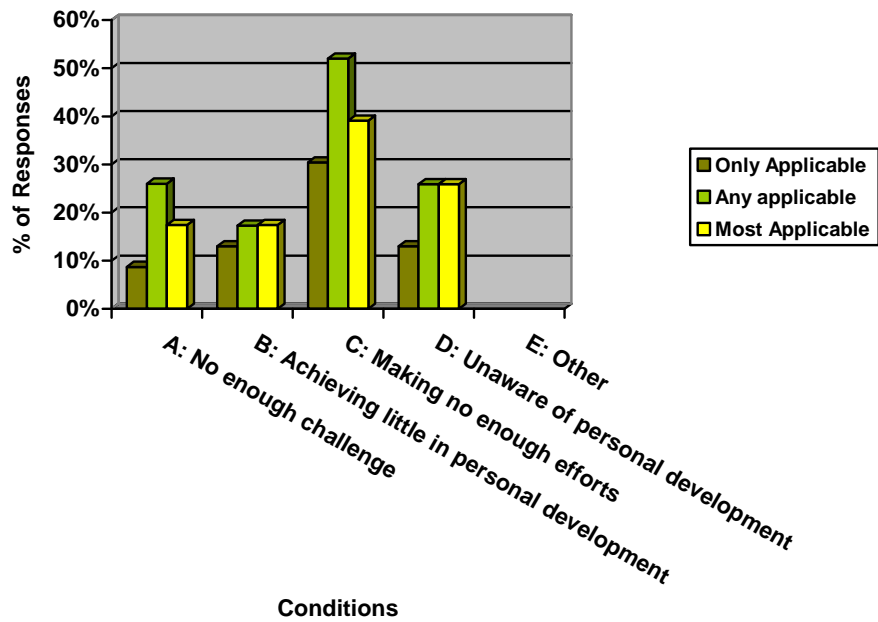


Figure 6.34 Conditions for Lacking Personal Development Achievement

The majority (92.7%) of the participants in this survey believed they made personal development achievement in FY HE. Only 7.3% indicated dissatisfaction with their personal development in FY HE. According to *Figure 6.33*, slightly less than half (41.5%) of the respondents expressed they had made achievement in terms of personal development in FY HE, mainly because they developed quite a few skills which might benefit their future career. The main condition for about one third (27.4%) of the individuals' personal development achievement is understanding more about oneself and improving as an individual. Compared to the other conditions, making inadequate efforts seems to be the key reason for underachievement in terms of personal development for most (39.1%) respondents as they did not develop themselves as much as they should. (see *Figure 6.34*)

6.4 Emotional Response

6.4.1 Academic Sessions

| | |
|---|-----------------|
| Q1: Emotional response when enjoying academic session | Most Applicable |
| A: The course was easy to follow | 38.3% |
| B: The course was easy to follow but challenging at the same time | 50% |
| C: The course was difficult all the time | 6.7% |
| D: No Effect | 4.2% |
| E: Not applicable | 0.8% |
| Q2: Emotional response when not enjoying academic sessions | Most Applicable |
| A: The course was challenging | 23% |
| B: Feeling challenged and negative about the course | 39.7% |
| C: It always generated negative feeling | 18.1% |
| D: No Effect | 15.5% |
| E: Not applicable | 3.4% |

| | |
|---|-----------------|
| Q3: Emotional response when involving oneself in academic session | Most Applicable |
| A: The course was easy to follow | 25.6% |
| B: The course was easy to follow but challenging at the same time | 44.4% |
| C: The course was far too challenging | 5.1% |
| D: No Effect | 19.7% |
| E: Not applicable | 5.1% |
| Q4: Emotional response when being absent from academic session | Most Applicable |
| A: Difficult to cope occasionally | 18.6% |
| B: Difficult to cope and negative feeling | 21.2% |
| C: Negative about the course | 5.1% |
| D: No Effect | 38.1% |
| E: Not applicable | 16.9% |

Table 6.1 Emotional response to involvement in academic sessions (n=120)

Table 6.1 displays the respondents' emotional responses to different levels of involvement into academic sessions. When the respondents enjoyed academic sessions or involved themselves in the academic sessions, the majority expressed that they either felt the courses were easy to follow or the courses were easy to follow but challenging at the same time, with a few more individuals classifying their feelings into the latter.

Over half of the respondents indicated that not enjoying academic sessions generated negative feeling about the course. Compared to occasionally feelings that the course was difficult to cope, slightly more individuals revealed negative feelings about the course when they were absent. However, about half of the respondents who had been absent expressed being absent made them feel no differently about the course. 16.9% of the respondents were never absent from any academic sessions.

6.4.2 Self Study

| | |
|--|-----------------|
| Q5: Emotional response after doing extra self study | Most Applicable |
| A: The course was easy to follow | 31.1% |
| B: The course challenging but achievable | 44.5% |
| C: The course was difficult to achieve | 6.7% |
| D: No Effect | 12.6% |
| E: Not applicable | 5.0% |
| Q6: Emotional response without doing much self study | Most Applicable |
| A: Difficult to cope occasionally | 25.4% |
| B: Difficult to cope and negative feeling | 19.5% |
| C: Negative about the course | 14.4% |
| D: No Effect | 22.9% |
| E: Not applicable | 17.8% |

Table 6.2 Emotional response to involvement in self study (n=120)

As shown in *Table 6.2*, the majority of respondents expressed that putting extra time and efforts into self study made them feel the course was easy to follow (31.1%) or challenging but achievable (44.5%). When self study was not often engaged in, it made more respondents (33.9%) feel negative about the course compared to the number of respondents (25.4%) who only felt being an undergraduate was difficult to cope with occasionally. There are more respondents indicating it had no effect on their feeling about the course when not doing much self study (22.9%) than when putting extra time and efforts in doing self study (12.6%).

6.4.3 Socializing with Peer Students

| | |
|--|-----------------|
| Q7: Emotional response to socializing with fellow student | Most Applicable |
| A: Feeling positive about being in HE | 37.8% |
| B: HE was enjoyable even though challenging | 32.8% |
| C: Achieving less academically | 5.9% |
| D: No Effect | 16.0% |
| E: Not applicable | 7.6% |
| Q8: Emotional response to not socializing much with fellow student | Most Applicable |
| A: Having more time to contribute to academic study | 17.8% |
| B: Feeling lonely or struggled sometimes | 27.1% |
| C: Feeling not achieving as much as I should have in HE | 11.9% |
| D: No Effect | 22.0% |
| E: Not applicable | 21.2% |

Table 6.3 Emotional response to involvement in socializing with peer students (n=120)

Table 6.3 presents the distribution pattern of respondents' emotional responses to their involvement in socializing with peer students. The majority of the respondents benefited from socializing with fellow students. They expressed that it made them feel either positive about HE (37.8%) or HE is enjoyable though challenging at the same time (32.8%). While by not socializing much with fellow students, most individuals revealed they felt lonely or struggled sometimes. Socializing with fellow students generated more emotional response among the respondents than not socializing with fellow students.

6.4.4 Solving Self-identified Problems

| | |
|--|-----------------|
| Q9: Emotional response when solving problems | Most Applicable |
| A: HE was easy to cope with | 20.3% |
| B: HE was easy to follow and feeling proud of oneself | 38.1% |
| C: Feeling proud of oneself | 29.7% |
| D: No Effect | 10.2% |
| E: Not applicable | 1.7% |
| Q10: Emotional response when initially failing in solving problems | Most Applicable |
| A: HE was challenging | 35.6% |
| B: HE was hard to cope with and feeling negative about HE | 16.1% |
| C: Generating negative feeling most of the time | 20.3% |
| D: No Effect | 17.8% |
| E: Not applicable | 10.2% |
| Q11: Emotional response when problems never be solved | Most Applicable |
| A: HE was seriously challenging | 25.6% |
| B: HE was challenging and feeling negative about HE | 18.8% |
| C: Generating negative feeling most of the time | 18.8% |
| D: No Effect | 18.8% |
| E: Not applicable | 17.9% |

Table 6.4 Emotional response to solving self-identified problems (n=120)

As displayed in *Table 6.4*, successfully solving problems to students' satisfaction made more respondents proud of themselves than just feeling HE was easy to cope with. Initially failing in solving some problems to satisfaction generated a feeling of being challenged (35.6%) as often as a negative feeling (36.4%). However, never solving some problems to satisfaction generated negative feeling among more respondents. More respondents revealed emotional responses generated from solving problems to satisfaction than from failing in solving problems to satisfaction.

6.5 Summary of Survey Findings

- More often than not, FY undergraduates' involvement in particular activities in HE are the consequences of combined reasons rather than single factor driven experiences (see Figure 6.11, Figure 6.16 and Figure 6.19). However, they tend to identify more single reasons for being absent from educational (see Figure 6.15 and Figure 6.18) and social activities (see Figure 6.20) than for getting involved in these activities. In terms of specifying reasons for being absent from an activity, more students indicated they were not clear about the reasons for their absence in higher level involvement (see Figure 6.23) than that for absence for lower level involvement (see Figure 6.15).
- Influential factors make different levels of impact among students at different levels of involvement. For example, external factors, such as assessment (see Figure 6.11), play a more important role in driving lower level involvement than in generating higher level involvement. For higher level involvement like solving self-identified difficulties, personal aims such as improving understanding and skills and achieving ones' best are slightly more important (see Figure 6.22).
- Influential factors do not make the same level of impacts in students' involvement and absence. For example, ineffective teaching is the key reason for one third of respondents' absence in academic sessions (see Figure 6.15). However, very few of the respondents expressed that they attend academic sessions mainly for effective teaching (see Figure 6.11).
- Assessment and personal interest about subject knowledge are more likely to motivate students to attend academic sessions (see Figure 6.11); while academic teaching plays a key role in students' engagement in academic sessions (see Figure 6.12 and Figure 6.13). Academic teaching has also been indicated as the most influential factor in accounting for students' voluntary absence in academic session (see Figure 6.15).

- Assessment and personal interest about subject knowledge are also more likely to motivate students in doing required self study (see Figure 6.16). However, it is higher personal aims and the feeling of being challenged that encourage students to do extra self study (see Figure 6.17). Students tend to not engage in self study because of personal circumstances or unpleasant emotional response, such as feeling bored or too difficult (see Figure 6.18).
- Expectations of benefiting from academic study and personal interest in socializing with others, are two key factors motivating most students to become involved in social activities (see Figure 6.19). Lack of opportunity and time impede slightly more students from socializing with others than personal traits and preference. However, the latter two factors are fairly influential to students' involvement in social activities in HE (see Figure 6.20).
- Adjusting to the new environment, and to university teaching and learning style, has been identified as the major difficulty by over half of the respondents (see Figure 6.21). Achieving one's best and improving understanding and skills motivate most students to solve difficulties in the HE experience, though assessment also serves the drive for one third in solving problems (see Figure 6.22). Apart from those who expressed no clear reason for ignoring problems, assessment, perception of the solvability of the problems and personal aim account for similar amount of students' lack of solving problems, though assessment seems slightly more influential than the other two (see Figure 6.23).
- More respondents tend to solve problems without seeking external help (see Figure 6.24 and Figure 6.25). Less than half of the respondents indicated that they tried to solve problems based on careful analysis of the problematic situation (see Figure 6.25, Figure 6.27 and Figure 6.28). More individuals attributed their failure in solving problem to lack of rigorous

analysis of the problematic situation rather than to the challenging level of the problem itself (see Figure 6.27 and Figure 6.28). Compared to other factors, slightly more respondents expressed their success in solving problems was due to the effectiveness and efficiency of the strategies they adopted (see Figure 6.26).

- Perceptions of FY achievement and evaluating criteria vary amongst the respondents. There is no dominant key criterion held by the respondent except the assessment result which is selected by just over half of the individuals as the main reason why they felt they had made academic achievement in FY HE (see Figure 6.29). The perception of inadequate involvement has been identified by the most respondents as the main reason for underachievement in all three kinds of achievement (see Figure 6.30, Figure 6.32 and Figure 6.34).
- As shown in the tables in section 6.4, no certain level of emotional response is dominant for over half of the respondents in any condition. However, generally, involvement generates positive feelings and lack of involvement generates negative emotional response. Neutral emotional responses are more likely to be identified in a lower level of involvement compared to a higher level of involvement. Not enjoying academic sessions tends to generate the most negative feeling among respondents compared to other occasions (see Table 6.1).

The purpose of this questionnaire survey, as indicated, was to complement and triangulate the findings of qualitative studies. Its research findings corroborate the qualitative evidences though many of them are unsurprising. For example, the grounded theory study identified the stage of *dealing with self-identified difficulties* in FY undergraduate achievement making process. Students either go through this stage to solve self-identified problems in FY HE or fail to solve the problems by being absent in this stage (see section 4.2.2). The questionnaire survey findings further illustrate this stage by showing no dominant reason for the sample students' choices of going

through this stage (see Figure 6.22 and Figure 6.23). As far as *identifying problems*, one of the steps in this stage (see Figure 4.5), is concerned, the questionnaire survey finds that the most identified problem among the sample students is adjusting to the new environment and university teaching and learning styles (see Figure 6.21). More details of corroboration between the quantitative and qualitative study findings are further discussed within a wider literature context in chapter 7.

Chapter 7 Discussion and Implications of the Findings

In this chapter, findings from this research will be discussed within the theoretical framework developed in chapter 2, the literature review. As presented in chapter 3, this research has been designed to answer the following three research questions:

- 1 What does “Achievement” mean to FY undergraduates?
- 2 What is FY undergraduates’ achievement making process?
- 3 What are the influential factors that affect FY undergraduates’ achievement and by what means do they make an effect?

Before turning to the findings against each of my research questions in the following sections, I now set out how I have used three distinctive data sets from three different methodological approaches. I have already elaborated on this in my methodology chapter (see section 3.5.2), but here I comment on how I cross fertilized the findings from each of the data sets. I did not use these sets as a strict form of triangulation not least because the questions I asked had to be tailored to the methodology and could not be uniform. For instance, phenomenography requires an investigation into variation whereas grounded theory requires an inductive analysis of interview data. I treated the findings from each set as an angle on a crystal (Richardson, 1997), each shedding light on my research questions from a different vantage point. For example, my findings that achievement making requires strong student engagement with personalized goals came firstly from the grounded theory study data (see Figure 4.5) and secondly from the phenomenography study data, revealing a consistency between students’ focus of attention in HE experience, HE learning activities and HE outcome and achievement (see Table 5.1). The questionnaire survey findings show how various personalized goals, represented as conditions for evaluating achievement in FY HE, distributed among the sample students (see section 6.3.5).

7.1 What Does ‘Achievement’ Mean to FY Undergraduates?

The findings of this study address this first research question by identifying the essence of achievement in FY undergraduates’ perception and the variety of meanings assigned to it. Students define achievement as getting what they want out of HE. What individual students want varies and various achievements are intertwined.

7.1.1 The Essence of FY Achievement in the Students’ Perception

The essence of FY achievement in students’ perception is getting what they want from FY HE and what the students want varies in type and level. These are decided and evaluated based on both external and personal criteria. As shown in the grounded theory study findings, the overarching meaning of FY achievement for the students is *fulfilling one’s aims in FY HE*. It relates to their previous academic and non academic experience, as well as their current personal circumstances while involved in HE (see section 4.2.1). This personalized feature of FY achievement in students’ perception is supported by the phenomenography study findings, which identified the varieties in students’ perception of FY achievement (see section 5.2.2). The questionnaire survey findings also confirm these varieties by showing no single dominant criterion among the respondents in terms of evaluating FY HE achievement (see section 6.5).

Student perceptions of FY achievement identified in this research are in line with modern goal theories. As set out by Oettingen and Gollwitzer (2004), modern goal theories argue that internal subjective goal setting could be self-selected, as well as being assigned. The self-selected goals are based on the subjects’ perception of their desirability and feasibility (Heckhausen, 1991), which are greatly influenced by the subjects’ self assessment and situation assessment. In particular, the content of self-selected goals is decided by the subjects’ need, wishes and higher order goals. Successfully achieving prior goals enhances subjects’ self evaluation and the subsequent stimulation of

setting more challenging goals. As far as the criteria, or self-selected referential points in FY HE experience are concerned, the participants in this research related them to their perceived self and social identities.

Influenced by pre university academic and non academic background, the sample students indicated that they started HE with an initial perceived self identity, including their self esteem, self efficacy and personal traits. Their self expectation and achievement goals in FY HE were based on this initial perceived self identity. This, to a certain extent, confirms those research findings in the literature reviewed in chapter 2, which argue that students' individual characters influence their HE experience (see section 2.3.1). However, findings in this research also show that students' self-selected referential points are not fixed and they are modified constantly through their self identity establishment process in HE. Take S8 as an example. S8 is a male student under 21 years old. He explained that he only expected to get a pass in his first semester examinations because his A level study results are Cs and Ds. However, this initial perceived self identity was revised based on his performance in undergraduate study and was developed out of his FY HE experience. He became more confident about his capability in academic study and had higher self expectations for his future examinations. At the time of being interviewed, S8 started to expect he could get Bs in the future because he had got Bs in his first semester examinations (see section 4.2.1).

Meanwhile, the sample of students also depicted and assessed their own perceived social identities while discussing FY achievement by relating to individual demographical background and personal circumstances, For example, S9 related her FY achievement in HE to her social identity as a parent and commented that she thought getting through her FY HE was a good achievement because she had a gap year and a 2 year old son (see section 4.2.1). Besides having the identity as a student, many of the sample students in this research also have other social identities such as employee, foreigner or a combination of several different social identities (see section 4.2 and section 6.2). On one hand, they try hard to establish their undergraduate identity by

changing themselves from an *outsider* to HE to an *insider* to HE, for instance, adjusting to HE teaching and learning styles and developing themselves into independent learners; On the other hand, they struggle to fulfill their other social responsibilities, such as working and baby sitting, in addition to coming to lectures and doing university homework. Accordingly, the sample students were actually trying to establish and develop identity as undergraduates during FY HE while maintaining the balance and integrity of their multiple social identities.

The students' efforts of maintaining the integrity of multiple social identities, as discussed above, provides alternative explanations as to why the pedagogical challenge is not the only challenge faced by current post-1992 university students. It also provides an alternative explanation to the findings in the undergraduate retention literature showing that students withdraw for a wide range of reasons (Parmar and Trotter, 2004). Maintaining the balance of multiple identities also shows that current FY undergraduate experience in a post-1992 university is not simply an integration process as argued by Tinto's integration theory. This is because Tinto's integration theory emphasizes the full time student identity of undergraduates such as doing academic studies and socializing with fellow students and suggests integration into HE as the dominant condition for students' retention. It also indicates the limitation of those studies which partially emphasize undergraduates' customer identity in FY undergraduate experience. By focusing on students' customer identity, students' dissatisfaction with the FY HE experience is attributed to their expectation of 'spoon feeding' teaching and 'value for money' service as asserted in James (2002). This ignores students' participation and the effect of students' internal subject goals in achieving FY in HE, which is supported by the findings of another recent study, Taylor and Wilding (2009).

7.1.2 Variety of FY Undergraduate Achievement in the Students' Perception

The personalized nature of FY undergraduate achievement at a general level reveals variety in the students' perception about FY undergraduate

achievement at individual students' levels. According to this research, retention and academic performance, though prominent, are only two of several aspects of achievement in the FY undergraduates' perception. Many of the students also expect FY HE to be a chance to find out about how the university works, make new friends and improve personal capability, relating to their different ways of experiencing HE. For example, *Settling into HE*, one type of achievement in FY undergraduates' perception, closely corresponds to the HE outcome and achievements when HE is experienced as a new place. Further, the same type of achievement could embody different meanings for students when they experience FY HE in different ways. For example, academic achievement means completing course work as required and passing assessments when FY HE is experienced as coping with assessments; while it is reported as increased understanding of the subject knowledge and key skills required in course of study when FY HE is experienced as leaning subject knowledge and professional skills. (see section 4.2.1 and section 5.2.3) The chi-square tests results also show that most participants perceived they had made academic achievement irrespective of whether they mostly obtained A or B or got C or D in academic assessment (see Appendix 7). This variety points out the partiality of assuming FY undergraduate achievement as retention and/or academic performance in the many FY undergraduate experience studies reviewed in chapter 2 (see Section 2.6).

The dominant position of assuming achievement as retention or academic performance in the FY undergraduate experience literature might be related to the current socio cultural context. As illustrated in Mann (2001), the meaning of education has changed over time. This has had a great impact on peoples' motivation and perception of HE experience. In what she described as the current *postmodern socio cultural* context, the focus of education has moved from seeking emancipation or truth to emphasizing instrumentality and competence. Within such a socio cultural context, institutions and students are assessed dominantly against the criteria of retention and academic performance, which also explains why over half of the survey respondents, in this research, viewed HE as preparing them for their future career (see Figure

6.9 and Figure 6.10).

Despite the prevalence of retention and academic achievement in FY undergraduate experience, they are not the whole picture of achievement in current post-1992 university FY undergraduates' perceptions. According to the findings in this research, social and self identity development are also important components of the undergraduates' experience. This finding has some consistencies with Chickering's (1969) psychosocial model, which was initially constructed to address traditionally aged undergraduates' experience in the mid 20th century. According to Chickering and Reisser (1993), undergraduates' development can be described along seven vectors while going through HE. They are *developing competence, managing emotions, moving through autonomy toward interdependence, developing mature interpersonal relationships, establishing identity, developing purpose, and developing integrity*. Chickering (1969) considered it is the first three vectors along which undergraduates generally develop while in FY HE. In other words, FY HE is the time period when undergraduates develop intellectual, interpersonal and physical and manual competence, learn to manage their emotions, and develop emotional and instrumental independence. These are exactly some parts of the current post-1992 university FY undergraduates' experience identified in this research. As shown in the research findings, when HE is experienced by students as *learning subject knowledge and professional skills*, students' focus of attention is the subject knowledge and skills within the framework of their course of study. They identified FY achievement as enhanced intellectual competence. While HE is experienced as an *individual maturing process*, students' focus of attention is their individual personality and capability as a mature adult, which includes managing feelings of homesickness and depression as well as learning to be independent. Moreover, a hierarchical relationship has been identified between students' competence development and their identity establishment (see section 5.2.3). This also concurs with Chickering's (1969) observation that undergraduates' establishment of identity is achieved based on development in the first three vectors. The consistencies between findings of this research and Chickering's (1969) student development

model extends its application to HE in the current widening participation context. They show the generic impacts of HE experience on FY undergraduates and reveal some of the learning outcomes undergraduates want from their HE experience in general. However, it seems students' expectations of social and personal development achievement have not been fully recognized within current FY HE context, as not many studies on FY undergraduate experience have been conducted with a focus on students' social and personal competence development. As reviewed in Reason, Terenzini and Domingo (2005), FY undergraduates' psychosocial development is far less researched compared to their learning and cognitive development. While there are suggestions in the literature that social skills and personal development are part of learning outcomes in HE (see section 2.5.2), they have not been valued as important in FY undergraduate achievement as perceived by the sample students in this study.

In addition to academic, social and personal achievements, participants in this research also identified *settling in* as a type of FY undergraduate achievement. This is because *settling in* means understanding how the university works and what is expected in the university, which makes the students feel comfortable in the new environment. It also means becoming familiar with teaching and learning styles in HE, which prepares the students for the rest of their university studies (see section 4.2.1). Another reason for *settling in* being conceived as FY undergraduate achievement is that it is a challenging process for many students no matter what their demographic backgrounds are. FY undergraduates, *the outsider*, can struggle to settle into the new environment, including both the visible institution surroundings and the invisible university bureaucracy or teaching and learning style. As Mann (2001, p11) argued, "it would be naïve to assume that more 'traditional' students do not also have this experience. Most students entering the new world of the academy are in an equivalent position to those crossing the borders of the new country". Over half of the questionnaire respondents in this research felt that adjusting to the new environment and the university teaching and learning style are the major difficulties in their FY HE experience (see Figure 6.21). *Experiencing HE as a*

new place has also been identified as one of the five distinctive ways of experience HE among the FY undergraduates (see Table 5.1). Students' adjustment to academic, social and surrounding changes is a critical issue in FY undergraduate transition (Cook and Rushton, 2008) because FY HE can be a *colonising process* for both traditional students and non traditional students (Mann, 2001).

7.1.3 Relationships among Various FY Undergraduate Achievements

Although different in type or content, various achievements are not isolated from one another. Findings of this research show that they are associated and greatly influence one another. For example, in the grounded theory study, *settling into HE*, being identified as an achievement on its own, was suggested by S1 as contributing to her academic achievement because settling into HE means getting less distraction which allows undergraduates to concentrate on their academic study. The interviewees also indicated a mutually beneficial relationship between social achievement and academic achievement, which is confirmed by findings in the questionnaire survey. As presented in section 6.3.3, two thirds of the respondents believed socializing with fellow students would benefit their study in university (see Figure 6.19). Meanwhile, the phenomenography findings also identified the contribution of settling into HE, social achievement and academic achievement to students' personal development achievement. With the expanding of awareness, when FY HE is experienced as an individual maturing process, the students focus on the first three types of achievement simultaneously and regard them as elements contributing to their personality development and capability enhancement as an adult (see section 5.2.3). These interrelated relationships between various achievements that emerged from this research are supported by findings of some other empirical studies examining relationships between relevant variables. For example, examining the differences in personal and intellectual development between students who participated in deep learning activities and those who did not, Nelson Laird, Shoup and Kuh (2005) concluded that deep learning activities tends to generate greater personal development among

undergraduates. Meanwhile, predictive relationships have been found between FY undergraduates' academic and social adjustment into HE and their increased self-esteem and social support received (Friedlander et al, 2007). Similarly, Tieu and Pancer (2009) also identified the mediating effect of FY undergraduates' self-esteem and feeling of social support on settlement into university life.

As discussed above, findings of this case study show the personalized nature of FY undergraduate achievement in students' perception and the variety of achievement students want to get out of their FY HE, as well as the interweaving relationship among these achievements. This suggests that we must take very seriously the question of individualization and student agency, in other words students' independent capability to act out of their own initiative, in the making of FY undergraduate achievement. In turning to my second and third research questions, I will show how these questions are also salient.

7.2 What is FY Undergraduates' Achievement Making Process?

The findings of this study address this second research question by identifying the features of the FY undergraduate achievement making process. FY undergraduate achievement making process is guided strongly by individual desire, dynamically linked with institutional support and with the resources. Individuals mobilize to grapple with problems and challenges, be they academic or personal. Unsurprisingly, the research findings also show that the greater a students' involvement in the social and academic processes, the greater their emotional investment in achievement. The three crucial stages in FY undergraduate achievement making process captured in this research are: attending, being engaged and dealing with self-identified difficulties.

7.2.1 A Self-Selective Process

The self-selective feature of the FY undergraduate achievement making process is identified in the guiding effect that the students' perspectives of FY undergraduate achievement has on their involvement in FY HE (see section

4.2.1). This is in accordance with Oettingen and Gollwitzer (2004), who observed that internal subjective goals are taken as the reference point of persistence behaviour. Similarly, students' different ways of experiencing FY HE feature different foci of attention, which form the bases from how they selectively involve themselves in HE activities (see Table 5.1). Moreover, students are selective about recognizing FY achievement in HE and consequently the same learning outcomes are perceived as achievement by some students but not by others (see section 4.2.4, section 5.2.3 and appendix 7).

This self-selective feature of the FY undergraduate achievement making process is in line with the principle observations of learning orientation theory. According to learning orientation theory, efforts invested by students into various aspects of HE relate to their perspectives of learning in HE and the criterion taken by students to judge their achievement is the extent to which they fulfill personal aims (Taylor, Morgan and Gibbs, 1981). Nevertheless, the findings of this research also show that, in contrast to learning orientation theory, the efforts invested by students into various aspects of HE and the criteria used by students to judge their achievement are relevant to their perspectives of HE achievement and their different ways of experiencing HE (see section 4.2.1, section 4.2.4 and section 5.2.3).

Examining the learning orientation theory in detail, it was constructed based on students' reasons or motivations for taking HE. In particular, Taylor, Morgan and Gibbs (1981) initially identified three types of learning orientation in HE: academic orientation, vocational orientation, personal orientation. In their subsequent study, an additional category, social orientation, was identified as a type of learning orientation. They also sub-categorized each of the first three types of orientation according to intrinsic and extrinsic interests that motivate students experience, except for the case of social orientation. These categories or learning orientations, though useful in illustrating students' learning strategies, may be less relevant to students' FY HE activities compared to their perspectives of FY achievement and ways of experiencing FY HE. For

example, students may actively make friends or attend social activities to make social achievement, no matter which learning orientations they start HE with. The first three learning orientations in learning orientation theory are mainly concerned with academic study, though tackling it from different angles; while the social orientation focuses on having a good time in HE, showing no connection to academic study. However, according to findings in this research, the students' experiences in HE are not limited to academic study and social activities. For about half of the FY undergraduates, adjusting themselves into university life is their principal concern (see Figure 6.3.4). Also, as discussed in section 7.1.3, interweaving relationships within students' activities have been identified in this research, which can not be represented by combining different learning orientation categories in the learning orientation theory.

Actually, the self-selective feature of FY undergraduate achievement making process also corresponds to characteristics of adult learning in the literature. Andragogy and self-directed learning are two foundational adult learning theories. In contrast to pedagogy, andragogy was defined by Knowles (1980, p.43) as "the art and science of helping adults learn". It differentiates the features of adult learners from those of children by arguing learners become more independent and self-directed as they mature. Self directed learning, according to Brookfield (2009, p.2615), is "learning in which the conceptualization, design, conduct and evaluation of a learning project are directed by the learner". Both of these two theories suggested that adults as learners are more likely to be motivated by inner factors and direct their learning process by their own needs and interest (Merriam, 2001). Although university students can be classified as adult learners in terms of age, it seems HE has always been differentiated from adult education and theories of adult learning have rarely been used to inform learning in HE. This might be the consequence of marked differences between traditional undergraduates' demographical background and that of other adult learners who work full time and have family responsibilities (Cercone, 2008). However, within the context of the post-1992 university, many of undergraduates are much more similar to adult learners in the traditional sense in terms of their demographical

background. This means that the self-directed nature of the HE experience for undergraduates should not be underestimated, although this self-direction in the case of these students is a broader process of becoming an undergraduate.

7.2.2 An Interactive Process

The relationships among the four major categories identified in the grounded theory study (see Figure 4.5) and the distribution patterns of respondents' answers in the questionnaire survey data (see section 6.3) suggest the existence of multilevel interactions in the FY undergraduate achievement making process. In addition to the macro level impact of social structure on individual students' identity construction, and the micro level impact of individual students' FY undergraduate achievement perspective on their involvement in HE, as discussed previously, the meso level impact of the institutional environment on individual students also functions as part of the students' achievement making process. For example, the interviewees constantly related their patterns of involvement in HE to the institutional support and academic teaching and described interactions between their feelings and levels of involvement. This multilevel interactive feature of the FY undergraduate achievement making process confirms the consensus in FY undergraduate experience literature as identified in chapter 2. That is FY undergraduate experience is the result of interactive process influenced by students' individual psychology, the institutional environment and the wider social context (see section 2.3.4).

7.2.3 Qualitative Differences in FY Undergraduate Involvement

The research findings in this study confirm the importance of the behavioural aspect of involvement in students' achievement making process, as stressed in Astin's (1984, 1999) involvement theory. Participants in this research said that they try to settle into HE by attending induction sessions and changing their previous learning styles and life routines. Academic achievement is made by attending lectures and doing self study. They make social achievement by talking to staff and peers and going to social activities organized by the

institution. They make self development achievements by deliberately challenging themselves to build up their overall capability (see section 4.2.2). The themes of expanding awareness embedded in various ways of FY undergraduates experiencing HE also showed corresponding consistency between students' learning activities and their FY achievements being identified. For example, while experiencing HE as a new place, FY undergraduates explore the institution and adapt to new routines and their new environment and subsequently report knowing about the institution and settling in as FY HE achievement. However, when HE is experienced as widening horizons, the students deliberately learn from their HE experience to broaden their knowledge about life and the real world outside. The achievements reflected by students in this category are life insights and knowledge of the real world (see section 5.2.2).

These empirical findings strongly support Astin's (1984, 1999) observation that students' learning outcomes in HE are more likely to be determined by the quality and quantity of their behavioural involvement in HE, rather than their motivational aspect of involvement. In addition to confirming Astin's (1984, 1999) involvement theory, this research further identifies that students' involvement can be classified into three different levels, namely *attending*, *being engaged*, and *dealing with self-identified difficulties* (see section 4.2.2). As illustrated in section 4.2.2, *attending* means physically being in a situation with low levels of psychological or emotional commitment. Students sitting through the same lecture could have different learning outcomes, depending on their level of involvement with the learning process. However, this does not mean *attending* can be disregarded because it is the basis for the next two deeper levels of involvement and hence needs to be emphasized in the first instance. *Being engaged* means deeper level involvement with great interest and a positive attitude. It makes the learning process more interesting and productive. With increasing levels of challenge, even *attending* and *being engaged* do not guarantee problem-free-involvement. Most of students need to go through the stage of *dealing with self-identified difficulties*. It is this third level of involvement that arouses the highest level of emotional response and has

been more directly related to their achievements in FY HE. By explicating the differences in the quality of students' involvement, this research describes the mechanism of the FY undergraduate achievement making process. It explains the variation in students' achievements within the same departmental context, and indicates the importance of finding ways to assist students with high level involvement. The existence of variation in students' quality of involvement is confirmed, though addressed from a different angle, by the findings on FY undergraduates' ways of experiencing HE. As explained in section 5.2.3, there is an inherent inclusive hierarchical relationship among the five ways of FY undergraduate experiencing HE. The more expansive students' awareness is, the higher the quality of the students' experience will be. This also implies a need for facilitating students to expand their awareness of the meaning of HE to enhance the quality of their FY HE experience.

The effect of different levels of involvement in the students' achievement making process identified in this study is supported by the research findings of Tieu and Pancer (2009). They examined the relationship between co-curricular involvement and FY undergraduates' transition to university and found that there is a significant relationship between the quality of students' involvement in co-curricular activities and their adjustment into university. Further, compared to quantity of involvement, their study also showed that the quality of involvement was a better predictor of students' adjustment to university.

7.2.3.1 The Challenging Nature of FY HE

As illustrated above, among the three levels of involvement, *dealing with self-identified difficulties* is the most critical dimension in accounting for the students' FY achievements. All the respondents have gone through this dimension in their achievement making process, though the difficulties experienced by individuals may vary. They admit that they have been challenged, to various extents, by adjusting to the new environment and HE teaching and learning styles, understanding academic knowledge, study and life skills, or difficulties with finance or in their personal lives. Among these challenges, adjusting to the

new environment or academic teaching and learning related issues have been found difficult by most participants; while fewer students felt challenged by finance and other personal problems (see Figure 6.21). This corresponds to Harrison's (2006) findings about withdrawal students' self reported negative experiences from a telephone survey on the negative experiences of those students who withdrew during their FY study in a post-1992 university. These showed that nearly half of the sample students withdrew due to course-related experiences, such as teaching provision and independent learning. Roughly one third left because they found it difficult to settle in and the rest gave up because of financial difficulties. This correspondence in research findings in spite of having different sample students between this study and Harrison (2006) reveals that there is not much difference in the difficulties experienced by withdrawers and persisters among FY undergraduates (Hall, 2001). In general, the majority of FY undergraduates feel challenged by the need to be an independent learner and to manage transition into university life, one of the major tasks of HE (Richardson, 2003). Thus, challenges are naturally inherent in FY undergraduate experience and attributing students' dropout to difficult experiences "risks mistaking the symptom for the cause" (Harvey, Drew and Smith, 2006, p.39). In any case, the literature supports the idea that HE, especially FY HE, is not a challenge-free experience.

The specific challenges identified by the students sampled come into shape as a result of the interaction between the current university environment, their personal educational background and their previous life experience. These students have explicitly referred to their personal educational backgrounds and previous life experience when they described the challenges being encountered (see section 4.2.2). This supports the finding in Mackie (2001) that students who had experience of independence tend to feel less challenged by adjusting to HE. It also confirms Yorke and Longden's (2004) assertion about the uniqueness of the combination of reasons for individual students who dropout. It also explains why many of the studies in the literature have related FY undergraduates' withdrawal to students' previous educational background and life experiences, as criticized by Roberts *et al.* (2003).

However, the contextually constructed feature of challenges in FY HE also reveals the possibility of creating solutions by changing contextual conditions. This negates the attributive relationship between students' withdrawal and their demographic factors. As the interviewees described, they adapted themselves, or sought external help, to cope with challenging experiences successfully and make achievement in FY HE (see section 4.2.2). Further, given the variety of specific FY achievements exemplified by these students, they have been more than often related to a challenge coping procedure consisting of dealing with self-identified difficulties. This is supported by the referential dimension of each of the five different ways of experience HE, as presented in section 5.2.2.

7.2.3.2 Dealing with Self-identified Difficulties in FY HE

Individual students' self-identified difficulties relate to their ways of experiencing FY HE. Each of the five ways of experiencing means students' focus on certain aspects of the FY HE experience and hence the variety of challenges being identified. For example, personal development may be identified as a challenge by the students who experience FY HE as an individual maturing process; while those who focus on coping with assessment could feel it is highly challenging to manage time to meet deadlines (see Table 5.1).

The findings of this research show that students normally deal with self-identified difficulties based on an analysis of the contextual situations, for instance, the complexity of the problem at hand, the efficiency and effectiveness of optional coping strategies, as well as availability and quality of coping resources (see section 4.2.2 and section 6.3.4). The process and effect of the problematic situation analysis identified in this research lend support to the psychological model of student retention developed by Bean and Eaton (2000) and correspond to the concept of coping in the psychology literature. As a psychological concept, coping has been developed in the context of stress and has been identified as a critical factor in moderating stress linked illness in health psychology. Coping is defined, by Sarafino (2006), as "the process by

which people try to manage the perceived discrepancy between the demands and the resources they appraise in a stressful situation” (p.117). This process was described as a dynamic process by Lazarus and Folkman (1987) comprising appraisal and reappraisal of both the implication of a stressor and the coping strategy options. It incorporates constant interaction between people and the environment, where people use different ways or strategies of coping depending on factors like type of problem, controllability, and available resources (Ogden, 2007).

Similar impacts of problematic situation analysis on coping strategy adoption have also been identified in other empirical study findings in the literature. For example, Papinczak, Young and Groves (2007) examined the influence of problem based learning tutorial environments on the development of students’ learning approaches. Their findings show that personal and contextual factors impact on individual students’ choices of learning approaches and responses to learning situations. Tyrone and Kent (2008) tested competing models of students’ approaches to learning and suggested that faculty expectations, workloads and time commitments could all be influential factors in students’ adoption of learning approaches. Further, individual students’ interpretations of a situation could be very different depending on their perceived self efficacy, locus of control and outcome expectancies (Bandura, 2006). These different interpretations might, then, lead to different perceptions about the problem situation and the solvability of specific problems, which subsequently influences students’ motivation and coping strategy adoption to solve the problem. For example, students’ critical appraisal of their personal tutors’ ability to provide support, found in Davies and Elias (2003), reveals the potential impact of students’ interpretation of the available coping resources on their problem solving process.

According to the findings of this research, students’ coping strategy adoption is subject to the coping strategy repertoire possessed by individual students (see section 4.2.2 and section 4.2.3). Here, coping strategy repertoire refers to students’ intended ways of dealing with various situations. It indicates individual

student's potential behaviours within various difficult situations and sets up the potential link between students' achievement goals and their achievement outcome. This is in line with Gollwitzer and Sheeran's (2006) observation of the positive effects of implementation intentions as effective self-regulatory strategies in coping with difficult situations. According to Gollwitzer and Sheeran (2006), implementation intentions help people cope with difficult situations in a strategic way and be more efficient in terms of fulfilling achievement goals. As explained by S11, he did not do self reflection in a written form because he had never thought about it. In other words, it was not in his coping strategy repertoire. However, he would do it from now on because it is a better way of engaging in self reflection. S9's account of her experience of solving one problem, though in a different situation from S11, also reveals the effect of coping strategy repertoires. According to S9, she always contacts her classmates via mobile phone for help. Therefore, she lost contact with her classmates when her mobile phone broke. When asked why she did not try to contact them by email, she said she was used to mobile phone contact and had never thought to get in touch with classmates by emails.

Students' study skills, an important component of students' coping strategy repertoire, have received great attention in the literature. It has become one of the key foci in FY undergraduate experience research, such as Drew and Bingham's (2001) study on student study skills needs, and Greaves and Mortimer's (2004) research on providing resources and guidelines to develop critical skills for first year undergraduates. However, FY undergraduates' experience consists of more than academic studies, as discussed previously. Life skills such as coping with financial difficulties are also critical for students' FY achievement in HE, because it is often the individual student's coping strategies that are critical in deciding whether the problem can be solved successfully or not. As found in Harrison's (2006) study on students' withdrawal, most of the students could survive financial difficulties through various strategies, such as working part-time or careful budgeting, while other students have been reported to withdraw because of financial difficulties.

As with my previous research question, the findings in relation to my second research question foreground the question of student agency; this agency can be understood as a growing capacity for reflexivity (Giddens, 1991) prompted in some cases by the necessity to confront a challenge or problem. My findings also stress that achievement making is a process that begins with a relatively reactive stage (attending when required) which must become proactive (being engaged) for the purpose of achievement.

7.3 What are the Influential Factors That Affect FY Undergraduates' Achievement and by What Means do They Make an Effect?

The findings of this study address the third research question by identifying the influential factors, as perceived by the students, that affect their achievement making process and by presenting the distribution patterns of the impacts among the sample students. Kift (2008) pointed out that “given that first year students have special learning needs by virtue of the social and academic transitions they are making, they need assistance to be successful in their learning engagement” (p.4). This observation is supported in this research by the large percentage of the participants' voluntary absence in HE activities and their failure at various level of involvement. For example, only slightly over half of the respondents said that their absence in some academic sessions was because they were not able to attend (see Figure 6.15). The influential factors identified in this research provide valuable information about what the institution can do to assist the students and to enhance their achievement in FY HE.

According to the grounded theory study, several factors emerged as influential elements to the students' achievement making process, namely *support, academic teaching, interpersonal relationships, accommodation, personal academic background, personal task value expectancy, personal organization and time management skills, and personal trait and habits* (see section 4.2.3). These factors impact on the students' achievement making process by influencing their involvement, such as their coping strategies and emotions, which are confirmed by the questionnaire survey findings (see section 6.3 and section 6.4). The categories of description of the five ways of FY undergraduate

experiencing HE in the phenomenographical study also support the effect of the above 8 factors, even though its findings did not provide a straight answer to this third research question (see section 5.2.2). Details of the consistency between the three individual study findings in terms of answering this third research question are provided in the following discussions.

7.3.1 Support

Two levels of support have been identified by the sample students as important to their achievement making process. They are structural level support and interpersonal level support. Not only were they identified as influential to all the 4 types of achievement (see section 4.2.3), but also they were reflected by the sample students as critical to their satisfaction with HE experience, particularly when HE was experienced as a new place (see Section 5.2.2).

7.3.1.1 Structural Level Support

In this research, the sample students mainly addressed structural level support in three aspects: module design, facility and resources and academic support. Module design, especially the module timetable and workloads, could greatly affect the patterns of students' involvement in HE due to the finite nature of students' time. As Astin (1984, 1999) maintained, students' time is the most valuable resource and the institutional policy and practice have great impact on how students spend their time. Assuming a negative relationship between students' academic performance and their involvement in non-academic activities, Astin (1984, 1999) suggested that HE programmes should be designed to decrease the time students spend in activities like socializing with friends. However, disagreeing with this observation, the findings of this research suggest that students' academic performance could actually benefit from their involvement in socializing with friends. For example, the majority of the participants who socialize with fellow students believe it would benefit their academic study (see Figure 6.19). Only a small percentage of the sample students indicate a concern about conflict between socializing with others and academic study (see Figure 6.20).

One third of the sample students do not socialize with others and account for this as due to lack of time and chances (see Figure 6.20). This indicates the necessity for module design to be flexible enough to enable FY undergraduate to adapt to university life and socialize with peers along with making academic achievement. It would be beneficial if programme design could include students' social integration processes into academic activities as suggested by Yorke and Longden (2008). This is because harmoniously uniting these two domains can prevent the occurrence of a negative reciprocal functional relationship, which may be caused by an excessive focus on academic involvement or social involvement, if students' time and energy is viewed as a finite resource.

The second aspect of structural level support, institutional facilities and resources, has been regarded as less important in the FY undergraduate experience literature. This is because some studies show that institution facilities and resources are not as important as might be assumed in FY undergraduates' withdrawal decisions (Yorke, 2000). However, findings in this research reveal that the same factor could affect students' involvement and absence to differing extents. Although institutional facilities and resources might not be as critical to students' drop out, they have been identified by the sample students in this study as an important influential factor to their achievement making process. For example, one fifth of the sample students attribute their major reasons for enjoying academic session to facility factors such as classroom size or equipment (Figure 6.12), though few participants said that they feel less likely to enjoy the sessions because of the facilities (Figure 6.13).

Another important aspect of structural support identified by the sample students in this research is academic support services and activities. This is consistent with many research findings in the FY undergraduate experience literature. For example, institutional support at an early stage of FY HE has been demonstrated to be critical in terms of enhancing students' retention. Cook *et al.* (2005) argued that support for FY undergraduate transition should start prior

to students' entry into HE and this support needs to include up-to-date accurate information which leads to more realistic expectations. FY undergraduate induction programmes are another research focus for providing students with structural support. Although disputes exist in the literature about the extent to which induction affects FY undergraduates' persistence (Luan, 2008), its impacts on students' initial adjustment into HE has been shown to be significant.

7.3.1.2 Interpersonal Level Support

According to the participants in this research, the accessibility of an interpersonal level of support is crucial in FY undergraduates' achievement making process. For example, nearly half of the survey respondents, who believed they had achieved socially, attribute their success to the support received from staff and fellow students (see Figure 6.31). Interpersonal level support mainly consists of assistance offered by individuals, such as staff and fellow students in institutions. The impact of interpersonal level support from staff identified in this research is consistent with many study findings in the literature. The accessibility of interpersonal level support from staff has not only been found particularly important for non-traditional students (Bowl, 2003), but also critical for traditional students, as starting HE is more complicated for them as they are at the time of 'intense moods and swing of attitudes' (Trotter and Roberts, 2006). Musselbrook and Dean (2003) confirmed this point of view, by arguing that access to staff is a positive contributor to enabling students' understanding of the institutions' expectations and thus help them adapt to life in HE.

Meanwhile, the participants in this research also emphasized the importance of support obtained from fellow students, as it is their fellow students rather than the staff that are normally FY undergraduates' first contact when in difficulties. However, it seems that the instrumental meaning of support from fellow students has not been fully recognized in the literature. The majority of studies which pointed out students' need for friendship normally discussed it in terms of

social integration. For example, Mackie (1998) reported that “most (students) report supportive relationships seen in having people to rely on, to trust and confide in” and “these are likely to be limited to a few people, most often housemates rather than students on their course” (p.9). This is different from the findings in this research, which show that about two thirds of the survey respondents socialize with fellow students because they thought it could benefit academic study (see Figure 6.19). Interviewees in this research further explain that they make friends from their course and go to their friends first for help with questions about coursework (see section 4.2.3). Therefore, this research reveals another aspect of the instrumental meaning of socializing with fellow students in addition to those already existing in the literature. Socializing with fellow students does not limit its effect to students’ social integration. It also contributes to their academic integration process. Similar effects of friendships developed on courses were found by Robinson, Riche and Jacklin (2007) among second year undergraduates and postgraduates. They observed that support from peer students was the most important support received by students in higher education.

7.3.2 Academic Teaching

Academic teaching is critically important to the students’ experience in FY HE. For example, 2 out of the 5 ways of experiencing HE are explicitly related to academic experience, namely *coping with assessment* and *leaning subject knowledge and professional skills* (see Table 5.1). Also the self-identified difficult experience reported by the majority of the questionnaire respondents mainly relates to academic knowledge or adjusting to teaching and learning styles (Figure 6.21). This shed light on why academic integration has been identified as a critical factor in the literature on FY undergraduate retention. As explained by the sample students, academic teaching is a critical influential factor to their academic achievement due to its impact on students’ engagement in academic sessions (see section 4.2.3). This comment is supported by the research findings that more than half of the questionnaire respondents said their engagement in academic sessions was mainly affected

by the effectiveness of academic teaching (see Figure 6.12). Ineffective teaching not only fails in keeping students engaged, but also prevents students from further attending. Only half of the survey participants reported that they attended academic sessions or did required self study for the sake of passing an assessment (see Figure 6.11 and Figure 6.16). Many of them attend academic sessions if they feel interested in the contents or knowledge that is included (see Figure, 6.11). This is different from the conclusion made by Carol, A. Twigg, president and chief executive officer of the National Centre for Academic Transformation, who argues that “first-year students ‘don’t do optional’ — even when it is in their interest to do so” (Kuh, 2007, p.3).

Effective teaching, according to this research, refers to teaching which is detailed, informative and stimulating (see section 4.2.3). Many studies in the literature support this finding by suggesting interactive teaching as an effective way to support non-traditional students (Bamber and Tett, 2001) or by identifying that students like to be taught in interactive lectures and group based activities (Sander et al, 2000). However, it seems these studies focus on the stimulating feature of effective teaching by stressing only interactive teaching or student centred teaching; while few of them address the content aspect of effective teaching which need to be detailed and informative to enable students’ academic achievement. As S10 reflected, informative teaching, with lecturers who know the subjects inside out, engaged his attention during the whole session. This is consistent with the research findings in Booth (1997), who, by exploring its sample students’ perceptions of effective teaching, found that teachers’ expertise and enthusiasm in subject knowledge are key factors in students’ perception of effective teaching. Teaching can not be effective if it is not detailed and informative enough to guide students though up-to-date territory.

7.3.3 Interpersonal Relationships

Compared to academic teaching, interpersonal relationships have a more comprehensive influence and affect all the four types of FY undergraduate

achievement according to participants in this research. This is mainly because friendly and supportive relations arouse positive emotions and increase the options of coping strategies. This finding is in line with the emphasis in the literature on the impact of inclusive institutional habitués. As Thomas (2002) argued, students from diversified backgrounds are more inclined to persist in an institution which respects difference and values diversity. As a matter of fact, the impact of interpersonal relationship on FY undergraduates' involvement is supported by many research findings in the literature. Kember, Lee and Li (2001) acknowledged the importance of interpersonal relationships by studying part-time students' sense of belonging. They suggested developing positive relationship between students and staff by increasing their interaction and providing high quality teaching. Gaskin and Hall (2002) confirmed the above suggestion and recommended that a feeling of connection to the institution and friendship with fellow students positively contributes to students' persistence in HE. Yorke and Longden (2008) also identified that negative aspects of experiences cited by FY undergraduates were related to teaching staff not knowing their students and lack of a stable tutorial relationship between tutors and students, which indicates students' needs for caring and supportive interpersonal relationships in FY HE.

7.3.4 Accommodation

Participants in this research have commented in both interviews and their reflective writings that accommodation is an influential factor to their social achievement and personal development achievement. They stated that living away from home tends to positively contribute to their involvement in social life within the university and challenges them to be more independent. However, by living at home, travelling distances and time spent on travelling deterred them from attending social activities in university. This is supported by Wilcox *et al's* (2005) observation that living away from the institution makes it more difficult for students' to develop social networks in university or to achieve successful social integration. Similar effects of accommodation have been identified by Cooke, Bowl and Hockings (2007), who reported that living

arrangements affected FY undergraduates both practically and emotionally. Although no relationship can be established in this research between students' accommodation and whether they believe they have made social achievement, social involvement has been identified as positively relating to students' perception of their social achievement outcome (see Table A1). This implies that student accommodation could influence students' social achievement making process, though as Cooke, Bowl and Hockings (2007) argued, it might not be the only contributor.

Despite the general consensus in the literature about the positive impact of on campus accommodation on students' social involvement, some research findings in the literature show limited impact of accommodation on students' academic achievement and intellectual development. Beekhoven, Jong and Hout (2004) even suggested that living on campus could negatively affect students' academic achievement as they spend more time dealing with personal problems compared to those students living at home. It has to be admitted that living independently might decrease students' academic involvement when students' time is seen as a definite resource as discussed previously. However, academic achievement is not the only achievement pursued by FY undergraduates. Personal development is another important achievement in FY HE, which is positively contributed to by living independently according to this research, though not many existing studies have explored this area in the literature.

7.3.5 Personal Academic Background

This research shows that personal academic background, including students' knowledge level of chosen subject and the teaching and learning style they were used to before starting HE, have an important impact on the FY undergraduate experience. Due to the tendency among leavers to under-report the importance of academic difficulties in their decision to withdraw (Davies and Elias, 2003), some studies maintain that students' academic background does not have a significant effect on their withdrawal. However, the academic

difficulties widely acknowledged by the students in this research (see section 4.2.3, section 5.2.2, and Figure 6.21) show that FY undergraduates' academic background plays a critical role in their HE experience because of its impact on their academic involvement and subsequent achievement in HE.

7.3.6 Personal Task Value Expectancy

This research also shows that the sample students tended to involve themselves in activities which they perceive as either being intrinsically or extrinsically valuable. In other words, they tend to perform a task when its value expectancy is high. Evaluating the benefit of attending certain lectures and the efficiency of the support available are both examples of students' personal task value expectancy. As S4 and S10 explained, they attended, and stayed in, some academic sessions as they expected something important might be taught; whereas some other students were absent because they thought those sessions were not important or useful. Meanwhile, the participants said that they might not seek external help while in difficult situations because they did not perceive the support was effective or helpful (see section 4.2.3 and section 6.3.4).

The influence of students' personal task value expectancy parallels Mackie's (1998) observation about the effect of students' interpretation of difficult situations. According to Mackie (1998), more often it is the students' interpretation of situation as being difficult, rather than the difficult situation itself, that determines students' motivation to deal with it. This reveals a necessity to make the meaning or value of institutional provision explicit to students while improving the quality of the academic sessions and support.

7.3.7 Personal Organization and Time Management Skills

If personal task value expectancy addresses the students' inclinations towards involvement in HE activities; this study shows personal organization and time management skills affect students' quality and pattern of involvement. As the interviewees stated, their involvement in various FY HE activities, like going to

lectures or doing self study, were greatly affected by their personal organization and time management skills. Both S9 and S7 suggested that changes in their HE activity involvement resulted from improvements in their personal organization and time management skills (see section 4.2.3). This effect of students' personal organization and time management skills is supported by Biggs (2003), who classified them as meta cognitive learning skills and generic study skills necessary for becoming independent learners. Their impact on FY undergraduate attendance has also been confirmed by other studies which show withdrawal students are more likely to have poor time management skills, which leads to their low attendance rate (Trotter and Roberts, 2006).

7.3.8 Personal Traits and Habits

This research shows that the sample students' personal traits or habits mainly influence their achievement making process by affecting their choice of coping strategies. It is because the bias produced by students personal traits or habits make them neglect or feel reluctant to use certain types of coping strategies, no matter how efficient the strategies are for dealing with a particular situation. For example, over half of the questionnaire respondents reported that they tried to solve problems without seeking external help because of their habits or personal traits (see Figure 6.24). This could be an additional explanation to the phenomenon of students being reluctant to seek support as found in Davies and Elias (2003) and Christie, Munro, and Fisher (2004).

However, it seems the effect of habits and personal traits have not been paid enough attention to in FY undergraduate experience research. Studies in the literature concerning students' individual factors have focused either on students' demographic factors or on students' personality, such as their self efficacy and self identify, as well as their commitment to particular institutions, as being influential in their achievement in HE. For example, Ozga and Sukhnandan (1998) asserted that there is a difference in students' withdrawal between traditional students and mature students. Tieu and Pancer (2009) found that FY undergraduates' involvement and adjustment into university was

mediated by students' self-esteem. These conscious level impacts are embedded in students' perspectives of FY HE achievement and are important in terms of the formulation of students' attitudes to FY HE achievement, as discussed previously. Nevertheless, in addition to the conscious level, there is another dimension of students' within-individual factors, namely students' personal traits and habits, which cause dispositional behaviour rather than planned behaviour. As Hogg and Vaughan (2005) illustrated, attitudes do not directly lead to behaviour, which is subject to the influence of moderator variables. Moderator variables relate to the influence of people's general attitudes upon their behaviour. Personal traits and habits are both important moderator variables. Their influence on FY undergraduates' experience should never be underestimated because moderator variables could make a stronger impact on behaviours than general attitudes or intentions (Verplanken and Aarts, 1999).

In relation to the third question, I identified 8 factors that influence FY undergraduate achievement, namely *support, academic teaching, interpersonal relationship, accommodation, personal academic background, personal organization and time management skills, personal task value expectancy* and *personal traits and habits*. While many of these findings concur with the literature, I have also drawn out implications which centre on an engagement with these factors beyond a predictive approach based on quantitative patterns. While students may fit certain statistical patterns, my evidence shows variation with respect to student contexts (e.g. family responsibility, part-time workers) that undermine the coherence of policy based on statistical trends. Moreover, achievement can not be measured simply by module or programme award figures since it has many meanings for students based on their own definitions and aspirations. An acknowledgement of the very active role students play in their achievement making process implied that efforts to increase achievement requires meaningful engagement with students rather than, for instance, a statistical tracking of attendance and progression. This engagement needs to extend the existing dynamic between student motivation and institutional support so that enhancement activities keep the two together.

7.4 Implications for Institutional Policy and Practice

Six implications can be drawn from the findings of this research to inform future institutional policy design for the FY undergraduate experience.

Confronting Difficulties as Part of Achievement

Firstly, the challenging nature of FY HE and the nature of the challenges imply that improving FY undergraduates' retention and achievement necessitates more than investigating predictive factors, or getting rid of factors causing students' withdrawal. The students in this study are challenged by their HE experience in one way or another. The students' demographic characteristics may contribute to difficult experiences, but it does not necessarily lead to withdrawal. Therefore, FY undergraduates' dropout should not always be attributed to the difficulties experienced in FY HE because focusing on "dissatisfaction or identifying perceived 'at risk' individuals are likely to meet with limited success anyway" (Harrison, 2006, p.390). The contextually constructed nature of challenges calls into question models of predicting students' withdrawal decisions based on demographic factors. It further highlights the importance and necessity of understanding the challenge deconstruction process by studying FY undergraduate achievement making process within an institutional context.

Students' Multiple Identities and the Development of Student Identity

Secondly, the personalized nature of students' perception of FY undergraduate achievement reveals the necessity of recognizing students' individuality and their multiple social identities rather than partially focusing on their student identity or consumer identity. The students' efforts to harmoniously accommodate their life outside university with a HE experience, make them seek a flexible relationship with HE (Gaffney-Rhys and Jones, 2008). Therefore, their satisfaction with their FY HE experience also relate to the extent to which they progress while maintaining the integrity of multiple social identities. This highlights the need to understand students' expectation and

satisfaction from the perspectives of their perceived self and social identifies. As argued by Hockings (2009), there is a necessity to understand students' individuality, which calls for the consideration of demands faced by students both in and out of their course. Further, since students' achievement referential point changes with time, this implies that HE experience has an impact on FY undergraduates' self expectation. This suggests the possibility of enhancing FY undergraduate achievement by encouraging students to raise their self efficacy through tutored activities.

The Multiple Meaning of FY HE Achievement

Further, the diverse meaning of FY undergraduate achievement perceived by the students implies that FY undergraduates in post-1992 universities need to be facilitated to achieve multilevel development, rather than to obtain academic achievement only, which is an important indicator of institutional performance. The students want to settle into HE and achieve academically, socially, as well as personally. They also perceive these four kinds of FY undergraduate achievements to provide mutually beneficial relationships. This implies that FY undergraduate achievement, as a concept, needs to be viewed holistically and FY undergraduate experiences in post-1992 universities should aim to facilitate students' accomplishment in all four kinds of achievements.

Students' Active Role in Constructing the FY HE Experience

Moreover, the self selective and interactive feature of FY undergraduate achievement making process implies that it is necessary to recognize the active roles students play in their FY HE experience. The findings of this research disagree with educational theories in the literature that assign a passive role to students and focus on the impact of external factors or resources. They also dispute some of the motivation or goal directed theories which assign students a passive role, by seeing their behaviour as driven by stimuli or particular goals and pay no attention to students' control over their behaviour at a conscious level. This research indicates that students are playing active roles in their achievement making process through their perceived self and social identity, their ways of experiencing HE, their problem solving ability, and their

personality and personal traits or habits. Therefore, without recognizing the active role of students, university policies and practices would not be effective, or reach their full potential, in terms of enhancing FY undergraduates' achievements.

Active Engagement

Also, the qualitative differences in students' involvement highlight the significance of students' quality of involvement and suggest that enhancing FY undergraduate achievement is more about engaging students and facilitating students to solve self-identified difficulties. Students' attendance has been used as a predictor of achievement in FY undergraduate experience research. While it is indicative of retention, it is not able to further explain the differences in students' performance in FY HE. This is because attending only means physically being in a situation. Nevertheless, it is the psychological and emotional dimension of involvement that differentiates students' performance and achievement. Therefore, besides tracking attendance, efforts need to be made to improve the quality of students' involvement.

FY Undergraduate Achievement as A Dynamic Process between Students and Institution

Finally, the influential factors identified in this research suggest that facilitating students making achievement in FY HE needs to be implemented from both the institutional level and the individual student level. According to findings in this research, facilitation at institutional level plays an important role in FY undergraduate experience. Institution level facilitation includes offering a variety of support, providing effective academic teaching, building positive interpersonal relationships and encouraging on campus accommodation. However, HE institutions' facilitation should not limit itself to the organizational level. As Gutteridge (2001) argues, institutional support and strategies would not achieve their full potential without paying attention to the enhancement of their students' individual life skills at the same time. This research shows that students' problem-solving abilities and their personal characteristics or traits and habits are critical in their achievement making process. For example,

students' failure to successfully cope with certain situations can either be a consequence of their lack of ability to control situations or result from their perception of a lack of ability to control any difficult situations. This inadequacy in problem solving abilities, to some extent, explains why some FY undergraduates dropped out, although they started university with similar reasons and expectations to those students who persist (Martinez, 2001). Therefore, in order to make institutional level support effective, it is essential to create a learning environment to facilitate students to improve their accuracy when analyzing a situation analysis, enlarging their coping strategies repertoire, and developing time management skills and personal characteristics which positively contribute to their involvement in HE experience. As Harvey, Drew and Smith (2006) observed, "reported studies of support are much more about the process of doing things to students rather than working with students. Yet often, the support requirement is one of facilitating a learning environment, dialogue and peer engagement, rather than the bestowing of specific skills" (p.82).

One of the possible ways to carry out individual level facilitation could be to include self reflection in FY undergraduate course design. In this thesis, most of the sample students in attendance are engaged and solve problems for a number of reasons. That is they involve themselves with clear reasons. However, fewer students seem clear about the reasons why they do not involve themselves in certain activities, especially for problem solving, the highest level of involvement (see section 6.3.4). There are two possible reasons to explain this phenomenon. One is that students are not reflective enough to know the reason; the other one is that the external circumstances prevent students from involving themselves in the activities. No matter which reason, encouraging students to self reflect could be a possible way to improve the situation, though it seems the benefit of doing it has not been fully recognized by participants in this research. In this research, students tend to evaluate their performance and draw lessons from dealing with problems and difficulties while reflecting on their experience. Further, as illustrated by the concept of implementation intentions, the repetition of certain implementation intentions can set up an automatic link

between situation cues and goal directed behaviour, which is one way to formulate habit. Accordingly, not only can self reflection contribute to students' problem solving ability enhancement, but also it can possibly lead to a change of habits.

The key issue in my research findings highlights the dynamic between structure and agency, which is between institution and student. The challenge my research poses to conventional approaches to retention and progression studies centres on an appreciation of this dynamic and an understanding of the place of a growing capacity for self-reflexivity among a new generation of students. The diagram below (Figure 7.1) attempts to synthesise my findings through the representation of a student journey from potential achiever towards reflexive achiever. I have added Mann's (2001) concept of insider and outsider to indicate the process of expanded awareness of what it means to achieve in an academic context on the part of many students who are the first in their family to enter HE. As can be seen in *Figure 7.1*, these journeys represent a movement from outsiders of HE to insiders of HE and are characterised by different phases, namely attending, being engaged and dealing with self-identified difficulties. The important thing to note is that these journeys gradually expand awareness of what is required to achieve, with difficulty solving as an important formative experience. Finally, of note is the fact that FY undergraduates are meaning making learners rather than customers to be 'satisfied'.

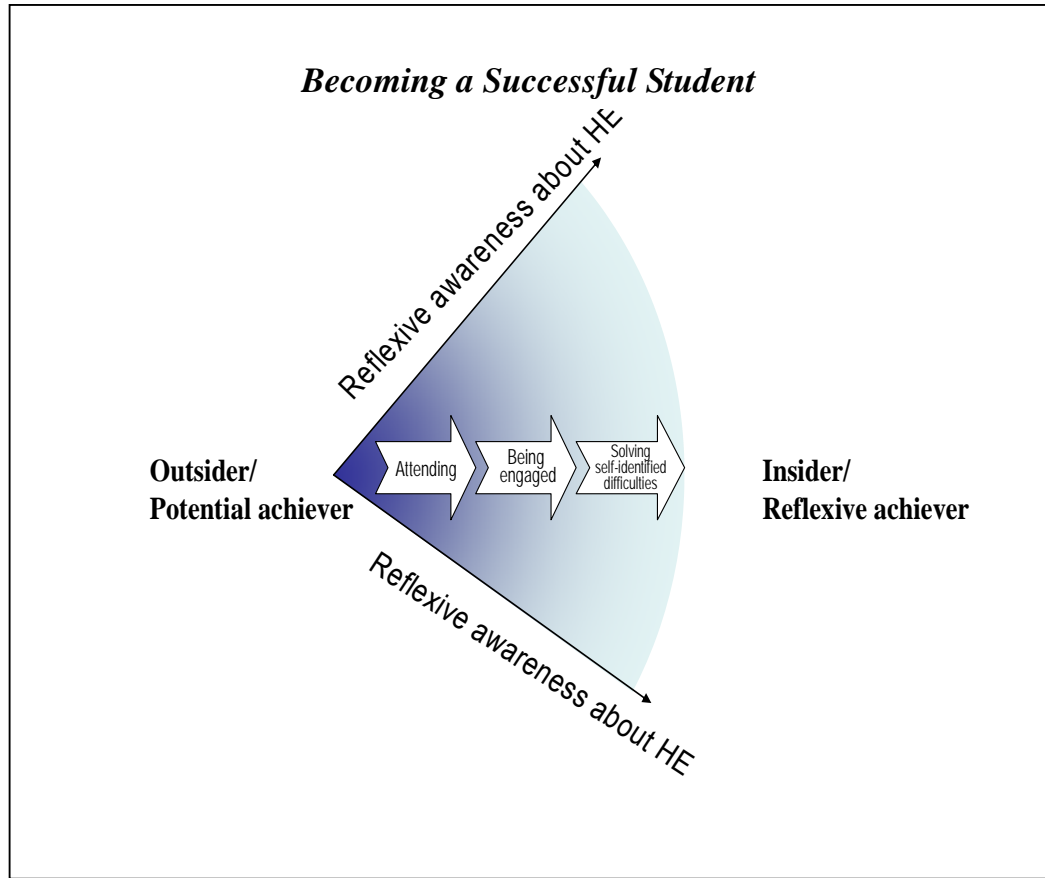


Figure 7.1 FY undergraduates' Journey Involved in Achievement meaning Making Process

Chapter 8 Conclusion

8.1 Research Background and Design

Within the widening participation context, the FY undergraduate experience in HE has emerged as a critical issue, especially in post-1992 universities. FY HE has been widely acknowledged as an important stage to prepare students for their following study in university. Compared to the Russell Group and Pre-1992 universities, the high rate of FY undergraduates' dropout in post-1992 universities is believed to be a waste and failure both economically and educationally (NAO, 2007). Due to the importance of FY undergraduate experience and the lack of research on FY undergraduate experience from a non deficit perspective, this research explores FY undergraduate achievement in a post-1992 university science department.

This research is broadly enlightened by interpretivism, especially by post positivism and constructivism. Influenced by this particular conceptual framework, this research project has been designed as an interpretive case study to answer the following three research question:

1. What does "Achievement" mean to FY undergraduates?
2. What is FY undergraduates' achievement making process?
3. What are the influential factors that affect FY undergraduates' achievement and by what means do they make an effect?

This research aims to identify the students' perceptions of their FY HE experience. Specifically, it aimed to explore how students perceive the meaning of FY undergraduate achievement and the achievement making process in a science department of a post-1992 university. Three research strategies, namely grounded theory, phenomenography, and questionnaire survey have been combined in this research because, I argue that, they complement each other.

8.2 Contribution to Knowledge

This research contributes to knowledge at both theoretical and practical levels.

8.2.1 Theoretical Contribution to Knowledge

The theoretical model developed in this research identifies the multiple meaning of FY undergraduate achievement in students' perception and depicts the active role of students in the meaning making process of their FY HE achievement. The research findings are different from the teaching and learning or retention theories currently in the literature, which tend to assign a passive role to students or emphasize the dominant effects of various social structural forces on FY undergraduate experience. For instance, as discussed in chapter 7, Harrison (2006) presents an attachment theory, which illustrates students' persistence as being attached to some factors which are strong enough to withstand other negative stimuli. According to this thesis, FY undergraduate achievement goes beyond the integration of institutional, academic and social contexts. Social reproduction between individual students and the institution only explains part of the students' achievement making process.

Starting from a non deficit perspective, this research includes the concept of student development, and the learning outcomes they yield, in relation to the study of FY undergraduate achievement, which make it more student-relevant compared to other FY undergraduate retention studies currently in the literature. It is different from the current trend in studies on FY undergraduate experiences, which come from the institutional perspective and focus on investigating difficulties and problems in dropout students' FY HE experience. The findings of this research show that, in students' perceptions, FY undergraduate achievement, as a concept, is more about learning outcomes and satisfaction with their development in FY HE. Their description of how they make their achievements in FY HE also reveals that coping with challenges is actually a critical part of the FY undergraduate achievement making process. Accordingly, by exploring the FY undergraduate from a non deficit perspective, this research point outs a necessity to perceive FY undergraduate achievement

as a student-relevant concept and to shift research focus in FY undergraduate experience from investigating negative experiences to exploring ways of enhancing students' learning outcomes and development in FY HE. After all, the aims of HE should not be limited to keeping students by pleasing them or teaching them to pass exams.

8.2.2 Practical Contribution to Knowledge

Findings of this research project contribute to FY undergraduate experience policy design and practice, by identifying four types of FY undergraduate achievements and five ways of experience FY HE among students in a post-1992 university's science department. FY undergraduate experience policy design and practice need to prioritize students' success and satisfaction. This raises the question of the meaning of FY undergraduates' success or achievement. In the FY undergraduate experience literature, FY undergraduate retention and FY undergraduate achievement have been taken as interchangeable terms to mean students completion of the FY of HE study. Academic grades have been taken to represent levels of students' success. However, according to the participants in this research, the meaning of FY undergraduate achievement does not equate to completion or high academic grades. The personalized meanings of FY undergraduate achievement highlight this research's practical contribution to knowledge. Various FY undergraduate achievements and ways of experiencing FY HE identified in this research can be taken as a valuable reference for FY undergraduate experience policy design and practice.

Students' ability to deal with self-identified difficulties as a crucial part of the FY undergraduate achievement making process highlights the significance of building on self reflection in the FY undergraduate curriculum design. As discussed previously, existing studies on FY undergraduate experience limit themselves within the dimension of influencing students' satisfaction, by improving institution provision or emphasizing the students' own personality as predictive factors in their retention. These studies have overlooked the effect of students' actual behaviour control ability in their HE experience, which is evident

when reviewing theories of planned behaviour. In other words, existing studies on FY undergraduate experience have only worked on two of the behaviour predictors, namely students' intention and perceived behaviour control, and neglect the third critical behaviour predictor, students' actual behaviour control ability. This is identified as relating to problem solving ability, personal traits and habits in this research. Due to the positive effect of self reflection, discussed in the previous chapter, it would be beneficial to include self reflection in FY undergraduate curriculum to enhance students' overall personal development. This is in line with Moon's (2009) observation on enhancing undergraduates' *academic assertiveness*, which is a "set of emotional and psychological orientations and behaviours that enables a learner appropriately to manage the challenges to the self in the course of learning and their experience in formal education" (p.200).

8.3 Critique of the Research and Further Research Agenda

My qualitative research tended to be linear in that I undertook a literature review, I then gathered my data, analysed it and reported on the findings as a sequential process. Although I discussed my emerging findings at each stage, were I to undertake this research again, I would aim for a more dynamic relationship between theorising and analysis of the empirical data. As Cousin (2009, p.31) argued,

In much qualitative research, data gathering and analysis are dynamically linked. The purposes of entwining the two are to enable manageability of the data, to allow for continual focusing of the inquiry and to generate theoretical insights.

Although I did collect details of gender, ethnicity, age and international or home student, I did not draw these factors into my quantitative or qualitative data analysis beyond acknowledging their distribution in the samples. Had I associated these factors with responses, I might have identified leads and trends to follow up in relation to specific populations.

In my data analysis, I identified students' emotional response as an important component in FY undergraduate achievement making process. However, I did not explicitly ask the students to distinguish their emotional responses from their status of mind or comments of the relevant experiences, though they are closely related to each other according to the interviewees' answers. Had the concept of emotion been further clarified in my data collection and analysis, the presentation of the research findings in relation to students' emotional responses would have been clearer and easier to understand.

Reflecting on the research trustworthiness, I did not go back to the students to check my interpretation of the data apart from paraphrasing the interviewees' responses to them on site and testing my analysis on subsequent interviewees. Although I employed other strategies to enhance the trustworthiness of this thesis as justified in chapter 3, I would check the models derived from my research findings with the students if I conducted this research again.

While the above are areas to develop in subsequent research, the framework I offered of three distinctive but complementary research approaches provides a novel way of inquiring into student experiences and perceptions. While some may argue that phenomenography and grounded theory are quite different ways of gathering and analysing data, they gave me the opportunity to combine an inductive (grounded theory) method of analysis with a more deductive one (phenomenography). The grounded theory gave me a general and abstract process of achievement making, while the phenomenography gave me a sense of variation of experience among the samples, thus offering a subtle layer to my analysis. The survey questions which were based on the grounded theory findings supported a quantitative dimension to both corroborate and triangulate the qualitative dimension to my research.

Another novel feature of my research was in the combining of constructivist and post-positivist traditions within an interpretivist framework. This allowed me to explore reality along two dimensions at both a collective and individual level. The constructivist dimension explored meaning-makings and the post-positivist dimension allowed me to penetrate these meaning-makings to get as close to

what may be reality in terms of students' perceptions, as possible. I am aware that these two epistemologies, that is ways of knowing, are often seen to be in tension but I hope I have shown that this tension can be creative. Similarly, I am aware that the ontological position of the constructivist is more of an 'insider' who acknowledges multiple realities, than that of the post-positivist who remains 'outside' the research as far as it is possible and is single truth seeking. Again, I think my own stance has come from a creative interplay between these two positions. I acknowledge my subjectivity in the research particularly as interviewer, reflective account prompter and survey designer as well as in the analysis; I also acknowledge that there is more than one interpretation of the same phenomenon but my attempts to triangulate with three methods is also way of trying to get as close to the 'reality' of students' perceptions as possible.

There is an ongoing debate about whether quantitative research yields more reliable and objective findings than qualitative research. This debate often misunderstands the distinctive purposes of each perspective. Quantitative research offers broad trends and patterns and qualitative research is about drilling down into people's experiences to get a rich, context sensitive picture of what is happening. Qualitative research is also about the meaning making processes whereas quantitative research is more about surface behaviour. In terms of further research, my findings suggest both quantitative and qualitative perspectives could prove fruitful with the following agenda:

1. Explore the relationship between the four kinds of FY undergraduate achievement identified in this research.
2. Test the proposition that the higher quality of students' involvement, the more likely students make achievement in FY HE.
3. Test the relationship between FY undergraduate achievement and the influential factors identified in this research.
4. Explore ways of encouraging high quality involvement.
5. Explore ways of building on FY undergraduate problem solving ability in general.

8.4 Key Concepts and Research Finding Application

I would like to finish this thesis with a summary of the following key concepts that have emerged from the research.

From outsider to insider

My evidence adds substance to Mann's (2001) formulation of the student movement from outsider to insider. This movement involves three stages, namely attending, engaging and problem solving.

Achievement as a process of becoming through a meaning making process

Students, particularly from the post-1992 institutions do not enroll as achievers, they become so (or not) through meaning making activities, namely: reflection, developing a student identity, managing multi social identities.

Achieving involves coping with self-identified difficulties

Coping with self-identified difficulties is a crucial means by which students grow their confidence to achieve. In this study it suggests that how students handle a difficult situation and the strategies they adopt may have an impact on their ability as successful learners.

Expanding awareness

In terms of the process of achieving, my study has revealed that for many students this involves the continual expansion of their awareness of the meaning of higher education. The important factor to note here is that while teacher activity and pedagogy have some effect on student learning, they can not be separated from students' own achievement making processes. The institution can of course explicitly support the students' awareness expansion but this needs to be in some dynamic with the students own meaning making processes.

Overall, my findings point to the weakness of treating students as customers in receipt of a service and the strength of treating them as reflective learners. The

applications of the research findings and implications can be formulated into 4 broad guidelines to direct institutional practice on FY undergraduate experience provision:

1. FY undergraduates programmes should be designed to enhance four kinds of achievement: *settling in, academic achievement, social achievement, and personal development achievement.*
2. FY undergraduate programmes should meet the demands of five different ways of experiencing FY HE: *experiencing a new place, coping with assessment, learning subject know and professional skills, individual maturing process, and/or widening horizon.*
3. FY undergraduate programmes should facilitate students to achieve three levels of involvement: *attending, being engaged, and dealing with self-identified difficulties.*
4. Value and benefit of institution provision need to be explicit and communicated to students effectively.

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Appendix 1

Research Information Sheet

Hello, I am a PhD research student in Centre of Excellence in Learning and Teaching (CELT) at the University of Wolverhampton. I am interested in undergraduates' first year experience in Higher Education. I am particularly interested in the factors which contribute to achievement and coping with problems. I'd be most grateful if you would help me gather information about this by taking part in my research. I have outlined the research process below, however if you have any further questions about this research please contact my supervisor, Dr. Eleanor V J Cohn, on 01902 322162.

Research design and data collection method

The research process is simple but involves a number of stages. I will explain each of these stages to you and provide you with instructions at each stage. These stages include observation of the induction process, interview, reflective writing and questionnaire.

.Observation: The researcher observes the induction programs without actively taking part in it. She will take field notes. All you have to do is continue with your induction programme as if she wasn't there.

Interviews: Two interviews will be conducted over the academic year. If you chose to take part you will be invited to talk about your experience during the first year of university study. The interview will be audio recorded, which means only your voice will be recorded;

.Reflective writing: As part of the course on one of your core modules, you will be asked to carry out reflective writing. If you are happy for this work to be used in the research programme, it will be read by the researcher and used, along with other students' work, to compile themes common to first year undergraduate students' experience.

.Questionnaire: You will be invited to complete a questionnaire about your first year university experience at the beginning of your second year.

Why you have you been chosen.

You are being asked to participate in this study because you are one of the first year students in the School of Applied Science at the University of Wolverhampton. The School of Applied Science has agreed to take part in this research.

Anonymity, confidentiality, dissemination of result

- i) Your name will **not** be used in any written report. You, other participants and the School will be given pseudonyms that will be used in all verbal and written records and reports.
- ii) Your data will only be accessed by the researcher. This will ensure the confidentiality of the collected data. Audio tapes from the interviews will be used only for the purpose of this study.

It is anticipated that the results of this study will be shared with others in published articles, PhD thesis presentation or presentations at scholarly meetings. Your anonymity will be protected at all times

Potential benefits

- i) As a participant, you can contribute your own ideas about the first year university experience.
- ii) Your participation will help the institution and society as a whole understand more about first year university students' needs so that improvement can be made within the institution and in British Higher Education

Voluntary participation

Your participation is voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation and the information collected and records and reports written relating to you will be destroyed. If you choose not to participate, this will not affect your rights as a student at the University of Wolverhampton.

Access to research results

If you are interested in the result of this study, please feel free to contact me. My details are as follows:

Yun Luan (Nancy)

Address: MI 157 a,
CELT,
University of Wolverhampton
Wulfruna Street
Wolverhampton
WV1 1LY

E-mail: Y.Luan@wlv.ac.uk

.....
**Understanding First Year Undergraduate Achievement in A Post 1992
University Science Department**

Researcher: Yun Luan

Consent form

By signing this form, you are aware that:

- The purpose of the research.
- The data collection methods and procedure.
- All data collected will be included anonymously in the research reports.
- The results of the study will be shared with others in published articles, PhD thesis presentations or presentations at scholarly meetings.
- Your participation to this research is voluntary.

I understand the above conditions of participation in this study and I would like to voluntarily participate (please cross the one you do **not** want to participate):

. Observation

. Interviews

. Reflective writing

. Questionnaires

Name of Participant:

Signature:

Date:

.....
**Understanding First Year Undergraduate Achievement in A Post 1992
University Science Department**

Researcher: Yun Luan

Appendix 2

Informed Consent Form

Dear All,

Welcome back to Campus! I hope you all had a fantastic Summer Holiday!

My name is Yun Luan and I am a PhD research student in Institution of Learning Enhancement (previously CELT). My PhD research project is about first year undergraduate experience. The questionnaire you are filling in today would be extremely informative to my research project. Therefore, I hope you would kindly permit me to use your completed questionnaire in my research project.

In order to thank people who offer support to my study, I would like to give away several Goody Bags as Raffle Prizes. All of you who sign this form will have a chance to win one of them. The page number of this form would be your number in the game.

Your support would be highly appreciated!

Yun Luan (Nancy)

Address: MI002 ILE (Institution of Learning Enhancement)
University Of Wolverhampton
WV1 1LY

E-mail: Y.Luan@wlv.ac.uk

I understand the purpose of Yun Luan's PhD research project and I am willing to agree my completed questionnaire, *First Year Undergraduate Experience Survey*, to be used anonymously in her PhD research project.

Name of the Participant:

Signature:

Date:

Appendix 3

Interview Questions

- 1 How would you describe your university experience so far?
- 2 Is it the same as you expected before starting? What are the difference between your expectation and your experience?
- 3 Have you encountered any difficult experiences during your first year study so far? If yes, what are they? How did you cope with them?
- 4 What do you think is achievement in Higher Education? What would represent achievement of First Year study in Higher Education for you?
- 5 What do you think has contributed most to this achievement and your ability to succeed the first year study?
- 6 What do you think is meant by self-reflection? Have you ever done any formal or written self-reflection since you started HE? If yes, when and what was the context? What strategies did you use?
- 7 Do you think self-reflection contribute positively to your first year achievement in HE? Why or why not?

Note: The interview is designed to be semi-structured and the questions are very tentative. Adaptation to the questions might be made during interview based on interviewees' answers.

Appendix 4

Self-reflection Guideline

Initial reflection:

Week 1 Assignment: Starting your module portfolio

In this brief session, you will be introduced to the idea of building a portfolio of evidence demonstrating your personal skills as an effective learner and your academic and professional skills as a scientist.

What we would like you to do this week is to kick-start your Portfolio by writing an Initial Reflection (about 300 words, but more if you like) on how you have felt over the last few weeks as you have planned and actually started on your course. This will be a point of reference to look back on in a few months (and a few years) time. You might like to write about your expectations – of yourself, the University and the course you are studying; what your personal starting point is in terms of strengths and areas you are hoping to improve on; your experience of your first week at University etc. Try to make it something that helps you to understand more about yourself, where you are coming from and where you are going.

First semester reflection:

Name (student number) - AB1011 WebFolio

On this page you are required to reflect on your experiences of being a learner in Higher Education. The narrative should be focused on your development as a learner in H.E. and analyse how the skills that you have encountered and

developed during this module and the skills and experiences from your prior learning provide you with the attributes and strategies to be a successful learner during your studies at the University and beyond (your narrative should not be more than 500 words).

Your narrative should draw extensively upon the evidence from your WebFolio, including the assessment of your own skills, aptitudes, interests, values and abilities, your prior learning experiences and learning experiences from this and other modules. In your narrative you should strive to demonstrate a deep level of reflection by going beyond the given, linking into other ideas. There should be a creation of relationships of new material with other ideas. The narrative should be well structured and demonstrate the linking of material with other ideas which may change as a result.

You must:

- relate current experiences to previous knowledge and experience and the wider context of being a successful learner in Higher Education;
- be aware of why you perceive, think, feel or act in the way you do as a learner in Higher Education;
- analyse how knowledge of 'oneself' forms a basis for implementing effective learning strategies and for career choice and planning;
- identify patterns and underlying principles

and answer the following questions:

What does Higher Education mean to you?

Besides grades and marks, what represents achievement for you in Higher Education?

Appendix 5

This survey is conducted for department review purpose. The following anonymous questionnaire has been designed to explore the way you experienced First Year (FY) Higher Education (HE) last year. It aims to gain an understanding of FY undergraduate experience and achievement from the students' perspective, which is significantly valuable to the improvement of future FY HE provision in this institution. Your time and efforts in filling the questionnaire would be highly appreciated!

Part I Background Information

Please indicate your answer by ticking in one of the box only for each question in Part I

1. In what age-band were you when you enrolled on your first year at this institution?

| | | | | | |
|----------|-------|-------|-------|-------|-----|
| Under 21 | 21-25 | 26-30 | 31-35 | 36-40 | 40+ |
|----------|-------|-------|-------|-------|-----|

2. Please indicate your gender

| | |
|------|--------|
| Male | Female |
|------|--------|

3. Which of the following categories most closely describes your ethnicity?

| | | | | |
|-------|------------------------|------------------------|-------|-----------|
| White | Black or Black British | Asian or Asian British | Other | Not Known |
|-------|------------------------|------------------------|-------|-----------|

4. How far was your accommodation from campus during FY undergraduate study?

| | | | | |
|-----------|---------------|----------------|-----------------|-------------------------|
| On campus | Within 1 mile | 1-5 miles away | 5-10 miles away | More than 10 miles away |
|-----------|---------------|----------------|-----------------|-------------------------|

5. Do you have dependants (people who depend upon you for support, such as children or elderly relatives)?

| | |
|-----|----|
| Yes | No |
|-----|----|

6. Are you an international student?

| | |
|-----|----|
| Yes | No |
|-----|----|

7. Have you studied the subject of your degree programme before you enrolled?

| | | | |
|---------|------|-------|-----------------|
| A Level | GCSE | Other | No formal study |
|---------|------|-------|-----------------|

8. Which of the following statements best described your perception of HE at the **BEGINNING** of your FY undergraduate study?

| |
|--|
| HE is a task for me to complete, which would make me or my family proud. |
| HE prepares me for future career. |
| HE develops me as an individual, e.g. being independent in life. |
| HE enriches my life experience and widens my horizon |

9. Which of the following statements best described your perception of HE at the **END** of your FY undergraduate study?

| |
|--|
| HE is a task for me to complete, which would make me or my family proud. |
| HE prepares me for future career. |
| HE develops me as an individual, e.g. being independent in life. |
| HE enriches my life experience and widens my horizon |

10. What grade did you get in most of your assessments during FY HE?

| | | | | |
|---|---|---|---|------------|
| A | B | C | D | E or Under |
|---|---|---|---|------------|

Part II: FY HE Experience

*Which of the following statements relate to you? Please **TICK as many as you like**, but **CIRCLE the only one** which you feel is most applicable to you at the end.*

1. I mainly attended academic sessions during FY HE because
- A. I was interested in the subject knowledge in those sessions.
 - B. I thought those sessions were important in terms of passing assessments.
 - C. I liked the way they were taught.
 - D. no particular reason
- The most applicable statement to you is A B C D

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Comments (other reasons etc.) _____

2. I felt **most** likely to enjoy the sessions when
- A. the classrooms were comfortable and well equipped
 - B. the session was taught effectively (e.g. group discussion and activities happen or the lecturer presented the subject confidently.)
 - C. I had previewed the sessions or felt prepared for the module

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D. no particular reason
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

3. I felt **least** likely to enjoy the sessions when
A. the sessions were delivered in a lecture theatre
B. the lecturers were only reading off the slides
C. I felt the modules were not useful
D. no particular reason
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

4. I involved myself in the sessions I attended
A. only when I was enjoying them
B. no matter whether I was enjoying them or not
C. I never involve myself actively in any sessions
D. Depending on how I felt on the day
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

5. I was absent from some academic sessions because
A. Those sessions were not important in terms of passing assessments
B. I didn't like the way they were taught
C. I was not able to attend
D. No particular reason
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

6. I did **required** self study because
A. I was interested and wanted to understand more about the subject
B. I needed to gain more understanding to cope with assessments
C. I was asked to prepare, review or do the homework by lecturers
D. no particular reasons
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

7. I did **extra** self study when
A. I was fascinated by the subject knowledge
B. I was aiming for better grades in the assessments
C. I had difficulties in understanding the knowledge
D. no particular reason
The most applicable statement to you is A B C D
*Comments (other reasons etc.)*_____

8. I did **not** do much self study in some modules when

- A. I felt the modules were boring or too difficult
- B. I was only aiming to pass the assessments
- C. I was not able to do as much self study as I wanted
- D. no particular reason

The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

9. I talked to a lot of people in university or attended social events.

A. Yes, because--- (Go to **9a**) B. No, because-- (Go to **9b**)

(9a)

- A. I liked making friends or going out
- B. I thought socializing with fellow students would benefit my study in university
- C. other people talked to me first or I was invited
- D. no particular reason

The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

(9b)

- A. generally I am a quiet person and don't like socializing
- B. I thought I should commit as much time as possible to my academic study in HE
- C. at that time I was too shy to talk to others first or make friends actively
- D. I was not provided enough chances or did not have much time for socializing
- E. No particular reason

The most applicable statement to you is A B C D E

Comments (other reasons etc.) _____

10. The experiences I found difficult during FY HE were about

- A. learning and understanding the academic knowledge
- B. Adjusting to the new environment and the university teaching and learning style
- C. Lacking studying or life skills
- D. Finance or problems in personal life

The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

11. Sometimes when I experienced difficulties, I tried to sort it out because

- A. I thought it would threaten my completion of FY HE or my results in assessments
- B. I wanted to improve myself in terms of developing my understanding and skills
- C. I always tried to achieve my best or full potential
- D. no particular reasons

The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

12. Sometimes when I encountered difficult experiences, I chose to ignore them and did not make efforts to sort it out because

- A. I didn't think it would be a threat to my completion of HE or my results in assessments
- B. It would take too much time and efforts to be solved and was not my focus of taking HE
- C. I thought it could not be solved
- D. no particular reasons

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

13. Sometimes I tried to solve problems **without** seeking external help because

- A. Solving problems by myself was the first thing that came to my mind
- B. The nature of the difficulties suggested I was the best person to deal with them
- C. There were no external resources available to seek help from
- D. I was too shy to seek external help

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

14. Sometimes I did seek external help to solve problems because

- A. Seeking help was the first thing that came to my mind
- B. the nature of the difficulties suggested the best solution was seeking external help
- C. I wanted to solve it myself, but I felt I couldn't.
- D. the external assistance were available or easy to obtained

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

15. Sometimes I managed to solve some problems to my satisfaction because

- A. My analysis of the problems was effective
- B. The strategies I took work well
- C. Those problems were easy to solve
- D. I worked really hard on it

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

16. Sometimes I **INITIALLY** failed to solve some problems to my satisfaction because

- A. I didn't analyse the problems rigorously which resulted in ineffective strategies
- B. I analysed the situation rigorously, but the strategies I took did not work for certain reasons
- C. Those problems needed to be solved with constant working and efforts
- D. I don't know, never really thought about it.

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

17. Sometimes some problems were **NEVER** solved to my satisfaction because

- A. I didn't analyse the problems rigorously which resulted in ineffective strategies
- B. I analysed the situation rigorously, but the strategies I took did not work for some reason
- C. those problems were too challenging and I gave up working on them any more
- D. I don't know, never really thought about it

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The most applicable statement to you is A B C D

Comments (other reasons etc.) _____

18. I feel I have made achievement(s) in terms of academic study in FY HE.

A. Yes, because -- (Go to **18a**.) B. No, because ---- (Go to **18b**)

(18a)

- A. I have passed all the assessments or achieved good grades in assessments
- B. I have improved academic skills and felt achieved my best
- C. I have done better than I expected
- D. I have been satisfied with the teaching and facilities provided by the institution
- E. Other _____

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The most applicable statement to you is A B C D E

(18b)

- A. The teaching or academic support was not effective or efficient
- B. I did not work hard enough to achieve as much as I could have
- C. I only got pass or low grades in assessments
- D. I didn't fulfil my own expectations
- E. Other _____

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The most applicable statement to you is A B C D E

19. I feel I have made achievement(s) in terms of socializing in FY HE.

A. Yes, because--- (Go to **19a**) B. No, because-- (Go to **19b**)

(19a)

- A. Staff and fellow students were friendly and supportive
 - B. I have improved my social skills
 - C. I did not expect to achieve much in socializing anyway
 - D. I have made some good friends and had a good time
 - E. Other _____
- The most applicable statement to you is A B C D E

(19b)

- A. I was not provided with enough opportunities to socialize with others or people were not friendly
 - B. I was too shy to socialize with others
 - C. I have not made as many friends or be as much active in socializing as I expected
 - D. I only made a few friends
 - E. Other _____
- The most applicable statement to you is A B C D E

20. I feel I have made achievements in terms of personal development in FY HE.

A. Yes, because--- (Go to **20a**) B. No, because---- (Go to **20b**)

(20a)

- A. Personal development was not something I was particularly focused on
 - B. I have developed quite a few skills which might benefit my future career
 - C. I have understood more about myself and improved as an individual
 - D. I have become a more independent learner
 - E. Other _____
- The most applicable statement to you is A B C D E

(20b)

- A. I was not challenged enough to achieve much in personal development
 - B. I did not manage to achieve much in personal development
 - C. I did not develop myself as much as I expected
 - D. I was not aware of the importance of personal development
 - E. Other _____
- The most applicable statement to you is A B C D E

Part III Emotional Feeling

*In this section, please **CIRCLE one letter only** in front of the statement which most closely applies to you.*

1. When I enjoyed the academic sessions,
 - A. it made me feel the course was easy to follow
 - B. it made me feel the course was easy to follow but difficult or challenging at the same time
 - C. I still felt the course was difficult or challenging all the time
 - D. it made no effect on my feeling about the course
 - E. Not applicable, I did not enjoy any academic sessions.

2. When I didn't enjoy the academic sessions,
 - A. it made me feel the course was challenging
 - B. it made me feel both challenged and negative about doing the course
 - C. it always generated negative feelings
 - D. it made no effect on my feeling about the course
 - E. Not applicable, I enjoyed all academic sessions

3. When I involved myself in the academic sessions,
 - A. it made me feel the course was easy to follow
 - B. it made me feel the course was easy to follow but difficult or challenging at the same time
 - C. it felt the course was far too challenging
 - D. it made no effect on my feeling about the course
 - E. Not applicable, I didn't involve myself in any academic sessions

4. Being absent from some academic sessions I was supposed to attend made me feel
 - A. Being an undergraduate was difficult to cope with occasionally
 - B. Being an undergraduate was difficult to cope with and it created negative feeling about the course sometimes
 - C. negative about the course all the time
 - D. no differently about the course
 - E. Not applicable, I attended all academic sessions I was supposed to attend.

5. After putting extra time and efforts in doing self study,
 - A. I always felt the course was easy to follow
 - B. I might have felt the course was challenging but achievable.
 - C. I still felt the course was too difficult to achieve
 - D. It had no effect on my feeling about the course
 - E. Not applicable, I never putted extra time and efforts in doing self study

6. Without doing much self study, I felt
 - A. Being an undergraduate was difficult to cope with occasionally
 - B. Being an undergraduate was difficult to cope with and it created negative about doing the course sometimes
 - C. negative about doing the course all the time
 - D. it had no effect on my feeling about the course
 - E. Not applicable, I always did extra self study

7. Socializing with fellow students
 - A. made me feel positive about being in HE
 - B. made me feel HE was enjoyable even though it was challenging
 - C. made me feel achieved less academically
 - D. made no effect on my feeling about my life in HE
 - E. Not applicable, I never socialized with fellow students

8. By not socializing much with fellow students,
 - A. I felt I have more time to contribute to academic study
 - B. I felt lonely or struggled sometimes
 - C. I felt I did not achieve as much as I should have in HE
 - D. it made no effect on my feeling about HE
 - E. Not applicable, I always socialized actively with fellow students

9. Successfully solving problems to my satisfaction
 - A. made me feel HE was easy to cope with
 - B. not only made me feel HE was easy to cope with and also made me feel proud of myself
 - C. made me proud of myself
 - D. made no effect on my feeling
 - E. Not applicable, I never solved problems to my satisfaction

10. Failing initially in solving some problems to my satisfaction
 - A. made me feel HE was challenging
 - B. not only made me feel HE was hard to cope with, but also gave me negative feelings about entering into HE.
 - C. generated negative feeling most of the time
 - D. made no effect on my feeling
 - E. Not applicable, I always solved problems to my satisfaction once for all

11. Never solving some problems to my satisfaction
 - A. made me feel HE was seriously challenging
 - B. not only made me feel HE was challenging but also gave me negative feelings about entering into HE
 - C. generated negative feeling most of the time
 - D. made no effect on my feeling
 - E. Not applicable, I solved all problems to my satisfaction

THANK YOU VERY MUCH

Appendix 6

Memos

Memo 1 S1

04/12/2007

S1 is a female international student. She comes from Denmark and is staying in university accommodation.

What is going on in Student 1's FY undergraduate study?

Student 1 concluded three achievements during her first semester HE study. The first one is Knowing more about the university; the second one is The A grade she got in her academic work; the third one is Being comfortable about herself in HE as an international student. (Compare these achievements with other interviewees)

While she discussed the reasons of taking the three issues as her FY achievements, she related her idea of achievement to its context, to her reasons of taking HE and to her expectation and experience before starting HE. She constantly illustrated the relationship between FY achievement and HE achievement, evaluated her performance compared to herself and others' expectation, and pointing out the built-in elements of challenge and individuality in student's perception of achievement. (Compare her criteria with other interviewees)

Student 1's accounts reveal the non-negative connection between difficult experience and achievement though the relationship was not explicated during the interview. For example, the achievements maintained by Student 1 could be related easily to the difficult experience she had experience. Student 1 felt difficult during the first two weeks due to struggling with time and energy needed to settling down. She needed time to familiarize themselves with the new surroundings and remembering the large amount of new information. During the first semester, as an international student, this student felt hard to speak English as a second language, which means she lacks of certain skills to integrate into the HE in UK. (What are the difficulties? Why? Relationship between difficult experience and achievement?)

This student took the initiative to cope with difficult experiences. She kept seeking external support by asking staff and classmates information to help herself settle down; and she tried to improve her spoken English by talking to her BF in English; she also tried to have an active social life to cope with the study. (Coping strategies? Why certain strategies are adopted instead of others?)

However, the strategies she took to cope with difficult experience were not adopted straightforward. The easy accessibility of staff and flatmates encouraged her to take the first step in seeking external support; however, she assessed the necessity and risk of asking the question before actually asking. For example, she chose to follow her classmates to collect the lab code rather than asking what it was when she thought she would seem stupid as she was supposed to know the word or she would be able to finish the task without asking; then she decided her further action based on her interpretation of the response/ reaction given by other people. When other people's response are friendly and makes her feel comfortable, she tends to be more open to others and talk more. Not only this helped her improve English and cope with difficult experience; but also it makes her happier or more satisfied by enabling her coping experience easier compared to previous negative experience in home country. This is an example of the ways through which institution habitus could contribute to students' achievement by building on their capability in coping with difficult situations.

Coping well-Felling good: Feeling good is the consequent of coping well; coping well is the consequent of interaction; interaction is a process of coping with difficult experience.

Memo 2 S2

05/12/2007

S2 is a female traditional student. She enters HE with A level results and is living with her parents in Birmingham.

The student was feeling confused during the first couple of weeks when she familiarize herself with the new surroundings. She thinks it was larger complex than her six form experience. However, she has got used to it after the first two weeks. (Getting used to new environment and emotional feeling changes. But she didn't take it as achievement, which is different from S1. What about others?)

The student is happy in general though she doesn't like the late night practical as she has to travel back to Birmingham after it. She feels the teaching so far is quite basic and easy to follow most of the time. (Difficulties seem different from negative experiences?)

This is different from what the student expected before starting. She expected the HE experience would be really hard based on the information she obtained from her friends. This might be due to the differences between the universities and courses being experienced. This student finds the course quite easy because most of it has been covered in her previous academic study.

However, the general positive feeling does not mean this student has not experienced any difficulty in her academic integration process. She felt difficult

particularly with the layout of the exam, the teaching style and the way being assessed in essays. The main reason of the difficult experience was the difference in teaching and learning style between HE and the student's previous academic experience. Although this student had some experience of self study in previous studies, she still feels difficult with some aspects of self study as the depth of knowledge required in HE is far more demanding than Six form. In spite of the difficult experience she has got in academic integration process, this student got a negative feeling when she found the teaching was too basic. She expected it to be more advanced and preferred to know the theories behind methods, which was the way she used to be taught. (Teaching and learning style were different from previous study, which was not mentioned by S1.Other?)

The coping strategies she normally adopted is to seeking help from fellow students. She either emails friends or texts or phones fellow students when she has questions in her course work. This is resulted from being unable to getting efficient support from seeking help from staff. Besides, she has been benefiting from discussing with fellow students and learning from their ways of getting through the problems. Meanwhile, she also tried to get through problems by self study, for instance using text books and previous work after her enquiry to staff had been failed to answer her question.

This student does not have an active social life with the university. However, she seemed not be bothered as she suggested academic grades as her HE achievement and her reason to be in the university. She is still living as home and her family life is her social life. She may feel stressful sometimes at university. But as soon as she got home, she feels relaxed and it gives her a break. (What about other students? Why do they socialize with others? Does it affected by personal aim in HE or by accommodation? Students feel positive because they are happy with the things that are important to them???)

Memo 3 S3+S2+S1

08/12/2007

S3 is a female international student. She had HE experience in her own country. Now She is staying at her parental home which is 40 minutes away from uni by bus.

S3 experienced a similar changing process of emotional feelings as S1 and S2. All of them changed from feeling confused or stressed out at the beginning to feeling good and coping ok. (Did all the students go through similar process, from feeling stressful to feeling good? Is there any student feeling hard to cope even after staying in HE for a while? Need to explore experience of those samples who do not feel ok)

For S3, socializing with other students helps her in coping with academic difficulties; while S2 sees socializing with other students in a different way. Some coping strategies are mentioned by S3 but not by the other 2

interviewees.

Getting information from staff and fellow students (Similar to S1)

Socializing actively with other students (S1 socialized with others under certain conditions)

Attending induction activities (Similar to S1)

Asking for help from staff and fellow students (Similar to S1 and S2)

Using institutional resources, such WOLF and learning centre (Similar to S2, but S1 and S2 didn't mention WOLF)

Going to lectures (Similar to S2)

Doing self study after going home (Similar to S2)

(Why is that? In dealing with similar difficulties, different interviewees seemed to adopt different strategies. Why is that? What about other students? Do they share similar ideas?)

S3 defined FY achievement as Integration well into university life and feeling more confident. She related FY to second year and seeing it as a foundation for the second year. This is a new perspective in terms of defining FY achievement, different from S1 and S2. (Exploring more about the concept of defining FY achievement as it seems relate to the achievement being identified.)

Different from S1, this student didn't mention speaking English as a second language as a difficult experience. It might be because she has been using English to communicate on a daily basis back in her home country. However, same as S2, she expressed that different teaching and learning style from previous academic experience made her feel difficult.

09/12/2007

Interviewees did not relate their reasons of coming to this university to their FY achievement. They talked about it only because I asked them the specific question. So it may not be an analytical code for further exploration.

All these three interviewees' HE experience are to some degree different from what they expected. But they did not connect the difference to their achievement. Maybe students expectation only relates to their satisfaction of institution provision and need not further explored in this study???

Points to be further clarified

1. Change of emotional feelings- Under what context certain feelings emerge? Why did change? How did it change?
2. Coping with difficult experience- What did the students do to cope with them? Why did certain strategies taken by some students not others? What were the coping results? Why did some students solve problems successfully with certain strategies but others didn't?
3. Defining and identifying achievement- What are taken as FY achievement by students and why?
4. Identifying difficulties- What are the difficulties? How did they generate? Why did students identify different aspects of HE experience as difficulties while studying in the same department?

5. Socializing with others- Why did some students socialize with others actively while others didn't?

Memo 4 S4

10/12/2007

S4 is a male home student aged under 21. He starts HE with A level results and is staying with his parents in Birmingham.

S4's account confirms the point raised in Memo 3 that the interviewees do not relate their achievement to expectations of HE experience, though their expectations may have impacts on their emotional feelings and satisfaction to institutional provision.

This student feels generally happy about his first semester experience though he believes it is a big leap compared to his previous academic experience in terms of responsibility. He believed there is a need to be much more self-reliant in HE.

This student finds that some of his first semester experience is the same as his expectation while some is different from what he has expected. He has expected the difference from high school and the needs to be self-reliant. However, he expected HE to be more stressful and had more workloads than it is.

This student thinks it is particularly good in terms of learning methods for the institution to break things into smaller size during the first year, which helps them intake lectures and make an easy start for their HE experience. (Teaching strategies: impacting students' emotional feelings and academic study. Is there any other feature of teaching which is perceived as good and contributes to students' achievement?)

The difficult feelings of this student were mostly generated by unfamiliarity. For example, he was not used to the computer technology or the new program used in this university and the process of handing in course work. However, these are not problems for him now as he is getting better along with the time going by.

This student did have difficulties sometimes in lecture. But he wouldn't think there has been any major problems. It might be the result of the active coping strategies he undertook during the first semester. He also mentioned that right after starting the university, he got a feeling that commuting was not as easy or convenient as he had thought. But he would not consider it as a problem as he understands there is no better option and it is something he has to do.

The coping strategies this student adopted to cope with learning complex IT programs was *Asking, Going to tutorials, Reading document being provided*. He went to the tutorials because he thought it might be helpful to his tests and he paid attention to the resources available to him, such as information provided in the topic folder; while some other students, as he said, didn't go for the tutorials though the tutorials were compulsory and maybe they didn't even read the topic folder carefully enough to know the availability. The consequence is this student thinks the tutorials polished at certain topics and he has benefited from the

strategies he utilized. In terms of confusion in direct information like how to hand in course work, this students chose *Asking the person who know it directly* and obtained the answers straight away. When this student had problems *in lecture*, he chose to *ask his classmate* and *ask the lecturer at the end* if his classmates couldn't answer his question; *After lecture*, he may use internet as well. For academic questions, this student prefer *Asking and Discussing with fellow students rather than teachers*. He think he benefit more from talking with fellow student as they may have experienced similar problems and it is easier to be related to himself.

Same as S2, S4 lives at parental home, travels a long way to uni and take academic achievement seriously. But different from S2, S4 socialize actively with fellow students studying the same subject to help his academic study. This student tends to mix with others studying same subjects and socializes actively with students who are in senior grades. He has also noticed the way of students socializing with each other, such as students doing the same subject tends to meet in certain area. This might be a positive condition he created for himself to cope with difficulties in academic study as well.

This student claims that the factor contributed most to his achievement so far is his motivation, which comes mainly from the family value as well as his self esteem, or the desire to prove his ability. He comes from a family which value achievement of any level. Any family member would be honoured if they try their best in doing what they have decided to do. Meanwhile, his previous experience of being doubted by other people is also one of the motivations contributing to his achievement. He felt highly motivated to cope with challenges in HE.

This student did not set up a connection between the achievement he has made and the difficulties he has experienced. This might be because he has taken the difficulties he experienced for granted and view it as parts of the unavoidable experience in HE as he expected. For example, during the interview, he has expressed the view of expecting pressure and difficulties in HE. However, he did relate the achievement he has made to his perception of achievement. And he also revealed the existence of social value achievement and personal value achievement in students' perception of achievement.

Memo 5 S5

11/12/2007

S5 is a male mature student. He is a single parent and lives with his daughter. He was in the army and studied the subject in college before starting HE.

This student was feeling wired about his university life so far as things in university seemed not going in a consistent way to him. On the one hand, he felt something in university had been too well organised and something was just thrown at students randomly. His comments indicate the complexity of students' needs. There are inconsistent expectations to the level of complexity of instruction even from the same student. They get frustrated due to being led step by step in situations they feel easy to handle. For example he was complaining the repeating of old stuff were irritating; They enjoy hard subjects

which force them into thinking. However, they request more detailed and clear instructions to enable their understanding. It puts staff into difficult situations as individual students may have different criteria to judge what hard subjects for them are and how much detail they need from instruction to understand the subjects.----What's the difference between hard subjects which force him into thinking and the complicated definitions? On the other hand, he finds he is actually getting to understand and things are getting good though he thinks he has been quite laid back since starting. Therefore, he guesses he must have enjoyed it. His last comments possibly reveal the essence of this category of emotional feeling. He said 'But I don't know. Just new experience, really.' It is a neutral feeling. During the first two or three months after starting HE, the student doesn't know everything for certain and still getting used to it.

The difficulties he experienced are due to: 1) the lack of certain study skills, e.g. being late for a lot of things and struggling between study and family duties; 2) problems in academic integration, e.g. finding teaching methods complicated and getting bored in lecture halls; 3) weakness in personal characters, e.g. hard to get motivated. This is opposite to S4.

However, the difficulties he experience has not imposed negative feeling onto him. Instead, it seems function as the beginning of making achievement. The student's statement of the achievements he has made so far includes self improvement compared to pre uni experience and self expectation before starting, which also reveals individuality in students' perception of achievement and the experience of surviving difficult experience. It is in accordance to his perception of FY achievement and can be related to experience which make him feel difficult in HE. On top of these, he added the idea of viewing achievement as everything he is doing everyday which is helpful and new.

The factors directly contributed to his achievement have been reckoned by this student as motivation and self study. However motivation comes from so many different sources. It is necessary to specify the factors that increase and decrease motivation rather than just using motivation as a concept to experience achievement.

However, when being asked, he also pointed out the indirect impact of self reflection on his FY achievement by enabling his understanding about himself and guiding his study.

The coping strategies adopted by this student were decided by his personal character and the nature of the problem. This student described himself as a problem solver and shy person. He does not like talking to people very much. Therefore, he normally adopts self- reliant strategies and tends to solve problems by himself. For example, he used self reflection to help himself understand better about a situation and himself, such as foreseeing the benefit in the future and clarifying the responsibility of a mistake; As his main difficult is self related, for instance being late and hard to be motivated, this student tries to survive the difficulties by keeping himself disciplined and organized. He forced himself to do the work and set time aside to play with his daughter.

Concerning specific factors that contribute to his achievement, he attributed to be motivated to his daughter and his genuine interest in learning. Due to his personal character, this student tends to keep a question in his mind for days in order to work out the answer. Sometime he may talk to classmates to have a discussion as he likes collaboration in studies. If they don't know the answer either, he would turn back to himself and crack it over. This student understands the efficiency of seeking help from tutors. However he is reluctant to ask tutors unless the question is seriously hard and he could do nothing else.

Memo 6 S6

12/12/2007

S6 is a male traditional students, starting HE with A level background. He is staying at parental home which is 20 minutes away from uni by bus.

This student feels generally OK with HE so far. When students comment on their general feeling about their first semester experience, they frequently compare the difference between HE and their previous academic experience. For example, compared to previous experience, this student comments he has a lot of freedom and more self reliance in HE and is less closer and having less contact with staff.

He feels HE is less structured, which needs time to get used to. Students normally express a feeling of difficulty about or a need for time to get used to the difference between HE and high school except some international students who think their own country's educational system is harder than UK HE system. (Could this be regarded as a difference between Home students and International students???)

The main difficult experience for this student is academic integration. He has problems with both the teaching instruction and learning style in HE. This student feels especially difficult about the assignments or homework. He has problems in understanding the instructions and feels difficult to work out everything on himself. He feels hard with the workload and under pressures. He feels depressed sometimes about the fact of having loads of assignment of do.

The coping strategies this student adopted is quite passive. The main strategies he used to cope with unclear instruction is Guess, which called Educated guess by himself. Sometimes he may ask for friends' help in academic work and work out problems with friends' collaboration. However, this might be potentially prevented by his worry about taking a risk of collusion. He has never met his personal tutor and he even does not know who his personal tutor is. (Is this because of the inaccessibility of staff or the student's laid back attitude in getting in touch with staff?) Obviously he has not tried hard to seek external support from teachers though he said he had tried to ask teacher questions but end up with no answer. (Under what condition he asked help from the teacher? What kind of question? Why did he decide to ask this time? What is he going to do with it now?) Besides, the strategies he took were not really able to help him coping with the difficult experience effectively. For example, his pressure mainly

comes from the assignments and the reason is he is not clear about the instruction of assignment. However, instead of trying to make clear what the instruction is really about, he just take a break and relax himself, which may make him more willing to work but wouldn't help him out of the difficult situation. Although he mentioned concentrating on study contribute to his coping ok with HE so far, he still going out three nights a week on average. (There is a dimension on the continuum of concentration on study and being self discipline) This might be why he has not really make any achievement so far?!!!!

This student denied coping ok since the start is an achievement as he thought he had just been continuing with what was asked to do and had not done anything special to be proud of (what could be regarded as being proud of in his perception?). He did not relate the idea of FY achievement to difficult experience as he did not think he has made any achievement yet. (Is that because he didn't survive difficulties to a certain level which makes himself feel proud of?) He defined FY achievement as getting through and passing the exams. (Why not A grade? Need to be explored further in the following interviews about students' own expectation about themselves)

This student also mentioned having a good time or being socially happy and getting a good job would be achievement in HE. However, he seems not really know or even think about how to make the achievements. For example, he even does not going out or socialising with people from the university. (Why? Why he is not doing what needed to make the achievement in his perception? Is it because he is not able to or he do not know how to?)

It seems students reflecting well tend to take initiative to solve problems and coping better with difficult experience. (They tend to be more able to realize their achievement, be more satisfied with uni life and themselves?. Maybe better academic results????-----need to be checked in the future data collection)

Memo 7 Initial axial coding

18/02/2007

After line by line coding, a set of free nodes have been established. They have no hierarchical order and overlap with each other in some of the concepts. Actually, this initial line by line coding functioned more like a brain storming of assigning labels, which broke the sources into manageable bits and pieces and ready for further analysis.

Tree nodes are going to be developed based on the free nodes and another round of close study of the original transcripts.

Firstly, according to Strauss and Corbin (1998)'s axial coding organizing scheme, the free nodes could be roughly classified into five level one categories: **1 Previous experience; 2 Challenging experience in First Year Undergraduate study; 3 Students coping strategies; 4 Intervening conditions; 5 Consequent first year undergraduate achievement.** However,

during the interviews, the interviewees constantly mentioned the change of their emotions in their university experience and related their achievements to their previous experience and expectation. Some mention it as one of their achievements; while some refer to it while discussing their challenging experience. Therefore, I list it as a level 1 category named **emotional response** for the time being as I can't see the best category to classify it into at the moment.

Level 1 category: Challenging experience in First Year (FY) Undergraduate study

Challenging experience is the starting point of FY undergraduate achievement-making process. It does not necessarily mean negative experiences. Challenging experiences here refers to the experiences which makes students feel difficult and requires hard work and efforts to cope with. They are one type of the conditions forming the structure of achievement making phenomenon.

Level 1 category: Consequent FY undergraduate achievements

This category consists of the outcomes of action and interactions in FY undergraduates' achievement making process.

Level 1 category: Students coping strategies

Coping strategies students adopt in action and interaction to respond to challenging experiences

Level 1 category: Intervening conditions

The circumstances or factors which affect students' decision in the employment of various coping strategies and shape the effects of the strategies being adopted

Level 1 category: Previous experience

The category consists of the situations the students were in prior to starting HE. They are a set of causal conditions related to students' challenging experiences in FY study.

Level 1 Category: Emotional response

Memo 8 Challenging experience in FYundergraduate study

19/02/08

According to the node reappearance frequency during initial coding, ***Level 1 category: Challenging experience in First Year (FY) Undergraduate study*** has 4 properties. They are: 1 Academic integration; 2 settling in new environment; 3 self organization and management; 4 speaking English as a second language. Although there are only less than 50% of the interviewees refer to the third and the fourth property while discussing the challenging experience in their FY undergraduate study, their significance were still revealed by the times they were referred to by individual interviewee. Besides, two out of three interviewees who are international students pointed out that language or speaking English as a second language was the most challenging experience at

the start of their university life. Therefore, I keep these two properties for the time being and will further explore their significance in the next round of interviews.

Academic integration

Interviewees described the difficulties they experienced in taking exams, understanding lectures, handing in assignment and so on. In other words, the challenging experiences they had in academic integration after starting HE. The examples are:

S2: I found my first test difficult. I had my test in infection and immunity. And I wasn't sure what to expect with the layout of the exam and what was needed. So sitting in was my first, it was difficult.

S3: Like the way that I have never write an essay before. The essay was so different for me. I wrote a report before. But every school has different style. Those were quite difficult for me.

S5: For example in chemistry, they go on about valency, and it's coming up with all these different ways to figure it out. All I have to do is to swaps all these around. That's it. But they come up with all these things. It just makes all these complicated. I don't know. They don't give proper definitions. And if we do get the definitions, it's in a complex context, you know what I mean.

The academic integration property varies from the dimension of *unfamiliar teaching, learning and assessment strategies to unclear instructions*. On the end of *unfamiliar teaching, learning and assessment strategies*, interviewees get confused by the T&L strategies which are different from the ones they were used to in their previous academic experience. Comments reflecting unfamiliar teaching, learning and assessment strategies related academic integration challenge are:

S2: I was like what do they want from me? because I am used to be told the title and.. because I was taught differently. I was given the title. I have to find my own sources and write my own essay. And that's how I had to do it. But now we were given the sources and I have to do everything else on my own. And I find that confusing.

S4: No. I think because I am used to teachers writing reports about me rather than me writing about myself. For I am used to based on other people saying rather than what I say about myself. So I don't know.

On the other end of this dimension, interviewees complained about the difficulties in academic integration resulted from unclear instruction. For example,

S3: The way he is teaching is so difficult. Until now everybody find it difficult because of the way of teaching. But we have two of the lecturers. The other one

was ok.

S6: You're just not told as clearly what they want you to do.

Settling in new environment

The interviewees described the challenging experiences of remembering all the new information during the first two weeks, settling in and get everyday to run at the beginning, as well as the confusing and scaring feeling caused by not knowing what to expect in this new environment. Actually, I am not sure whether this property has been labelled properly because Tinto's social integration might be a better one. I need to go for a double-check. Anyway, this category can be defined as interviewees' challenging experience of familiarizing themselves with non-academic aspects of HE. Examples of this property are:

Student 1: always the new informations. The first two weeks, new information all the time and you need to remember it all.

Student 2: The first couple of weeks. Because finding your timetable and then finding the rooms, trying to remember which room you were in last week. I find that all confusing. Because it is larger complex than my six form was.

Student 7: It's like I knew what to expect from lecturers in Poland but I didn't know what to expect from them in here. What they expect from us, from the students. So I was a bit scared for the first few weeks. Because I didn't know what to do and where to go and...

The interviewees' statements indicate two dimensions in the property of Settling in new environment. On one end of the dimension, the interviewees described the overwhelmed feeling by trying to familiarising themselves with the new environment in a short period of time. They pointed out the necessity and advantages of having an easy start in academic work in First Year HE. This is because HE does not only consist of academic study. They also need time and energy to deal with the new start of non-academic aspects HE, which include knowing the administration side of the institution, getting their daily life to run and so on. The statements reflecting this dimension are:

Interviewer: So you think, have less essay to hand in and have less work to do make you feel easy to start; make you feel comfortable at the start, at the beginning?

S1: Yes. And it gave me...because it was difficult. There was more to settle, to set and get all the everyday to run. We have to buy food, register a doctors and stuff like that. And I have much energy to cope with that.

S7: So I was a bit scared for the first few weeks. Because I didn't know what to do and where to go and...

However, some interviewees still gave positive comments to having all the new information at the beginning though it was a challenge for remembering them all within a short period of time. For example, Student 1 said '*At the beginning I was very nervous but excited. But I think people are very good to give all the information.*' Therefore, it might be appropriate to say challenging experience wouldn't stop students making achievement as long as they understand they will benefit from it.

Complex procedure or confusing information emerges as the other end of the dimension. For example,

S2: The first couple of weeks. Because finding your timetable and then finding the rooms, trying to remember which room you were in last week. I find that all confusing. Because it is larger complex than my six form was.

S4: I think because at school and college, handing in course work is a lot easy to just hand in directly to the lecturer who is teaching you or who is presenting the course work. So I wasn't quite used to the whole office thing of filling in the form and writing down course code or getting it stapled and stamped. So at first I didn't know where the office was to do that. So that was a bit confusing as well.

The observation I did during the sample students' induction week support this dimension of the property. The timetable and location for activities kept changing in the last minute which could be very frustrating for the new students, especially when they missed some of the sessions because of it. Was it going to affect their self confidence or their commitment to the university in their following study? This needs further exploration.

Self organization and management

While describing their difficult experiences during the first semester, some interviewees expressed that trying to get motivated or focused and well-organized was a challenging experience. *Self organization and management* can be defined as the challenging experience due to the lack of certain self-relating study skills. It ranges from *getting oneself motivated* to *finding time to do the work*. For example,

S5: I am not a very motivated person. It's like when I do my course work, I sit there and because you have to use internet, I'll be tackling around the internet before I even think about doing my work.

S5: Yeah. I found it hard to do both. Because I either can study and not cleaning up or cleaning up and can not study ... So I am trying to get all together. Get myself organized.

S7: But it was not very...It's like.. but for example, for the first month, I didn't have time for anything, like for studying, like I couldn't manage my time.

Speaking English as a second language

At first, I was not sure whether to list it as an individual property or to include it into the property of *academic integration*. After reading the transcripts several times, I have a very strong feeling that it is too significant to be merged into the property of academic integration and also the challenge presented by Speaking English as a second language does not limited to academic integration.

Memo 9 Using focused coding

26/02/08

While developing the tree nodes, I find it hard to sort out the free nodes and categorize them neatly into Strauss and Corbin (1998)'s axial coding organizing scheme. I feel my data analysis process is constrained by the rigid categories. It might worth trying Charmaz (2006)'s focused coding method at this stage to follow the lead of data.

Memo 10 Getting out what you want

01/03/08

Getting out what you want is a powerful analytical focused code. Various definitions have been given to FY achievement. Some defined it as specific outcomes; while others defined it at an abstract level. However, at both concrete and abstract levels, they seemed to have been related to personal goals.

Memo 11 Making academic, social and personal development achievement

01/03/08

A range of FY achievements have been reported by the interviewees. They can be classified into making academic achievement, making social achievement and making personal achievement.

Making academic achievement includes Getting A grade, Learning practical skills, Passing the exams, Progressing onto the second year, understanding subject knowledge, etc.

Making social achievement includes Making friends, having a good time, developing social skills, etc.

Making personal development achievement includes Improving self discipline, Developing personal capability like being independent, enhancing confidence and motivation, etc.

What about feeling comfortable and knowing about the university? It seems students took it as a type of achievement???

When identifying achievement, the interviewees related to previous academic experience and previous non academic experience. Some of them also relate it to their reason of coming to university. So it seems like an evaluation process. If it is an evaluation process, what are the criteria? Is there any level differentiation?

01/07/08

The second round of interviews confirms that there are criteria when students identify FY achievements and they can be classified into different levels. For

example, students tend to rank achievement based on their assessment grades. However, the external criteria are not the only evaluation criteria take by students. Some students' evaluate criteria are very personal and subjective. Their criteria relate to pre uni experience and the FY experience they went through, for instance, their personal circumstances and the effort they put in. For example, students identify certain grades as their FY achievement due to their self expectation drawing on previous academic experience; while some students evaluate their FY achievement based on the extent to which they have been intellectually challenged.

Memo 12 Coping with difficult experience

06/03/08

Coping with difficult experiences could be a level 1 category, including identifying difficulties, coping strategies and coping outcomes.

01/04/08

There are also different patterns of coping: Being passive, Being reactive to Being strategic

29/06/08

Coping with difficult experience is not the only pattern of coping in FY HE. Students also need daily coping to deal with routines which are not necessarily difficult.

30/06/08

Actually, the Problem solving activities are part of the process of coping with FY HE. The occurrence of problem solving activities starts from identifying problematic situation. For example, being an international students may results in identifying speaking English as a second language as a problematic situation; while being taught in different ways previously may find teaching and learning strategies in HE are difficult. After identifying the problematic situation, students assess the nature of the problem (e.g. layman or technical), the availability and quality of the coping resources (e.g. tutors or fellow students), and the coping strategy options (e.g. cracking on by oneself or asking others).

15/07/08

Evaluating is another property of Problem solving activities. Problems are not always solved successfully. Students evaluate the results of problem solving activities. If they are not happy with the result, they may either leave it or go through the problem solving activities again by reanalysing the situation and or adopting an alternative strategy. Besides, they also evaluate the strategies being used in the problem solving activities.

Memo 13 Identifying difficulties

06/03/08

Institutional experience: unclear instruction/inefficient academic support

Personal experience: Previous academic experience and family duties. (I should have more mature students to explore this point.)

Go to Memo 8

Memo 14 Coping Patterns

01/04/08

Some student cope with FY HE passively, only doing what have been told to do; while some cope with FY HE in a reactive manner, being stimulated by external surroundings and forcing no control onto the situation, no or less comprehensive analysis and no well defined goal before action as well as initiating action randomly; the rest are strategic in coping with FY HE and try to enforce subjective control to the situation, more comprehensive analysis and well defined goal before action as well as initiating action based on plan;

29/06/08

Previously I have presented patterns of coping on a continuum dimensioned from Being passive, Being reactive to Being strategic. However, after re examining the interview transcripts, I think there is a personal bias in the three categories previously being drawn. For example, 'Doing what been told to do' is not necessarily passive. Almost all the FY undergraduate follow uni staff's instruction to cope with HE. Being passive or strategic is better to be taken as an overall attitude or route through the FY HE rather than being used to present the pattern of specific coping process. Therefore, the subcategories under Patterns of coping have been decided to change into ROUTINE ACTIVITIES, comprising coping strategies like 'Going to lectures' and 'Revising' etc. and PROBLEM SOLVING ACTIVITIES, containing 'Asking', 'Self studying' and so on. The patterns of coping differentiate themselves according to the level of challenges. PROBLEM SOLVING ACTIVITIES take place as part of the consequence of ROUTINE ACTIVITIES and deal with higher level of challenges.

Memo 15 Routine activities

29/06/08

ATTENDING COMPULSORY OR OPTIONAL INSTITUTION SESSIONS means Going to Induction sessions; Going to lectures, workshops, seminars and tutorials; Sitting in examinations. By attending compulsory or optional institution sessions, students fulfil course attendance requirement, are informed of institution regulations and module requirements, have opportunities to interact with staff, learn subject knowledge and know other students. By learning about the institution and the subject knowledge, sitting in the examinations and interacting with other students, students may have positive feelings and get pass or A grade in examinations, improve practical skills, make friends with fellow students, settling in university life and improve personal skills. During the process of attending compulsory or optional institution sessions, students may identify problematic situations and difficulties which need to be get out of. This process may also generate students' negative feelings like feeling lost due to the impact of some intervening factors. These negative feelings could lead to failing in interaction or learning or even being absent in the future sessions.

SOCIALIZING here means Participating in various social activities during the FY

HE and going out or interacting with others. By participating in various social activities, students meet new people and have the opportunity to talk to them. By talking to others, they may have positive feeling while getting information and exchanging knowledge. They make social achievement during this socializing process, such as making friends and developing social skills. During the process of socializing, students may identify problematic situations or situations they want to improve. It may also generate students' negative feelings due to the impact of some intervening factors, such as personal character. These negative feelings could lead to being absent in future socializing activities.

SELF STUDYING here as a category refers to the initial stage of some general activity of learning, such as doing what they are asked, doing homework, revising after lectures, revising for exams and previewing before lecture and so on. By doing self study, students clarify their ideas and assimilate knowledge. Through doing self study, they make academic achievement and make personal development achievement.

Memo 16 Adopting coping strategies

06/03/08

Coping strategies refers to various strategies adopted by the students to cope with day-to-day FY undergraduate experience. Further explore the conditions of students' adopting various coping strategies.

13/07/08

DEALING WITH SELF IDENTIFIED DIFFICULTIES is the next level of coping strategies to cope with higher level of challenges compared to situations where GETTING INVOLVED is adopted. Students identify more specific and sever challenges while GETTING INVOLVED, which arouse difficult feelings emotionally and therefore subsequent coping activities are conducted to help themselves complete FY HE. These coping activities are Collaborating, Asking, Practising, Rethinking, Reorganizing oneself, Referring to information resources and Having a break.

29/07/08

Students identify more specific and sever challenges while getting involved in daily activities, which arouse difficult feelings emotionally and therefore subsequent coping activities are conducted to help themselves complete FY HE. These coping activities are Collaborating, Asking, Practising, Rethinking, Reorganizing oneself, Referring to information resources and Having a break. Maybe I should change the label of coping activities to Coping strategies, which might be used as a subcategory to classify the specific coping activities in the future. The coping strategies dimensions from Seeking external help to Being self reliant.

Memo 17 Evaluating coping process consequence

01/07/08

Each round of coping process generates a consequence, which either reaches students' satisfaction or fails to reach students' satisfaction. Students decide

what to do next base on their evaluation of the consequences.

Memo 18 Having an easy start

06/03/08

Having an easy start means course work is broken into small pieces to make it easy to take in and having less workload. Students feel less stressed when having an easy start because they have time to familiarize themselves with the new life and learning environment. It positively contributes to their self confidence and generates positive emotional response.

Memo 19 Having intensive course structure and heavy workload

01/07/08

Having intensive course structure and heavy workload

Having intensive course structure and big workload prevent students socialize with fellow students. It negatively contribute to their social achievement and generate negative emotional response from those students who perceive socializing is FY achievement.

Memo 20 Being provided learning environment and learning resources

06/03/08

Well equipped learning environment and learning resources enable students' academic achievement. For example, the interviewees mentioned books in learning centre helped them with self study and virtual learning environment like WOLF also significantly contribute to their settling in the new environment. On the contrary, lecture theatre seems to fail in keeping students engaged in lectures.

Memo 21 Being supported

06/03/08

Being supported means students being provided answers to their questions and emotional connection to staff, fellow students and family members. It takes place in various HE activities like induction and particularly when students seek help to solve problems.

20/06/08

The availability and accessibility of support affect students' inclination in of seeking external help.

01/07/08

I should divide this node into two parallel nodes: support and relationship. There are deeper and ongoing relationships existing in FY experience, which is different from Support embedded in immediate interaction.

Memo 22 Interpersonal relationship

There are positive and negative interpersonal relationships. Relationships which are supportive and friendly generate positive feelings and ease the students achievement making process.

Memo 23 Being taught effectively

06//03/08

Academic teaching affects students' academic achievement. Good teaching gives students directions for study, positively contribute to students' academic achievement and generate positive emotional response. However, ineffective teaching inhibit students from understanding the knowledge and generate negative emotional response. What are good teaching and what are ineffective teaching? Further study needed.

01/07/08

Effective teaching is detailed, informative and simulating.

Ineffective teaching is lacking interaction between staff and students.

Memo 24 Staying at home/leaving away from home

02/07/08

Accommodation emerges as a factor impacting FY undergraduate achievement. Staying at home means spending time in travelling and being geographically far from staff and fellow students. It may generate students' negative emotional response because they normally go home right after uni which results in less social achievement when it is valued. While leaving away from home means not only more socializing opportunities with fellow students, but also it challenges students to become independent, one of the personal development achievement in students' perception.

Memo25 Having sound subject background

06/03/08

Having sound subject background means finding the subject knowledge have been previously covered, which makes students feel less stressful in FY HE. It helps students settle in. Students with sound subject background are more likely to feel FY HE is easy than those lacking relevant subject background.

Memo 26 Being intrinsically/extrinsically motivated

06/03/08

Being motivated means having the motivation to involve in certain activities. The intrinsic motivation includes genuine interest to the subject knowledge, socializing with other people and self actualization. While extrinsic motivation comes from pressure and sense of responsibility.

07/07/08

Students are also motivated by expectation of benefit or reward.

Memo 27 Being good at organization and time management skills

06/03/08

Being good at organization skills means being able to carry out several tasks at the same time. Without good organization and time management skills, students feel overwhelmed by tasks and hard to keep up with deadlines.

07/07/08

Being good at organization and time management skills is especially important to mature students. It helps them fulfil their social identify as parent or daughter while being a full time student in university.

Memo 28 Being open/Being shy

10/03/08

Being open means initiating conversation to others. It help students seek information and make friends, which contributes positively to solving problems and making social achievement. While being shy prevent students from seeking external help from others.

01/07/08

Being shy also prevent students from making social achievement as students who are shy tend to feel hard to talk to people.

Memo 29 Being used to

07/07/08

Being used to means sticking to a usual or normal way to doing things. Students' initial coping strategy to a situation tend to be the one they are used to.

Memo 30 Contextual/ Intervening conditions

11/07/08

CONTEXTUAL FIRST YEAR HIGHER EDUCATION EXPERIENCE is a Level 1 category, referring to the context within which the FY undergraduates' achievements are made. This contextual experience broadly consists of three parts, namely **Institutional experience, Personal life experience and Pre-uni experience**. The actual experiences from these three aspects provide a context with which the individual undergraduate interacts and a base on which he or she interpret and construct the new experience.

12/07/08

Different from other GT studies which explicit boundaries among causal conditions, contextual conditions and intervening conditions, analysis from my study shows no definite difference among these conditions. All the experience plays different roles at various stages for different individual students experience different challenging experience. For example, 'Time table' could be referred as a causal condition for students feeling difficult to make social achievement; Meanwhile, it might also be an intervening conditions for this students when he tries cope with the challenge to make more social achievement. Therefore, I would code all the conditions which shape the students' achievement making process into one category, namely CONTEXTUAL FY HE EXPERIENCE

16/07/08

CONTEXTUAL FY HE EXPERIENCE can be dimensioned from completely NEGATIVE to completely POSITIVE experience according to its influence to the students' self identified FY achievement making process. For example, efficient teaching and easy access to staff are completely positive experience, though the particular criteria for efficiency and accessibility might be slightly different among the students' due to individual student's previous experience.

Memo 31 The Self

20/07/08

Maybe the category of 'Self', which was initially integrated as a subcategory into the level 1 category of CONTEXTUAL FY HE EXPERIENCE, should be separated out as a Level 1 category. This is because the 'SELF' keeps emerging during the analysis process as such a significant role thorough out the whole process that it can't help to be kept quiet as a subcategory under the category of CONTEXTUAL FY HE EXPERIENCE.

29/07/08

CONSTANTLY CHANGING is an important nature of the 'Self' in individual student. It means the properties of the 'Self', such as a student's confidence, expectation, academic knowledge and personal outlook, are not static. They keeps evolving all the way though the student's FY HE and the evolvment itself have a great impact on the student's coping process.

As a matter of fact, it would be interesting to know how changes in the 'Self' take place during the coping process.???

30/07/08

The 'Self' is actually similar to the other two categories, 'Institution experience' and 'Personal life experience', which are actually intervening conditions to the students' FY undergraduate experience. However, I still feel the 'Self' should be separate from those two due to its significance to the whole coping process. It does not just intervene the process. It is actually guiding the whole process. This is because 'human being directs his action by making indications to himself

Memo 32 Emotional response

03/03/08

Students' emotional response to FY HE experience ranges from Positive, Neutral to negative. However, it seems Easy does not equal to Positive; while Difficult does not equal to Negative. Further exploration needed.

18/03/08

EMOTIONAL RESPONSE appears as a result of the interaction between individual student and his or her external environment. Broadly, EMOTIONAL RESPONSE can be classified into two dimensions: Easy Feeling and Difficult Feeling. Both Easy Feeling and Difficult Feeling moves on a continuum ranging from positive to negative. For example, Easy Feeling can be quite negative as the students may feel they have not been challenged enough to make achievement though most of the time Easy Feeling indicate a feeling of satisfaction; While Difficult Feeling does not necessarily means feeling negative as students can feel being challenged in an interesting way, which is positive to their process in HE.

Constantly Changing, as a property of EMOTIONAL RESPONSE, means FY undergraduates' emotional feeling to HE experience keeps changing throughout the year. Rather than being static, the FY undergraduates' feeling to HE is a constant moving process, which reveals the impact of intervening context on the

students. The Constantly Changing process can move towards a positive direction or a negative direction. For example, a student may feel difficult during the first two weeks as there are so much new information to deal with. However, this initial Difficult Feeling may move towards the Positive end and change into an Easy Feeling by the end of the first semester as he or she has got used to the new environment with the help from staff and fellow students.

Memo 33 Perspectives of FY undergraduate achievement

13/07/08

CRITERIA AND LEVEL OF ACHIEVEMENT can be viewed as two properties of achievement. They respectively range from personal value and social value and rank from low level achievement to high level achievement.

17/07/08

TYPE OF ACHIEVEMENT is another property of achievement. As a subcategory, it has three properties: Academic, Social and Personal achievements. SOCIAL ACHIEVEMENT together with other achievement move on a dimension continuum from absent to high level achievement. For example, an individual student's perception of HE and their accommodation status might work together and result in the absence of social achievement in this student's HE experience.

29/07/08

SETTLING IN seems to be another property of achievement type, in addition to academic, social and personal achievement. SETTLING IN dimensions from 'Getting used to' to 'Feeling comfortable', both of which resulted from the coping interaction

20/08/08

FY achievements mentioned by the interviewees can be classified into 4 types: Settling in, Academic achievement, Social achievement, and Personal development achievement. Most of the achievements also range from low level to high levels. The achievement evaluation criteria move between two dimensions, namely social and personal criteria. This category represents the interviewees' perspectives of FY undergraduate achievement and is therefore decided to be named as Perspectives of FY undergraduate achievement. It is embodied in students' various personal aim in FY HE and is a framework against which they evaluating FY experience outcomes.

Memo 34 Involving oneself into HE

29/06/2008

COPING WITH SELF IDENTIFIED CHALLENGES Making achievement in FY HE is a coping process, coping with self identified challenges. Coping with self identified challenges is a level one category containing the Repertoire of coping strategies and Patterns of coping. Repertoire of coping strategies as a category contains the various strategies being employed by the students to cope with day-to-day FY undergraduate experience to achieve FY undergraduate study; while patterns of coping can be differentiated into two sub categories: 1 Daily

coping, and 2 coping with self identified difficulties

02/07/08

COPING STRATEGIES AND ACTIVITIES is a temporary category being modified. Eventually I think the STRATEGIES should be separated from the ACTIVITIES. However, at the moment including them at the same category is helping me to get my mind around the messy details in coping stages.

23/07/08

There are two properties in Patterns of Coping: 1) Getting Involved in Daily Routine; and 2) Dealing With Self-identified Difficulties..

Getting Involved in Daily Routine means students involve themselves in daily activities which may enhance the possibility of them completing FY HE with personal satisfaction. It includes *Attending Compulsory or Optional Institution Sessions*, such as Lectures, Tutorials, Examinations and so on; *Socializing*; *Previewing and Revising*.

As refined in the memo of Dimension of Patterns of Coping Strategies, this pattern of coping, Getting Involved in Daily Routine, has three dimensions: 1) Being Absent; 2) Random Coping; and 3) Strategic Coping.

1) Being Absent means students are not Getting Involved in Daily Routine and don't attend the daily activities either deliberately or randomly. Students may not *Attending Compulsory or Optional Institution Sessions*, such as Lectures, Tutorials, Examinations and so on; *Socializing*; *Previewing and Revising* due to various reasons. For example, they may assume no benefit in attending certain lectures or be put off to attend by inefficient teaching strategies; They may not complete their homework in time as they couldn't find time to do it; And in some occasions, students choose not to socialize actively because they conceive academic study is the main reason for his coming to HE. Most of the time, Being Absent result in Difficult Feelings, from feeling challenged to feeling negative.

2) Random Coping refers to students are Getting Involved in Daily Routine with no definite aim or specific plan. They *present* in the *Attending Compulsory or Optional Institution Sessions*, such as Lectures, Tutorials, Examinations and so on; *Socializing*; and *Doing Self study*, such as *Previewing and Revising*. However, they don't clearly understand what the specific reasons are for *Presenting or Doing*. During the process of Getting Involved in Daily Routines, they are either *Being Engaged* or *Being Disengaged* influenced by the intervening conditions. As having no definite aims in this pattern of coping, students are easily Feeling Difficult and won't *Involve Themselves* once they can't be engaged in the activities. However, if students are *Being Engaged* in the activities, which means they are attracted and their interests are kept, they are more likely to *Involve Themselves* and Feel Easy to Follow. However, no matter students are *Being Engaged or Not or Being Involved*, it is possible for them to have Difficult Feeling as emotional response though *Being DisEngaged*

is more likely lead to Feeling Negative while the rest normally result in Feeling Challenged.

3) Strategic Coping means students are Getting Involved in Daily Routine with clear aim or specific plan. They *Present* in the *Attending Compulsory or Optional Institution Sessions*, such as Lectures, Tutorials, Exams and so on; *Socializing*; and *Doing Self study, such as Previewing and Revising*. And they understand clearly what the specific reasons are for *Presenting or Doing*. During the process of Getting Involved in Daily Routines, they are either *Being Engaged* or *Being Disengaged* influenced by the intervening conditions. However, in this pattern of coping, students are more easier to *Be Engaged* as they know what exactly they want to get out of the activities. Besides, as having clear aims in this pattern of coping, students are more likely to actively *Involve Themselves* even though they are *Being Disengaged*. They may Feeling Difficult when *Being Disengaged*. But they may motivate themselves to get involved anyway. As in this pattern, students are more *engaged and involved*; they can Feel rather Positive to the overall involving experience though they may still Feeling Challenged due to the challenging nature of HE itself or Feeling Negative as a result of *Being Disengaged*

28/07/08

Solving Self-identified Difficulties is the other Pattern of coping process. Emotional Response emerged as a consequence of Getting Involved in Daily Routine. Difficult feeling as one dimension of Emotional Response, calls for subsequent coping activities to solve students' self-identified problems and enable them to complete FY HE with personal satisfaction. These coping activities range from Being Self-reliant to Seeking External Help.

28/07/08

SELF-IDENTIFIED CHALLENGES are the experience which are identified by individual FY undergraduates as the start of their achievement making process either implicitly or explicitly. Different from negative experience which put students off and preventing them from making achievement, the challenges are the experiences which need students to put efforts in to make improvement. However, individual students identify different challenges due to the interaction of influential factors with the contextual experience.

29/07/08

This category need to be refined and redefined. Some of the proposition being claimed here are seriously personal biased. One question for further modification: Is self-identified challenge a situation or a phenomena, which students' need to cope with????

Actually, FY HE itself is a challenge, a phenomenon which undergraduates are coping with. The self identified difficulties can be viewed as different properties of the overarching phenomena. They embody the challenging nature of FY HE as specific difficulties encountered by the students. If this proposition is appropriate, the other conditions such as 'Effective teaching' could be viewed as intervening conditions which increase students' chance to achieve FY undergraduate study with personal satisfaction. (Institution should try to

increase students coping strategy repertoire)

How these problems have been formed?????(Institution+Self+Personal experience)

What's the aim of HE??? What abilities is it supposed to challenge students? Shall I classify all these challenges as phenomena and the others such as effective teaching and home duties as intervening conditions????

To answer the above questions, I have reconsidered the way in which data have been categorized. Actually, if FY HE itself is a challenge which undergraduates are coping with, the aim of HE and what challenges it is supposed to put onto students constitute the Phenomena, the FY HE study, should be taken into consideration, for example, the understanding of new knowledge and the ability to be self reliant. If this is the case, it means all the other institution provisions, such as teaching strategies and social experience as well as the personal life experience are actually the intervention conditions which facilitate or prevent student from coping with the challenges successfully and get what they want from the FY HE. And maybe this is the same case with the 'self', which should also be taken as intervening conditions. Students initially employ daily routines to cope with the challenges and due to the intervening conditions, which increase or decrease the level of challenges, either difficult feeling or easier feeling has been generated. As reaction responding to the feeling generated, problem solving strategies or same routine strategies are being taken afterwards.

29/07/08

Considering the responsive nature of the emergence of emotion, I think it is more appropriate to include emotional response as part of the coping process rather than make it as a separate level one category. For example, the emotion of feeling complex emerged as a result of the interaction between students' previous academic background and current institution provision. It exists among the coping process as a consequence of the first pattern of coping or the initial coping stage.

Memo 35 Influential factors

20/07/08

This category should be divided into two categories: Context conditions and Intervening conditions. After rethinking the contents coded within its sub categories, I think combining all them together into category has made it more difficult to present the process of students achieving first year undergraduate study. For example, by saying context condition, it should be taken as neutral or factual, recording what is out there; while by saying intervening condition, it indicate things like 'providing enough information' or 'effective teaching strategies', the nature of which is partly determined by the students and perceived by the students as encouraging them achieving HE or preventing them achieving HE. Or I should define the concepts themselves as the context conditions and their various dimensions as intervening conditions????

29/07/08

Or shall I classify SELF IDENTIFIED CHALLENGES as intervening conditions because they prevent students completing FY undergraduate study, when completing FY undergraduate study is viewed as a whole phenomena of challenge?????

31/07/08

Today, I have worked out the difference between contextual conditions and intervening conditions in the memo 'Getting out what you want from FY HE'. Therefore the name of the category have been changed into 'Intervening conditions'. Now here comes the issue of dimension of intervening conditions. I think there are two options in classifying intervening conditions: the first one is classifying them into two property subcategories: Facilitating conditions and Preventing conditions; the second way is to classifying them into institution, social and 'Self'. I am more inclined to the second way at the moment as it is easier for me to present the critical elements in the diagram. However, no matter which way I choose, the actual dimensions could no longer to be superficially divided into positive or negative. They should be differentiated one by one.

Memo 36 Coping consequences

29/07/08

This consequence category has been decided to be labelled as FY ACHIEVEMENTs rather than SELF IDENTIFIED FY ACHIEVEMENT. This is because as a general category containing every single important consequences in students' succeeding coping interactions, it includes not only the consequences being identified by the undergraduates as their FY achievement, but also the changes or improvements which have been neglected or ignored by students for various reason. As a matter of fact, the status of achieving FY HE can be presented as completing FY undergraduate study with various level of personal satisfaction. Therefore, some succeeding consequences from coping interaction might have not been aware of by students as they might not be high up to their satisfaction. However, every single achievements made by undergraduates during their FY HE does contribute to the change in self and hence the subsequent interaction step by step, which means they should have been classified into a category labelled as FY achievement rather than self identified FY achievement.

09/08/08

This category has been redefined again and labelled as COPING CONSEQUENCES. Resulting from COPING WIHT FY HE, Coping Consequences can be broadly classified into two dimensions: Underachievement and Achievmenet. All of the Four Properties of Consequences move between these two dimensions. Take *Social Achievement* as an example, students consider themselves as underachievers in terms of social life because they have not been provided enough opportunities to socialize with fellow students; Another example might be students think Inefficient Teaching Strategies make them Disengaged, which prevent them to achieve as much as they can in terms of *Academic Study*. Hence the

consequence of Underachievement in *Academic Study*.

According to the students' comments, through repetitive COPING WITH FY HE and the accumulation of the Coping Consequences, Undergraduates achieve their FY HE either in the form of Completing with Personal Satisfaction or Completing without Personal Satisfaction. It concerns two evaluating criteria: Personal Value and Social Value.

Memo 37 Getting out what you want from FY HE

29/07/2008

GETTING OUT WHAT YOU WANT FROM FY HE is an Invivo code which used by one of the interviewee to define achievement. After reviewing the interview transcripts, I think it could be taken as an overarching category to represent the whole achievement making process of FY undergraduates.

GETTING OUT WHAT YOU WANT FROM FY HE acknowledges the active role of 'self' in students' achievement making process. It identifies the self constructed nature or personal nature of challenging experiences and FY achievement as well as the self guidance nature of the students' coping process

The words and phrases in the label of GETTING OUT WHAT YOU WANT FROM FY HE stand for the four key elements in the FY undergraduates' achievement making process:

i) GETTING OUT: the constant coping process which consists of Patterns of coping-----Routine & Problem solving; Stages of coping; Coping strategies; Stages of coping: Being challenged (Identifying the challenge): Absence of challenging feeling- Feeling being seriously challenged; Analysing the situation (setting up goals): Simple analysis- Comprehensive analysis; Adopting a coping strategy(Drawing up action plan and acting based on plan): Internal-External ; Evaluating the strategies: Ineffective- Effective

Feeling difficult is part of the emotional response in FY HE experience. It coexists with the other emotional feelings like feeling positive and irritating. Feeling difficult could be converted into positive feeling about oneself, which could be the emotional response to achievement or negative feeling about oneself, which results from underachievement through interaction with intervening conditions. Intervening conditions, such as Effective teaching or inefficient staff support could generate positive or negative feeling about FY HE experience.

ii) WHAT: the consequence or achievements

iii)YOU WANT: the constant changing self in terms of expectation, knowledge and so on and the self constructed and guiding nature of the whole process

- Students work toward what they expect to achieve
- Students expect what to achieve based on their perception of themselves and the FY study in HE
- Students is more likely to aware of the achievements which they work hard to get.

- iv) FROM FY HE: the contextual and intervening conditions.
- Information imparting style, e.g. teaching strategies and lecture venues
 - The availability of resources
 - Previous academic background
 - Personal characters, e.g. self confidence, being a shy person and so on
 - Personal organization and time management skills being possessed

04/08/08

Relationship 1 (From Category 1 to Category 4): Assessing FY experience outcome

Relationship 2 (From Category 4 to Category 1): Resetting personal aims

Relationship 3 (From Category 1 to Category 2): Selective involving

Relationship 4 (From Category 2 to Category 1): Assessing FY experience outcome

Relationship 5 (From Category 3 to Category 1): Setting personal goals

Relationship 6 (From Category 3 to Category 2): Easing or deferring involvement

Relationship 7 (From Category 2 to Category 4): FY experience outcomes

30/08/2008

Fulfilling one's aims in FY HE should be used to replace **Getting out what you want from FY HE**. It captures the essence of FY undergraduate achievement in students' perception and serves as the core category which weaves other major categories together. FY undergraduates enter HE with **perspectives of FY achievement in HE (Category 1)**, which embodied by various personal aims. Guided by these perspectives, they **involve themselves in HE (Category 2)** to fulfil the aims. Students' personal aims and involvement process are influenced by a range of contextual and intervening conditions **(Category 3)**. A series of **FY experience outcomes (Category 4)** result from students' involvement process. These outcomes are then evaluated by students within their perspectives, with the consideration of involvement process and contextual and intervening conditions. Only those outcomes fulfils their aims are taken as achievement in their FY HE.

Appendix 7

Inferential Statistical Analysis on the Survey Data

Enlightened by the Grounded theory study findings, 12 questions have been formulated based on the descriptive statistical analysis results presented in Chapter 6. Cross-tabulations and two sample chi-square tests were computed on the following questions:

1. Is being unable to attend academic sessions associated with FY undergraduates' accommodation or dependants?
2. Is being unable to do much self study associated with FY undergraduates' accommodation or dependants?
3. Is FY undergraduates' socializing with fellow students or being unable to socialize associated with accommodation or dependants?
4. Is the type of difficulties experienced by FY undergraduates associated with student status, academic backgrounds or academic assessment results?
5. Is FY undergraduates' academic assessment results associated with having dependants?
6. Is FY undergraduates' academic assessment results associated with their academic background?
7. Is FY undergraduates' academic assessment results associated with their involvement in socializing with fellow students?
8. Is FY undergraduates' academic assessment results associated with their evaluation of academic achievement?
9. Is FY undergraduates' academic assessment results associated with their evaluation of personal development achievement?
10. Is socializing with fellow students associated with FY undergraduates' evaluation of social achievement?
11. Is socializing with fellow students associated with FY undergraduates' evaluation of personal development achievement?
12. Are FY undergraduates' evaluations of Personal development

achievement, academic achievement or social achievement associated with one another?

Due to the limited sample size, many of the cross-tabulations had empty cells or cells with less than 5. These cases violate the assumption of two sample chi-square test, which is that there should be no empty cells and that no more than 20% of the cells should be less than 5. However, among the above 12 questions, three of them produced 2×2 cross-tabulations, in which cases the ‘no less than 5 in any cell’ violation can be overcome by applying Yates’s continuity correction. Therefore, the analysis results of these three research questions are presented below.

In total, 120 questionnaires were returned in this survey, either fully or partly completed. Regard to the chi-square analysis presented below, the final number of respondents for each tests were less than 120 (Association1: n=106; Association 2: n=105; Association 3: n=109) because a number of respondents failed to answer the relevant questions.

Association 1: Socializing with others & Making social achievement

A two sample Chi-square was conducted to examine the association between *Socializing with others* (PII 9) and *Making social achievement* (PII 19). A significant association emerged ($\chi^2 = 17.27$; $df = 1$; $p = .001$). The vast majority of respondents saying ‘Yes’ to socializing with others also express that they have made social achievement in FY HE. Of those who answer ‘No’ to socializing with others, the proportion who say that they made social achievement is lower. (see Table A1).

| | | Making social achievement (PII 19) | | |
|-------------------------------|----------|------------------------------------|----|-------|
| | | Yes | No | Total |
| Socializing others (PII 9) | with Yes | 47 | 2 | 49 |
| | No | 34 | 23 | 57 |
| | Total | 81 | 25 | 106 |

Table A1: PII 9 & PII 19: Socializing with others & Making social achievement

Association 2: Socializing with others & Accommodation

As shown in Table A2, the majority of people who live off campus say ‘No’ to socializing with others. But the majority of people who live on campus say ‘Yes’ to socializing with others. This association has been examined by Chi-square test, which is significant ($\chi^2 = 6.79$; $df = 1$; $p = .009$)

| | | Accommodation (PI 4) | | |
|---------------------------------|-------|----------------------|------------|-------|
| | | On Campus | Off Campus | Total |
| Socializing with others (PII 9) | Yes | 13 | 34 | 47 |
| | No | 4 | 54 | 58 |
| | Total | 17 | 88 | 105 |

Table A2: PII 9 & PI 4 Socializing with others & Accommodation

Association 3: Academic grades & Making academic achievement

A two sample Chi-square was conducted to examine the association between *Academic grades* (PI 10) and *Making academic achievement* (PII 18). The result shows there is no association between these two variables ($\chi^2 = 0.037$; $df = 1$; $p = .847$). As shown in Table A3, the majority of respondents said ‘Yes’ to making academic achievement in FY HE, irrespective of whether they mostly obtained A or B or got C or D in academic assessment.

| | | Making academic achievement (PII 18) | | |
|-------------------------|--------|--------------------------------------|----|-------|
| | | Yes | No | Total |
| Academic grades (PI 10) | A or B | 54 | 7 | 61 |
| | C or D | 41 | 7 | 48 |
| | Total | 95 | 14 | 109 |

Table A 3: PI 10 & PII 18 Academic grades & Making academic achievement

Appendix 8

SPSS Analysis Results- Responses in Questionnaire Survey Part II

Table A4 shows the distribution patterns of conditions for the respondents' involvement into academic sessions.

| | | | |
|---------------------------------|-----------------|----------------|-----------------|
| Q1: Conditions for Attending | Only Applicable | Any Applicable | Most Applicable |
| A: Interest | 17.2% | 65.5% | 37.7% |
| B: Assessment | 23.3% | 71.5% | 52.6% |
| C: Teaching | 3.4% | 13.7% | 3.5% |
| D: No reason | 6.0% | 7.7% | 6.1% |
| Q2: Conditions for Enjoying | Only Applicable | Any Applicable | Most Applicable |
| A: Classroom facility | 8.5% | 49.6% | 22.1% |
| B: Teaching | 20.5% | 62.4% | 49.6% |
| C: Preview | 11.1% | 40.2% | 19.5% |
| D: No reason | 8.5% | 14.6% | 8.8% |
| Q3: Conditions for Not Enjoying | Only Applicable | Any Applicable | Most Applicable |
| A: Lecture theatre | 3.4% | 12.1% | 4.5% |
| B: Reading slides | 43.1% | 81.1% | 70.5% |
| C: Useless module content | 10.3% | 42.2% | 19.6% |
| D: No reason | 5.2% | 7.9% | 5.4% |
| Q4: Conditions for Involving | Only Applicable | Any Applicable | Most Applicable |
| A: Enjoying | 29.7% | 46.5% | 40.2% |
| B: All the time | 26.3% | 32.9% | 29.9% |
| C: Never | 8.5% | 13.4% | 17.9% |
| D: Mood | 13.6% | 31.3% | 11.1% |

| Q5: Conditions for Being Absent | Only Applicable | Any Applicable | Most Applicable |
|---------------------------------|-----------------|----------------|-----------------|
| A: Assessment | 3.5% | 12.3% | 4.4% |
| B: Teaching | 21.7% | 33.9% | 29.2% |
| C: Unable | 55.7% | 67.0% | 61.9% |
| D: No reason | 4.3% | 6.9% | 4.4% |

Table A4 Academic Sessions (n=120)

Table A5 presents the distribution pattern of conditions for the respondents involving themselves in self study during FY HE.

| Q6: Conditions for Doing Required Self Study | Only Applicable | Any Applicable | Most Applicable |
|--|-----------------|----------------|-----------------|
| A: Interest | 9.3% | 44.9% | 23.5% |
| B: Assessment | 28% | 78.1% | 52.2% |
| C: Lecture instruction | 5.1% | 42.4% | 17.4% |
| D: No reason | 1.7% | 6.8% | 7.0% |
| Q7: Conditions for Extra Self Study | Only Applicable | Any Applicable | Most Applicable |
| A: Interest | 5% | 38.6% | 12.4% |
| B: Aiming for better grade | 18.5% | 67.2% | 39.8% |
| C: Difficulties in understanding | 20.2% | 65.6% | 43.4% |
| D: No reason | 4.2% | 5% | 4.4% |
| Q8: Conditions for Not Doing Self Study | Only Applicable | Any Applicable | Most Applicable |
| A: Boring or too difficult | 20.5% | 38.5% | 31.3% |
| B: Aiming for pass | 11.1% | 28.3% | 20.9% |
| C: Unable | 27.4% | 42.9% | 31.3% |
| D: No reason | 14.5% | 18.9% | 15.7% |

Table A5 Self Study (n=120)

Table A6 describes the distribution pattern of the sample students' social involvement in their FY HE.

| Q9: Socializing | Most Applicable | | |
|-------------------------------------|-----------------|----------------|-----------------|
| A: Yes | 45% | | |
| B: No | 55% | | |
| Q9a: Conditions for Socializing | Only Applicable | Any Applicable | Most Applicable |
| A: Like | 23.7% | 79.6% | 35.7% |
| B: Benefit study | 16.9% | 69.4% | 57.1% |
| C: Being invited | 1.7% | 30.5% | 7.1% |
| D: No reason | 0% | 5.1% | 0% |
| Q9b: Conditions for Not Socializing | Only Applicable | Any Applicable | Most Applicable |
| A: Don't like | 14.5% | 21.6% | 17.9% |
| B: Commit to study | 5.8% | 17.2% | 10.4% |
| C: Shy | 7.2% | 27.3% | 17.9% |
| D: No chance or time | 17.4% | 34.6% | 26.9% |
| E: No reason | 24.6% | 27.4% | 23.9% |

Table A6 Socializing (n=120)

Table A7 presents the distribution pattern of the participants' responses in relation to self identified problems in FY HE experiences and their problem solving process.

| Q10: Difficulties | Only Applicable | Any Applicable | Most Applicable |
|---|-----------------|----------------|-----------------|
| A: Academic knowledge | 19.8% | 43.1% | 28.4% |
| B: Adjusting to HE | 33.6% | 62.1% | 49.5% |
| C: Lacking skills | 2.6% | 14.8% | 5.5% |
| D: Finance or personal | 8.6% | 23.4% | 15.6% |
| Q11: Conditions for Trying to Sort out Difficulties | Only Applicable | Any applicable | Most Applicable |
| A: Assessment | 13.9% | 46.1% | 28.4% |
| B: Improving understanding and skills | 17.4% | 53.9% | 36.7% |
| C: Achieving one's best | 19.1% | 55.6% | 27.5% |
| D: No reason | 6.1% | 7.8% | 7.3% |
| Q12: Conditions for Ignoring Difficulties | Only Applicable | Any applicable | Most Applicable |
| A: Assessment | 24.3% | 36.9% | 31.8% |
| B: Efforts against Focus | 16.2% | 27.0% | 20.9% |
| C: Thinking unsolvable | 18.9% | 28.8% | 20.9% |
| D: No reason | 23.4% | 28.8% | 24.5% |
| Q13: Conditions for Not Seeking External Help | Only Applicable | Any Applicable | Most Applicable |
| A: First thing coming to mind | 37.3% | 63.5% | 49.6% |
| B: Nature of difficulty | 13.6% | 38.1% | 27.0% |
| C: No external resources | 10.2% | 16.0% | 11.3% |
| D: Shy | 6.8% | 18.6% | 11.3% |
| Q14: Conditions for Seeking External Help | Only Applicable | Any Applicable | Most Applicable |

| | | | |
|--|-----------------|----------------|-----------------|
| A: First thing coming to mind | 4.3% | 20.6% | 8.9% |
| B: Nature of difficulties | 30.2% | 62.9% | 50.9% |
| C: Feeling unsolvable myself | 14.7% | 41.4% | 23.2% |
| D: External resources available | 12.1% | 20.7% | 13.4% |
| Q15: Conditions for Solving Problem to Satisfaction | Only Applicable | Any Applicable | Most Applicable |
| A: Analysis | 8.5% | 41.4% | 21.7% |
| B: Strategies | 18.6% | 55% | 33.9% |
| C: Problems were easy | 16.9% | 41.3% | 24.3% |
| D: Working hard | 10.2% | 34.7% | 20% |
| Q16: Conditions for Initial Failure in Solving Problems | Only Applicable | Any Applicable | Most Applicable |
| A: Analysis | 24.8% | 40.2% | 30.2% |
| B: Strategy | 17.9% | 30.8% | 25% |
| C: Problems need constant work | 10.3% | 23.2% | 15% |
| D: No reason | 26.5% | 34.3% | 29.3% |
| Q17: Conditions for Never Solving Problems to Satisfaction | Only Applicable | Any applicable | Most Applicable |
| A: Analysis | 23.3% | 37.2% | 29.6% |
| B: Strategy | 15.5% | 31% | 23.5% |
| C: Problem too challenging | 12.9% | 26.8% | 16.5% |
| D: No reason | 25.9% | 32.1% | 28.7% |

Table A7 Solving Self Identified Problems (n=120)

Table A8 shows the distribution pattern of respondents' perspectives of their FY achievements in HE.

| | | | |
|---|-----------------|----------------|-----------------|
| Q18: Academic Achievement | Most Applicable | | |
| A: Yes | 85.7% | | |
| B: No | 12.5% | | |
| Q18a: Condition for Academic Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: Passing assessment and grades | 23.6% | 70.6% | 50.5% |
| B: Improving academic skills and achieving full potential | 9.4% | 51.8% | 19.2% |
| C: Doing better than Expected | 6.6% | 33.8% | 15.2% |
| D: Improving subject knowledge | 4.7% | 41.4% | 13.1% |
| E: Other | | | |
| Q18b: Condition for Lacking Academic Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: Inefficient teaching | 25% | 40.5% | 37.5% |
| B: Not working hard | 31.2% | 49.8% | 37.5% |
| C: Low grades | 9.4% | 28.0% | 12.5% |
| D: Not fulfilling expectation | 6.2% | 24.8% | 9.4% |
| E: Other | | | |
| Q19: Social Achievement | Most Applicable | | |
| A: Yes | 76.6% | | |
| B: No | 23.4% | | |
| Q19a: Condition for Social Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: Friendly staff and student | 21.3% | 66.1% | 41.1% |
| B: Improving social skills | 7.4% | 42.6% | 13.3% |
| C: Low expectation in social achievement | 5.3% | 12.9% | 6.7% |
| D: Making friends and good time | 14.9% | 55.4% | 36.7% |
| E: Other | | | |

| | | | |
|--|-----------------|----------------|-----------------|
| Q19b: Condition for Lacking Social Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: No opportunity | 18.4% | 31.4% | 25% |
| B: Shy | 2.6% | 23.5% | 8.3% |
| C: Not being active in socializing | 21.1% | 42.0% | 25% |
| D: Making few friends | 10.5% | 34.1% | 19.4% |
| E: Other | | | |
| Q20: Personal Development Achievement | Most Applicable | | |
| A: Yes | 92.7% | | |
| B: No | 7.3% | | |
| Q20 a: Condition for Personal Development Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: Low expectation in personal development achievement | 7.2% | 23.4% | 11.3% |
| B: Developing Skills for career | 23.4% | 66.6% | 41.5% |
| C: Self understanding and improvement as individuals | 11.7% | 49.5% | 27.4% |
| D: Independent learning | 8.1% | 35.1% | 19.8% |
| E: Other | | | |
| Q20b: Condition for Lacking Personal Development Achievement | Only Applicable | Any Applicable | Most Applicable |
| A: No enough challenge | 8.7% | 26% | 17.4% |
| B: Achieving little in personal development | 13% | 17.3% | 17.4% |
| C: Making no enough efforts | 30.4% | 52% | 39.1% |
| D: Unaware of personal development | 13% | 25.9% | 25.9% |
| E: Other | | | |

Table A8 Criteria for Evaluating FY achievement (n=120)