Students’ Experiences of Learning and Teaching in Undergraduate Economics at a Chinese Mainland University

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I certify that this thesis has been written by me and is my own work.

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This thesis is based on an in-depth study designed to understand how a large group of students in an Economics degree programme at a Chinese mainland university went about learning. The research followed the student learning research tradition (SLR), which originated in the UK and Sweden and subsequently has flourished in these countries as well as Australia and Hong Kong, and which focuses on students' perspectives on their academic learning experiences. Four closely interrelated themes from this research tradition were of particular interest: students' approaches to learning and studying; students' orientations to education; students' beliefs about knowledge and learning; and fourthly, everyday teaching-learning environments (TLE) as perceived by students. Students' approaches were used as the central focus, while the other three perspectives were used mainly to understand variations in the students' approaches.

Students taking four different compulsory courses in the degree programme were surveyed utilising a mixed-method strategy combining likert-style questionnaires and semi-structured interviews. In total, the students returned 552 questionnaires containing usable information, and 88 of them took part in follow-up interviews either individually (20 students in total) or in groups (68 students in 13 groups).

Generally speaking, two qualitatively different approaches to studying, labelled as deep and surface approaches, were clearly evident. In brief, the deep approach displayed by the students was characterised by an intention to understand and an active engagement with their studies, while the corresponding surface approach was represented by the absence of an intention to understand and resorting to strategies suitable for coping with learning tasks minimally. Students' orientations, beliefs, and perceptions of the TLE were respectively investigated to achieve an understanding of differences in the students' approaches. More specifically, an 'intrinsic-deep' and 'extrinsic-surface' relationship between orientation and approach, and an 'interpretive-deep' and 'reproductive-surface' association between beliefs
and approach were identified. Furthermore, the approaches adopted by the students seemed to vary according to the differences they perceived in the TLEs; indeed, students' perceptions of the TLEs appeared to have relatively more influence on their approaches than the orientations and beliefs they claimed to hold. The students' descriptions of their approaches, orientations, beliefs, and perceptions of the TLEs also threw light on some characteristics that might be considered as culture- or discipline- specific.

Conceptual, methodological and practical implications were drawn from this research. The findings illustrate the value of SLR in achieving insights into mainland Chinese students' learning experiences, while revealing a general and pressing need for more studies of this under-researched and rapidly-growing body of students both within and outwith mainland China.
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DECLARATION

Some of the contents in this these have been published in following conference papers/poster:


In addition, some parts in Chapter Five have been used by Professor Jan Vermunt in his presentation made at the Dutch seminar on *Teaching the Chinese learners* held in October 2005.
Chapter One

Introduction

1.1 Overview

This opening chapter is designed to provide a brief account of the study reported in the thesis. It begins by explaining the background and rationale for carrying out the research. The four core themes pursued to facilitate the understanding of student learning in this study are then briefly discussed. The chapter ends with an outline of the structure and content of the rest of the thesis.

1.2 Background and rationale

The study had its origins in concerns, held by the researcher and colleagues, about the quality of teaching and learning in a mainland Chinese university. There were two and a half times as many students on the campus in 2003 (18,000 students) as in 1998. During the same period of time, in the Business School the researcher was based in, the number of students increased from one thousand across four academic years to nearly two and a half thousand, and around one fourth of the students majoring in Economics. Faced with such a situation, teachers in the school had realised that teaching was no longer as straightforward as it had been, when university students were more homogenous as a result of a high degree of selectivity. With a group of students who were more diverse not only in their qualifications but also in their reasons for studying, teachers had to invest more efforts in order to maintain the same quality of teaching and learning.
Such an increase in student numbers and concerns about the consequences of expansion could be considered as a microcosm of what was happening all over mainland China during the same period of time. Before 1998, a steady five percent Age Participation Rate (APR) had been maintained for more than twenty years (ASEC 1998). By 2004, however, the APR had been increased to 17 percent, which meant that there were around 19,000,000 students in various types of tertiary education institutions in 2004. The same period of time also witnessed increasing concerns about the quality of higher education. For instance, the Ministry of Education (hereafter ‘the Ministry’) put into effect a series of regulations and plans aiming at sustaining the quality of teaching and learning in higher education, and the quality of higher education has also been a central issue in educational research and debate (Bie 2001; Ma 2002, Liu 2003).

In accordance with the Ministry’s requirements, the university and the school in focus in this study initiated a series of teaching reforms, from 2000 onwards, with an aim of safeguarding quality. However, both the researcher and colleagues felt that the reforms, although intended to be a response to the demands made by the increase in student numbers, usually did not contribute to solving the problem. For example, there was a two-year reform scheme between 2001-03 which involved all the teachers in the school on making all teaching and assessment practices standardised by setting up assessment question banks for each core disciplinary course, and by writing curricula that all teachers teaching the same course should follow closely. It was a top-down plan and was believed by administrators to be able to help them to monitor, measure and evaluate teaching-learning practices. Nonetheless, the implementation of such a reform scheme in fact seemed to restrict teachers’ capability in responding to the diversities in the students’ learning, and was therefore of little help in enabling teachers to actively

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1 The figure adopted here was the one used by Ji Zhou, the Minister of the Ministry of Education, in his speech on the press conference held on 1 June 2004, titled '2003-2004 Educational reform prospect and retrospect'.

2 For instance, The Ministry inaugurated a 'University Undergraduate Teaching Quality Evaluation Plan' in August 2004; and there is now a nationwide ongoing five-year (2003-2008) 'Higher Education Teaching Reform and Quality Project' led by the Ministry.
On the basis of discussion with colleagues in the school, the researcher became aware of a growing consensus, shared by the majority of the teachers, that teaching reform should be firmly based on an understanding of the changing student population. However, the changes in the student population happened so quickly that the teachers had very little time to prepare by getting to know the students well before they began to teach them. A belief held by the researcher that without a better understanding of the changing student population, any reform plan would turn out to be a castle in the air was convinced when she became acquainted with a body of research generally called ‘student learning research’ (hereafter SLR, Biggs 1993, 1999). SLR advocates that actions with an aim of facilitating students’ learning could not be successful had an adequate understanding of students’ learning experiences not been achieved.

What distinguishes SLR from other work in the area is that data are derived bottom-up from students’ perspectives. This research tradition typically looks at student learning in the context in which learning takes place as perceived by students (Marton et al. 1997a). The starting point of this tradition was an article by Marton and Saljo (1976a), which reported a study of Swedish university students who were asked to read an academic article and then explain what and how they had learned. By studying how students perceived a particular reading task and then went about learning it, Marton and Saljo came up with the powerful idea of ‘approach to learning’, which became the point of departure for the emerging framework within SLR for conceptualising student learning (Entwistle 1991; Watkins 1996a).

More specifically, the reason that SLR has encouraged the researcher’s determination to follow the conceptual framework it provides in investigating student learning is threefold. Firstly, SLR demonstrates that among varied perspectives on student learning, that of the students themselves is one worth pursuing, because students’ self-report material contains valuable and reliable information on their experiences (Entwistle
Secondly, SLR produces a specific vocabulary – which mainly consists of a coherent framework of analytical constructs and categories that could be mapped onto everyday experiences – to talk about student studying, which is in fact a fairly complex phenomenon in nature (Entwistle 1997a; Hounsell 2003b). Thirdly, although SLR is seen as descriptive rather than prescriptive, it has been demonstrated to have some far-reaching practical implications for teaching in a post-expansion era (Watkins 2001; Gibbs 1996).

A decision to follow SLR tradition has also taken into account critiques of this research domain. In the present study, two kinds of critiques appear to be more pertinent. One is that student learning as conceptualised in SLR seemed effectively to exclude alternative theoretical approaches to conduct research in teaching and learning which could also usefully be pursued (Webb 1997; Haggis 2003). The other is that the wide application of SLR in a range of cultural and disciplinary contexts may have left some researchers with an impression that SLR should be considered as a generic model of learning. As far as the former critique is concerned, however, quite a few researchers, including Entwistle (1997b) and Marshall and Case (2005), have demonstrated, based on a thorough consideration of the development of this body of research, that SLR incorporates understandings of student learning which have sprung from many other areas of research during its development. In particular, it shares commonalities with all other research that regards learning as a constructive process in which learners build up their personal interpretations of their learning experiences. A plausible response to the latter critique, which is based on a series of studies that have been informed by SLR and involved students from a wide range of disciplines, institutions and countries or regions, is that SLR addresses some issues which are of cross-disciplinary and cross-cultural validity (Watkins and Biggs 2001a; Trigwell and Ashwin 2003).
1.3 Main foci of the present study

As mentioned above, SLR provides a series of constructs presented as categories or themes to describe various aspects of student learning, which are of help in describing and investigating student learning. Among these constructs, approach to learning and studying might be the most important one not only because it is a generic concept in SLR (Watkins 1996a; Entwistle 1997b), but also because a) as a construct describing an aspect of student learning that works closely with the qualitative differences in students' learning outcome, it provides a way to account for variations in learning outcome (Marton and Saljo 1984, 1997), and b) as a construct sensitive to both environmental and personal factors in student learning, it conveys 'complex pedagogical principles in readily accessible ways' (Entwistle 1997b: 214).

The definitions of approaches adopted in the present study include three interrelated aspects: intentions in relation to the learning content, cognitive strategies, and study regulation. Generally speaking, two different approaches are well established: a deep approach is characterised by an attempt to understand ideas and seek meanings, while a surface approach involves seeing learning tasks as external impositions and the intention to cope with learning tasks minimally through unreflective reproduction. As will be evident later in Chapter Two, however, there are more complex interpretations of different approaches. Furthermore, it seems necessary to point out that students can show consistency in their approaches and adopt different approaches depending on how they perceive the learning task and the learning environment (Entwistle 1997a; Biggs 2001; Ramsden 2003), and some researchers have employed varying terms to indicate the distinctions between these two kinds of situations (McCune 2000). For the consistency of the thesis, the term 'approach to learning' is deployed to reflect the stability of students' approaches, and when described students' particular ways of dealing with specific learning tasks, 'approach to studying' is employed instead.

Two variables associated with students' personal contexts that have been
commonly investigated for a better understanding of students' approaches are orientations to education (Beaty et al. 1997) and beliefs about knowledge and learning (Marton et al. 1993). In contrast with some more fixed psychometric characteristics which are also relevant to a personal context, such as gender, age, ability and personality, these two aspects of student learning are considered as more responsive to the context of learning (Vermunt 2005a). Generally speaking, orientation to education is a construct referring to the whole domain of students' personal goals, intentions and expectations for their studies in higher education. The idea of orientation to education assumes that students have an active relationship with their studying. The analysis of orientations, therefore, sets out to identify and describe types of orientations and to show implications of different types of orientations for the approach a student takes to learning (Morgan and Beaty 1997). As far as beliefs about knowledge and learning are concerned, the construct is usually employed to refer to a coherent system of knowledge and beliefs about learning and related phenomena, e.g. oneself as a learner, learning objectives, learning activities and strategies, and task division between students and teachers (McCune 2000). As is the case with orientation to education, studies of students' beliefs about knowledge and learning can contribute to improving the understanding of variations in students' approaches (Marton and Saljo 1997).

Another typical perspective for understanding students' approaches is teaching-learning environments (TLE) as perceived by students, because there seems to be a consensus in SLR that the ways students learn are a function of how they perceive the learning environment (Entwistle and Ramsden 1983; Biggs 1993). There is now an extensive body of empirical evidence on the effects of TLEs on student learning which has proved valuable in educational development (Gibbs 1996; Biggs 2003; Ramsden 2003). What has also been achieved through these studies of students' perceptions of TLEs is the remarkable progress in conceptualising an educational environment, which is in fact a somewhat subtle concept. In particular, the ways that TLEs are defined in SLR generally have two key features. One is the alertness to the potential influences on students'
approaches from their perceptions of TLEs rather than TLEs per se (Fyfe 1995; Prosser and Trigwell 1999). The other is the intention to describe TLEs that can be more directly experienced by students as they are going through their classes, e.g. the 'inner teaching-learning environment' in Entwistle et al.'s words (Entwistle 2000, Entwistle et al. 2003).

1.4 Structure of the thesis

A review of the existing studies on the four foci mentioned above and how the research has been informed by the relevant literature make up the main content of Chapter 2. Considering the vast volume of studies on student learning, the principle concern is with research involving tertiary students in conventional universities. In other words, school students and students in distance learning are not considered, except in cases where little evidence from tertiary studies is available. In addition, although the concepts discussed in Chapter Two have all been established and developed through qualitative analyses of interview transcripts and psychometric analyses of inventory scores, the review in this chapter concentrates on the content and features of those constructs, and leaves the discussion of methodologies adopted in these studies to Chapter 3.

Throughout the review, a distinction is made between students with different cultural backgrounds, because most of our knowledge on student learning comes from the Western world, and it is well known that Chinese students, because of their cultural heritage, study in somewhat different ways to their Western counterparts (Watkins and Biggs 1996). However, Western and Chinese as cultural labels have been used in various ways in different types of literature. For the purpose of the present study, 'Western students' is employed to refer to students who obviously did not come from a region where Confucian Heritage and Culture (hereafter CHC) is prevalent. More specifically, most of the Western students surveyed in SLR came from the UK, the USA, Australia, some European countries such as Sweden and the Netherlands, and South Africa, where well-known researchers in this
research domain live and work (Marton et al. 1984, 1997). 'Chinese students' is then employed to refer to students who are living in mainland China, or in Hong Kong and Taiwan, where the CHC is predominant. Studies on students from those countries that have been considered to be Chinese diaspora by some researchers (Biggs 1998), such as Singapore, Japan, Korea and Malaysia, are not included. It is necessary, however, to maintain throughout this thesis a distinction between Hong Kong and mainland Chinese students, since the two may not be equivalent in every aspect, given that education in Hong Kong has been shaped by both the British and Chinese tradition.

As the CHC plays an important role in discriminating student samples in the present study, it seems necessary to clarify what the CHC means, although this is by no means an easy task. Generally speaking, many fundamental ideas in the CHC come from Confucius (Kong Zi, 551-479, B.C.E). His philosophy, which was summarised by his disciples into the Analects (Lau 1979) or the Lun Yu, has been greatly developed since its origination and has influenced Chinese society for thousands of years. In particular, many of Confucius’ sayings and maxims associated with learning and education still affect the behaviour of learners in China, such as effortful, respectful, absorptive and pragmatic learning. In this study, whenever the CHC is referred to, it relates to those that have been traced back to Confucius’ original ideas by recent-day educational researchers.

Additionally, although a disciplinary dimension is inherent in the student sample surveyed in this study, such a subject-specific perspective is only applicable to some of the four constructs particularly in focus in this study. More specifically, the discipline-specific dimension will be discussed in relation to approach to learning and studying, and TLEs as perceived by students because there is sufficient evidence in the literature to make this meaningful. However, since studies of domain-specific aspects of orientations to education and beliefs about knowledge and learning which are relevant to Economics are rare, there is not a sufficient basis for discussing these two topics from a disciplinary perspective.
Chapter 3 begins with a description of the context in which the study was carried out. The university, the school, and the degree programme in terms of the courses it provided are discussed in turn. Debates on the research methods utilised in SLR are subsequently considered, to provide a rationale for using inventories and interviews in combination in the present study. The main body of this chapter is devoted to a discussion of how the data were collected and how the findings were derived from the data. The final part of the chapter focuses on what was done to deal with the ethical issues arising from the study, and to safeguard the trustworthiness of the findings. As we shall see later, the chapter as a whole provides a fine-grained account of all the steps the researcher had taken to collect and analyse the data.

Chapters 4 to 7 report the findings of the study. Since the study as a whole focused on a discussion of the students' studying in a specific context, the term, 'approaches to studying', is employed throughout those chapters. Chapter 4 focuses on what came out of the inventory data analyses. The inventory employed in the present study, the Chinese version of Experiences of Teaching and Learning Questionnaire, contained three main parts. The second part of this questionnaire concentrates on students' approaches to studying, while the first and the third parts are used to explore students' orientations to education and perceptions of TLEs. Data from those three parts of the inventory were firstly analysed respectively through correlational analyses and factor analyses. Then relationships between these aspects of student learning measured by the inventory data were examined, and regression analyses were found to provide more illuminating results than correlational and factor analyses. As the inventory utilised in the present study was adapted from Western instruments, the chapter ends with a discussion of the cross-cultural validity and reliability of the instrument.

Chapters 5 to 7 report the findings from the interview data. Chapter 5 provides a detailed account of the two qualitatively different approaches to studying identified among the students. In particular, deep and surface approaches were defined in relation to three specific learning tasks, namely academic reading, essay writing, and exam revision. The findings reported in
this chapter are very important for the overall study, since whether qualitatively different ways of studying as suggested by the literature could be identified provided the rationale for exploring the other three aspects of the students' learning experiences. Orientations to education and beliefs about knowledge and learning indicated by the students are reported in Chapter 6. Following the compelling evidence of both deep and surface approaches to studying among the students, these two facets of student learning were examined to find out what types of orientations and beliefs held by the students appeared more likely to relate to deep and surface approaches. As was the case with orientations and beliefs, the functional relationships between students' perceptions of TLEs and their approaches to studying were examined in Chapter 7.

The final chapter, Chapter 8, contains three main parts. One focuses on an evaluation of the findings with respect to the wider literature, so as to examine to what extent the findings from this particular study could contribute to the existing knowledge on student learning. The methodological implications of the present study for carrying out further studies on mainland Chinese students' learning constitute another main part of the chapter. The third main part looks back upon findings reported in chapters 4 to 7 to arrive at a series of suggestions about improving teaching in the degree programme. The chapter closes with some recommendations to future research into mainland Chinese students' experiences of learning, based on an overview of the limitations of the present study.
Chapter Two

Literature review

2.1 Introduction

In this chapter, the four themes particularly in focus in this study will be explored in turn, from approaches to learning and studying, through orientations to education and beliefs about knowledge and learning, to the teaching-learning environments (hereafter TLE) as perceived by the students. The chapter as a whole intends to set the scene for the theoretical framework upon which the present study was built.

2.2 Students' approaches to learning and studying

The first part of this chapter focuses on the central concept that informed the present study: approach to learning and studying. In the first section, the generic features of the constructs, deep and surface approaches, are discussed as a simplified analytical framework that suggests two fundamentally different ways of learning. What underlies the descriptions of these generic features is that to grasp the essence of the deep and surface approaches requires some abstractions, which sublimate the complexities of students' day-to-day learning experiences. In the next section, the abstract constructs displayed in the first section are considered in relation to three everyday learning tasks, namely, academic reading, essay writing, and exam revision. Recent interest in disciplinary differences in approaches contributes to another direction followed by the present study to set the definitions of deep and surface approaches in context. Studies on this topic, especially those that might contribute to an understanding of student learning in
Economics, constitute the third section of this first part of the review. The final section of this part is given to studies on Chinese students, with deep and surface approaches as the central foci.

2.2.1 Deep and surface approaches to learning and studying

Approach to learning and studying is a construct that has been extensively developed in the Western world through nearly three decades of qualitative and quantitative research, and describes qualitatively different ways of learning and studying adopted by students across a range of contexts (Entwistle and Ramsden 1983; Marton et al. 1997a). The definition of approaches to learning and studying adopted in the present study belongs to ‘a second generation of conceptualisations of student learning’, in Vermunt and Vermetten’s words (2004: 361). More specifically, the definition adds some metacognitive aspects of student learning to its original two aspects: the cognitive processing strategies, and the embedded intentions in relation to the content of learning. The three dimensions of this construct will be discussed in detail next.

Cognitive strategies with different intentions

In a series of academic text reading experiments, Marton and colleagues in Gothenburg, Sweden, found that the students would generally either read with the aim of understanding the meaning or read just to prepare for reproducing information, and accordingly took different strategies during reading (Marton and Saljo 1976a, 1976b; Svensson 1977). In follow-up interviews, it was found that the former students would be more likely to report focusing on themes, main ideas and relationships between ideas during their reading, while the latter students focused more on details or key terms, and read content at word or sentence level. Based on these findings, Marton and colleagues described ‘approaches to learning’ with a deep/surface dichotomy to capture the defining features of what a student did when reading academic text by looking specifically at reading intentions and strategies.
Although the original studies were carried out in naturalistic settings, the constructs derived from these earlier studies were found to be useful in explaining everyday learning experiences (Marton et al. 1997a). A third approach, 'achieving approach', was subsequently introduced when deep and surface approaches were applied to students' day-to-day learning practices (Entwistle and Ramsden 1983; Biggs 1987). The reason for introducing this new type of approach was that the deep and surface approaches could not accommodate how students adjusted their ways of studying to cope with formal assessment (Entwistle and Smith 2002). As defined in its original forms, an achieving approach comprised time organisation, workspace management, and an intention to cover the syllabus in the most efficient ways (Entwistle and McCune 2004).

The achieving approach had been demonstrated to be applicable in both Western (Entwistle et al. 2000) and Chinese contexts (Kember et al. 1997). However, its foci were different from those of the original deep and surface approaches. More specifically, the deep and surface approaches described the ways in which students engaged in the learning task itself, while the achieving approach captured the ways in which students organised the temporal and spatial contexts surrounding the task (Entwistle 1998b). From this point of view, it seemed hard to juxtapose conceptually the achieving approach with the deep and surface categories (Entwistle et al. 2003).

**Regulation strategies derived from different sources**

Since late 1980s, attention in research on student learning process has been drawn to the distinctions made between cognitive and regulation activities (Biggs 1988; Vermunt and van Rijswijk 1988; Zimmerman 1989). Regulation activities, as clarified by Vermunt, were those adopted by students to 'orientate, plan, test, diagnose, adjust, evaluate and reflect' their own cognitive and affective processing activities so as to exert control over their own learning (Vermunt 1996: 26). With such a clarification made between processing and regulation activities, the retention of the achieving approach as a separate category parallel to the deep and surface approaches has been
generally abandoned by some key researchers in this field, such as Entwistle and colleagues (Entwistle et al. 2003). In their student learning models, the achieving approach is replaced by a series of constructs which came from studies on regulation activities, such as monitoring studying, organised study, and time and effort management. Furthermore, studies using inventories developed from their models have commonly reported close and positive relationships between scales on study regulation and scales on deep approach, which seem to suggest that study regulation is indispensable for effective learning (McCune 2003; Entwistle 2004).

However, students differ in ways they regulate their learning. In Vermunt’s studies (1996, 1998) with a large group of students from an open and a regular university in the Netherlands, some students showed more interest in planning, diagnosing and remedying their own processing activities to ensure a personally desirable learning outcome, while some others were more likely to let themselves be led to a high degree by the didactic aids woven into the course materials or provided by the lecturers. Vermunt adopted a term ‘self-regulation’ to capture the active engagement and learner responsibility reflected in ways of study regulation suggested by the former group of students. The differences among students in terms of study regulation as identified in Vermunt’s studies have been recapitulated in some other researchers’ work (Wolters 1998; Devlin 2002). Moreover, all these studies typically argue that a full ‘self-regulation’ during studying is less common in higher education compared with a kind of regulation that is subject to both internal and external demands. Indeed, there are also studies showing students’ concerns about achieving a balance between an approach that was too teacher-driven on the one hand and overly student-centred on the other hand (Lea et al. 2003).

Definitions of deep and surface approaches to learning and studying

Up to this point of the section, the three aspects involved in the second generation of conceptualisation of approaches to learning and studying have all been discussed. The foundation for the conceptualisation is that there is a
consensus in SLR that students in higher education manifest a limited number of different approaches (Richardson 1994, 2004), although, in theory at least, there could be as many idiosyncratic ways of describing approaches as there are students (Entwistle et al. in press). Based on the aforementioned review and a series of definitions of deep and surface approaches given by different researchers (Biggs 2001; Entwistle et al. 2001; Ramsden 2003), the present study adopted the following pair of definitions of deep and surface approaches.

- The **deep approach** is meaning-oriented and resource-intensive. The core aspect of a deep approach is the intention to form a personal understanding of the topic under study. The intention to understand for oneself brings into play important intellectual processes, such as relating and organising ideas and subjecting evidence to detailed logical analysis. It is generally associated with reading widely and thinking intensively, which all requires time and mental effort. Therefore, it is unsurprising that students taking a deep approach also tend to show active engagement with their studies.

- The **surface approach**, in comparison, is reproducing-orientated and is typically associated with coping minimally with task requirements. It generally involves lower level activities, such as rote learning, derived from intentions that have little to do with personal understanding of the topic under study. As a result, it is likely to lead to factual and fragmentary learning that overlooks inter-connections. Moreover, it generally does not involve intensive use of resources to engage in mental effort, but a deliberately lower level of engagement in the process.

Both qualitative and quantitative research studies have produced evidence from a reasonable variety of national systems of higher education, disciplines and tasks for the broad distinction made between these two approaches (Trigwell and Prosser 1991; Watkins and Biggs 1996). Even those studies that did not use this dichotomy usually arrived at findings that paralleled the distinctions captured by the deep and surface approaches (Drew et al. 2002; Case and Marshall 2004). Comparatively speaking, the surface approach
seems to be more variable between contexts and less coherent than the deep approach (Richardson 1994; Watkins 2001).

2.2.2 Approaches to tackling different types of learning tasks

This section intends to develop the discussion of generic features of approaches in association with three different academic tasks – reading, essay writing and exam revision. The reason for doing so is that important variations can be identified across tasks in how each approach is taken forwards. It is, therefore, envisaged that an examination of approaches in relation to specific tasks will contribute to arriving at fine-tuned definitions of deep and surface approaches, so as to capture fuller their potential in describing student learning. However, it is inappropriate to take such an effort as an attempt to provide a comprehensive review of studies focusing on task-specific approaches. Instead, the intention is simply to illustrate some illuminating findings on how approaches might play out in task-specific contexts.

Approaches to reading

An interest in academic reading in natural settings is regarded as an extension of the interest in academic reading pursued in the original naturalistic reading experiments, and is also related to the fact that reading plays an important role in students’ everyday study. In contrast with the reading tasks as described in naturalistic experiments, reading in real-life university contexts generally involves more things to read and more complicated aims to read for (Mann 2000). Studies of reading as a day-to-day experience in SLR are not rare, and those defining features obtained from the original reading experiments have been proved applicable in real reading tasks (Saljo 1984, 1997). Rather than review studies of this kind, this subsection draws on some generic studies, not necessarily followed SLR tradition, to add some flavour to what an advance approach to reading might look like.
For example, by referring to Bakhtin's (1994) metaphor of voice, Wilson et al. (2004) described critical reading as reading both to listen to the heterogeneous voices of the text and to respond in one's own voice. More specifically, they argued that for learning-through-reading to take place, the reader had to be prepared to listen intently, to shift and grow through exposure to the voices of others, and to respond from their own perspectives. Luck (2000) provided a framework of reading efficiency, which contained a series of activities, such as code-breaking, participating in text, using the text for one's own purposes, and analysing or critiquing the text. It seems that, from these perspectives, students' reading is configured as a 'context-making rather than a context-breaking ability' (Brandt 1990:39), and enriches the descriptions of reading process in SLR by using metaphors differing from the deep/surface one.

**Approaches to essay writing**

Essay writing, a common task that students – especially those majoring in social and humanities degrees – need to accomplish, occupies a central place within higher education in these degree programmes (Hounsell 1988; Lea and Street 1998). Besides being employed as a way to assess students' performance, it is also an important method to help students to become academically integrated if used wisely within a supportive learning environment (Krause 2001). Consequently, quite a few researchers have carried out a number of studies on students' essay-writing processes, such as Hounsell (1987, 1997a), Lea and Stierer (2000), and Lillis (2001).

Among them, a study by Campbell et al. (1998), which involved 46 undergraduate Education students studying for a four-year Bachelor's degree, seems to be sufficient for setting a scene for specific ways students might use in essay writing. More specifically, they asked the students to describe their ways of writing an essay, a 1500-word literature review on a chosen topic on developmental or educational psychology, and identified four main activities related to essay-writing from the students' comments: obtaining references, note taking, structuring and drafting, and revision.
These four activities in sequence suggested a complete process of essay writing. In addition, for all the four activities it was also possible to see a spectrum from high- to low-involvement activities in terms of how intensively students engaged with writing materials and the writing process. Take ‘obtaining references’ as an example, those students who reported their intentions to be ‘knowledge-telling’ were more likely to carry out a straightforward, quick and limited search, while those who displayed an intention to provide a coherent argument in their essays usually spent more time and energy on a more intensive search of the literature.

**Approaches to exam revision**

As is the case with essay writing, exam revision is another common task that students, especially those majoring in social and humanities degrees, need to accomplish in their degree programmes. The term ‘exam’ is employed here to refer to written tests used at the end of a semester to provide a summative evaluation of a student’s achievement on course studies, which is usually required to be completed in a set number of hours, typically two to three. Additionally, exams could include various types of questions, such as multiple-choice questions, short-answer questions, and extended-prose questions, such as essay questions. What came out of an extensive search of the relevant literature, however, seems to suggest that students’ ways of preparing for exams is a less researched field, and Entwistle and colleagues’ work seemed to be dominant (Entwistle 1995b; Entwistle and Entwistle 1991, 1997; Lindblom-Ylanne and Lonka 2001; Appelhans and Schmeck 2002; Entwistle and Entwistle 2003).

Entwistle et al’s studies have particular relevance to what students did to prepare for exams seeking answers in the form of extended prose. As a whole, a total of 28 students from various subjects, such as psychology and economic history, in a Scottish university, had been interviewed about their revising process. Although their sample might be biased towards the more successful students, as they themselves conceded (Entwistle and Entwistle 1991), the two-stage revision process emerging from their studies is
Almost all students in their studies reported going through such a procedure when faced with upcoming exams. However, similar to what had been pointed out in the previous subsection on 'essay writing', the students differed not in the strategies per se, but what they were looking for through this process. For example, some students read their notes simply for condensing and remembering lecturer's notes in a mechanical way, while some others read for checking understanding and arriving at personalised schematics for triggering details during exams. Entwistle and Marton (1994) devised a term 'knowledge object' to refer to a kind of experience in exam revision that usually came out of the revision process for strengthening understanding and making it more memorable. In Entwistle and Entwistle's words, such an experience involved 'awareness of a tightly integrated body of knowledge, the visualisation of its structure in a 'quasi-sensory' way, [and] awareness of unfocused aspects of knowledge that could be brought to mind as required and recognition of its use in controlling explanations' (2003:24).

2.2.3 Approaches to learning and studying in Economics

The number of studies specifically concerned with Economics students' approaches to learning and studying is fairly small. The recent work that could be identified which employed the deep/surface dichotomy in describing Economics students' approaches are those carried out by Meyer and colleagues (Meyer and Boulton-Lewis 1999; Meyer 2000 a, 2000b; Shanahan and Meyer 2003). Nonetheless, their studies could not yet be

<table>
<thead>
<tr>
<th>Stage I: Initial preparation stage</th>
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<tbody>
<tr>
<td>- Select topic for revision – probable and interesting – to clarify the revision scope</td>
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<tr>
<td>- Read notes/articles to get familiar with exam materials</td>
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<table>
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<tr>
<th>Stage II: Revision directed towards exam requirement</th>
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<tbody>
<tr>
<td>- Summarise and condense notes</td>
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<tr>
<td>- Answer exam questions</td>
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considered as completed since the inventories they adopted are still under construction. Instead, there is a body of research suggesting a broad distinction between hard/pure and soft/applied disciplines in terms of students’ approaches to learning and studying, which can be related to Economics contexts. By drawing considerably upon the analyses reported by Ramsden (1988) and Becher (1989, 1994), it is possible to summarise findings from this body of research as follows:

- For subjects typified as cumulative, paradigmatic, replicable, and capable of being summarised in terms of general laws, e.g. physics, biology, medicine, which would generally be classified as hard/pure disciplines, an initially narrow concentration on detail and logical connections as part of a deep approach is common. Therefore, a deep approach relies on a large knowledge base of bare facts, and for this, memorisation could be an effective strategy. In contrast, a surface approach in those subjects might be characterised by a narrow focus on techniques, procedures and formulae in subjects.

- For subjects described as being particularistic, idiographic and re-interpretative, which can generally be classified as soft/applied disciplines, e.g. history, law and political science, a deep approach is more likely to involve the student in stressing, right from the start, an intention to interpret material in a personal way. For a surface approach, the defining feature might be a more generalised and vague approach, which frequently includes oversimplification of main ideas in reading and essay writing, or memorising unrelated generalities.

Based on such findings, it seems possible to infer features of deep and surface approaches in Economics\(^3\), if the nature of the discipline can be clarified. In an overview of varied discipline-classification models carried out

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\(^3\) Economics, as a university subject, is defined in the UK's discipline benchmark statement as 'the study of the factors that influence income, wealth and well-being [...] to inform the design and implementation of economic policy, [...] [and] to analyse and understand the allocation, distribution and utilisation of scarce resources'. The definition of Economics as an undergraduate subject in relevant Chinese official documents is quite similar to the UK's.
by Bradbeer (2003), it was evident that Economics as a subject was often adopted by some researchers as an example of hard and pure science, but at the same time, sharing some features of soft and applied subjects. Generally speaking, evidence supporting the classification of Economics as a hard/pure science was its wide use of specific models or theories, its logical structure, and its emphasis on quantitative or technical aspects. While on the other hand, as a discipline that was open to environmental complexity and eclecticism, and which studied unrestricted or relatively unlimited field of phenomena, it might also seem reasonable to regard it as a soft/applied science. In fact, Economics as perceived by teaching staff (Becker and Watts 1998) and educational researchers (Reimann 2003), and as described in the discipline benchmark statements (e.g. Subject Benchmark Statement Economics 2000, QAA, UK), all lend support to a view of Economics as a discipline with characteristics that bridge the pure/applied and hard/soft dichotomies.

Taking into account such a view of Economics as a hybrid subject, and the characteristics of different approaches in relation to the broad distinction made between hard/pure and soft/applied disciplines, it seems reasonable to suggest that: a deep approach in Economics cannot exclude memorising a large amount of knowledge to build up a firm foundation for further study; whereas, such a memorisation should not be simply equated to rote learning; instead, a grasp of a large volume of foundational knowledge in Economics is expected to contribute to exploring real-life problems. In sum, to do a good job in Economics studying requires not only a solid and sufficient knowledge base, but also an ability to apply what is learned to interpret and solve problems. These two dimensions seem to be indispensable to each other, and lack of each might result in less adequate learning in Economics.

2.2.4 Approaches to learning and studying in Chinese contexts

Deep and surface approaches, as defined in ways similar to those discussed earlier in Section 2.2.1, have been frequently employed in studies of Chinese students' ways of learning. Generally speaking, the broad distinction made
between deep and surface approaches has been confirmed with Chinese sample (Biggs 1991; Watkins 1996a; Smith and Smith 1999). In addition, Chinese students have been found to be more likely to study in a deep manner, and this has been considered to be consistent with the CHC, which stresses hard work, perseverance and reflection (Watkins and Biggs 1996). However, besides confirming the existence of the two broad approaches as defined in Western literature, studies on Chinese students' approaches suggest that attention also needs to be paid to three particular aspects that are more likely to be culture-specific, namely, memorising with understanding, respectful learning, and effortful learning.

Memorising in the process of learning

The interest in this aspect of student learning can be traced back to the well-known 'Paradox of the Chinese learner', i.e. that while Chinese students could be perceived as passive rote learners since they seem to rely on memorisation very much during studying, they nonetheless usually show the high levels of understanding and achievement that could generally be associated with deeper approaches to studying (Kember and Gow 1990, 1991). A large part of the explanation for the paradox came from the discovery that Chinese students could be attempting to both understand and memorise the material (Kember 1996, 2000a; Marton and Trigwell 2000), which implies that Chinese students do not seem to see memorisation and understanding as opposite but rather as complementary and equally necessary parts of learning.

More specifically, the combination of intention to memorise and intention to understand has been found in two circumstances (Marton et al. 1996a; Marton et al. 2005). In one case, memorising-with-understanding is found to be employed by students who initially did not tend to understand, but found later that their memory become overloaded if they did not attempt to understand at least some of the content. In the other case, understanding-with-memorising is primarily for understanding, which portrayed students who had a preference for seeking understanding, but also recognised the
necessity of fixing what they had understood into their mind. Obviously, the understanding achieved in the first case is limited compared with the understanding obtained in the second case, although students using memorisation in the former way at least attempt to grasp some sense of organisation or the inter-relationship of concepts prior to the memorisation process.

Different terms were coined by researchers to discriminate approaches to studying which were primarily for memorising but with limited understanding from the original deep and surface approach, such as Tang and Biggs's (1996) 'elaborative surface approach' and Kember's (1996) 'intermediate approach' towards surface. Correspondingly, terms such as 'deep' and 'meaningful' memorisation (Tang 1991; Marton et al. 1996b) were adopted to refer to memorisation integrated into an intention to understand. Nonetheless, it is necessary to point out that all these studies do not suggest that Chinese students never reported memorisation without understanding. In fact, rote learning has also been well evident, especially in the case of preparing for exams, which were perceived by students as requiring nothing more than reproducing factual and fragmented knowledge. 'Mechanical memorisation' was then deployed by Marton et al. (1996a) to distinguish this kind of memorisation from memorising with understanding.

What can be concluded from the above discussions is that it would be inappropriate in Chinese contexts to proceed as if memorisation and understanding were two distinct and discrete learning strategies. In other words, memorisation should not be treated as a defining feature of approach without further clarification of the kind of memorisation entailed and the associated aims of using it. Indeed, within the CHC, it would be more appropriate to view memorisation as a significant and integral part of studying with an aim of making sense of what is learned. However, to what extent this phenomenon might be exclusive to Chinese students is also open to question, since memorisation has also been found to be employed by Western students both before and after understanding (Entwistle 1995b; Meyer 2000a; Karagiannopoulou 2005).
Respectful learning

As was noted earlier, seeking meaning rather than reproducing can be regarded as a key distinction between deep and surface approaches. In addition, meaning is considered as achievable mainly through active personal construction of knowledge, which is usually signalled by a readiness not to accept what is transferred from authorised sources. As we shall see below, although this is also an important element within the CHC, it might cause confusion when it is applied to Chinese students' learning practices indiscriminately, because being critical can sometimes go against another strand in the CHC – respectful learning.

Confucius expects learners to respect and obey authority figures (Bond 1996). In particular, within Confucius' five ethical relations, people are taught a duty to obey and respect those of higher status than themselves, and an excessive focus on generating ideas goes against the Confucian ideals of modesty. Generally speaking, the CHC gives a priority to learning essentials, especially at the beginning of learning, and polite submission is appreciated more than assertive behaviour (Chen 1990). These ideas are still evident today. For example, Pratt et al. (1999) have showed that Chinese students and instructors in Hong Kong tend to treat texts and instructors as highly authoritative sources of knowledge, and to assume that the first steps of learning consist of developing an ability to reproduce knowledge presented by these sources.

This does not mean, however, that the CHC eschews critical thinking. On the contrary, there is no lack of stress on the significance of reflective thinking in the process of learning in the CHC, but as a procedure which follows on from an intensive grasp of fundamental knowledge (Lee 1996). In fact, quite a few studies (Marton and Booth 1997; Pratt et al. 1999) have revealed that Chinese learners tend to perceive learning as a sequential four-stage process: memorising, understanding, applying, and questioning or modifying. The location of criticism at the end of the learning process contrasts with Western conceptions, which tend to assume that critical evaluation takes place
throughout the learning process.

Therefore, what could be learned from above studies is that it seems unlikely to be appropriate to take critical thinking as a defining feature applicable to the whole learning process for Chinese students, because to be critical might only be appreciated at some specific stages in learning. In other words, to take being critical as a key indicator of a deep approach might not always be valid in Chinese contexts.

Effortful learning

Chinese students' inclinations to make a great effort in studying, even regardless of the level of achievement, are evident in quite a few studies (Hau and Salili 1990; Hau 1992; Salili 1996). In fact, there is a strand in the CHC advocating that the key for learning is whether a person is determined to learn. In other words, effort, which is always connected with persistence, constitutes the kinds of virtue that is greatly appreciated in the CHC (Chai 1965). A more fundamental belief that supports such a preference for an effortful study is a Confucian assumption that everyone is capable of learning and achieving, as long as they put in time and efforts (Tu 1985). This is called a belief in educability for everyone, which suggests that individual differences are not considered as relevant as is effort in determining what a person achieves. Based on such a belief, students are, therefore, expected to have high expectations of themselves and try to realise their aims through substantial efforts (Watkins and Biggs 2001b).

Although an inclination to effortful learning has been proved beneficial for academic achievement (Biggs and Watkins 1996), an appreciation of effortful learning does not necessarily mean an intention to carry out high-quality learning or self-initiative study. As Volet (1997) has pointed out that surface intentions are not necessarily associated with minimal efforts, quite a few studies on Chinese students reported the great efforts the students made to regurgitate prescribed content, especially for exams (Tang 1994; McKay and Kember 1997). As far as self-initiative learning is concerned, the majority of
the 30 first year students in an undergraduate language course at a Hong Kong institution in Chan’s study (2001) expressed their preference for and reliance on teachers’ directions, as so to make learning happen to them and their efforts in learning more pertinent and effective.

2.2.5 The use of the ‘approach to learning and studying’

Up to this point, varied contexts, involving task-, discipline- and culture-specific dimensions, have been respectively examined to explore what forms that deep and surface approaches might take in different settings. It seems worthwhile to make some general observations on the use (and potential misuse) of the construct of approaches before closing this part of the review of literature on conceptualisations of approaches.

First of all, deep and surface approaches should be seen essentially as a simplified analytical framework, which seeks to highlight the existence of qualitatively different ways of studying. In other words, approaches were not developed to capture every nuance or subtlety in individual students’ learning experiences, but to simplify the complexity of students’ learning processes in a way which would be valid and illuminating (Entwistle 1997b). Secondly, although the concept of approach plays an important role in SLR, this is not to suggest that it is the only perspective which can be taken to capture qualitative differences in students’ ways of studying. Indeed, there have been studies attempting to devise different constructs that might be employed to describe a developed understanding of student learning. Among them, the Ways of Thinking and Practising (WTPs) as described in a series of studies by Hounsell and colleagues (Hounsell and McCune 2004), could be considered as a typical one. Finally, because deep and surface approaches have been developed in part to reflect relationships between students and contexts, what the dichotomy can remind us of is the need to take into account the complex settings in which students learn (Biggs 2001).
2.3 Students’ orientations to education

This part of the literature review is divided into two sections. In the first section, how ‘orientation to education’ is conceptualised in Western studies will be discussed, and its relationship with approaches to learning and studying examined. Studies on Chinese students’ orientations to education informed by Western studies are reviewed in the second section, with a specific interest not just in possible similarities but also in culture-specific dimensions.

2.3.1 Western studies on orientations to education

Types of orientations to education

‘Orientation to education’ has been first used by Gibbs et al. (1984) to refer to the whole domain of higher education students’ personal goals, intentions, motives and expectations in doing courses or studies. Drawing on interviews with a number of students from an open and a regular university in the UK (Morgan 1993; Beaty et al. 1997), they have identified four major types of orientations in relation to different aspects of university life: academic, vocational, personal and social. In addition, each of those four types of orientations could also be expressed in terms of either an intrinsic or an extrinsic interest in the degree course itself (Entwistle 1987). The social orientation was an exception in this regard, for it was considered to be almost extrinsic by definition (Beaty et al. 1997).

A later study carried out by Boulton-Lewis et al. (2000) reported ‘indigenous issues’ among some Aboriginal and Torres Strait Islander students’ varied reasons for undertaking study, because some of the students believed that undertaking higher education would enable them to improve conditions for indigenous people. By referring to Boulton-Lewis et al.’s work, Hounsell (cited in McCune 2000) has suggested a ‘social intrinsic’ orientation which was characterised by a wish to help others or make a positive impact on social issues, and considered it possible to address the gap in Beaty et al.’s
conceptualisations. The main categories of students’ orientations to education emerged from the above studies are listed below along with their defining features.

<table>
<thead>
<tr>
<th>Orientation</th>
<th>Interest</th>
<th>Aim</th>
<th>Concerns</th>
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<tbody>
<tr>
<td>Academic</td>
<td>Intrinsic</td>
<td>Intellectual interest</td>
<td>Choosing stimulating lectures</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Educational progression</td>
<td>Grades and feedback</td>
</tr>
<tr>
<td>Vocational</td>
<td>Intrinsic</td>
<td>Training</td>
<td>Relevance of course to future career</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Qualification</td>
<td>Recognition of qualification’s worth</td>
</tr>
<tr>
<td>Personal</td>
<td>Intrinsic</td>
<td>Self-improvement</td>
<td>Challenging and interesting material</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Proof of capability</td>
<td>Feedback and passing courses</td>
</tr>
<tr>
<td>Social</td>
<td>Intrinsic</td>
<td>Benefit people</td>
<td>Relevance of course to benefit people in the community</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Have a good time</td>
<td>Facilities for sports and social activities</td>
</tr>
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</table>

Such a conceptualisation of students’ orientations to education has been confirmed in other studies. For example, Vermunt (1996, 1998) carried out a series of extensive interview studies with students from an open university and a regular university in the Netherlands. He distinguished a ‘person-oriented’, a ‘vocation-oriented’, and a ‘certificate and self-test-oriented’ orientation, which resembled the defining features of the ‘personal-intrinsic’, ‘vocational-intrinsic’, ‘vocational-extrinsic’ and ‘personal-extrinsic’ orientations in the above list. In a study reported by Donald (2002), orientations held by some North-American students were investigated, and the findings generally confirmed the applicability of the above types of orientations.

**Students’ orientations to education and their relationships with approaches to learning and studying**

The chief goal in differentiating orientations to education does not lie in obtaining a series of categories, but in developing this construct as a framework to study students’ orientations, and therefore to understand differences in their approaches to learning and studying (Beaty et al. 1997).
As most of the studies on students' orientations have illustrated, the majority of the students surveyed seem to have a mixture of reasons for higher education, although they differ 'in the relative balance between these orientations' (Entwistle 1987: 137). In other words, the various types of orientations are not intended to be seen as mutually exclusive, but as representing idealised extremes, and could be combined in any particular student's orientations (Morgan 1993; Beaty et al. 1997).

As far as the relationships between orientations and approaches are concerned, there has been sufficient evidence showing that orientations to education form a crucial part of student's relationships to their courses, and therefore have a major impact on how they tackle their studies. For example, based on the interviews carried out in above-mentioned studies, Beaty et al. (1997) argued that the students' orientations helped them to form a 'study contract', which involved a plan of what and how to study. In regard to the concrete relationships between various types of orientations and approaches, despite the various concerns embodied in different types of orientations, 'perhaps the most marked influence on the way [students] subsequently study comes from whether their interest in the course is intrinsic — in the content of the course itself — or extrinsic — in the other benefits the course might bring' (Entwistle 1998a: 80-81). Such an idea has been widely adopted in inventory development, and the deep approach scales in quite a few inventories have been constructed as intrinsically motivated (Kember et al. 1999). However, Ramsden (2003) has pointed out that students are not always able to live up to their good intentions and therefore are not always logical in the way they work.

2.3.2 Studies on Chinese students' orientations to education

Types of orientations to education

All four types of orientations differentiated in Western studies are also acknowledged in the CHC. As far as the academic orientations are concerned, to know more knowledge and become more capable of thinking is
a central value of education, and it is believed that there are activities that go
deeper into learning than merely storing up knowledge (Li and Chang 1998).
In history, such an idea had been seized upon by Confucius’ followers to
attack bureaucratic scholarship and the vogue of learning for sitting civil
exams in the Song dynasty in China (Bond 1996). In some present-day
studies, for example, Wong and Wen (2001) reported an appreciation of
studying for knowledge rather than solely for marks among a large group of
Hong Kong and mainland Chinese university students, while Liu (1998)
indicated the existence of a tendency to study mainly with the goal of
passing exams in the mainland Chinese students in his study.

The vocational orientation, as defined in the Western literature, involves
relating education to career concerns, and is further divided into two
categories in terms of whether career concerns are associated with a desire to
learn things in a deep manner so as to be able to be professional, or with a
desire to take education as an unavoidable step in obtaining a job. Similar
concerns mapping onto the definitions of both vocational intrinsic and
extrinsic concerns have been found in studies on Chinese students’ reasons
for undertaking higher education, albeit typically mingled in individual
students’ comments. For instance, in Kember and Leung’s study (1998a) on
students’ attitudes towards higher education, which involved 55 students in
full-time undergraduate courses in seven Hong Kong universities, the
majority of the students were found to have positive attitudes towards
obtaining educational experiences more attractive to future employers, and
being equipped with in-depth vocationally relevant knowledge. Another
example was a study on a group of Shenzhen senior middle school students
(Hung et al. 2000), which showed that the utility of a university degree in job-
hunting and expectations of obtaining advanced career-related knowledge
and skills both had a significant effect on their intentions to embark on
university-level study. The coexistence of vocational intrinsic and extrinsic
concerns indicated in these studies could be related to the pragmatic view of
education appreciated by the CHC (Lee 1996), which could be gleaned from
a well-known saying that ‘there are golden house and beautiful girls in
books’.
Within the CHC the value of education for personal development is also prized. Indeed, Confucius advocates seeing learning as a continuous process throughout one’s life (Li and Chang 1998). In addition, both Confucius and his followers criticise learning for the sake of pleasing others or showing off to others. In a recent work on Confucianism, Tu (1998) has summarised the intrinsic meaning of education to individuals that is inherent in the CHC as follows:

‘The Confucian way is a way of learning to be human. Learning to be human in the Confucian spirit is to engage oneself in a ceaseless, unending process of creative self-transformation ... The purpose of learning is always understood as being for the sake of the self [...]’ (2001: 346)

Wong and Wen (2001) seemed to provide some direct evidence supporting the existence of the personal intrinsic orientation to education, as both Hong Kong and Nanjing students in their studies scored very highly (4.12/5.00 for Hong Kong students; 4.41/5.00 for Nanjing students) on a 5-point likert questionnaire item – ‘to learn is to improve the quality of a whole person’.

As far as the social extrinsic orientation is concerned, a search for indications of it in the existing studies on Chinese students has proved fruitless. What turned up in a few studies are comments on the role of education in serving the social harmony embedded in the CHC. For example, both Li (1994) and Fan (2000) have argued that the CHC is mainly to encourage moral exhortations through teaching moral rules that sum up the universal obligation of a person in his/her relationships with family members, friends and society. Tu (1998) has also made a point that the meaning of education, or the basic of teaching advocated by Confucius, is always related to the welfare of the whole society in the CHC. However, the paucity of empirical evidence on Chinese students’ social orientations makes it impossible to arrive at any firm conclusion.
Students' orientations to education and their relationships with approaches to learning and studying

What has been discussed in the above section seems to suggest that it might not be a problem to find all four types of orientations and the intrinsic and extrinsic extremes in Chinese students' concerns with higher education. However, it might be problematic to simply apply the 'intrinsic-deep' and 'extrinsic-surface' relationships between orientations and approaches to Chinese students. The reason for raising this point is that, as indicated by a few studies, the impacts of some types of extrinsic orientations on Chinese students' ways of studying might not always be consistent with their common interpretations in the Western literature. For instance, in the earlier mentioned study, Kember and Leung (1998a) have pointed out that academic and vocational extrinsic orientations did not necessarily induce a surface approach to studying, because the students they surveyed typically expressed a mixed appreciation of high marks, well-paid career, and profound career and academic knowledge.

Also of relevance for understanding relationships between Chinese students' orientations and approaches is the collective value of education in the CHC. For example, the Chinese school students in Stevenson and Lee's study (1990) appeared to study for the benefit of the group (e.g. family) rather than themselves, while Hau and Salili (1990) found that both high and low achievers in their study rated pleasing parents as the most important reason for working hard for their certificate exams. Based on a review of relevant studies on the impact of collectivism on Chinese students' ways of studying, Salili (1996) has argued that, an intention to succeed in academic work, which is usually connected to an interest in the learning content in the Western literature, can be explained in Chinese contexts in terms of personal responsibilities to families, which indeed should be considered as more fundamental-level concerns compared with an interest in the learning content.
2.4 Students' beliefs about knowledge and learning

This part of the literature review follows the same style adopted in the previous part. That is, how beliefs about knowledge and learning are conceptualised in Western studies will be discussed first, together with relationships between beliefs and approaches. Studies on Chinese students' beliefs informed by Western studies are then reviewed, with the intention not just to highlight similarities but also to pinpoint culture-specific dimensions.

2.4.1 Western studies on students' beliefs about knowledge and learning

Main themes and categories relating to beliefs about knowledge and learning

Beliefs about knowledge and learning usually refer to beliefs about several aspects of learning. For instance, students' ideas about the nature of learning in general are one of the foci (Saljo 1979, 1982, cited in Marton and Saljo 1984); students' reflections on the nature of knowledge and learning in higher education have also been considered (Baxter Magolda 1992); and, how students see their roles in the learning process has also been in focus (Vermunt 1996, 1998).

Nature of learning in general

Conceptions of learning, or different ways in which students experience and understand learning, were first systematically examined and reported by Saljo (1979, 1982, cited in Marton and Saljo 1984). He investigated conceptions of learning through interviews with 90 Swedish people between ages of 15 and 72 from a number of institutions of further and higher education. Two general types of conceptions of learning were identified. For many of them, the nature of learning was taken as an essentially reproductive activity that was equivalent to rote memorisation, while for
others, learning was conceived as a constructive activity mainly aimed to make sense of the learning content. Later more thorough analyses of these people's responses to the question of the meaning of learning broadened the initial distinction between a reproductive and an interpretive conception into five more specific conceptions of learning as listed below (Marton and Saljo 1984).

A. Learning as the increase of knowledge
B. Learning as memorising
C. Learning as the acquisition of facts, procedures, etc., which can be retained and/or utilised in practice
D. Learning as the abstraction of meaning
E. Learning as an interpretative process aimed at the understanding of reality

These original findings have since been examined in varying contexts by different researchers with different types of students majoring in a wider range of disciplines. Notably, a longitudinal study over a period of six years carried out at the Open University in the UK by Marton et al. (1993) revealed five conceptions of learning that were broadly similar to those that Saljo originally described. In addition, they also introduced a sixth conception almost exclusive to senior students: changing as a person. Generally speaking, although the precise hierarchical order within conceptions as indicated above has later been challenged by taking into account the utility of memorisation in learning (Marton et al. 1997b), and there are some apparent differences at the level of wording between studies (Martin and Ramsden 1987), the broad distinction between reproductive and interpretive conceptions of learning has been widely confirmed (Marton et al. 1997b).

**Nature of knowledge and Learning in higher education**

Some of the earlier work on this topic derived from interview studies reported by scholars in the U.S. As Hounsell (1984) summarised, Perry (1970, 1977) found that the students tended to display a dualistic view in which knowledge was right or wrong when they entered the college, then moved through multiplistic and relativistic stages where knowledge was uncertain and opinions ruled, and finally reached a stage of commitment where some
idead were held to be more valid than others based on evidence. Baxter Magolda (1992) carried out a longitudinal study that lasted for five years and involved more than one hundred North American university students. Her work focused on changes in the students’ construction of meaning or ways of knowing, and found that the students developed from holding a view of knowledge as absolute defined by an authority, through viewing knowledge as transitional, towards a final stage which recognised the need to make judgements and commitments based upon contextual evidence. Vermunt’s *Inventory of Learning Style* (ILS) (Vermunt 1998, 2005a) contains some measures on conceptions of learning, e.g. ‘construction of knowledge’ and ‘intake of knowledge’, and his studies with a large group of students in the Netherlands generally confirmed the existence of these two kinds of beliefs about knowledge.

**Role of student in learning process**

In an earlier study, Dahlgren and Marton (1978) suggested two different kinds of roles that the students involved in an introductory course at university level took in regard to how they view learning: an active role and a passive role. Furthermore, they argued that the students who took an active role would more probably view learning as something they did, while those who adopted a passive role were more likely to view learning as something that just happened to them. Their conclusions have been confirmed in later studies on students’ conceptions of learning and views of knowledge. For example, in the earlier mentioned study, Baxter Magolda (1992) has also suggested that the student might take on different roles during studying – either that of obtaining knowledge from instructors or of thinking for oneself and creating one’s own perspective – in relation to their beliefs about the nature of knowledge. The role of student in the learning process was also a central theme in studies by Vermunt (1996, 1998), and he generally found that the students differed markedly in their ideas about which learning activities were their responsibility and which they expected to be carried out for them. More specifically, some of the students saw learning as receiving, and therefore expected teachers to show relationships between topics and to
check whether students had mastered the subject, while some others held a conception of learning as applying, and therefore expected teachers and course writers to illustrate how the content could be used.

**Students' beliefs about knowledge and learning and their relationships with approaches to learning and studying**

As showed in the preceding subsection, there are varied perspectives on learning and related phenomena. Some researchers have pointed out that students can take different perspectives simultaneously when talking about their views of learning, and it is therefore better to understand students' beliefs as a 'polymer' rather than a 'monomer'. For instance, Boulton-Lewis (1994) found in her study that seldom were there students who showed no evidence of any knowledge of learning, while the majority of them showed that they were aware of several relevant dimensions of learning simultaneously. Donald (2002) and Baxter Magolda (1992) have both reported a similar finding because the students involved in their studies were found usually to provide multi-dimensional answers differing in important and interesting respects when they were asked about their views of learning in interviews. Despite variations in the particular perspectives on learning, Lonka et al. (Lonka and Lindblom-Ylanne 1996; Lonka et al. 2004) have argued that students differed fundamentally in their beliefs between those who held a conception of learning as interpretive in nature for qualitative changes in ways of experiencing and understanding the real world, and those who viewed learning as a simple intake of knowledge for reproduction.

As far as the relationships between beliefs and approaches are concerned, in the above-mentioned studies, Lonka et al. also provided evidence showing that the students with different kinds of conceptions of learning adopted different study strategies in their studies. Following a different way of reasoning, Marton and Saljo (1984, 1997) demonstrated that the observed variations in the students' approaches to studying were closely linked with variations in conceptions of learning held by the students: most of the
students who used surface approaches saw learning in a narrow or mechanical way, while those students who adopted deep approaches were more likely to report a view of learning as understanding. In brief, all these studies, together with some other ones (Meyer and Boulton-Lewis 1999; Morris 2001), suggest a generic 'reproduction-surface' versus 'interpretive-deep' relationship between beliefs and approaches.

2.4.2 Studies on Chinese students' beliefs about knowledge and learning

What results from an extensive search of the literature on Chinese students' beliefs about knowledge and learning is a little disappointing, as only a small number of studies seem to focus specifically on this topic, and the majority of them are based on Hong Kong samples. More specifically, the topics that have been discussed in these studies include the nature of learning in general, the nature of knowledge, and the roles of students in the learning process.

Nature of learning in general

Marton and colleagues have carried out a series of studies exploring the conceptions of learning held by Chinese people. In one study, Marton et al. (1992, cited in Marton et al. 1996b) interviewed 20 teacher-educators from all over mainland China about their understanding of the phenomenon of learning, understanding and memorising. In another study (Marton et al. 1993, cited in Marton et al. 1996b), 30 university students, from four disciplines and three academic years in two universities in Nanjing, were invited mainly to investigate whether the ideas held by teacher-educators also existed among other mainland Chinese people. They (Marton et al. 1996b) found that although the broad distinction between reproductive and interpretive conceptions of learning was applicable in a general sense, some specific conceptions, such as learning as memorising, did not work well in the Chinese contexts. They, therefore, suggested two other ways to look at Chinese students' conceptions of learning. One was to describe learning in
terms of relationships between memorising and understanding rather than having them as discrete concepts. The other one was to conceive learning as an on-going iterative process, from a foundational phase of taking something in, followed by making sense of the things acquired and keeping them in memory, and ultimately for using what had been understood and retained in memory to solve problems reflectively.

Nonetheless, Marton and colleagues did not provide much evidence on the relationships between conceptions and approaches. Informed by their work, Watkins (1996b) carried out a study involving 44 Hong Kong secondary school students on their conceptions of learning and approaches to studying. Generally speaking, he found that those students who espoused a view of learning mainly as memorising details tended to adopt surface approaches to learning, while those viewed learning as understanding meaning were more likely to adopt deep approaches to learning. Wong and Wen (2001) reported a large-scale inventory study on a similar topic with students from Hong Kong University and Nanjing University. They found that the students' beliefs about learning could be classified as 'passive', seeing learning as some forms of reproducing remembered information, and 'active', conceiving learning as seeking meaning or understanding. Furthermore, it was evident that, the students holding an active view of learning typically indicated their aims of learning could only be achieved through an active engagement with the learning task, while learning almost turned out to be a process of absorbing as described by those students who held a passive view of learning.

Nature of knowledge and students' roles in the learning process

One of the key studies located for this topic is an interview study carried out by Kember (2001a), which involved 59 part-time university students from eight Hong Kong universities taking a range of disciplines. A major aim of the study was to examine the students' beliefs about learning in conjunction with beliefs about the role of learner in relation to that of the teacher. Kember differentiated two sets of beliefs based on his data. One was that knowledge
was considered to be fixed and absolute; teachers should serve as authorities transmitting knowledge to students; and, the main status of students was to absorb what was defined by teachers. In contrast, the other set of beliefs suggested a totally different picture: knowledge was seen as meaningful through personal construction; teachers were to facilitate a process of knowledge construction; and, students should take on an active role in the learning process.

The two sets of beliefs on the nature of knowledge reported in Kember's study echoed Chan's study (2003), in which 292 teacher education students in Hong Kong Institute of Education were asked to respond to a questionnaire, which contained constructs describing two different views of knowledge: knowledge as an authorised body of facts, and knowledge as individually constructed experiences. The distinctions between these two different types of views of knowledge were confirmed, because the factor solution from the inventory data collectively defined a reproductive and an interpretive view of knowledge. Furthermore, Chan examined the relationships between the types of views of knowledge and the nature of approaches to learning and studying as measured by the Approaches to Studying Inventory (ASI, more details on this inventory will be presented in Chapter Three). Statistical outputs suggested that the reproductive view of knowledge was related to less desirable ways of learning, while the interpretive view of knowledge was associated with more desirable ways of learning.

2.5 Teaching-learning environments as perceived by students

At this point, the focus of the literature review shifts from variables related to students' personal contexts to those linked to environmental contexts. More specifically, this part of the review intends to answer three questions. One is what might be some generic dimensions in students' perceptions of TLEs worthy of further explorations in culture- and discipline-specific contexts. The other two are what TLEs in Economics and TLEs in Chinese settings look like in terms of the generic dimensions, and how they might influence
students' learning. The reason for focusing on generic dimensions is that what the present study tended to pursue was not a fine-tuned description of TLEs per se, but those aspects of TLEs commonly perceived as influential by students in their day-to-day studies.

2.5.1 Generic dimensions in students' perceptions of teaching-learning environments

In order to identify generic dimensions, the content of two questionnaires, which might be the two that have been most widely implemented in varied countries with a large student population, have been first examined: one is *Course Experience Questionnaire* (CEQ, Ramsden 1991; Wilson et al. 1997; Griffin et al. 2003), and the other is *Students' Evaluations of Educational Quality* (SEEQ, Marsh 1982; Marsh and Bailey 1993; Coffey and Gibbs 2001). The rationale for doing so is that: a) both inventories have been developed based on students' comments on TLEs they experienced, and b) the applicability of the content of the inventories in measuring students' perceptions of TLEs have been widely demonstrated. More specifically, the content in the inventories generally touch upon three aspects of TLEs: course characteristics, classroom teaching, and assessment. Each of these three aspects is reified through some descriptive dimensions ('scales' in the inventory). These three aspects and the dimensions in them constitute a starting point for the review in this section. Studies on these foci are examined to enrich the understanding of their effects on student learning.

**Course characteristics**

The dimensions related to course characteristics in the CEQ and the SEEQ are summarised as follows:
**CEQ**
- **Intellectual motivation**
  The impact of the course on inspiring and enabling individuals.
- **Course organisation**
  Adequacy of the administrative structures and flexibilities of course organisations.
- **Appropriate workload**
  Manageability of the required workload on course studying.
- **Generic skills**
  The extent to which students perceive their courses as developing a number of generic skills and abilities, such as problem-solving, analytic skills, teamwork, confidence in tacking unfamiliar situations, and so on.

**SEEO**
- **Value of course learning**
  Course challenging and stimulating enough to increase subject interest.
- **Breadth of coverage**
  Course providing different points of view or discussing current developments.
- **Workload/Difficulty**
  Working hours outside of class in relation to course difficulty, course pace and course workload.

Generally speaking, what these inventory scales captured are two common concerns. One is the quality of course content in terms of whether the course is intellectually interesting or can contribute to their enhancement in varied skills. Indeed, quite a few studies have demonstrated that, courses that cannot supply students with effective range of challenges or cannot stimulate students’ desire to learn are more likely to head for trouble; while in contrast, if students perceive that the course content is up-to-date with developments in the field or emphasising understanding, or that they are doing something useful and interesting, they will be more willing to work hard and therefore achieve more desirable learning outcomes (Kember 1996; Biggs 1999; Ramsden 2003).

However, it seems necessary to be aware of the variations in students’ perceptions of the quality of course content. For instance, Hodgson (1997) found that students experienced the relevance of the lecture content in different ways, and discerned two kinds of experiences of relevance: intrinsic vs. extrinsic. An intrinsic experience of relevance was characterised by seeing the content in terms of their own views of the world and their understanding of it, while an extrinsic experience of relevance was associated with the predominant concern with assessment demands and how the demands could be met rather than with what might be learned from the course.
The other focus embedded in the questionnaire scales is associated with course organisation or arrangement. Specifically, there are two different dimensions related to course organisation. One is the course content arrangement, which refers to how ideas or issues are related to each other in a particular course, or between courses that are supposed to be connected in their content. There are sufficient debates on this topic, and generally speaking, materials that are arranged in ways that all issues come together in a reasonable order for students to learn will be appreciated by the students (Entwistle 1998a; Biggs 2003).

The other dimension related to course organisation is the amount of work prescribed in a course. Such an aspect of courses is usually associated with students' feelings of whether the workload is manageable, or whether they have choice over what and how to learn. Quite a lot of studies have reinforced a viewpoint that a perceived lack of control over what and how to learn, and a workload that is felt to be hard to manage will work against the students' intentions to study in deeper manners (Entwistle and Ramsden 1983; Fox and Radloff 1998; Prosser and Trigwell 1998).

**Classroom teaching**

Classroom teaching is a term specifically employed by the researcher to refer to the relevant aspects of TLEs indicated by the scales in the inventories. The reason for doing so is that the majority of the questionnaires measuring TLEs perceived by students, including the CEQ and the SEEQ, are developed to explore students' experiences of lectures or lecturers. Although this might be seen as rather a narrow focus, it reflects a fact that lecturing is the most common form of teaching in conventional higher education (Hodgson 1997; Biggs 1998). The classroom-teaching-related scales in the CEQ and SEEQ are as listed below.
There seems to be two foci to extract: the affective and the operational aspects of teaching. The affective dimension of classroom teaching refers to the attitudes that teachers hold towards teaching, students and subjects. There is sufficient empirical evidence showing that students' interest and involvement with studying will increase if lecturers show their consciousness of and consideration for students, and convey to students a sense of enjoyment in teaching their subjects (Sander et al. 2000; Entwistle 2003). These requirements are to some extent related to teacher's personality. However, as Ramsden has argued that, these personal qualities which should be mandatory for every good teacher 'are often scarce commodities in higher education' (2003: 94). More particularly, Baxter Magolda has pointed out (1999, 2002) in her discussions of constructive developmental pedagogy that, it is necessary to recognise students' capabilities in constructing meaning during the learning process and respect for their viewpoints, so as to facilitate their cognitive and epistemological development.

The other focus, the operational aspect of classroom teaching, is related to teachers' capabilities in teaching. A further distinction could be made between competencies in providing a clear and organised presentation of ideas, and abilities in encouraging high-quality learning. Entwistle (1998a), based on a thorough review of relevant studies related to the former issue, concludes that students generally appreciate a clear structured lecture with appropriate amount of details and sufficient illustrating materials delivered at an appropriate pace. In addition, teachers' capabilities in managing whole classroom experiences has been highlighted by some researchers as a
response to the consistent increase in student numbers per class that comes out of the growth of mass higher education (Biggs 1999; Pozo-Muooz et al. 2000). More specifically, Biggs (2003) points out that if teachers can learn to deal with large classes in a way that still involves sufficient contact between teachers and students, it would help to alleviate the reported alienation experienced by the students within the context of large lectures, which has been found to be closely related to their decision to withdraw their efforts on studying.

With regard to capabilities in encouraging high-quality learning, a 'good' teacher in students' eyes is invariably the one who is able to facilitate their understanding of the subject (Entwistle 2000; Lizzio et al. 2002). However, it seems that sometimes teachers appeared to be less adept in doing so because they do not notice that students might have difficulties in making sense of ideas expressed in disciplinary-specific discourse (Lave and Wenger 1999). Some researchers, therefore, recommend including scaffolding towards disciplinary discourse as a response to an awareness of students' status as newcomers to a discipline (Donald 2002; Clerehan 2004). With more specific concerns, some other researchers consider it helpful if teachers have knowledge of 'troublesome knowledge' or 'threshold concepts' in students' subject studies, and explore specific ways of helping students in this regard (Meyer and Land 2003, 2005; Perkins 2005).

**Assessment**

Dimensions related to assessment in the CEQ and the SEEQ are summarised as follows:

<table>
<thead>
<tr>
<th><strong>CEQ</strong></th>
<th><strong>SEEQ</strong></th>
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<tr>
<td>• Appropriate assessment</td>
<td>Clear demands emphasising understanding.</td>
</tr>
<tr>
<td>• Feedback on learning</td>
<td>Sufficient and supportive feedback.</td>
</tr>
<tr>
<td>• Examination/Grading</td>
<td>Valuable for developing understanding.</td>
</tr>
<tr>
<td>• Assignments/Readings</td>
<td>Sufficient and supportive feedback.</td>
</tr>
<tr>
<td></td>
<td>Fairness in test methods and marking.</td>
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<tr>
<td></td>
<td>Valuable for developing understanding.</td>
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Based on these inventory scales, two key themes could be distilled: requirements and feedback (including grading). As far as assessment requirements are concerned, studies on their impacts on student learning are numerous. Generally speaking, it is believed that what is required by assessment usually has the most direct impact on students' judgement on what is worthy of studying (Biggs 1996; Ecclestone and Pryor 2003). More specifically, there is now sufficient evidence showing that assessments requiring understanding that students can achieve through making efforts are more likely to be supportive for high-quality learning (Bound 1995; Edwards and Bruce 2004), while a demand for factual knowledge, or a demand of understanding which is out of students' reach, tends to encourage efforts towards rote learning (Biggs 1999; Burton 2001).

The other strand related to assessment is feedback – another common issue that has been considered to be influential in student learning (see, Hounsell 2003a, for an overview). More specifically, there seems to be some generic features of the kind of feedback that will be appreciated by students, and therefore contribute to a high-quality studying, such as clear and timely (Gibbs and Simpson 2004), easy to interpret (Chanock 2000), with sufficient information to make it possible for students to make progress (Higgins et al. 2001), and without a potentially negative impact on students' self-perception and confidence (James 2000).

Marking, which usually comes along with feedback, is an issue that is of particular concern to several researchers. For instance, Carless (2006) and Mutch (2003) both have indicated a need to pay attention to marks, for they found that sometimes students were mainly interested in and motivated by marks, and they did not involve much with the written feedback. Moreover, O'Donovan et al. (2001) reported the evident thirst the students voiced for more reliable and fair marking processes. Similarly, Higgins et al. (2002) have suggested understanding the interplay between feedback and marking in a more complex form, because they found that many of the students adopt a more 'conscientious' approach for a recognised importance of grades in their ways of studying for exams.
It might be necessary to mention an additional dimension related to assessment, which has not been explicitly reflected in the CEQ and SEEQ scales: guidance or support students received on their assessment tasks. In fact, quite a lot of researchers have devoted sufficient debates to this issue. For instance, Rust et al. (2003) advocate improving students' learning by developing their understanding of assessment criteria and process. Furthermore, Williams (2005) has pointed out that it could be too simple to assume that students are on the same wavelength as teachers are without spending time helping them become members of assessment practices. Both Williams and some other researchers, such as Lea (2004) and Black et al. (2003), support deliberate exposure to the language, values and practices of academic assessment through everyday teaching, while some other researchers advocate 'assessment dialogue' to help students to reflect on assessment procedures (Carless 2006).

2.5.2 Teaching-learning environments in Economics

Having discussed some generic dimensions of TLEs in terms of their impacts on student learning, this section introduces a disciplinary dimension to further explore this issue. More specifically, some features associated with course characteristics, classroom teaching and assessment in Economics that have been recapitulated in the existing literature will be discussed first, and then some commonly reported difficulties or confusions in students' subject studies will be examined. It seems important to point out that the kind of TLEs in Economics described in this section could not necessarily be applicable to any and every Economics teaching context. As will become apparent, the number of studies on this topic is limited, and the majority of the studies on Economics teaching practices have been carried out in the UK, the US, and Australia. In addition, the pictures of Economics teaching practices in these countries as suggested by the literature are not identical, although the focus of the present section is on shared features.
Courses in Economics

Several American studies (Boskin 1998; Frank 1998; McConnell 1998) seem to suggest the existence of a quasi 'natural' curricular progression. This, as described by these studies, is characterised by a linear arrangement of introductory, intermediate and advanced courses alongside academic years, and a dearth of electives for students. UK's undergraduate curricula in Economics take on very similar features. (Lawson 1989; Taylor 2002b), and Taylor (2002b) has stated that the rigid structure in Economics is dated, especially when the modular degree is being promoted across UK Higher Education to allow students more choice and the flexibility in learning (Simonite 2003).

As far as course content is concerned, the literature suggests that traditional textbooks are the cornerstones of Economics curricula in higher education, and courses in different countries seem to use similar recommended Economics textbooks (Walstad et al. 1998; Gartner 2001). More specifically, there seem to be several features shared by those widely adopted textbooks. One is a central concern with discussing main micro and macro Economics principles in these textbooks (Siegfried and Walstad 1998). In addition, despite debates and disagreement within the discipline and the emergence of new research approaches and paradigms, the core material in economics textbooks seems to be dominated by those 'significant' theories whose contributions have been taken up into the mainstream (Klamer 1990). A second one is that Economics textbooks, especially those written for foundation courses, usually contain a confirmed body of knowledge, which is often reified and codified as facts not to be contested, and therefore portray the discipline itself as ideologically and methodologically harmonious (Klamer 1990; Walstad et al. 1998). A third one is that most of the exercises and examples in Economics textbooks are constructed to fit Economics models, but extraneous to the real-life problems (Bell 1988), and cannot easily address contemporary social issues or account for the complexity of economic activities in the real world (Lewis 1995).
Teaching in Economics

Traditional textbooks are also the cornerstones of pedagogy in Economics, because what emerges from a review of those studies on teaching practices in Economics (Becker and Watts 1998, 2001; LTSN survey 2001, 2003) is a picture assuming a considerable degree of interaction with the above-mentioned features of the textbooks in Economics. Generally speaking, like what Swales (1993) has argued, textbooks tend to facilitate pedagogical assumptions that construct students as consumers to be filled with discipline knowledge, methods and practice.

As far as teaching content in Economics is concerned, Richardson (2004) described an undergraduate course at introductory level in an Australian university, and found that teaching seemed to have more to do with teaching students a standardised and validated body of knowledge, and a bounded range of acceptable approaches to follow. Although such a situation might not be accepted by teachers, as Richardson (2004) argued, the students appeared to think so given the core status of text in textbooks in their studies. Indeed, what Richardson reported is not rare in Economics teaching, for Heyne (1995) has once pointed out that, even when an individual academics may have concerns about the usefulness of the content in the textbooks, there is an assumption that a standard set of topics will be taught in the first year; and, that unless these topics are taught, academics risk criticism from their colleagues and students alike for failing to teach materials upon which the next level subject is founded.

A particular issue related to the content of teaching in Economics might be that, compared with other social science subjects, Economics tends to be ‘harder’ in terms of its emphasis on the technical side of the subject and the importance of quantitative data analysis. Quite a few British Economics lectures interviewed in Macfarlane’s study (1997) picked up this point, and considered it as a reason for students to think that Economics was a more difficult option for them compared with other courses provided in the degree programme. In addition, teaching content in Economics courses, especially
those introductory courses appears to be substantial, and teaching has to be width at the expense of depth (Dahlgren and Marton 1978; Macfarlane 1997).

With regard to the ways of teaching, despite an increased importance of and interest in teaching economics and its scholarship, teaching in the US appears to be still relatively traditional and little as changed based on the two surveys conducted with a five-year interval (Becker and Watts 1998, 2001). More specifically, 'Chalk and Talk' lecturing turns out to be the dominant type of teaching without significant changes (Becker and Watts 2001). Economics lectures in the UK tend to be accompanied by relatively structured tutorials and seminars (LTSN survey 2001, 2003). However, Taylor (2002a) has noted a commonly adopted rigid structure of Economics seminars, in which content presented in lectures is reinforced by discussion of a set of prepared questions.

In addition, there are two particular points worth mentioning. One is the difficulty in covering a whole textbook in a one-semester course, because textbooks in Economics are always substantial. Although this seems to be unavoidable, quite a few lecturers in Macfarlane’s study (1997) pointed out that shorter, semester-long modules made it more difficult to provide students a coherent, integrated learning experience. Similarly, Hewings (1990) noted that skipping sections in teaching made students poorly grounded to read the textbooks on their own. The other point is that the lecturing pace in Economics classes, captured by some researchers (Reimann 2003; Richardson 2004), was perceived as fast with the apparent aim of covering a large body of subject-matter in a limited time. It was further argued that, in such a case, students did not get sufficient time to think during class beside taking notes, and had to return to mechanical note-taking instead of concentrating on understanding the information conveyed.

Assessment in Economics

The UK and the USA appear to differ in their assessment practices in terms of the formats of assessment commonly used. Based on Miller’s (2002)
description, it seems that 'shortish' conceptual questions, essays, unseen examinations requiring extended-prose answers are commonly used in the UK. In contrast, multiple-choice questions (MCQ) and true-false questions appear to be much more widely used in the US, due to a concern about the validity and reliability of assessment tools, as expressed, for instance, in Walstad (2001). In this regard, short-answer questions only makes up a relatively small proportion of assessment, while essays and term papers are much less frequently implemented (Hansen 1998, Walstad 2001). Furthermore, Hensen (1998) has noted that there seems no particular concern on the part of staff to have economics literacy as an important issue in their teaching, nor to devote much energy to students’ writing tasks.

Despite the variations in formats, there seem no obvious differences between these countries in what is assessed, given the central status taken up by the textbooks. As Miller has also described (2002), in varied types of assessment, students are normally asked to answer questions closely related to the material of the lecture course and the principle textbook. Richardson (2004) reported that the assignments and examinations in that introductory course could be taken as a gloss on the textbook, requiring the textbook for interpretations of their meanings. These studies seem to echo an earlier description of Economics teaching made by Heyne that: ‘teachers present what appears in the textbooks, the textbooks offer what teachers expect, and teachers expect what has been in the textbooks for as long as students can remember’ (1995: 150).

**Students’ learning in Economics**

It seems reasonable to adopt a paragraph from Siegfried to summarise the features of teaching in Economics based on the aforementioned studies:

‘(E)conomics instructors frequently adopt a lecture approach, emphasising passive learning, narrow forms of evaluation, few or no writing assignments, and a reliance on textbooks (rather than real books) and routine problem set … ’ (1998:67)

Taking into account what has been discussed earlier in Section 2.5.1, such TLEs in Economics appear to be more likely to work against high-quality
learning. This point has been confirmed to some extent in some studies of students' feelings towards their subject studies. Generally speaking, two kinds of concerns appeared to be prevalent, and can be linked with less desirable ways of studying.

In an earlier study, Papps and Henderson noted that 'students are often 'alienated from the study of economic theory because they feel that the assumptions of economics are unrealistic and, as a result, that the theory cannot be used for the formation of economic and social policy in which many of them are interested' (1977: iii-iv). Such a situation has been repeated in several recent studies. For instance, Reimann (2003) reported the students' alienation from the study of economics theories, and contributed it to the limited evidence provided to the students showing the trustworthiness of assumptions underlying economics theories and the applicability of theories to real issues. Similarly, Macfarlance (1997) argued that the absence of a connection between theory and reality in teaching left the students an impression that Economics was 'not interesting', and contributed to their decisions not to choose Economics.

Also commonly reported are confusions or difficulties the students encountered when being asked to interpret textbook knowledge in their own words. For instance, Richardson (2004) found that the students felt confused and inexpert when they were asked to write essays with personalised understanding expressed in ways different from textbooks, and attributed such a situation to the absence of other advice and models besides the textbooks. Similarly, Hansen (1998) argued from his own teaching experiences that the difficulties the students met during essay writing in putting forward their own opinions could be understood by taking into account that, what the students were taught in class was to come to terms with a fixed canon of content knowledge and methodology enshrined in the textbooks, and that textbooks usually contained no challenging ideas from other schools of thought.
2.5.3 Teaching-learning environments in Chinese contexts

In this part, the focus shifts to TLEs in Chinese context. The review concentrates on the three focused aspects of TLEs in Chinese contexts first, and then devotes some words to a brief description of Economics teaching in mainland China.

Courses in Chinese contexts

Studies of Chinese university students' perceptions of the courses are rare, and a few studies by Kember and colleagues are exceptions. In one study (Kember and Leung 1998a), they investigated more than 50 Hong Kong university students' views of courses, and found that courses which were closely related to reality or career concerns, well-structured, and allowed students time for learning on one's own were generally appreciated. In another study, Kember et al. (1996) studied 174 students' perceptions of workload by asking them to complete a study diary, in which the amount of coursework prescribed in the curricula was taken as an element that contributed to students' overall perceptions of workload. Their findings suggested that the students' perceptions of workload varied, and they reacted in different ways according to the perceived workload. However, as their work also involved other elements, such as relationships with the teacher and exam pressure, it was hard to separate out what were students' perceptions of the amount of coursework, and how that had influenced their studying. Such a situation is applicable to several follow-up studies on the same topic (Kember and Leung 1998b, 2006)

More information that might be helpful to understand course content in mainland Chinese university curricula came from an examination of the Ministry's official documents on curricula design, as the Ministry still plays a central role in deciding national curricula that are required to be closely followed by individual institutions. The official document specifically examined in this study was the Reform Plan for Education Contents and Curricula Structure in Higher Education Facing the 21st Century ('the Plan'),
which was inaugurated in 1997 and is still in force today.

A close examination of the Plan conveys two features of the implemented curricula, which are in focus in this study. One is the limited choice provided for students to personalise their degree studies. More specifically, the Plan requires schools or departments to provide optional courses to students in addition to compulsory courses, but no less than 70 percent of the total credit for any degree should come from compulsory courses. In other words, although the present policy on curricula design has moved away from a totally compulsory curriculum, which had been in operation for many years before 1997, it is still compulsory-courses orientated.

The other characteristic is that, generally speaking, the total amount of work a student needs to complete for a degree is substantial. Taking Economics as an example, the average credits for obtaining a Bachelor’s degree in Economics as prescribed in the curriculum for Economics are 160 for a four-year degree programme. With each credit equivalent to an 18-hour teaching input, this is by no means a slight workload for students (Liu 2005). Although empirical findings on the influence of such a curriculum on students’ are not available, the possible effects seemed unlikely to be very encouraging given what the Western literature suggests.

**Classroom teaching in Chinese contexts**

Chinese teachers are more often portrayed by their Western colleagues as using a didactic way of teaching without involving students much during class (Mok et al. 1996). The didactic way of teaching has also been highlighted in McKay and Kember’s study (1997), in which a group of Hong Kong tertiary students in health care profession were involved for their perceptions of TLEs. In particular, the students reported experiencing a didactic way of teaching when the teachers showed little concern for the students’ reactions to their lecturing, or were inefficient in convincing the students that what they were doing was to help the students to learn rather than to fulfil their teaching tasks. Furthermore, they illustrated the negative impact on the
students' learning when the students perceived the teaching to be of the above kind.

However, it seems inappropriate to stereotype the teaching in Chinese context as didactic, especially when it is observed that teachers appear to dominate the speech inside classroom. For example, Gao (1996) examined how classroom time in 17 secondary physics classrooms in Guangzhou was used, and found that although the majority of class time was occupied by the teachers to give lectures, teachers of these classes saw their teaching as student-centred. The reason for these teachers to say so was that they interpreted student-centred learning as paying attention to students' attitudes and trying to make sure that students were thinking actively rather than accepting passively what they said. There were some other studies that also suggested a similar picture (Stigler and Stevenson 1991; Jin and Cortazzi 1998).

Indeed, it has been found that Chinese students hold some different views towards relationships between teacher and students from their Western counterparts. For instance, Chinese students would like to show great respect for teachers and authorised knowledge through being quiet in class and being obedient in teacher-guided studying (Mok et al. 1996). Nonetheless, besides these differences, studies of Chinese students' perceptions of teaching generally indicate that some generic features of effective teaching that emerged from the Western literature – such as clear and well-organised presentations, and teaching encouraging understanding – are also appreciated by Chinese students, and have a positive effect on their approaches to studying (Lin et al. 1995; Marsh et al. 1997; Cortazzi and Jin 2001).

Assessment in Chinese contexts

It is not rare to find criticism of Chinese school assessment system and practices in terms of their negative effects on student learning. More specifically, what has emerged from the studies on Chinese exam practices
seems to suggest two kinds of consensus among the researchers (Tang and Biggs 1996; Dahlin et al. 2001; Liu 2004). One is that assessment has been very competitive in China, as only a small proportion of the population could succeed in numerous assessments which lead to wealth and status; and, the other is that Chinese exams have predominately assessed factual knowledge, as learning in the CHC puts greater emphasis on an absorptive learning of foundational knowledge than on critical thinking or problem solving. The impressions left on some Western researchers that Chinese students were sensitive to cues that might lead them to good exam marks and were adept at playing the exam game could be related to a kind of understanding of Chinese exam practices similar to the one described above (Kember 2000a; Watkins 2000).

Although there are very few studies reporting examples of good assessment practices supportive of student learning, it would not be appropriate to take that in itself as evidence of shortcomings in the overall assessment practice in Chinese contexts. For instance, in a study of students’ perceptions of assessment on a tertiary course in one Hong Kong institution, in which 39 students were interviewed, Tang (1994) found that it was the students’ perceptions of the demands of the assessment rather than the assessment per se that affected their ways of studying, because the students faced with same assessment tasks but reacted in different ways. Pratt et al. (1999) suggested another angle to look at Chinese students’ perceptions of assessment requirement, which was that demands for factual knowledge could be taken by some Chinese students as an emphasis on foundational knowledge, and therefore were acceptable. In a word, further studies are needed to provide a fuller understanding of assessment practices in Chinese contexts and their influences on student learning.

Economics teaching in China

Several key figures in Economics teaching in China gathered together in the summer of 2005 for the first conference on Economics education that had
ever been held in China\textsuperscript{4}. A main theme of this conference was to reflect on Economics teaching practice in China and its problems. An examination of conference speeches reveals that both the teaching practices and the influences on student learning as described in these presentations appear to be surprisingly similar to what the Western literature has suggested. For example, it was argued that: Economics teaching in Chinese universities is textbook-based (Lin 2005); Teaching in Economics is dominated by the ‘chalk-talk’ style lecturing (Zhang 2005); and, there is insufficient emphasis on how Economics theory should be taught in relation to real practices (Yuan 2005). No complementary words will be added here, however, because a fine-grained discussion of similar features of TLEs in Economics has been presented in Section 2.5.1.

Instead, it might be useful to look at possible reasons for the striking similarities between Chinese Economics teaching and that in the US and the UK. Based on conference speeches again, there seemed to be three ‘facts’ that were shared among those key figures in Chinese Economics teaching, which provide possible explanations for the similarities. First, Chinese Economics teaching has been greatly influenced by these two countries during the last two decades (Xia 2005). Second, what is used in teaching are those classic textbooks widely used in Western universities (Lin 2005). Third, the majority of Economics teachers in China are those brought up by reading classic Western textbooks (Yuan 2005).

### 2.6 Closing comments

Up to this point of the chapter, how four dimensions of students’ learning experiences suggested by SLR – approaches to learning and studying,
orientations to education, beliefs about knowledge and learning, and TLEs as perceived by students — are conceptualised in the literature have been considered not only in generic forms, but also with reference to subject- and culture-specific dimensions. In brief, what came out of the literature review is that each of these four constructs captures an important aspect of student learning, and is generally applicable to students' learning experiences in different subject- and culture-specific contexts. Indeed, the literature reviewed in this chapter backed up the adoption of these four constructs in the investigation of student learning in a mainland Chinese Economics context reported in this thesis.

More specifically, the review seems to suggest a more focused framework for the inquiries into the students' learning experiences. First, approaches to learning and studying could be explored in terms of intentions associated with the learning content, cognitive strategies and regulation activities; and, it would contribute to arriving at a richer description of students' approaches by introducing a task-specific dimension. Second, it could be envisaged that the students would probably choose to talk about their expectations of higher education from academic, vocational, personal and social perspectives; whereas, they might also tend to discuss varied concerns simultaneously. As far as the beliefs about knowledge and learning are concerned, the literature suggests three particular perspectives that might be worth pursuing, namely, beliefs about nature of learning, views of nature of knowledge, and attitudes towards the role of a learner. Similar situation also applied to the TLE as perceived by students, for three aspects of a TLE turn up as deserving more concerns: course characteristics, classroom teaching, and assessment.

Before closing this chapter, however, it seems necessary to clarify the kind of relationships between these constructs that is particularly pursued in this study. Although this has not been pointed out explicitly, the relationships discussed in the literature review showed differences in approaches in relation to variations in students' orientations, beliefs, and perceptions of TLEs. Compared with multi-dimensional relationships between varied constructs associated with student learning that have been achieved through
thirty years' research on student learning (Entwistle 2000; Biggs 2003; Richardson 2005a, 2005b), the interplay between approaches, orientations, beliefs, and perceptions of TLEs considered in the present study must be understood as a part of this more complex picture.
Chapter Three

Research design and analysis

3.1 Introduction

In the previous chapter a comprehensive and focused survey has been conducted of the major issues in the literature with regard to the main foci of the present study. The aim of this chapter is to provide a fine-grained description of how the investigation reported in this thesis was planned and conducted. The chapter begins with a description of the context in which the study was carried out. Since both inventories and interviews were employed to obtain relevant data from the students, the inventory and interview data collection and analysis processes are considered next, after a brief methodological debate. Two general issues for any social science research, trustworthiness and ethics of the study, are discussed at the end of this chapter to evaluate the overall research design.

3.2 Research context

The Economics degree programme in focus in this study is situated within the Business School in a mainland Chinese University, where the researcher worked and where the research interest originated. In China, the term ‘university’ generally refers to those tertiary education institutions that can award degrees at honours level with a four-year curriculum. There were 1517 universities in mainland China in 2004 (ASEC 2004). By 2005, the university involved in this study had more than 1300 teaching staff and 21,000 students in its 65 departments in 18 schools, and provided 72 Bachelor’s and 15
Master's degree programmes. The university had a relatively high-standard student intake because of its status as one of the two universities, which are allowed by the Ministry to begin their admission process before other universities in the same province. Furthermore, the students enrolled in the university's Economics degree programme, which was the focus of this study, were those with the most promising marks on the campus. For instance, the average score on the college entrance examinations of the newly recruited students in this degree programme for the year 2005 was the second highest, exceeded only by the students in Medical science.

Four courses provided by the degree programme were selected, one from each of the four academic years, to explore students' learning experiences in the degree programme. The term 'course' utilised in this study was defined as a semester-long (generally 18 weeks) lecture series taught by one teacher. The rationale for focusing on what happened in courses to understand a degree programme was that the teaching practices in the degree programme concerned in the study took place mostly at course level, and lectures were where most of the interactions between teacher, students and knowledge took place. Indeed, Lonka et al. (2004) has claimed – based on a review of a series of studies of influences from various levels of TLEs on students' learning – that the most important level for studying students' learning experiences might be that of the courses.

As far as the four specific courses were concerned, the reason for choosing them was twofold: a) since they were all core compulsory courses for students taking the degree programme that were in place when the study was carried out, and that students' attendance rates on compulsory courses were usually high, such a choice made it possible to get access to the majority of the students involved in the degree programme; and, b) since these

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5 In China, all universities recruit students in a set sequence, so that the earlier a university begins to choose students, the more possible it is to recruit students with better grades.

6 This could be attributed to the fact that Economics as a subject is usually oversubscribed, because Economics is seen as associated with prestigious, social status and academic achievement, and only students with fairly good marks can get access to the subject (Liu 1998).
courses were recommended by the degree programme administrator to focus on, such a choice was believed to be beneficial to obtaining support from the administrator. One needs to clarify, however, that there was no intention to look at development in student learning, even though one course from each academic year was chosen. In addition, the choice about courses did not take into account the particular teaching content they involved. Nonetheless, in order to facilitate readers’ understanding of the research context, a brief introduction of the four courses as explained in the degree programme’s curricula is provided in the footnote below.

More specifically, tutorials, which are commonly integrated into course teaching in Western universities, were not implemented in this university. All courses had a prescribed textbook to be used as the core of the syllabus. One essay assignment and a written test contributed to 90 percent of students’ overall grade for a course, while the rest 10 percent came from their attendance rate. Besides, because of the large number of the students in the degree programme, students were divided into several cohorts, each of less than 70 students, for teaching purposes, although an identical curriculum and assessment for a given course was usually followed by each of the cohorts.

It might be suggested that focusing on one course from each of the four years could not provide an adequate description of student learning in the degree programme, for courses should be varied from each other in different aspects. However, as we shall see later in chapters Five to Seven, students

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7 The researcher negotiated with the degree programme administrator which courses could be approached. Although he claimed that any course should be fine, he recommended me to look at these four, to which the degree programme had allocated its most able lecturers.

8 Political economy (the 1st year course) is the term for the study of production and the relationships of buying and selling and their relationship to laws, customs and government. Macroeconomics (the 2nd year course) refers to the study of the entire economy in terms of the total amount of goods and services produced, total income earned, the level of employment of productive resources, and the general behaviour of prices. Econometrics (the 3rd year course), which literally means ‘economic measurement’, as a field of study aims to give empirical content to economic theory and also to empirically verify economic theory. Development economics (the 4th year course) is a branch of Macroeconomics that deals with the study of the causes of long-term economic growth, especially in developing countries.
had often referred to other courses they had taken during their degree studies in the process revealing their own experiences, and therefore compensated to a large extent for the limitations caused by the choices made on particular courses.

3.3 Research methods

This second part of the chapter is about the methods adopted in the study to obtain relevant data, and how the data was analysed. Generally speaking, inventories and interviews were used in combination. The reasons for marrying inventory and interview data in the present study are discussed first in relation to the tradition of doing research in SLR, and the advantages of using these two kinds of methods in combination in producing distinct but complementary data. Detailed considerations and strategies for inventory and interview data collection and analysis are then discussed in the second and the third section of this part.

3.3.1 Methodological debates

Since it has been resolved that the overall study would adopt conceptual perspectives pursued in SLR, it appeared to be natural to also follow the traditional ways of doing research in SLR. Since its origination, SLR has been carried out on two fronts. The studies of Marton and colleagues have heavily relied on interviews with students (Marton et al. 1997a). In their own work, however, Entwistle and Biggs have introduced and developed inventories based on findings from interview studies (Entwistle and Ramsden 1983; Biggs 1987). Both of these two methods have been proved able to produce empirical data that contribute to the conceptualisation of student learning in SLR (Entwistle 1991; Hounsell 1997b).

Interview studies carried out by Marton and colleagues generally took on following characteristics (Saljo 1988; Marton and Booth 1997). Firstly, the interviews usually followed a loose style to allow interviewees freedom to be
reflective and interviewers opportunities to explore interesting issues emerging during interviews. Secondly, most of the interviews were recorded and transcribed, as all later analyses depended on a thorough examination of interview data. Additionally, what Marton and colleagues mainly looked for during interview data analyses was a limited number of fundamental categories or themes that could cover the major variations in peoples’ conceptions of the situations they encountered. Quite often, the categories or themes they sought were those that could be clearly defined and seen in relation to one another in a logical hierarchy. Marton (1981) coined the term ‘phenomenography’ to refer to the research method having above characteristics, and it is not hard to find studies carried out by other researchers who have claimed to follow Marton’s phenomenographic tradition in SLR (Prosser et al. 1994; Cooper et al. 2002; Linder and Marshall 2003).

A detailed discussion of phenomenography is outwith the scope of the thesis. Instead, it seems important to point out that not all interview studies in SLR have followed Marton’s style. For example, some interview studies have not aimed to identify hierarchical categories describing the main variations in participants’ experiences, but rather to coin categories that can help to better describe students’ experiences, whether the categories showed variations in students’ learning (McCune 2000). More recently, some researchers have begun to introduce fine-grained analyses of everyday studying so as to obtain a rich and full description of individual experiences (Entwistle et al. in press), rather than to follow the phenomenographic tradition, which seeks to describe and understand a group of experiences (Entwistle and Marton 1984).

The quantitative approach of SLR was founded by the introduction of two likert-style inventories developed for assessing students’ approaches to learning and studying. One is the Approaches to Studying Inventory (ASI), which was first developed by Entwistle and colleagues at Lancaster in the UK (Entwistle and Ramsden 1983), and has continued to develop since then (Tait et al. 1998; Entwistle et al. 2000; Entwistle et al. 2003). The other one is the Studying Process Questionnaire (SPQ), which was developed almost at the
same time by Biggs (1987) in Australia. Similarly, SPQ has also been subsequently modified for several times (Kember et al. 1999; Biggs et al. 2001). Albeit different in their appearance, both of these two questionnaires retain using the deep/surface dichotomy as the way to categorise the fundamentally different cognitive strategies connected either with or without the intention to understand. In addition, it is inappropriate to ignore that most of the likert-style items in these two inventories were based on what students have said in interviews about how they have studied.

Another aspect of student learning that has also been widely measured by likert-style questionnaires is students' perceptions of TLEs. Among this group of questionnaires, the CEQ and the SEEQ that have been discussed in Chapter Two have probably been used with the biggest number of students across countries as a routine way of assessing the quality of the TLEs (Lin et al. 1995; Coffey and Gibbs 2001; Ramsden 2003; Trigwell and Ashwin 2003). Additionally, it should be noted that the CEQ has also been frequently used in combination with questionnaires on approaches to learning and studying, e.g. the ASI, to detect relationships between students' perceptions of TLEs and approaches (Kreber 2003; Richardson 2005a, 2005b).

Unlike approaches to learning and studying and perceptions of TLEs, students' orientations to education and beliefs about knowledge and learning have not been frequently studied by means of inventories. The Reflections on Learning Inventory (RoLI) which is still under development by Meyer et al. (Meyer 1995, 2000b; Meyer and Boulton-Lewis 1999) is one identified in the present study which has been concerned with measuring students' conceptions of learning as described in SLR interview-based analyses. Vermunt's Inventory of Learning Style (ILS) (Vermunt 1998, 2005a) contains statements that cover certain types of orientations to education, e.g. 'personal intrinsic', 'self-test-orientated' and 'certificate-orientated', and some measures on conceptions of learning, e.g. 'construction of knowledge' and 'intake of knowledge'. However, some of the items in these scales did not work well when they were tried on other occasions, for instance, the development of the ASI (Entwistle et al. 2000, 2003).
Either interview or inventory as a data collecting method has its own advantages and disadvantages, and quite a few researchers have devoted sufficient debates to the appropriateness of these two methods. For instance, interviewing methods, especially less structured interviews, are generally considered efficient in providing sufficient opportunities to collect rich data so as to enable an in-depth exploration of participants' perspectives (Silverman 2000). However, since interviewees usually need sufficient time to think and respond during interviews, the size of sample that can be reached within a fixed period of time is invariably small (Patton 2002). It is also possible that interviews that are not fully structured might create difficulties in creating identical contexts for all participants due to the variations in question choice and wording in individual interviews (Denzin and Lincoln 2000). More importantly, aspects of researchers' behaviour may well prompt participants to respond in a way that tends to confirm researchers' own expectations (Cresswell 1994; Robotham 2004).

In contrast, a main advantage of questionnaires, especially those fixed-response (e.g. likert-style) questionnaires, is that they provide opportunity to reach a large number of respondents and is quick to complete and score (Black 1999). In addition, it is more likely to attenuate the researcher effect and procedural variations because using questionnaires does not depend heavily on any direct personal interaction between the researchers and the participants (Richardson 1990, 2004). However, fixed-response inventories have problems in providing a full account of participants' experiences because the limited number of questions and the fixed answers they generally contain. Furthermore, to what extent participants' responses to questionnaire items could be reliable is also a question of particular concern to quite a few researchers (Shevlin et al. 2000).

In SLR, loose-structure interviews and fixed-response inventories have been typically used in combination, and some researchers take interviews and questionnaires together as a two-step methodology to produce data on students' learning experiences (Lonka et al. 2004). In particular, loose-structured interviewing has been successfully used in many of the studies in
SLR to provide rich data for an in-depth understanding of students' perspectives (Hounsell 2003b), while using fixed-response questionnaires has greatly enlarged the student sample surveyed in SLR (Watkins 2001). In addition, what came out of these inventory and interview studies are findings that strengthen and justify each other, and therefore contribute to the reliability of the conceptualisation of student learning derived from SLR (Watkins 1996a; Trigwell and Richardson 2002).

Taking into account the above discussions, the researcher decided to use loose-structured interviews and likert-style questionnaires in combination, while taking into account fully the possible problems in using these two methods. A detailed account of the procedures that had been taken to assure an appropriate use of these methods will be reported in the following sections. Given that there are also many other data collecting methods, it seems also worthwhile to point out, at the end of this section, that since interviews and questionnaires in combination were considered to be sufficient to yield the data required by the study, some other methods that could also be found in SLR, such as diaries and observations, were not considered in the present study, although each can produce useful data of different kinds (Patton 2002).

3.3.2 Strategies for data collection and analysis I – the inventories

Decision on adopting and adapting appropriate questionnaires

An early decision made concerning the use of a likert-style questionnaire in the present study was to adopt and adapt appropriate questionnaires rather than develop a new one from scratch to measure the main foci in focus in this research: approaches, orientations, beliefs and perceptions of TLEs. Three considerations had contributed to such a decision. The first one and the fundamental one was that developing a questionnaire from scratch is by no means an easy task and the work involved in it could itself become a doctoral study. The second one and the pragmatic one was that there are a series of questionnaires that have been demonstrated to be applicable in Chinese
contexts, such as the ASI, the SPQ, the CEQ and the SEEQ, although they might not reflect well the most up-to-date findings in SLR or the particular purpose of the present study. Last but not least, two questionnaires, which in combination met well the requirements of the study, were being developed and used at the University of Edinburgh at the time when the researcher was embarking on the study, and therefore provided a unique and invaluable opportunity both to make use of these ‘leading-edge’ instruments and to call upon the advice of those who had devised them, when the researcher was attempting to create a questionnaire suitable for the present study.

Based on these considerations, the two questionnaires, named the Learning and Studying Questionnaire (LSQ) and the Experiences of Teaching and Learning Questionnaire (ETLQ), developed for the Enhancing Teaching Learning Environments in Undergraduate Courses Project (the ‘ETL Project’), were chosen to be adapted for the present study. As we shall see next, since the majority of the items in the questionnaire used in this study came from the ETLQ, the newly devised questionnaire was therefore called Chinese version of the ETLQ (CETLQ) to indicate its close relationship with the ETLQ. An English and a Chinese version of the CETLQ and the LSQ and the ETLQ used in the ETL Project are provided in Appendix I.

Specific procedures that had been taken to obtain the varied sections in the CETLQ based on the ETLQ and the LSQ will be discussed in detail below. As will be apparent in the following sections, two principles had been rigidly adhered to in adopting and adapting questionnaires: a) all items and subscales in the resulting CETLQ should be suitable to the mainland Chinese context involved in the present study; and, b) all modifications made should not weaken the defining features of original constructs (Tait et al. 1998) so as to ensure the sections in the CETLQ could inherit the good construct validity

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9 The ETL Project (2001-2005) was a four-year nationwide research project funded by the Economic and Social Research Council (ESRC) in the UK under its Teaching and Learning Research Programme (TLRP). It was designed to explore ways of strengthening the TLEs experienced by students taking undergraduate courses, so as to enhance their achievement. It focused on four subjects, namely, Economics, Engineering, Biology, and History. Details on this project, including its two questionnaires, the LSQ and the ETLQ, and other publications, are available at www.ed.ac.uk/etl/.
and reliability of the original questionnaires.

Questionnaire modification

Questionnaire modification I: Section on 'Orientations to education' in the CETLQ

The first section of the CETLQ contains ten items on different types of orientations to education. These items were borrowed directly from the items in the first section of the LSQ. Among the ten items, eight of them reflect four main functions of higher education (i.e. academic, vocational, personal and social) and two distinctive kinds of interest in taking part in higher education (intrinsic vs. extrinsic), as suggested by Beaty et al. (1997). There is also an 'independence' item covering the idea that higher education could contribute to development as a person (France and Beaty 1998). The 'lack of purpose' item is to indicate a kind of 'alienation' from university life (Entwistle and Ramsden 1983).

Of all the ten items, the researcher felt that the meaning expressed by them would make sense to Chinese students with the exception of the 'sport' element included in the social extrinsic orientation item. It seemed quite strange to a non-Western researcher that to take part in higher education could be associated with enjoying sports facilities on campus. However, as it is only an optional choice provided in that item, it was decided not to make any change to this item, and therefore have the applicability of this idea checked out with more students.

Questionnaire modification II: Section on 'Approaches to studying' in the CETLQ

The second section of the CETLQ is developed to describe students' approaches to studying. The section on 'Approaches to studying' both in the LSQ and the ETLQ, which came from the Approaches to Learning and Studying Inventory (ALSI, the latest version of the ASI, Entwistle and McCune 2004),
were used as the basis for the development of this section.

An outstanding characteristic of the ALSI compared to other questionnaires measuring students' approaches to learning and studying is that its structure reflects the latest development in the ways of describing students' approaches, which is not to retain the 'achieving approach' as a separate approach paralleling to deep and surface approaches. More specifically, the third section in the LSQ contains a long-version of the ALSI with 36 items, which are divided into 14 subscales and comprise 5 main scales. The ETLQ, in contrast, contains a short-version of the ALSI with only 18 items in its first section. Since all subscales and scales in the ALSI are retained, there are quite a few single items representing subscales. In addition, items in the LSQ are expressed in present tense to describe a general way of studying, while the past tense is used in the ETLQ to describe the particular ways the students adapt their study on a specific course.

Since the present study sought to investigate the students' ways of studying in regard to specific courses, the way of phrasing items that is used in the ETLQ was more appropriate than that used in the LSQ for the purpose of the present study. It was, therefore, decided to develop the section on 'Approaches to studying' in the CETLQ mainly from the items in the ETLQ, but supplementing these with appropriate items from the LSQ. The modifications made to the original ETLQ items and scales on approaches to studying can be summarised as follows.

a) A total of 13 out of the 18 items in the first section of the ETLQ were judged to be useful in the CETLQ without any significant change in their wording.

b) With regard to the four of the remaining five items, the ways they were treated are listed below:
<table>
<thead>
<tr>
<th>Item in the ETLQ</th>
<th>Decision</th>
<th>Reason or Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETLQ 14: I've tried to find better ways of tracking down relevant information in the subject.</td>
<td>Delete</td>
<td>Ways of tracking down information in the context concerned in this study was quite limited and made this item hard for students to respond. This item really duplicates items in 'monitoring studying effectiveness' scale, albeit expressed in a negative way.</td>
</tr>
<tr>
<td>ETLQ 17: I've just been going through the motion of subject studying without seeing where I'm going.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETLQ4: I have generally put a lot of effort into my studying.</td>
<td>Too general to be replaced by rephrased LSQ items no.28 and no.10 respectively</td>
<td>CETLQ-II 22: Whatever I've worked on, I've generally pushed myself to make a good job of it.</td>
</tr>
<tr>
<td>ETLQ 7: On the whole, I've been quite systematic and organised in my studying.</td>
<td></td>
<td>CETLQ-II 11: I've been quite good at preparing for classes in advance.</td>
</tr>
</tbody>
</table>

c) The ETLQ item no.13 was seen as potentially problematic, since what might be interpreted in a Western context as 'not being critical in studying' might simply reflect an appreciation of 'respectful learning' in the CHC. After due consideration, however, it was decided to retain the item (CETLQ-II no.17), while remaining alert in the later analysis to the possibility of alternative interpretations.

d) Two items from the LSQ (no.23 and no.16) were included after rephrasing to strengthen two scales in the ETLQ, which expressed important aspects of students' approaches to studying but contained no or only one item.

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<thead>
<tr>
<th>Rephased LSQ items in the CETLQ</th>
<th>Scale be to strengthened</th>
</tr>
</thead>
<tbody>
<tr>
<td>CETLQ-II 4: In order to keep my work well focused, I've thought about what I want to get out of this module.</td>
<td>Monitoring study effectiveness</td>
</tr>
<tr>
<td>CETLQ-II 18: I've carefully prioritised my time to make sure I could fit everything in.</td>
<td>Time management</td>
</tr>
</tbody>
</table>

e) An additional three-item subscale (CETLQ-II no.7, no.19 and no.20), named 'memorising with understanding', was constructed and added to the
‘Deep approach’ scale, both as a way to reflect the characteristics in the ways that Chinese students use memorisation in studying, and as a way to contrast with the ‘memorising without understanding’ subscale in the ‘Surface approach’ scale. In order to strengthen the distinctions between the ‘memorising with understanding’ and the ‘memorising without understanding’ subscales, one new item (CETLQ-II no.14) was also written to strengthen the ‘memorising without understanding’ subscale in the ‘Surface approach’ scale.

f) Because a close examination of the subscales included in the ‘Surface approach’ scale revealed that it did not have a subscale on intentions related to a surface approach, a new item (CETLQ-II no. 9) was written and added to reflect such a kind of intention.

As a result, the section on ‘Approaches to studying’ in the CETLQ contains 23 items, which are divided into 15 subscales and made up five main scales. Table 3.1 summarises the main scales and subscales in this section.

**Table 3.1**

Scales and subscales in the section on ‘Approaches to studying’ in the CETLQ

(adapted from Entwistle 2003; McCune 2003)

<table>
<thead>
<tr>
<th>Deep approach</th>
<th>Monitoring studying</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Intention to understand for oneself</td>
<td>- Monitoring study effectiveness</td>
</tr>
<tr>
<td>- Relating ideas</td>
<td>- Monitoring understanding</td>
</tr>
<tr>
<td>- Use of evidence</td>
<td>- Monitoring generic skills</td>
</tr>
<tr>
<td>- Memorise with understanding</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface approach</th>
<th>Organised study</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Intention to memorise</td>
<td>- Time management</td>
</tr>
<tr>
<td>- Fragmented knowledge</td>
<td>- Study organisation</td>
</tr>
<tr>
<td>- Memorise without understanding</td>
<td><strong>Effort management</strong></td>
</tr>
<tr>
<td></td>
<td>- Effort</td>
</tr>
<tr>
<td></td>
<td>- Concentration</td>
</tr>
</tbody>
</table>
The third section of the CETLQ is concerned with students' perceptions of TLEs together with the perceived demands made by the subject learning. The development of this section was largely based on the corresponding sections of the ETLQ, which has been developed to capture, for a specific course, students' perceptions of TLEs. However, the 'Demands made by the course unit' section in the ETLQ had been extensively modified to make it suit the characteristics of Economics as a subject for student learning as discussed in Section 2.5.2. The modifications that had been made are as follows:

a) A total of eight out of the 40 items in the second part of the ETLQ were excluded from the CETLQ for reasons listed below. In particular, since the majority of the items in the scale on 'Alignment' in the ETLQ were omitted, the scale itself disappeared totally in the CETLQ.

<table>
<thead>
<tr>
<th>Deleted items in the ETLQ</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETLQ 9: The handouts and other materials we were given helped me to understand the unit.</td>
<td>They were considered inapplicable to the context in focus in this study, for handouts were seldom used, lecturing was the only way of teaching, and staff did not have their own web pages.</td>
</tr>
<tr>
<td>ETLQ 14: The different types of teaching (lectures, tutorials, labs, etc.) supported each other well.</td>
<td></td>
</tr>
<tr>
<td>ETLQ 20: The web pages provided by staff helped me to understand the topic better.</td>
<td></td>
</tr>
<tr>
<td>ETLQ 6: What we were taught seemed to match what we were supposed to learn.</td>
<td>It seemed that the students could not really tell things expressed in these two items.</td>
</tr>
<tr>
<td>ETLQ 18: How this unit was taught fitted in well with what we were supposed to learn.</td>
<td></td>
</tr>
<tr>
<td>ETLQ 27: Students’ views were valued in this course unit.</td>
<td>The meaning expressed by these three items appeared to be too general to obtain specific information.</td>
</tr>
<tr>
<td>ETLQ 26: I enjoy being involved in this course unit.</td>
<td></td>
</tr>
<tr>
<td>ETLQ 29: I found I could generally work comfortably with the other students on this unit.</td>
<td></td>
</tr>
</tbody>
</table>

b) The scale on 'Support from other students' in the ETLQ (no. 21 and no.24) is designed to reflect a sort of student culture in which students help each
other on studying and therefore create a sub-environment for each other in such interactions. Such a theme was not a major concern in the present study. However, it was decided not to delete the scale in its entirety in case it threw light on an issue that might be worth pursing in the present study (CETLQ-III no.27 and no.28).

c) The third part of the ETLQ, which focuses on demands made by the courses on studying, was considered to be important as it represents a different perspective from other scales by looking at the influence of TLEs on students' learning. More specifically, items on demands of maths skills (CETLQ-III no.9 and no.19), on making sense of Economics knowledge and ideas (CETLQ-III no.29 and no.31), and with a focus on the workload in Economics studying (CETLQ-III no.37 and no.38) were developed and constituted the scale on 'High demands for subject study' in the CETLQ.

The resulting section on 'Perceptions of teaching-learning environments' in the CETLQ contained 38 items and duplicated the majority of the original scales included in the second sections of the ETLQ. In addition, a single item asking about students' overall satisfaction with the TLEs was added to the end of this section to validate the use of this section of the inventory as a measure of the perceived TLEs. Table 3.2 summarises the scales included in this section and the meaning of these scales.
Table 3.2
Meanings of scales in the section on
‘Perceptions of teaching-learning environments’ in the CETLQ
(adapted from Entwistle, 2003)

<table>
<thead>
<tr>
<th>Aspects of TLEs</th>
<th>Scale in the CETLQ</th>
<th>Meaning of the scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>Teaching encouraging learning</td>
<td>Teaching related to ‘constructivist’ aims and likely to encourage a deep approach to learning and studying.</td>
</tr>
<tr>
<td></td>
<td>Staff enthusiasm and support</td>
<td>The extent to which the teachers were seen to have provided patient explanations, shown both enthusiasm and empathy, and valued students’ views.</td>
</tr>
<tr>
<td>Assessment</td>
<td>Feedback about assessment</td>
<td>The effectiveness of feedback in improving ways of learning and clarifying anything that had not been fully understood.</td>
</tr>
<tr>
<td></td>
<td>Assessment for understanding</td>
<td>The extent to which the assignments and assessments required using evidence and developing understanding.</td>
</tr>
<tr>
<td>Course</td>
<td>Organisation, structure and content</td>
<td>How the courses were organised and whether the curriculum ran smoothly.</td>
</tr>
<tr>
<td></td>
<td>Choice</td>
<td>To what extent the students were allowed choice over what to study and what to focus on.</td>
</tr>
<tr>
<td></td>
<td>Interest, enjoyment and relevance</td>
<td>The students’ own interest in the subject matter, the efforts the teachers made to make the content interesting and relevant.</td>
</tr>
<tr>
<td>Demands</td>
<td>High demands for subject study</td>
<td>To what extent the teaching placed demands on mathematical skills, making sense of ideas and knowledge, and intensive work.</td>
</tr>
<tr>
<td>Support from other students</td>
<td>How much mutual support and collaboration came from other students.</td>
<td></td>
</tr>
</tbody>
</table>

Questionnaire modification IV: Scales for scoring

In the ETLQ, each item was followed by a 5-point scale from 5 for ‘agree strongly’ to 1 for ‘disagree strongly’ to enable the participants to indicate their extent of agreement or disagreement. The midpoint ‘3’ was employed to indicate ‘unsure’. It was decided, however, to change the way of using midpoint from indicating ‘unsure’ to indicating a ‘neutral’ attitude in the CETLQ, so as to make the 5-point scale more continuous and the median more meaningful.

Although the function of the midpoint was amended, the necessity could not
be overlooked of allowing respondents a way to convey their perceptions of the inapplicability of some of the items, especially since the items had originally been written for Western students based on Western literature. As it might make the questionnaire look more complicated if a sixth point was added to indicate inapplicability of an item, it was decided to allow the students to leave an item blank, if they really felt that a statement was inapplicable to their situations. A possible problem arising from such a decision would be that the students could over-exploit the right to leave an item blank, and therefore fail to return complete and usable questionnaires. However, since there is always no perfect solution to any problem, it was decided to take this risk and to ask for more cooperation from the students when the questionnaires were administrated.

A brief summary of modifications made to the CETLQ

In sum, the resulting CETLQ took the form of a fixed-response questionnaire consisting of 72 five-point likert-style questions on three topics: Orientations to education, Approaches to studying, and Perceptions of TLEs. These three sections, each having its own underlying conceptual framework, worked as a whole to explore the students' experiences of course studying. Although it might be better to have a section on the students' beliefs about knowledge and learning, it was decided to explore this topic solely through interview studies because of the limited choice of available questionnaires and the complexity of this topic.

Translation and Piloting

The inventory was translated into Chinese by the author herself. Back-translation was successfully accomplished afterwards with the aid of three
research students\textsuperscript{10} who had excellent knowledge in student learning and with Chinese as their first language. It was demonstrated that the translation done by the researcher was generally fine: of all the 72 items in the questionnaire, only one item was found to have been misinterpreted. This point will be further discussed in Chapter Four.

During the translation, the researcher spent quite a lot of time in studying the meaning of several key words, such as ‘rote-learn’, ‘memorise’, ‘memory’, ‘remember’ and ‘understand’, because they were important in indicating qualitative differences in the ways the students studied. All relevant Chinese words that have similar connotations to those English words were listed and examined to find the most appropriate ones for translation based on some researchers’ work (Au and Entwistle 1999). Efforts were made to ensure that the translation not only accurately reflected the original meaning of the items, but also to connote the same things to different students in ways that made sense to them.

A dozen students were invited to participate in a small pilot study before the questionnaire was administrated to wider groups of students. The students were asked to check whether the items as expressed were clear to them, and whether they thought the situations evoked by the questionnaire items were applicable to their own experiences. Some of the translated items were slightly modified to make the expressions more accessibly Chinese. Newly written items and the two items that the researcher had uncertainties about were specifically discussed with those students. Quite a few of those students agreed to some extent that neither the ‘sport’ element in the social extrinsic orientation item nor the juxtaposing of accepting teachers’ presentations and being critical in a single item was very appropriate. However, it was decided to keep the two problematic items in the questionnaire to have them further

\textsuperscript{10} The Chinese students involved in the back translation were two PhD students and one Msc student in Education based in Moray House School of Education, the University of Edinburgh. They did their own translation from Chinese back to English separately, and discussed their translations and interpretations of the original English items with the researcher together. Although it was almost impossible to obtain identical translations from different people, the translations were highly similar.
engaged with by more students. An additional point suggested by the students was that the questionnaire might be too long to be completed in a short time, and this was taken into account when the questionnaire was administrated.

Data

As mentioned at the beginning of this chapter, the students in the degree programme were divided into several cohorts for teaching purpose. There were nine cohorts of students taking the four target courses, and all of them were invited to participate in the questionnaire survey. Generally speaking, questionnaires were given towards the end of the classes when the lecturers allowed the researcher 15-20 minutes to administrate questionnaires. Breaks between courses were used as the standby time in case the students could not complete within the time in class, as the pilot study had suggested that some students might need more time to complete the questionnaire. In only one case the students gathered together themselves after class specifically to fill out the questionnaire, as the lecturer felt it was difficult to complete her teaching if she allowed the researcher to do it in class.

A quick but intensive introduction was made at the beginning by the researcher on the purpose of the study, the structure and content of the questionnaire, how respondents’ anonymity would be safeguarded in terms of the information they provided, and their rights to choose not to participate in this study. Then, the students were asked to respond with regard to their perceptions of the TLEs and approaches to studying on that particular course for the two sections on approaches and perceptions, but with their overall higher education experiences as the background information in responding the section on orientations. In particular, the students were asked to consider whether they really needed to leave an item blank, and, if possible, writing some words to explain why they left an item blank. Some students filled the questionnaire out very quickly (e.g. less than 15 minutes), while some others took quite a long time (up to 35 minutes in some instances).
The total number of students in the degree programme was 682 when the study was carried out, and a total of 626 questionnaires were administrated. Out of them, 582 were returned, representing an overall response rate of 93 percent. On examining the responses to the returned questionnaires, it was found that around sixty students failed to provide a response to several items. In most cases, these were isolated instances, and therefore lent support for taking them as indications of the inapplicability of the blank item(s) to the students. However, 30 respondents had missed more than eight items, roughly 10 percent of the total items in the inventory, and thus made their responses less valuable in the researcher's point of view. After deleting those questionnaires containing more than eight blank items from the database, 552 questionnaires containing usable information were used for the present study, and this resulted in an effective response rate of 88 percent (552/626), involving 80 percent of the overall student population in the degree programme (552/682). Of those 552 students, 41 percent were male, 55 percent were female, with 4 percent missing value on gender; and the majority of the students were aged between 17-25, with 2 percent missing value on age. Table 3.3 shows the response rate for each class, with 18 out of 552 students failing to indicate which class they were part of.

Table 3.3
Profile of students who had completed questionnaires across years and genders for each course

<table>
<thead>
<tr>
<th>Course</th>
<th>1&lt;sup&gt;st&lt;/sup&gt;</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt;</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt;</th>
<th>4&lt;sup&gt;th&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year and Student cohort</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Political Economics</td>
<td>69</td>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>54</td>
<td>57</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Econometrics</td>
<td></td>
<td></td>
<td>56</td>
<td>63</td>
</tr>
<tr>
<td>Development economics</td>
<td></td>
<td></td>
<td></td>
<td>47</td>
</tr>
</tbody>
</table>

Analysis and presentation of findings

SPSS 10.0 was used to analyse the inventory data. Each questionnaire was
coded not only to facilitate later analysis, but also to mask the students' personal information, such as names and courses taken. Students' responses were manually inputted into SPSS. A zero value was adopted to replace the missing values; otherwise, the factor analysis procedure in SPSS will omit these cases completely.

A fundamental issue for the use of the inventory in this study was related to the intention to aggregate students' approaches and perceptions across different courses so as to draw an overall picture of the students' learning in the degree programme, although the students were asked to respond in respect of their perceptions and approaches on particular courses. The reason for not using an inventory tapping general approaches and perceptions across courses directly was the difficulty in being certain that the students would not respond to the questionnaire asking for general information in regard to some particular experiences that had left deep impressions on them.

Details of inventory data analysis, such as the techniques adopted and how the output was interpreted, will be discussed in Chapter Four. As there is no absolutely right or wrong ways of carrying out analysis considering the various techniques provided by the SPSS programme, the overall data analysis process will be described in detail in that chapter to enable readers to judge for themselves the robustness of the analyses reported.

3.3.3 Strategies for data collection and analysis II – the interviews

Interview schedule and interview formats

An interview schedule was devised to ensure that the same basic line of investigation would be pursued within each interview. The four foci of the study and the relationships between them constituted the key interview areas related to this study. In brief, the questions covered topics on: a) the students' ways of studying; b) reasons for studying at university, c) beliefs about learning and related phenomena; d) the TLEs as perceived by the
students; and, e) impacts of orientations, beliefs and perceptions of the TLEs on approaches. In particular, informed by the literature review reported in Chapter Two, three academic tasks – reading, essay writing and exam revision – were highlighted in the interview questions on ways of studying to obtain a richer description. In addition, three perspectives on learning, i.e. nature of learning, nature of knowledge, and the role of a learner, as well as three aspects of TLEs, i.e. course characteristics, classroom teaching, and assessment, were particularly targeted in the interview questions to make the inquiries more focused.

On the basis of work by Patton (2002), the wording of the interview questions had been thoroughly considered to facilitate the interview study. More specifically, as the purpose of the interviews was mainly to come to know the students’ opinions and values with respect to their learning experiences, the interview schedule was dominated by ‘what’ and ‘how’ questions. As the intention was generally to prompt the students’ in-depth responses, no question with a grammatical structure suggesting a ‘yes’ or ‘no’ answer was included in the interview schedule. Moreover, in order to generate meaningful information, all of the questions were expressed in ways the students could easily relate to their personal experiences. Questions were first written in English, in consultation with the researcher’s supervisors, and then translated into Chinese.

Guiding questions (see Appendix II) were prepared to be used in both group and individual interviews, with slightly different phrasing. The reason for doing both group and individual interviews lay in a belief that people might prefer either being interviewed individually or with someone else (Silverman 2000). In addition, the important differences in the data gathered in group versus individual interviews on the same topics have also been well documented (Denzin and Lincoln 2000). Generally speaking, an individual interview, that is, gathering data in the one-to-one format, can make it easier for the interviewer to establish rapport with the respondent, and therefore facilitate the exploration of the respondent’s experiences in depth within a private and secure atmosphere. In contrast, with more people being
interviewed at the same time, multiple perspectives on events are more likely to appear if conversations between group members successfully take place, and therefore have the potential to highlight the most important topics and issues in students' learning.

Translation and piloting

All the questions were first translated into Chinese by the researcher. During the translation, the researcher paid attention to preserving the defining features of a good interview question in the Chinese translation, while taking into account the language tradition in Chinese and using words that seemed commonly used by the students in their day-to-day settings. The translated interview questions are also provided in Appendix II, alongside their English version.

Before using schedules to interview students involved in the main study, several of them were invited to take part in a 'mock' interview. It was mainly for the researcher to practise interview skills and to become familiar with the interview schedule. Although the researcher had observed how her supervisors had interviewed students involved in the ETL Project, this was the first occasion on which the researcher had carried out interviews on her own. Besides, the pilot study also helped to find better ways of translating interview questions. Moreover, it was found that the students seemed to need some time to feel at ease within the interview setting before they felt free to talk. A longer introduction was subsequently prepared to be used at the beginning of the interview to enable the students to know more about the study, the value placed on their opinions, and how the interview data would be used.

Ways of interviewing

Though there were schedules for the interviews, interview questions were only designed to be used as guidance rather than something to be rigidly adhered to. This meant that the researcher could modify the ways of
expressing a prescribed question. Moreover, the researcher could also decide when to raise a particular topic, and whether it was necessary to go deeper into a topic touched upon by the students. This kind of interview is usually called a 'semi-structured' interview (Cohen and Manion 1989). The reason for following such a way of interviewing was that it allowed the researcher more freedom in responding to the various situations that might take place during interviews without losing control over the whole process. However, in order to minimise the impact of variations in question wording on the students' responses, the key questions had been asked in persistent ways in the interviews.

Generally speaking, the conversation began with an informal introduction to the purposes of the study and the interview, and a chance for the participant(s) to raise any question about the study and the interview. During interviews, the researcher tried to ask clear and precise questions to make it explicit to the students what was being asked. The students were encouraged to describe their experiences from their own points of view, and to reflect on some details of studying experiences. In addition, for several topics that were of particular interest in this study, such as ways of using memorisation, the researcher would intentionally prompt the students to say something more when they touched upon those topics.

As the overall intention was to enable the students to tell their own stories in their own terms, the researcher tried to set aside any judgement and avoid imposing any preconception about the students' study habits and learning attitudes during the interviews to further this goal. Both verbal and non-verbal cues were used to indicate such important interviewing qualities as being open, interested, empathetic and sensitive which helped foster rapport between the researcher and the students (Patton 2002). By this means, the students were encouraged to describe their experiences as fully and explicitly as possible without becoming worried about getting an unsympathetic response or being put in an embarrassing situation. All through the process, the researcher listened intently, and tried not to interrupt the students.
Sample

The students were recruited mainly from those who volunteered to have follow-up interviews after completing the questionnaires. They were allowed to indicate whether they would like to be interviewed individually or with other students. However, the distribution of volunteer samples among cohorts, between genders, and between preferred formats of interview was not balanced. In order to gain a generally balanced picture of the students' experiences, additional steps were taken forward through negotiating with the student volunteers.

It was envisaged that six to eight students in each of the nine cohorts would be interviewed. However, some classes had too many (>10) student volunteers while some had too few (<3) volunteers. With regard to those classes with more than enough volunteers, selection seemed unavoidable. A general principle adopted for such a selection was to make the remaining samples more balanced in terms of gender. In addition, the students were asked whether it would be possible to interview them together in a group, even though a group interview had not been their preferred option, so as to retain these students, given that only the researcher herself was available for the interview study. Generally speaking, in most such cases, the students agreed, except a few who insisted on being interviewed individually. As far as those cohorts that had insufficient samples were concerned, instead, more students were approached to increase the sample size. For instance, the students were approached to find whether they could bring some of their peers to have a group interview, or whether they could persuade someone to take part in an individual interview.

The final sample for the interviews is summarised in Table 3.4. Because of the negotiations between the researcher and the students as mentioned above, the final sample was not identical to the original sample of volunteers. In sum, 88 students from nine cohorts produced 20 individual and 13 group interviews.
Table 3.4
Profile of the students involved in the interviews across years and cohorts

<table>
<thead>
<tr>
<th>Year</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N. of individual interview</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>N. of group interview</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>N. of students interviewed for each cohort in groups (Male, Female)</td>
<td>(4,6)</td>
<td>(2,4)</td>
<td>(3,3)</td>
<td>(5,6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3,2)</td>
</tr>
</tbody>
</table>

Analysis

Initially, the interviews were transcribed from the tapes in Chinese for a verbatim record. The interviews varied in length from 40 to 90 minutes. To mask the interviewees' names and courses, every student was assigned an alpha-numeric code. For example, the students in individual interviews would get a code such as ‘01S1’, which contained the information on the academic year, ‘01’, the student belonged to, and the sequence, ‘1’, he/she was recruited from among all the students in the same academic year. ‘S’ stood for ‘student’ and was used to separate the two groups of numbers. Consistent with the year the students were enrolled in the university, ‘03’ means the first year, ‘02’ means the second year, ‘01’ means the third year, and ‘00’ means the fourth year. Thus, the student who was coded ‘03S1’ was the first student recruited from the first year. Similarly, every student in group interviews would get a code such as ‘01G1S1’, a code with one more letter ‘G’ and one number following it. ‘G’ was used to refer to ‘group interview’, and the number following it indicated which group it was among all the groups from the same academic year. For example, ‘01G1S1’ indicates the first student in the first group from the third year.

The interview data analysis began right after the transcriptions were completed. Reading transcriptions in the researcher's mother language
greatly facilitated the data analysis process, and enabled the researcher to be more sensitive to subtle differences embedded in the conversations. However, as transcripts were in Chinese, this excluded the possibility of using a qualitative analysis software package to facilitate analysis, since there is no version supporting Chinese characters. One group interview and two individual interviews were translated in full into English to help the supervisors to get some general ideas about how the interviews had been conducted and what the original data looked like.

Generally speaking, the interview data analysis involved an iterative process. All of the steps involved in the process are illustrated in Figure 3.1 (see overleaf). Although the figure seems to suggest a linear process, it is better to see the whole process involved in data analysis as a flexible cyclical process, as it seems hard to depict the iterations and shifting between stages in detail in the figure.

**Step I: Select interviews for careful examination**

As indicated in the figure, the whole process began with 'selection'. This was a fundamental step taken to facilitate analysis regarding the overall amount of the interview data that had been gathered for the present study: 20 individual interviews plus 13 group interviews. For each of the nine cohorts, one individual interview and one group interview were picked out for careful examination, based on the richness of the content. The sub-sample whose interview material had been examined thoroughly involved 43 students. Generally speaking, those interviews that lasted longer were picked out. All the selected interviews were then subjected to the remaining four steps listed in the above figure. Once the analysis was completed and categories and themes determined, the remaining interviews were scrutinised for additional evidence or counter-examples on similar themes or categories, and for any new theme or category that had been evident hitherto. From this point of view, all the 33 interviews conducted had been reviewed, but to different extents, based on the selection made in this first step.
Figure 3.1 Stages in the interview data analysis

- **Step I**: Select interviews for thorough examination
- **Step II**: Reorganise the content of each interview in accordance with the four 'foci': approaches, orientations, beliefs, and perceptions of TLEs
- **Step III**: Sort data on same topic from each interview into a 'coding sheet'
- **Step IV**: Pick out illuminating comments on each focus

*Preparing the ground for further analyses*

- **Step V**:
  a. Code comments with categories or themes for each focus
  b. Explore the students' learning experiences with the obtained categories or themes
Step II Reorganise the data in accordance with the foci in this study

In regard to the interviews that would be examined in detail, their content was first reorganised into four topics – approaches to studying, orientations to education, conceptions of learning and perceptions of the TLEs – including the impact on approaches from orientations, beliefs and perceptions of the TLEs concerned in the present study. Generally speaking, relevant comments on a particular topic could be located according to the questions asked during interviews. However, this might not always be the case, and quite often, comments related to a particular topic might be picked up at different places in the interviews. In short, sorting data into different topics was a lengthy process involving repeated reading of each interview.

Step III Sort data on the same topic from each interview into a ‘coding sheet’

The reorganised interview transcriptions were then further processed by picking out important segments on each topic. Those selected segments were later put into a ‘coding sheet’. There were four such coding-sheets for the four themes in focus in this study. All segments in the coding sheets were followed by the codes ascribed to the students who made the comments. Interview segments from the same person’s comments were put together to achieve a holistic understanding of individual students’ learning experiences. Quite a few segments taken from the coding-sheets will be displayed in Chapter Six, and can therefore provide readers some ideas about what they really looked like. The use of these coding sheets, as suggested by Huberman and Miles (1994), had greatly facilitated the interview analysis process by displaying data in relation to the same research topic in one place.

Besides developing the ‘coding sheet’, the most important thing to think about during this stage of the interview data analysis was to decide on the basis for judging which segments were important. Generally speaking, the aim was not to omit any comment containing information on the foci of the present study. The clues adopted by the researcher to identify those relevant comments included the interview questions the researcher asked, the key
words the students used in their responses, and the foci of the students’ comments as they themselves clarified in their descriptions. A general principle applied to such a process was not to ‘fail to see the wood for the trees’, since May (1993) has pointed out that a common fault in qualitative analysis has been to place too much emphasis and confidence in a subset of the data. In order to avoid such a situation, each interview was rechecked to ensure that all of the relevant extracts had been considered during this process.

**Step IV Pick out illuminating comments on each focus**

Once the sorting work was completed, the original interview transcripts were no longer used in the analysis. With all important interview segments on a same topic in one document and comments from a same person clustered together, further work was done to pinpoint words, phrases, sentences and paragraphs from those segments in the comments that were illuminating. In order to avoid misinterpretation, the researcher reviewed the selected expressions by referring both to the entire section from which they were abstracted, and to the remainder of the interview segments from the same person. The aim for doing so was not only to ensure that any extract picked out during this process reflected honestly the original meaning, but also to make it possible to identify any seemingly contradictory idea that came out of the same person’s comments. As we shall see in later chapters reporting the findings from the interviews, this method of analysis contributed to obtaining a holistic and justified picture rather than a fragmentary and biased view of the students’ learning. The nature of the students’ orientations to education and its relationships with that of their approaches to studying, for instance, could not be adequately discerned without examining the interview data in this way.

**Step V Code comments with categories or themes and explore the students’ learning experiences**

Stages I-IV in the data analysis process generally involved a thorough
procedure of reading not only to comprehend the interview materials but also to prepare the ground for further analyses. Four substantial issues with which the researcher was concerned were used to guide such a reading process, and as indicated by the different sizes of the arrows displayed in Figure 3.1, the amount of interview material that entered into the fifth stage of the analysis process decreased gradually. Having obtained the reduced and condensed interview material, the final step in the interview data analysis was carried out to fulfill two functions.

The first function was to code those comments that had been picked out by allocating appropriate categories or themes to capture the features they embedded. As the present study was heavily informed by the existing studies on student learning, coding became a process mainly to test whether the highlighted comments resembled or differed from the features of student learning suggested by the existing categories and themes. In doing so, three kinds of situations generally arose. First, the existing categories or themes were applicable to the comments made in this particular context. Second, the existing categories or themes showed general applicability in capturing the main feature of the comments, but the comments also suggested important differences which were absent in the existing framework. Third, there were extracts which did not seem to fit any existing category or theme. For the second situation, existing categories or themes would still be applied but supplemented with descriptions of variations and differences suggested by the data. For the third situation, new categories or themes would be devised. However, extreme care was taken when it was decided to introduce a new category or theme. Generally speaking, those comments deserved new categories had all been clearly represented in the students' interview data and considered as conceptually substantive by the researcher and the supervisors (Silverman 2000). There was a column in the 'sorting sheet' for logging codes.

The second function of the final step was to explore the students' learning experiences by means of the obtained categories or themes. This was the ultimate goal that was pursued during the interview data analysis. Given
that each of the four main foci of interest in this study contained different comments to pick out and a different referential framework to examine, it was decided that it would be preferable to provide fine-grained descriptions of the ways the findings emerged in the relevant finding chapters, for ease of understanding.

Presentation of findings

The findings from the interview data will be reported in chapters Five to Seven. In order to facilitate the reading of the findings, three issues related to interview data presentation should be clarified here. The first issue was how many quotes would be sufficient to illustrate a particular point, as pointed out by Silverman (2000), that it is not good to say a little about a lot or a lot about a little. Given the total amount of relevant quotations that had been picked out from all the 33 interviews and the length of a doctoral degree thesis, the strategies of presenting findings adopted could be summarised as follows: a) in most cases where the descriptive category or theme was a well-established or relatively self-evident one, only a single extract was deemed necessary by way of exemplification; and, b) only in a few cases where significant new culture- or discipline-specific characteristics were identified, would more than one quotation be deployed.

The second issue was to do with to what extent the quotes employed in presenting the findings should be edited. Great attention had been paid to keep a balance between making reported speech 'comprehensible and readable' and 'as authentic as possible' (Altheide and Johnson 1994). The final issue was that a rough frequency for each category or theme as they turned up in the students' interview was provided to facilitate readers' understanding of the findings. However, such information should not be viewed as equivalent to the incidence of the kind of opinion or practice among the students, given, for instance, the possibility that something that had not been mentioned did not necessarily be unimportant. In addition, each quotation was logged with the code ascribed to the student during data analysis to indicate who it was that had made the comment. 'I' was
employed to distinguish interviewer from 'S', student.

3.4 Trustworthiness of the analyses and ethical issues for the study

In concluding this chapter, two general issues that relate to any social science research are discussed. One is to what extent the analyses carried out in the present study is trustworthy, the other is whether the possible effect on participants had been considered and addressed during the study.

3.4.1 Trustworthiness

This section reports the warrants for the claim of validity for this study. The trustworthiness of a study firstly depends on the validation of the data that have been collected (Denzin and Lincoln 2000). However, it is quite common to question the reliability of self-report material, either through inventories or interviews, in describing student learning (Robertson 2004; Robotham 2004); and, researcher effect should not be ignored especially that the researcher was also a former lecturer of some of the interviewees (Miles and Huberman 1994). A possible response to these concerns is that, by using inventory and interview in combination, 'triangulation' was built into this study. Furthermore, as will be seen in the following four chapters, the findings from these two kinds of data were fairly consistent and plausible in relation to the existing knowledge of student learning. Given these two points, there did not seem to have been a substantial problem in obtaining reliable data on the students' experiences of learning in this study (Blaikie 2000).

Further evidence on the trustworthiness of the data gathered for the present study came from the students' feedback on their experiences of participating in this study. The students' were particularly asked for their feelings about the questionnaire they had completed and the interviews they had attended. For questionnaires, the majority of the students felt that they could give a
response to most of the items without too much thinking. This might suggest that the items did express things that were salient to their individual experiences.

As far as the interviews were concerned, most of the students indicated that they found their experiences of taking part in this study an enjoyable one, and reported that they were able to talk freely about what they truthfully felt and thought. They attributed their satisfaction to a combination of favourable conditions, which included the interview’s focus on personal feelings instead of singling out particular teachers and courses for criticism, the friendly attitude and the appropriate prompting of the interviewer, and their being interviewed by a third party instead of their teachers.

With regard to the trustworthiness of the data analysis process, this chapter and the four following chapters in combination provide a detailed account of the analysis process adopted in this study. The underlying reason for doing so is to facilitate readers’ judgement on the quality of the data analysis process, as a response to the emphasis on ‘transparency’ made by researchers, such as Lincoln and Guba (1989) and Blaikie (2000). However, it would be impossible to make the entire analysis totally transparent, given the scope and depth of it.

Quite a few other researchers were also involved in the data analysis process besides the supervisors. In terms of the inventory data analysis, Professor Emeritus Noel Entwistle from the University of Edinburgh contributed to the research from the beginning not only on the statistical techniques to adopt but also on how to interpret statistical outputs. Professor John Richardson from the Open University UK also kindly offered comments on the content reported in Chapter Four. In regard to the interview data analysis, although no inter-rater reliability analysis was carried out, the supervisors of the research read many of the sets of extracts, and were therefore able to provide an informal check on reliability. It is also worth mentioning that the reading of extracts by the supervisors helped a lot in identifying Chinese-specific aspects, which could easily have been taken for granted by the researcher.
Professor Jan Vermunt also kindly took the opportunity to read the content reported in Chapter Five and provided some insights into the culturally specific aspects. In short, having other researchers check the analysis helped to enhance the reliability of the analyses carried out in this study.

3.4.2 Ethics of the study

Human research is suffused with moral implications, and there are several ethics frameworks or guidance for social study. In this study, relevant content included in Patton’s ‘Ethical Issue Checklist’ (Patton, 2002) and the British Sociological Association’s ‘Statement of Ethical Practice’ (March 2002) on relationships with research participants were particularly adopted as principles to guide the decisions on ethical questions arising throughout this study. Specifically, issues on informed consent, confidentiality and consequences were addressed. A description of how each of them was implemented is provided below.

Informed consent requires researchers to communicate to participants the purpose, method and potential impacts of the study on them. Additionally, their rights to choose not to be included in a study have to be made explicit from the outset. As described in the preceding parts, the students were enabled to choose whether they would like to complete the questionnaire, and the interviewees of this study were invited to participate on a voluntary basis, or through negotiations to obtain their agreement under no pressure to participate. Both before completing questionnaires and interviews, the students were also given a verbal explanation about the objectives of the investigations, the ways of using their information, and the expected outcomes from the study.

Confidentiality refers to the protection of the participants’ privacy. In this study, the importance of confidentiality and its significance with respect to the interviewees were fully recognised. The students were assured that their identities would not be exposed and the opinions expressed would not be revealed directly to their teachers. Both questionnaires and interviews were

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coded. Access to original tapes, transcripts and questionnaires were restricted to the researcher.

Finally, concerns about consequences require researchers to ensure that the physical, social and psychological well-being of research participants will not be adversely affected by the research. In fact, the names of those who participated in the interviews were concealed not only in the interest of confidentiality, but also to avoid any potential influence on the students' relationships with their teachers. In addition, since the study as a whole was intended to help the students to reflect on their own learning experiences, it might generally prompt the students to become more aware of their learning, and therefore contribute to their future studies. This point had been clearly made by some of the participants at the end of the interviews.

The next chapter focuses on the first part of the data analysis – questionnaire findings on the students' approaches to studying, orientations to education and perceptions of the TLEs. It, along with the following three chapters, will provide a comprehensive picture of students' learning in the degree programme particularly in focus in this study.
Chapter Four

Findings from inventory data:
Students' approaches to studying, orientations to education, and perceptions of teaching-learning environments

4.1 Introduction

The inventory analyses reported in this chapter are divided into six parts. The first three parts are concerned with analyses relating to the students' approaches to studying, orientations to education, and perceptions of the TLEs respectively. The following part examines the students' responses to individual courses to check whether their responses differed from course to course so as to demonstrate the discriminant validity of the inventory. The fifth part discusses the relationships between the three constructs indicated by correlational analyses, factor analyses and regression analyses on scale scores. Within these parts, the decisions made about which particular statistical techniques to use and about how to interpret the statistic outputs are also described, and the rationales behind those decisions are explained alongside. In order to facilitate the discussion of findings from the interview data in the three subsequent chapters, interesting points suggested by the inventory data are recapitulated at the end of the chapter.

4.2 Students' approaches to studying

As described in Chapter Three, the section on 'Approaches to studying' in the CETLQ used in this study contained 23 items, which constituted five scales and fourteen subscales in the section. The five scales were measures of
'Deep approach', 'Surface approach', 'Monitoring Studying', 'Organised study', and 'Effort management'. As explained by its developers (Entwistle and McCune 2004), 'Monitoring studying' was a scale empirically related to the 'Deep approach' scale even though conceptually distinct, and 'Organised Study' and 'Effort management' were developed from the original scales on strategic elements in studying.

Before carrying out statistical analyses, the items were examined to ascertain whether they met some fundamental criteria. The first was a concern with whether the translation faithfully reflected the original meaning of every item. As indicated in Chapter Three, three Chinese students majoring in Education were invited to work on back-translation after the completed questionnaires were returned. Their work helped to dispel the concerns about translation to a typical level. Although it was not possible to have identical translations, high-level consensus was reached on translation of all items except item 19: 'Unless I'd understood something well, there was no point in my trying to memorise it.' It was an item that had been newly written to reflect an emphasis on understanding instead of memorising during studying. However, it became apparent that the translation had raised potential ambiguity and the item was therefore excluded from the latter analyses.

In addition to back-translation, Marsh’s (1986) ‘Applicability Paradigm’ suggests asking students to indicate whether items are appropriate for describing recognisable aspects of their experiences for assessing the potential of using instruments in a novel context. The frequency of zero value (which had been used to replace missing value in the database) for each item was therefore accounted. As a result, 22 out of 23 items in the section on ‘Approaches to studying’ got 2 to 7 zero values, amounting to less than 2 percent of the total number of the responses. Therefore, it seemed possible to claim that these 22 items were considered applicable by the majority of the students.

Item 17, 'I've tended to take what we've been taught at face value without questioning it much', was the exceptional one. As indicated in the previous
chapter, it was an item intentionally left to test an assumption that it might cause a dilemma for students to respond, because to accept what the teacher taught is generally acceptable in Chinese contexts and is not necessarily related to the issue of being critical. In fact, more than 11 percent of the students left this item blank. In contrast to other items, such a high rate of zero value seemed to confirm that this may not be a good item to measure the students’ learning experiences in this particular context. Consequently, this item was omitted in the following analysis.

As a result, 21 out of the 23 items were included in the further analyses. Because the main technique used for analysis was factor analysis, preliminary work was also done to check whether data were likely to factor well. This is called ‘sampling adequacy’ in statistics, and SPSS provides a value named Kaiser-Meyer-Olkin (KOM) for measuring it (Tabachnik and Fidell 1996). There is a KOM for each individual variable, and their sum is the KOM overall statistic. The individual KOM measure logically varies between 0 and 1, but the KOM overall should be 0.60 or higher to proceed with factor analysis. For the 21 items in the ‘Approaches to studying’ section, KOM overall was 0.83, and such a result supported the required ‘sampling adequacy’ for factor analysis. In addition, although the actual responses to questionnaires were only measured on an ordinal scale, this reflected a limitation of the methodology rather than of what was being measured. In other words, one could argue that participants had made their responses by referring to a mental scale of agreement or disagreement that is essentially an interval scale, which therefore made it reasonable to apply factor analysis. Such an assumption was applicable to all responses to all other items in the CETLQ.

Means, Standard Deviations (SD), and Cronbach’s alphas (alpha) for each of the five scales are presented in the first column of Table 4.1 (see overleaf). As different scales contained varying numbers of items, the students were assigned scores on each of these five scales by computing the mean response across the relevant items. No such information is provided for subscales, as some of them only contained one item.
### Table 4.1 Mean, SD, Cronbach’s Alpha, and Factor analysis of items related to ‘Approaches to studying’ in the CETLQ

<table>
<thead>
<tr>
<th>Scales</th>
<th>Subscales</th>
<th>Items</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep approach</td>
<td>Intention to understand</td>
<td>3. I have usually set out to understand for myself the meaning of what we had to learn.</td>
<td>.41</td>
</tr>
<tr>
<td>Mean: 3.56</td>
<td>Relating ideas</td>
<td>8. In making sense of new ideas, I have often related them to practical or real life contexts.</td>
<td>.22</td>
</tr>
<tr>
<td>SD: .69</td>
<td>Use of evidence</td>
<td>10. Ideas I’ve come across in my academic reading often set me off on long chains of thought.</td>
<td>.46</td>
</tr>
<tr>
<td>Alpha: .67</td>
<td>Memorising with understanding</td>
<td>12. I’ve looked at evidence carefully to reach my own conclusions about what I’m studying.</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16. It has been important for me to follow the argument, or to see the reasons behind things.</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18. I’ve carefully prioritised my time to make sure I could fit everything in.</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12. When I’ve been communicating ideas, I’ve thought over how well I’ve got my pints across.</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20. When I’ve been preparing for an exam, I’ve focused on understanding the material so that I won’t forget it.</td>
<td>.28</td>
</tr>
<tr>
<td>Monitoring studying</td>
<td>Monitoring study effectiveness</td>
<td>4. In order to keep my work well focused, I’ve thought about what I want to get out of this module.</td>
<td>.42</td>
</tr>
<tr>
<td>Monitoring studying</td>
<td>Monitoring understand</td>
<td>2. I’ve been over the work I’ve been done to check my reasoning and see that it makes sense.</td>
<td>.39</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Monitoring skills</td>
<td>5. If I’ve not understood things well enough when studying, I’ve tried a different approach.</td>
<td>.35</td>
</tr>
<tr>
<td>Mean: 3.40</td>
<td></td>
<td>13. Whether I’ve understood has mattered less than getting what we’re studying firmly fixed in my memory.</td>
<td>.45</td>
</tr>
<tr>
<td>Mean: .55</td>
<td>Fragment knowledge</td>
<td>9. Whenever possible, I’ve just memorised what has been taught without trying to understand it.</td>
<td>.36</td>
</tr>
<tr>
<td>Mean: .75</td>
<td>Memorising without understanding</td>
<td>6. Much of what I’ve learned in this course seems no more than unrelated bits and pieces in my mind.</td>
<td>.51</td>
</tr>
<tr>
<td>Surface approach</td>
<td>Intention to memorise.</td>
<td>11. Whether I’ve understood has mattered less than getting what we’re studying firmly fixed in my memory.</td>
<td>.34</td>
</tr>
<tr>
<td>Mean: 2.96</td>
<td>Fragment knowledge</td>
<td>14. Whether I’ve understood has mattered less than getting what we’re studying firmly fixed in my memory.</td>
<td>.25</td>
</tr>
<tr>
<td>Mean: .69</td>
<td>Memorising without understanding</td>
<td>15. I’ve organized my study time carefully to make the best use of it.</td>
<td>.56</td>
</tr>
<tr>
<td>Alpha: .47</td>
<td>Stage organisation</td>
<td>18. I’ve carefully prioritised my time to make sure I could fit everything in.</td>
<td>.81</td>
</tr>
<tr>
<td>Study organisation and time management</td>
<td>Time management</td>
<td>11. I’ve been quite good at preparing for classes in advance.</td>
<td>.58</td>
</tr>
<tr>
<td>Mean: 3.39; SD: .45</td>
<td>Study organisation</td>
<td>15. I’ve organized my study time carefully to make the best use of it.</td>
<td>.10</td>
</tr>
<tr>
<td>Alpha: .75</td>
<td>Effort</td>
<td>18. I’ve carefully prioritised my time to make sure I could fit everything in.</td>
<td>.41</td>
</tr>
<tr>
<td>Effort management</td>
<td>Concentration</td>
<td>22. Whatever I’ve worked on, I’ve generally pushed myself to make a good job of it.</td>
<td>.38</td>
</tr>
<tr>
<td>Mean: 3.55; SD: .32</td>
<td></td>
<td>21. Concentration has not usually been a problem for me, unless I’ve been really tired.</td>
<td>.49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor I</th>
<th>Factor II</th>
<th>Factor III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>.38</td>
<td>-.08</td>
</tr>
<tr>
<td>1.00</td>
<td>.38</td>
<td>-.01</td>
</tr>
<tr>
<td>1.00</td>
<td>.41</td>
<td>-.08</td>
</tr>
</tbody>
</table>
As shown in the table, the 'Deep approach' scale got a higher score than the 'Surface approach' scale, while scores on 'Monitoring studying', 'Organised Study' and 'Effort management' were all relatively high. In addition, 'Deep approach' and 'Organised Study' exhibited a satisfactory level of internal consistency as evidenced by alpha values greater than 0.50 – the minimum requirement for this value, whereas alphas for 'Surface approach', 'Monitoring studying' and 'Effort management' all failed to meet this minimum requirement.

However, it would be reasonable to attribute the low alpha values for all these three scales to the small number of items they included. In particular, a close examination of these three scales revealed that the items they included almost each represented a subscale describing a different dimension of the scales. As the longer version of the ASI always has better alphas than its short version (Entwistle et al. 2000; Richardson 2004), it might be reasonable to expect that the alpha values of these scales in the CETLQ could be enhanced if more items were included. In this regard, it was considered inappropriate to reject the internal consistency assumption of these three scales because of their low alpha values; and to take a less rigid line on the criteria for making such a judgement on scale reliability. Given the close relationships between 'Organised Study' and 'Effort management', it was further decided to combine these two into one new scale – 'Study organisation and management' – to be used in further analyses so as to offset the low alpha value of the scale on 'Effort management'. The new scale had a good alpha value (.65), the mean and the SD of the new scale was (3.47) and (.37).

The main body of Table 4.1 reports the result of a Principal Axis Factoring (PAF), which was used to extract factors representing approaches to studying among the students. Oblimin rotation was utilised to obtain a clear loading pattern, because it is a standard method when a non-orthogonal solution is sought, a solution in which the factors are allowed to be correlated (Tabachnik and Fidell 1996).

Principal Component Analysis (PCA) was another example of exploratory
factor analysis that could usually be found in similar studies. Taking into account the nature of the variances involved in the present study, it was decided to use PAF rather than PCF, for PAF tries to explain variance that is shared by two or more of the variables and uses a matrix of correlation coefficients in which the diagonal entries are replaced by estimates of communality (for further discussions of the differences between PCA and PAF, see, for example, Richardson 1990). In addition, in the ETL Project, the statistical technique adopted for such a purpose was Maximum Likelihood Factoring (MLF). This method was not adopted in this study because MLF is a less-used extraction method compared with PAF in terms of the frequency it appears in the existing literature that reports factor analyses. Additional supportive evidence on such a decision was that the factor solutions produced by MLF and PAF were very similar.

With regard to the number of factors to abstract, Eigenvalues and Scree tests were both adopted (Tabachnik and Fidell 1996). The Eigenvalues suggested that a 5-factor solution was appropriate, since there were five factors with Eigenvalues greater than 1. A Scree test suggested that it was better to extract either 3 or 5 factors. Both three and five factor solutions were then examined, but the three-factor solution, explaining 37.6 percent variance, appeared to be a better result in that it was both conceptually interpretable and empirically justified. The three-factor solution obtained from the overall sample was then reported in Table 4.1. Loadings below 0.35 were omitted, except those items which did not load above 0.35 on any component.

All the items (therefore, subscales) related to 'Deep approach' and 'Monitoring studying' had high loading on Factor I, except that item 23 and item 20 only made moderate contributions to this factor. Taking into account the overall loading of this factor, it suggested to some extent a combination of deep

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11 Given the reasons explained in this paragraph, the factor analyses that will be reported in the remaining parts of this chapter were all resulted from PAF, instead of PCA or MLF, using Oblimin rotation.

12 With regard to the question how high a factor loading has before that variable can be considered as a defining part of that factor, any answer to such a question is purely arbitrary. Common social science practice uses a minimum cut-off of .3 or .35.
approach and monitoring studying, a kind of combination that was considered to be more likely to contribute to academic success in various domains (Lonka et al. 2004).

Factor III brings together items referring to ‘Surface approach’, although the item (item 1) describing the difficulties students met in understanding only has a weak loading on this factor. Despite this, the factor seemed to mirror the traditional definitions of ‘Surface approach’ (Entwistle 1997a) quite well.

High loadings on Factor II come mainly from items related to different aspects of studying organisation and management. Correlation coefficients between factors as shown at the bottom of Table 4.1 suggested that this is a factor which has a positive correlation with the first factor but a small negative correlation with the third factor. Such a relationship between factors showed a high degree consistency with the literature, which suggests that study regulation is more likely to contribute to desirable ways of studying (Biggs 1988).

The cross-loading of Item 23 became understandable by taking into account the positive relationship between the first and the second factor. In addition, its cross-loadings on two factors might be of help in explaining its relatively low loading on Factor I. The low loading of Item 20 on Factor I might be accounted for by the meaning it expressed to the students – to understand was mainly to aid memorisation – may not sound very applicable. Similarly, the lower loading of Item 1 might also suggest that such an item did not reflect very well the kind of intention related to a surface approach in the present study. The students’ responses to these two items were checked, and found that over 60 percent of the overall sample indicated their disagreement with these two items, and therefore lent support to such an assumption.

Taking into account all the analyses that have been reported above, it was possible to make the following summary observations on the inventory section on ‘Approaches to studying’ in the CETLQ. Firstly, three of the four scales (with the scales on ‘Organised Study’ and ‘Effort management’ combined
into one) had satisfactory internal consistency according to the alphas; while, it was better to take a loose interpretation of the criterion for judging the reliability of the 'Surface approach' scale. The construct validity was shown by the fact that the collectively defined factors generally corresponded to different approaches suggested by the literature. The relationships between deep approach, surface approach, monitoring studying, and study organisation and management also paralleled findings reported in the literature. In sum, this part of the CETLQ on 'Approaches to studying' was robust in this mainland Chinese context. Additionally, as have been apparent, the aforementioned findings also provided some preliminary insights into the students' ways of studying.

4.3 Students' orientations to higher education

As described in Chapter Three, there were ten items in total in the section on 'Orientations to education' in the CETLQ, and each of them referred to a different type of orientation. Eight of these items were written to reflect intrinsic and extrinsic orientations in relation to academic, vocation, personal and social concerns respectively. As far as the other two items were concerned, one described the absence of any clear orientation, and the other was about 'independence', an item classified in the LSQ as a personal extrinsic orientation item.

Items were checked through back-translation as well as through examination of the students' responses to individual items. No translation mistake was reported, and the percentage for each item that was left blank ranged from 3 to 8 individual case (0.5-1.2 percent of the whole sample). The KOM overall for these ten items was 0.70 (>0.60). It, therefore, seemed appropriate to conclude that all the ten items in this section were well translated and applicable to the majority of students, and could be subjected to factor analysis.
Table 4.2 (see overleaf) reports the outcomes of a PAF of nine orientation items, excluding the one referring to 'lack of purpose', performed to explore the relationships between these items. The reason for not having 'lack of purpose' in the factor analyses was that the relationship between 'lack of purpose' and other orientation items as well as approaches to studying could generally be anticipated as suggested by the literature (Entwistle and Ramsden 1983), and only less than five percent students agreed with this item. What came out of the PAF were a two-factor and a three-factor solution which might be worth considering in terms of Eigenvalues. A Scree test also supported such a decision. Both solutions, interpretable and illuminating, are presented in Table 4.2. Loadings above 0.35 are reported.

In the two-factor solution, explaining 45.1 percent variance, Factor I was marked by high loadings on all items related to intrinsic orientations, though the 'social extrinsic' and 'independence' items also got high loadings on it. The second factor gathered together all items related to extrinsic orientations except the 'social extrinsic' item.

In the three-factor solution, explaining 50.6 percent variance, Factor I and Factor II were very similar to the two factors in the two-factor solution, but with a third factor that brought together items referring to social orientations (both intrinsic and extrinsic), and the 'independence' item.

Two implications were suggested by the factor analyses described above. Firstly, the distinction made between 'intrinsic' and 'extrinsic' orientations was generally confirmed, and items related to academic, vocational and personal aspects of orientations that originated from Beaty et al.'s framework (1997) generally worked in the way as envisaged. Secondly, caution was suggested in placing the social orientation items and the 'independence' item, for they appeared more likely to load with intrinsic rather than extrinsic orientation items.

The possibility that individual students might hold both intrinsic and extrinsic orientations could be gleaned from the correlations between varied
Table 4.2 Factor analyses of items related to ‘Orientations to education’ in the CETLQ

<table>
<thead>
<tr>
<th>Meaning</th>
<th>Items</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic intrinsic</td>
<td>I want to study the subject in depth by taking interesting and stimulating courses.</td>
<td>.44</td>
</tr>
<tr>
<td>Vocational intrinsic</td>
<td>I want to develop knowledge and skills I can use in a career.</td>
<td>.46</td>
</tr>
<tr>
<td>Personal intrinsic</td>
<td>I hope the things I learn will help me to develop as a person and broaden my horizons.</td>
<td>.61</td>
</tr>
<tr>
<td>Academic extrinsic</td>
<td>I’m mainly here because it seemed the natural thing: I’d done well academically in the past.</td>
<td>.40 .43</td>
</tr>
<tr>
<td>Vocational extrinsic</td>
<td>I mainly need the qualification to enable me to get a good job when I finish.</td>
<td>.71 .66</td>
</tr>
<tr>
<td>Personal extrinsic</td>
<td>I want an opportunity to prove to myself or to other people what I can do.</td>
<td>.55 .53</td>
</tr>
<tr>
<td>Social intrinsic</td>
<td>I want to learn things which might let me help people, and/or make a difference in the world.</td>
<td>.59 .42</td>
</tr>
<tr>
<td>Social extrinsic</td>
<td>I’m focused on the opportunities here for an active social life and/or sport.</td>
<td>.35 .47</td>
</tr>
<tr>
<td>Independence</td>
<td>I hope the whole experience here will make me more independent and self-confident.</td>
<td>.57 .56</td>
</tr>
</tbody>
</table>

Factor I 1.00 .29 1.00 .19 .42
Factor II 1.00 1.00 .18
Factor III 1.00
factors as shown at the bottom of Table 4.2. Such a possibility was tested through correlational analyses. Table 4.3 reports the result of correlation analyses between intrinsic and extrinsic items. What could be read from the table were the prevalent relationships between intrinsic and extrinsic orientations, and therefore support a claim that it could be inappropriate to ascribe students to any one particular orientation (Beaty et al. 1997).

Table 4.3

Correlations between extrinsic and intrinsic orientation items in the CETLQ

<table>
<thead>
<tr>
<th></th>
<th>Academic extrinsic</th>
<th>Vocational extrinsic</th>
<th>Personal extrinsic</th>
<th>Social extrinsic</th>
<th>Independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic intrinsic</td>
<td>.12**</td>
<td>.19**</td>
<td>.12**</td>
<td>.08*</td>
<td>.26*</td>
</tr>
<tr>
<td>Vocational intrinsic</td>
<td>.05</td>
<td>.18**</td>
<td>.11**</td>
<td>.14**</td>
<td>.24**</td>
</tr>
<tr>
<td>Personal intrinsic</td>
<td>.05</td>
<td>.01</td>
<td>.05</td>
<td>.27**</td>
<td>.42**</td>
</tr>
<tr>
<td>Social intrinsic</td>
<td>.20**</td>
<td>.06</td>
<td>.05</td>
<td>.20**</td>
<td>.33**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level; * Correlation is significant at the 0.05 level.

Taking into account the statistical outcomes, it was decided not to include the two social orientation items and the ‘independence’ orientation item in further analysis, so as to have a clear intrinsic and a clear extrinsic scale for exploring links with approaches. Although the decision could be contested, it was considered to be helpful in detecting generic relationships between orientations and approaches. A more thorough exploration of the students’ orientations will be reported in Chapter Six, based on the interview data. As a result, the ‘Intrinsic orientation’ scale used in later analyses contained three items on academic, vocational and personal concerns, and the ‘Extrinsic orientation’ scale contained three corresponding items. The alphas, means and SDs for these two new scales were (.57, 4.6, .61) for the ‘Intrinsic orientation’

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13 For all the correlational analyses reported in the present study, Spearman and Pearson's correlations were both conducted. The results were always similar and the Spearman’s correlation coefficients were reported.
scale, and (.55, 3.4, .47) for the 'Extrinsic orientation' scale.

In sum, items involved in this part of the CETLQ on 'Orientations to Education' were able to distinguish intrinsic and extrinsic orientations among the students as the literature suggests. The intrinsic and extrinsic scales satisfied internal consistency according to alphas. Nonetheless, the inventory findings also indicated necessities of further exploring certain types of orientations, especially the social ones, and the prevalent relationships between varied types of orientations.

4.4 Students' perceptions of teaching-learning environments

As described in Chapter Three, the section on 'Perception of teaching-learning environments' in the CETLQ contained 38 items, and with the single exception of the 'Alignment' scale, which had contained items not relevant to the Chinese context, all other scales in the ETLQ were retained and the majority of them were almost unchanged.

Following the same procedure, items in this section were checked through back-translation and an examination of the responses the students gave to each item before carrying out statistical analyses. As far as this part of the questionnaire was concerned, no translation problems were identified through back translation. Each item was left blank by 2 to 6 students, which only amounts to 0.4-1.1 percent of the total responses. Consequently, it was concluded that all items in this section were well translated and applicable to the majority of the students. A check of KOM statistics also suggested the applicability of those items for factor analysis with a KOM overall of 0.90. Furthermore, the nine scales had alphas between 0.52 and 0.82, and therefore showed a satisfactory level of internal consistency.

PAF with Oblimin rotation was also applied to extract factors. The Eigenvalues suggested extracting nine factors, which was consistent with the original structure of the inventory. A Scree test seemed to suggest that from
five to ten factor solutions might all have explanatory value. All these solutions were therefore examined to find the most interpretable one. What is reported in Table 4.4 (see overleaf) is the seven-factor solution, explaining 51.6 percent variance, as it appeared to be the result that was most interpretable both conceptually and empirically. Loadings above .35 were reported, except items which did not load above .35 on the designated factor. However, a loading above .30 could be taken as a significant loading by taking into account the large number of items included in this section of the CETLQ.

Factor I was marked by high loadings on items related to 'Staff enthusiasm and support'. In addition, item 12 in the 'Teaching encouraging learning' and item 32 belonging to the scale of 'Feedback about assessment' also had high loadings on this factor. Items referring to 'High demands for subject study' loaded on the second factor. Factor III was defined by items referring to the 'Choice' and the 'Organisation, structure and content' scales. Two additional items (item 20, Item 30) belonging respectively to 'Teaching encouraging learning' and 'Assessment for understanding' also got significant loadings on the third factor. Items in relation to 'Teaching encouraging learning' and 'Interest, enjoyment and relevance' characterised Factor IV, although item 20 failed to show a loading on this factor, and items 8 and 12 had loadings lower than .30 on this factor. The two items in the scale 'Support from other students', the remaining three items related to 'Feedback on Assessment', and the four items belonging to 'Assessment for understanding' defined Factor V, VI and VII respectively, although Factor VI also contained a considerable loadings from item 18.

Generally speaking, what came out of the item-level factor analyses was a fairly clear scale structure that overlapped significantly with the original scale structure of the second part of the ETLQ. Slight modifications were made to the original scales based on the above analyses to arrive at a series of new scales that would be used in further analyses to extract higher-order factors for the students' perceptions of the TLEs. More specifically, it was decided to have eight scales instead of nine by combing the original two scales – ‘Choice’ and ‘Organisation, structure and content’ – into a new scale,
Table 4.4 Factor analysis of items related to ‘Perceptions of Teaching-learning environments’ in the CETLQ

<table>
<thead>
<tr>
<th>Scales</th>
<th>no.</th>
<th>Items</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching learning</td>
<td>10</td>
<td>On this unit I was prompted to think about how well I was learning and how I might improve.</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>We weren’t just given information; staff explained how knowledge is developed in this subject.</td>
<td>.32</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>The teaching encouraged me to rethink my understanding of some aspects of the subject.</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>This unit has given me a sense of what goes on ‘behind the scenes’ in this subject area.</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>The teaching in this unit helped me to think about the evidence underpinning different views.</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Plenty of examples and illustrations were given to help us to grasp things better.</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>We were encouraged to look for links between this unit and others.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>This course unit provided plenty of opportunities for me to discuss important ideas.</td>
<td>.40</td>
</tr>
<tr>
<td>Staff enthusiasm and support</td>
<td>22</td>
<td>Staff tried to share their enthusiasm about the subject with us.</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Staff were patient in explaining things which seemed difficult to grasp.</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>Students’ views were valued in this course unit.</td>
<td>.63</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Staff helped us to see how you are supposed to think and reach conclusions in this subject.</td>
<td>.56</td>
</tr>
<tr>
<td>Feedback about assessment</td>
<td>32</td>
<td>I was encouraged to think about how best to tackle the set work.</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>The feedback given on my work helped me to improve my ways of learning and studying.</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Staff gave me the support I needed to help me complete the set work for this course unit.</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>The feedback given on my set work helped to clarify things I hadn’t fully understood.</td>
<td>.36</td>
</tr>
<tr>
<td>Assessment for understanding</td>
<td>34</td>
<td>You had really to understand the subject to get marks in this course unit.</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Doing the set work helped me to think about how evidence is used in this subject.</td>
<td>.56</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>To do well in this course unit, you had to think critically about the topics.</td>
<td>.31</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>The set work helped me to make connections to my existing knowledge or experience.</td>
<td>.59</td>
</tr>
<tr>
<td>Organisation, structure and content</td>
<td>30</td>
<td>It was clear to me what was expected in the assessed work for this course unit.</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>It was clear to me what I was supposed to learn in the course unit.</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>The topics seemed to follow each other in a way that made sense to me.</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>The course unit was well organised and ran smoothly.</td>
<td>.54</td>
</tr>
<tr>
<td>Choice</td>
<td>3</td>
<td>We were given a good deal of choice over how we went about learning.</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>We were allowed some choice over what aspects of the subject to concentrate on.</td>
<td>.51</td>
</tr>
<tr>
<td>Interest, enjoyment and relevance</td>
<td>8</td>
<td>I can imagine myself working in the subject area covered by this unit.</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>I could see the relevance of most of what we were taught in this unit.</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>This unit encouraged me to relate what I learned to issues in the wider world.</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>I found most of what I learned in this course unit really interesting.</td>
<td>.45</td>
</tr>
<tr>
<td>Support from other students</td>
<td>27</td>
<td>Students supported each other and tried to give help when it was needed.</td>
<td>.66</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Talking with other students helped me to develop my understanding.</td>
<td>.71</td>
</tr>
<tr>
<td>High demands for subject study</td>
<td>9</td>
<td>The explanations teachers gave on this course were often in mathematical or statistical terms.</td>
<td>.57</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Unless you’re good at Maths or Stats, it would be difficult to do well in this course.</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>The ideas and problems I had to deal with on this course were demanding.</td>
<td>.69</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>To grasp what I was expected to know on this course was not an easy task.</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>In order to cope with the amount of required coursework, I need to organise my study.</td>
<td>.45</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Organising and being responsible for my own study was necessary for studying this course.</td>
<td>.38</td>
</tr>
</tbody>
</table>
named 'Organisation and choice', given the close relationships between items in these two scales in the factor analyses. In addition, item 20 and item 30 were moved to this new scale as they only showed high loadings on the relevant factor. Item 32 was taken as an item describing 'Staff enthusiasm and support' rather than 'Feedback about assessment'. There were also two items, items 12 and 18, which showed higher loadings on other factors than their loadings on the factor they were supposed to be with. However, it was decided not to move them to other scales but to take their cross-loadings as evidence of the multi-dimensional feature of a teaching-learning environment as suggested by the literature (Ramsden 2003). The modified scales are listed in Table 4.5 (see overleaf) with alphas, means, SDs, and items listings.

As seen from the table, the eight modified scales all got a Cronbach's alpha value above 0.50, and therefore showed a satisfactory level of internal consistency. In terms of the means, the higher ones were those of the scales on teaching and demands, while the lower ones came from scales on assessment, course and support from students. Such a finding seemed to suggest that, in the students' points of view, teaching in the four courses was better than the content and organisation of the courses and the implemented assessment, and demands for subject study tended to be high.

Although the changes made to the original ETLQ scales were not major and were firmly based on the outcome from factor analyses, choices about scale modification are to some extent subjective, and other researchers might prefer different ways of doing this based on the data presented in earlier Table 4.4. The strategies adopted in this study to classify items were to capture the main features suggested by the data, reduce the total number of scales, and retain the main aspects of the TLEs as perceived by the students. A reduction in the number of scales, although not great, might contribute to a better factor loading when all scales on approach, orientation and perceptions of the TLEs were subjected to factor analysis; otherwise, the factor loadings might more likely to be dominated by scales from the TLEs, and therefore be less effective in suggesting relationships between constructs.
Table 4.5 Mean, SD, Cronbach’s Alpha, and Factor analysis of new scales on ‘Perceptions of teaching-learning environments’ in the CETLQ

<table>
<thead>
<tr>
<th>Scale</th>
<th>Component</th>
<th>Descriptive statistics</th>
<th>Factor</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item no.</td>
<td>Mean</td>
<td>SD</td>
<td>Alpha</td>
</tr>
<tr>
<td>Teaching encouraging learning</td>
<td>7,10,12,13,14,15,16</td>
<td>3.38</td>
<td>.56</td>
<td>.82</td>
</tr>
<tr>
<td>Staff enthusiasm and support</td>
<td>22,23,24,25,32</td>
<td>3.62</td>
<td>.45</td>
<td>.81</td>
</tr>
<tr>
<td>Interest, enjoyment and relevance</td>
<td>8,11,18,21</td>
<td>3.08</td>
<td>.52</td>
<td>.69</td>
</tr>
<tr>
<td>Feedback about assessment</td>
<td>6,17,35</td>
<td>2.86</td>
<td>.61</td>
<td>.54</td>
</tr>
<tr>
<td>Organisation and choice</td>
<td>1,2,3,4,5,20,30</td>
<td>3.01</td>
<td>.54</td>
<td>.72</td>
</tr>
<tr>
<td>Assessment for understanding</td>
<td>26,33,34,36</td>
<td>2.67</td>
<td>.38</td>
<td>.54</td>
</tr>
<tr>
<td>High demands for subject study</td>
<td>9,19,29,31,37,38</td>
<td>3.15</td>
<td>.42</td>
<td>.68</td>
</tr>
<tr>
<td>Support from other students</td>
<td>27,28</td>
<td>2.56</td>
<td>.21</td>
<td>.63</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level.**
Using the newly defined scales, PAF was carried out again on the scale scores. The loadings of the eight scales on the extracted factors are also shown in Table 4.5. Eigenvalues and the Scree test supported both a one factor and a two-factor solution. The first factor had a high Eigenvalue of 4.01 and explained 44.6 percent of the total variance, while the second factor with an Eigenvalue of 1.07 accounted for 11.9 percent of the total variance.

In the one-factor solution, all eight scales showed loadings greater than .35 except ‘Support from other students’, which indicated that this factor could be interpreted as an overall measure of perceived quality of the TLEs. In the two-factor solution, the global factor in the one-factor solution was further divided into two strongly related dimensions, stressing the supply and the demand dimension of a TLE. ‘Support from other students’, however, failed to load significantly on any factor. Given that the ‘Support from other students’ scale only had very small loadings in factor analyses and the lowest mean among all the scales, it did not seem that it worked as an important scale in this context, and was therefore deleted from future analyses. Such a decision was also supportive of not having student interaction as a foremost concern in this study.

As mentioned in the previous chapter, a single item, ‘How satisfied are you with the way the course has been taught and assessed?’, was included in this section of the inventory to validate its use as a measure of the perceived TLEs. All the students who had provided usable responses to the CETLQ had responded to this item. The correlation coefficients between the scores on the eight scales and the responses to the single item were listed in the last column of Table 4.5. As read from the data, the students' reported level of satisfaction with the TLEs was closely related to their perceptions of all aspects of the TLEs represented by the scales, except the ‘Support from other students’. This seemed to confirm the high loading of the remaining seven scales in the factor solutions.
In short, the scale structure of the inventory section on ‘Perceptions of teaching-learning environments’ was shown to have satisfactory internal consistency according to alphas. The construct validity of this part of the CETLQ was shown by the fact that the factor analyses displayed the multidimensional assumption of students’ perceptions of the TLEs as suggested by the literature. These findings together lent support to the robustness of the section on ‘Perceptions of teaching-learning environments’ in the CETLQ when it was implemented in the mainland Chinese context.

4.5 Discriminant validity of the CETLQ

As indicated in the above analyses, although the students were asked to respond to the CETLQ items with regard to particular courses taught by particular lecturers, their responses were aggregated across different courses to suggest an overall picture of the degree programme. In order to support the reliability of the aforementioned analyses, it was therefore necessary to consider the discriminant capability of the CETLQ. A multivariate analysis of variance (MANOVA) (Tabachnik and Fidell 1996) was firstly carried out on the students’ scores on the two scales on ‘Orientations to education’, the four scales on ‘Approaches to studying’, and the seven scales on ‘Perceptions of TLEs’ to compare the responses from the nine cohorts of students, controlling the covariates of age and gender.

There was a statistically significant difference among the responses from the nine cohorts of students, $F(120,2703)=3.17, p=.00$, Wilks’ Lambda=.39, but no statistically significant effects of age and gender was identified. Univariate tests (ANOVA) (Tabachnik and Fidell 1996) were subsequently carried out and demonstrated that there were statistically significant differences among the nine cohorts of students in terms of their scores on Intrinsic orientation, $F(8,488)=2.32, p=.02$, Monitoring studying, $F(8,482)=2.34, p=.02$, Surface approach $F(8,480)=2.09, p=.03$, Teaching encouraging learning $F(8,477)=8.50, p=.00$, Staff enthusiasm and support $F(8,479)=9.36, p=.00$, Feedback about assessment $F(8,477)=4.67, p=.00$, Assessment for understanding $F(8,477)=2.91$,
In brief, the discriminant validity of the CETLQ was demonstrated by the fact that it differentiated responses from varied cohorts of students. Such a result also lent support to the decision not to include variables, such as age and gender, in the interview data analyses, although there are studies suggesting the importance of these variables in student learning (Richardson 2005a; Vermunt 2005a).

4.6 Relationships between approaches, orientations and perceptions of teaching-learning environments

In using a questionnaire that contained measures of approaches, orientations and perceptions of TLEs, the intention was to look at these constructs not only in themselves but also in relation to one another. As pointed out at the end of Chapter Two, to establish links between orientations, perceptions and approaches was an important part of the overall aim of the present study. More specifically, relationships between approaches, orientations and perceptions of TLEs were examined at scale level. Four scales referring to the students' approaches to studying, two scales in relation to the students' orientations to education, and seven scales associated with their perceptions of the TLEs, 13 in total as used in the MANOVA and ANOVA analyses, were utilised one more time. Three kinds of analysis were carried out to detect relationships; the first one was correlational analysis. Table 4.6 on the next page reports the results of correlations between the scales.
Table 4.6

Correlation coefficients between scale scores on approach, orientation, and perceptions of teaching-learning environments

<table>
<thead>
<tr>
<th>Scale</th>
<th>Deep approach</th>
<th>Surface approach</th>
<th>Monitoring studying</th>
<th>Study organisation and Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic orientation</td>
<td>.32**</td>
<td>-.07</td>
<td>.32*</td>
<td>.23*</td>
</tr>
<tr>
<td>Extrinsic orientation</td>
<td>-.10*</td>
<td>.24**</td>
<td>.11*</td>
<td>.15*</td>
</tr>
<tr>
<td>Teaching encouraging learning</td>
<td>.38**</td>
<td>-.03</td>
<td>.26*</td>
<td>.37*</td>
</tr>
<tr>
<td>Staff enthusiasm and support</td>
<td>.24**</td>
<td>.07</td>
<td>.19*</td>
<td>.23*</td>
</tr>
<tr>
<td>Feedback about assessment</td>
<td>.26*</td>
<td>-.13*</td>
<td>.15*</td>
<td>.30*</td>
</tr>
<tr>
<td>Assessment for understanding</td>
<td>.40*</td>
<td>.01</td>
<td>.28*</td>
<td>.29*</td>
</tr>
<tr>
<td>Organisation and choice</td>
<td>.32*</td>
<td>-.03</td>
<td>.18*</td>
<td>.38*</td>
</tr>
<tr>
<td>Interest, enjoyment &amp; relevance</td>
<td>.34*</td>
<td>-.05</td>
<td>.20*</td>
<td>.34*</td>
</tr>
<tr>
<td>High demands for subject study</td>
<td>.20*</td>
<td>.16*</td>
<td>.12*</td>
<td>.19*</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level.

As seen from the table, all of the correlation coefficients between ‘Deep approach’, ‘Monitoring studying’, ‘Study organisation and management’, and the scales on perceptions and orientations were significant. ‘Surface approach’, however, only significantly related to ‘Extrinsic orientation’ (positively), ‘High demands for subject study’ (positively), and ‘Feedback about assessment’ (negatively). All other environmental scales only showed very weak relationships, either positive or negative, with this scale in statistical terms, and the ‘Intrinsic orientation’ scale also had a weak negative relationship with it.

What seemed to be somewhat confusing was that the correlational analyses suggested that ‘High demands for subject study’ was positively related to both ‘Deep approach’ and ‘Surface approach’. In regard to the meaning of the scale, it was originally posited that high demands for subject study, focusing on the three commonly reported difficulties that Economics students had in their studies, would be more likely to work against the adoption of a deep approach. The relatively high mean on this scale (3.15) and the complex relationships between this scale and the deep and surface approach scales implied that it might be worthwhile to explore the impact of demands for
subject study on student learning in the interview data analysis.

Another common way of exploring relationships between measures of students' learning experiences is by performing factor analysis with scores on all relevant scales (Entwistle and Ramsden 1983; Entwistle et al. 2003). A PAF was manipulated with the 13 scales, and the results rotated for easier interpretation. Table 4.7 presents a three-factor solution yielded by the analysis, explaining 52.3 percent of the variance, which suggested some relationships between the constructs. Loadings above .35 are reported, except the negative loading of ‘Surface approach’ on the second factor.

**Table 4.7**  
Factor analysis of scales relating to approaches, orientations, and perceptions of teaching-learning environments

<table>
<thead>
<tr>
<th>Scale</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Deep approach</td>
<td>.74</td>
</tr>
<tr>
<td>Monitoring studying</td>
<td>.78</td>
</tr>
<tr>
<td>Study organisation and management</td>
<td>.56</td>
</tr>
<tr>
<td>Surface approach</td>
<td></td>
</tr>
<tr>
<td>Intrinsic orientation</td>
<td></td>
</tr>
<tr>
<td>Extrinsic orientation</td>
<td></td>
</tr>
<tr>
<td>Teaching encouraging learning</td>
<td>.87</td>
</tr>
<tr>
<td>Staff enthusiasm and support</td>
<td>.76</td>
</tr>
<tr>
<td>Feedback about assessment</td>
<td>.71</td>
</tr>
<tr>
<td>Assessment for understanding</td>
<td>.41</td>
</tr>
<tr>
<td>Organisation and choice</td>
<td>.66</td>
</tr>
<tr>
<td>Interesting, enjoyment and relevance</td>
<td>.80</td>
</tr>
<tr>
<td>High demands for subject study</td>
<td>.35</td>
</tr>
<tr>
<td>Factor I</td>
<td>1.00</td>
</tr>
<tr>
<td>Factor II</td>
<td></td>
</tr>
<tr>
<td>Factor III</td>
<td></td>
</tr>
</tbody>
</table>

As shown in the table, the majority of the scales on perceptions of the TLEs load highly and collectively on the first factor. The second factor brings together ‘Intrinsic orientation’, ‘Deep approach’, ‘Monitoring studying’, and ‘Study organisation and management’. ‘Surface approach’ has a negative, albeit
weak, loading on the second factor, and all scales referring to perceptions of
the TLEs fail to have a significant loading on this factor. The third factor is
made up of 'Extrinsic orientation', 'Surface approach' and 'High demands for
subject study'.

In regard to the relationships between constructs, although individual factors
did not show obvious relationships between approaches, orientations and
perceptions of the TLEs, the correlations between factors showed this. For
instance, Factor I and Factor II were significantly associated (positively) with
each other, whereas Factor I and Factor III were linked to each other
negatively. In particular, given the loadings of the relevant scales on these
three factors as discussed above, the relationships between factors generally
indicated that the students' satisfaction with the TLEs was closely associated
with the types of approaches they adopted during studying.

Clearer patterns of relationships between constructs are more likely to be
found when performing regression analysis, such as canonical correlation
analysis or step-wise regression (Richardson 2005a, 2005b). However, since
canonical correlation analysis can only be applied to two sets of scores at a
time (Tabachnik and Fidell 1996), it was decided to perform step-wise
regression analysis to develop the investigation of the relationships between
approaches, orientations and perceptions of the TLEs. More specifically, four
analyses were conducted. On each occasion, one of the four approaches
scales – 'Deep approach', 'Surface approach', 'Monitoring studying' and 'Study
organisation and management' – served as the criterion variable, and the seven
scales on perceptions of TLEs and the two scales referring to orientations to
education served as predictor variables. Table 4.8 - 4.11 on the next page
report the results of the four regression analyses.
Table 4.8 Results of stepwise regression predicting 'Deep approach'

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$F$ change</th>
<th>Beta</th>
<th>Sig. $F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assessment for understanding</td>
<td>.166</td>
<td>91.74</td>
<td>.22</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Teaching encouraging learning</td>
<td>.062</td>
<td>37.22</td>
<td>.22</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Intrinsic orientation</td>
<td>.045</td>
<td>28.66</td>
<td>.22</td>
<td>.000</td>
</tr>
<tr>
<td>4</td>
<td>High demands for subject study</td>
<td>.006</td>
<td>4.06</td>
<td>.09</td>
<td>.044</td>
</tr>
<tr>
<td></td>
<td><strong>Total $R^2$</strong></td>
<td>.279</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.9 Results of stepwise regression predicting 'Surface approach'

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$F$ change</th>
<th>Beta</th>
<th>Sig. $F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extrinsic orientation</td>
<td>.062</td>
<td>30.17</td>
<td>.26</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Intrinsic orientation</td>
<td>.019</td>
<td>9.26</td>
<td>-.12</td>
<td>.011</td>
</tr>
<tr>
<td>3</td>
<td>High demands for subject study</td>
<td>.019</td>
<td>9.55</td>
<td>.16</td>
<td>.001</td>
</tr>
<tr>
<td>4</td>
<td>Teaching encouraging learning</td>
<td>.017</td>
<td>8.76</td>
<td>-.23</td>
<td>.000</td>
</tr>
<tr>
<td>5</td>
<td>Feedback about assessment</td>
<td>.019</td>
<td>10.22</td>
<td>-.17</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td><strong>Total $R^2$</strong></td>
<td>.136</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.10 Results of stepwise regression predicting 'Monitoring studying'

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$F$ change</th>
<th>Beta</th>
<th>Sig. $F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intrinsic orientation</td>
<td>.115</td>
<td>60.07</td>
<td>.26</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Assessment for understanding</td>
<td>.047</td>
<td>25.84</td>
<td>.17</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Teaching encouraging learning</td>
<td>.018</td>
<td>10.15</td>
<td>.15</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td><strong>Total $R^2$</strong></td>
<td>.180</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11 Results of stepwise regression predicting 'Study organisation and management'

<table>
<thead>
<tr>
<th>Step</th>
<th>Variable</th>
<th>$R^2$</th>
<th>$F$ change</th>
<th>Beta</th>
<th>Sig. $F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organisation and choice</td>
<td>.155</td>
<td>84.22</td>
<td>.29</td>
<td>.000</td>
</tr>
<tr>
<td>2</td>
<td>Intrinsic orientation</td>
<td>.036</td>
<td>20.82</td>
<td>.18</td>
<td>.000</td>
</tr>
<tr>
<td>3</td>
<td>Teaching encouraging learning</td>
<td>.013</td>
<td>7.34</td>
<td>.14</td>
<td>.007</td>
</tr>
<tr>
<td></td>
<td><strong>Total $R^2$</strong></td>
<td>.204</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The main predictors for the 'Deep approach' were 'Assessment for understanding', 'Teaching encouraging learning' and 'Intrinsic orientation', which accounted for 27.3 percent of the total variance, with 'High demands for subject study' only added an additional 6.0 percent of the variance. In the prediction of the 'Surface approach', 'Extrinsic orientation' and 'High demands for subject study' entered the equation with positive betas, while 'Intrinsic orientation', 'Teaching encouraging learning' and 'Assessment for understanding' entered the regression equation with negative betas. However, all of these five scales
together only accounted for 13.6 percent of the total variance.

‘Intrinsic orientation’ entered the regression equation for the ‘Monitoring studying’ first and accounted for 11.5 percent of the overall variance. The next two variables entering were ‘Assessment for understanding’ and ‘Teaching encouraging learning,’ which together accounted for an additional 6.5 percent of the variance. The variables entered into the regression equation were quite similar to those entered into the regression equation for the ‘Deep approach’. For the ‘Studying organisation and management’, ‘Organisation and choice’ entered the regression equation first, accounting for 15.5 percent of the overall variance, followed by ‘Intrinsic orientation’ and ‘Teaching encouraging learning’ which contributed in total an additional 4.9 percent of the overall variance.

Generally speaking, the above regression analyses suggested that approaches to studying could be predicted from the students’ course experiences and orientations to education, and demonstrated a much clearer pattern of interrelationships between those constructs. Further examinations of those regression equations suggested more interesting insights into the students’ studying experiences.

With regard to the two orientation scales, ‘Intrinsic Orientation’ appeared to be a stronger predictor, as it was a significant predictor for all the four approach scales. More specifically, it was the strongest predictor for the ‘Monitoring Studying’, accounting for 11.5 percent of the variance. It acted as the second strongest predictor for the ‘Surface approach’ with a negative beta and for the ‘Study organisation and management’ with a positive beta. It entered into the equation for the ‘Deep approach’ in the third place and accounted for 4.5 percent of the variance. Since the beta for the ‘Surface approach’ was negative, one could infer that intrinsic orientations tended to discourage the students’ adoption of a surface approach. As far as the ‘Extrinsic Orientation’ was concerned, although it was the strongest predictor for the ‘Surface approach’, it failed to enter into the equations for all the other three approach scales.
Of the seven scales on perceptions of TLEs, 'Teaching encouraging learning', 'Assessment for understanding', 'Organisation and choice' and 'High demands for subject study' appeared to be stronger predictors for approaches scales. In particular, 'Teaching encouraging learning' appeared in the regression equations for all of the four approach scales, which seemed to indicate its important status in the students' learning. Furthermore, as the beta for the 'Deep approach' scale was positive and for the 'Surface approach' scale was negative, one could infer that 'Teaching encouraging learning' could contribute to whether a student was more likely to adopt a deep or a surface approach. However, it would also be conceivable that whether a student would perceive the teaching as supportive could be a result of the approaches he/she took. In other words, students with a deep approach may perceive, to a much greater extent than their peers with a surface approach, that the teaching was of high quality.

A similar situation could also be applicable to what happened to the scales on 'Assessment for understanding' and 'Organisation and choice'. In brief, the positive relationship between the 'Assessment for understanding' and the 'Deep approach' scale could be explained by suggesting that students with a preference for deep approaches to studying perceived the demands of assessment as encouraging understanding rather than reproducing. Similarly, in explaining the positive link between 'Organisation and choice' and 'Study organisation and management', it could be speculated that it might imply a bi-directional relationship. In other words, it might be possible that students who were more organised in their studying were also inclined to perceive course organisation more positively than their peers who lacked study organisation.

As far as the scale on 'High demands for subject study' was concerned, it was a predictor for the 'Deep approach' scale and the 'Surface approach' scale, albeit only accounted for a very small percentage of the overall variance. Consistent with the results of correlational analyses, the scale had both entered into the deep and surface approach equations positively. This further confirmed the necessity to look at the relationships between perceived demands of studying
and the adoption of a particular approach in the interview data analyses.

It seems necessary to point out that the absence of some scales related to the perceptions of TLEs in the above regression equations should not be interpreted as meaning that these scales were not important. The reasons for the absence of some scales in the equations were varied. For instance, in technical terms, only those variables that can increase $R^2$ by a significant amount were allowed to enter the regression equations in the above analyses. In other words, if such a criterion was removed, all variables could contribute to the variance, and would therefore appear in the equations. The same reason could also be used to explain why the total percentages of variance explained by the independent variables entered into the equations were not high. More specifically, as indicated by the ‘Total $R^2$’ in the tables above, the overall percentage for each approach scale was: 27.9 percent for the ‘Deep approach’, 13.6 percent for the ‘Surface approach’, 18.0 percent for the ‘Monitoring studying’, and 20.4 percent for the ‘Study organisation and management’.

Additionally, it may be assumed that there could be other variables beyond those that had been suggested by the researcher during the regression analyses that would also contribute to the four variances. In fact, all the independent variables included in the regression analyses were determined in advance by the items in the inventory, and the majority of the items were directly adopted from the Western instrument. The results from the regression analyses, therefore, suggested the necessity of exploring the interview data for more accurate interpretations of different variables that were involved in the inventory, and any other variable that was important but failed to be included in the inventory.

Last and finally, a point that has been intimated in the above analyses merits reiteration. This is that although approaches to studying were used as the dependent variables in the regression analyses, what came out of the results was not sufficient for spelling out the nature of the relationships between the constructs. Indeed, the possible bi-directional relationships between
approaches, orientations and perceptions of the TLEs have been suggested in the aforementioned discussions.

4.7 Summary

Up to this point in the chapter all the inventory data analyses have been reported. Taken as a whole, they seemed to demonstrate that the CETLQ used in the present study was robust in this mainland Chinese context on the overall samples, and therefore provided sufficient evidence of the successful adaptation of the ETLQ in this Chinese context. This was a crucial conclusion for the present study, because not only the questionnaire items but also the structure of the questionnaire were Western originated. However, it should be emphasised that the adaptability of the CETLQ to other Chinese contexts has yet to be addressed.

Data collected by using such an inventory provided some insights into the students' learning experiences. For example, the ways the students tackled course studying generally mapped onto the broad distinctions made between a deep and a surface approach. Monitoring studying was empirically related to a deep approach. Studying organisation and management, as a separate element of studying, was positively related to a deep approach and negatively related to a surface approach. In addition, the two principal orientations to education that have been found to be stable and replicable in many other studies were also clearly evident in this study. Inventory data also suggested that the dimensions in the students’ perceptions of the TLEs were both empirically justified and conceptually interpretable. More importantly, the findings from the inventory data showed links between the students’ approaches to studying, orientations to education, and perceptions of TLEs.

Besides these findings that appeared to duplicate what the literature suggests about student learning, the inventory data also indicated some interesting points that might be worthy of further exploration. As far as approaches to
studying were concerned, it was important to point out that an intention to be critical, which is a defining feature of a deep approach in Western contexts, as such does not take into account a common preference for respectful learning in the CHC, as indicated by the responses to item CETLQ-I 17 by more than 11% of the students. The close relationships between varied types of orientations seemed to suggest that the students would be more likely to hold orientations in a form of profile, in which varied types of orientations could be found. Additionally, although the analyses showed clear relationships between constructs, there were some points requiring further exploration, such as the positive relationships between the 'High demands for subject study' and the 'Deep approach' scale.

The findings suggested by the analyses of inventory data reported in this chapter will be further considered when reporting the findings from interview data in the next three chapters. What the inventory data provided was a broad picture and some interesting points that merited further investigation. The interview data analyses were, therefore, expected to contribute to a more sophisticated description of the students' learning experiences in a way which was more sensitive to the context.
Chapter Five

Findings from interview data (1):
Students’ approaches to studying

5.1 Introduction

This first chapter on the findings from the interview data is devoted to the categories developed to explore and describe the fundamental differences in the students’ approaches to studying. All these categories, as summarised in Table 5.1 (see overleaf), are considered to be central to the present study because the differences in the students’ approaches to studying indicated by these categories constituted the foundation for carrying out further analyses of what had influenced the students’ ways of studying. Taking into account the conceptual framework the present study adopted, the three interrelated aspects in describing approaches to studying, namely, intentions, cognitive strategies and regulation activities, were particularly targeted when trying to develop the categories. In addition, in order to reflect the variations in ways of studying different tasks, three learning tasks, i.e. academic reading, essay writing and exam revision, were also considered when developing the categories.

The main body of this chapter is divided into two parts. In the first part, the features of the students’ ways of studying captured by each of the categories will be illustrated with some typical extracts from the students’ interview data. In the second part, some general ideas that could be inferred from the categories about the students’ approaches to studying will be discussed.
Table 5.1 Categories included in the deep and surface approaches to studying as displayed by a group of Mainland Chinese Economics students

<table>
<thead>
<tr>
<th>Deep</th>
<th>Academic reading</th>
<th>Essay writing</th>
<th>Exam revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentions</td>
<td>To understand what had been taught</td>
<td>To draft an essay showing an understanding of what the teacher had said on the essay topic</td>
<td>To understand what would be assessed as had been explained by teachers</td>
</tr>
<tr>
<td>Cognitive strategies</td>
<td>Focusing on underlying relationships between ideas</td>
<td>Picking out relevant issues/ideas through reading references in a deep manner</td>
<td>Making sense of selected course materials through examining evidence and seeking relationships between ideas</td>
</tr>
<tr>
<td></td>
<td>Examining the use of evidence in argument</td>
<td>Organising materials obtained from preparatory reading into a coherent text pertinent to essay topics</td>
<td>Memorising accurately for with understanding while revising</td>
</tr>
<tr>
<td></td>
<td>Memorising for/with understanding while reading</td>
<td></td>
<td>Answering sample exam questions to enhance understanding</td>
</tr>
<tr>
<td></td>
<td>Doing exercises to facilitate a deep engagement with reading content</td>
<td></td>
<td>Condensing materials to map out relationships between pieces of knowledge</td>
</tr>
<tr>
<td>Regulation activities</td>
<td>Monitoring reading outcomes</td>
<td>Monitoring the writing process</td>
<td>Managing time, making effort and or maintaining concentration (to facilitate understanding)</td>
</tr>
<tr>
<td></td>
<td>Managing some reading-related issues, e.g. reading methods, time and effort spent on reading, and emotional fluctuations arising from reading</td>
<td>Managing the time allowed for essay writing</td>
<td></td>
</tr>
<tr>
<td>Surface</td>
<td>Intentions</td>
<td>To recapitulate relevant information teachers provided on essay topics</td>
<td>To commit to memory as many pieces of knowledge as possible</td>
</tr>
<tr>
<td>Cognitive strategies</td>
<td>To avoid missing out key points in notes</td>
<td>Processing essay-relevant materials to pull out discrete pieces of knowledge</td>
<td>Seeking short-cuts in solving problems or sample exam questions</td>
</tr>
<tr>
<td></td>
<td>Checking and making notes and/or underlining sections in textbooks</td>
<td>Arranging materials into a structured text</td>
<td>Repeating to strengthen memory</td>
</tr>
<tr>
<td>Regulation activities</td>
<td>Tidying up notes promptly after a class</td>
<td>Planning time in advance to ensure enough time for carrying out necessary work for essays</td>
<td>Managing time, making effort and or maintaining concentration (to aidrote learning)</td>
</tr>
</tbody>
</table>
5.2 Categories in students' approaches to studying

Rather than seeking to describe subtle variations among individual students' approaches, the categories pursued by the present study were those that would be sufficient in distinguishing, at a collective level, the students' ways of studying. More specifically, each of the categories included in the table on the preceding page was employed to indicate the main features of an aspect of the students' ways of studying that had been mentioned by at least four students (around 10 percent of the 43 students whose interviews had been selected to be examined in detail). Furthermore, although the four target courses had been frequently mentioned by the researcher to provide the students with a more concrete context for reflection during the interviews, the majority of the students often reported what they did on other courses. Indeed, a dozen different courses beyond the four target ones had been referred to by students when describing their ways of studying on courses. The categories listed in the table, therefore, should be of applicability in describing approaches to studying in both the degree programme and a specific course. Below, the categories in the approaches to academic reading, essay writing, and exam revision will be considered in turn.

5.2.1 Categories in approaches to academic reading

Academic reading, as suggested by the interviewees, was a common study activity among the students. More specifically, the students mentioned two occasions for reading – one was before class and the other was after class – course content or relevant materials mainly on their own initiatives. Around one-third of the interviewees described their reading before class, but an examination of their descriptions suggested no clear patterns of variations in their pre-class reading processes. Generally speaking, such a reading was carried out to browse the course materials that would be covered in the forthcoming lecture. Highlighting some important or difficult points that would be worthy of attention had been frequently mentioned as a main purpose for this kind of reading.
I read before class. Generally speaking, I’ll first look through the textbook very quickly … to get some overall ideas on what will be covered in the upcoming class, and then think about which parts might be worth listening to intensively during the lecture. [...] [02S4]

In contrast to reading before class, reading after class seemed to be more common among the students, for more than half of the interviewees reported such an activity. Furthermore, the students’ post-class reading turned out to vary in the intentions and activities associated with it. In fact, the categories listed in the third column of Table 5.1 were drawn from the students’ descriptions of their post-class reading.

Categories in a deep approach to reading after class

Intention to understand what had been taught

The feature that this category aimed to capture was a kind of intention that had been frequently mentioned by the students, and which could be summarised as an attempt to grasp the meaning of the authorised knowledge presented by the teacher. The following quote is typical of the comments in this sub-category.

After dinner, I like to look through all the notes I’ve taken during the day, and check whether what I’ve taken down still makes sense to me. With the aid of my class notes, I can read through the relevant parts in the textbook while thinking about ‘what’ the teacher had said, or ‘why’ he/she said that. [00G2S1]

Intention to develop an extended understanding of a subject based on what had been taught

This category was developed to describe a much less frequently mentioned intention for reading after class compared to the one displayed above. As indicated in the way the category was worded, the students who displayed such an intention were not satisfied with restricting their understanding of a topic to what they had learned from their teachers, but attempted to deepen
or broaden their understanding through reading.

S3: [Besides] reading to make sense of what has been covered in the class in the way in which the teacher presented it, I read mainly to develop my understanding of the subject. [...] I think what the teacher does in class is more often to do with introducing ideas rather than explaining and analysing ideas ... and therefore makes it [to read only for understanding what the teacher taught in class] far from enough for studying a course well. [...] 

S2: Yeah, I think so as well. And I also think that reading always allows me to reflect on what I’ve learned from teachers. [...] What teachers taught is something [after being taken in] upon which I can broaden my understanding of the subject in ways either consistent with or different from what the teacher said.

Albeit different from each other, the two kinds of intentions as described by the two categories shared a common feature of reading for understanding. Additionally, the majority of the students reporting post-class reading indicated that they did this routinely to build up their understanding gradually.

**Cognitive strategies**

As indicated in Table 5.1, there were four types of strategies which had been frequently reported by the students displaying the intentions of reading for understanding. Among these four categories, the first two seemed to closely parallel the ‘relating ideas’ and the ‘use of evidence’ categories that have been widely used as a defining feature of a deep approach in the Western literature (Ramsden 2003).

**Focusing on underlying relationships between ideas**

This category was generated by the students’ comments on searching for relationships between ideas when reading. In order to discern relationships, they appeared to be more likely to take what they were reading as a whole, rather than as unrelated fragments.

Reading is usually a two-stage process for me: reading ‘from a few to many’ and then reading ‘from many to a few’. [...] I mean. I read because I know very little
about something. During reading, more and more ideas will keep turning up, and therefore enable me to know more about it. [...] Because I know more through reading, relationships between those ideas seems to be readier to turn up. From my personal experiences, there is always a turning point, sooner or later. when you finally get a way of tidying up all the things you've read, and are able to fit in whatever you newly read into this overall structure. Since all things are connected to each other, you find that indeed there are just a few key things to grasp on a topic. [02S3]

Examining the use of evidence in argument

The students' comments which indicated their interest in exploring arguments through checking how the evidence was interpreted were coded under this category. More specifically, the students reported their concerns with whether the evidence itself was convincing, whether there was any alternative supporting evidence, or whether the argument could be taken forward in different ways.

I take reading as a chance to think about how things make sense, especially when I meet contrasting ideas. For example, when facing a similar social economic problem, Keynesians and Monetarists usually come up with contradicting policies. In class, the teacher usually provides you sufficient explanations and examples for both of these two groups of ideas, and makes them both look convincing to you. But I like to ask myself, after class, whether they really sound reasonable to me. [...] I mean, I may try to examine or compare their ways of reasoning, [especially] their ways of using and interpreting evidence, to see which sounds better. [02G1S6]

Memorising for/with understanding while reading

The reason for introducing such a category for describing the deep approach to reading was that almost all relevant comments coded with this category were made by the students who claimed to read with the aim of understanding. More specifically, to memorise while reading was either to commit something to memory in order to facilitate understanding, or to record what one had got from reading so as to be able to explain it in one's own words. Such a way of using memorisation appeared to map onto Tang's 'deep-memorisation' (1991) and Marton et al.'s 'meaningful memorisation' (1996b). The quotations below illustrate these possible ways of using memorisation during reading.
It's quite often that you find you need to remember something to facilitate your reading [for understanding]. It might not be good to always have to go back to check how a concept is stated [or] what an abbreviation stands for, ... if you want to concentrate on making sense of what you're reading. [...] Economics never shorts of such things. [So] whenever I meet them, I'll spend a few minutes remembering them. [00S4]

There are always some important views or theories that you can't understand immediately [...] but play important roles in keeping your reading on. When such cases arise, I'll choose to commit them in memory first. [...] Sooner or later, when my reading and thinking reach a certain point, I will be able to understand ... [and] make what I've memorised meaningful to me. [03G1S4]

I'll try to remember what I've got ... to finally make it a part of my own knowledge base, and [therefore] benefit my future study. [...] Indeed, studying could be described as a process of accumulation: you get to know something well by seeing it through, you then take it in to make your own knowledge base enlarged, [and] an enlarged knowledge base makes you more able to take in and understand more things in your subsequent studies. [02S1]

Doing exercises to facilitate a deep engagement with reading content

This category described a common practice among those students who claimed to read with the aim of understanding. The students' comments indicated that questions in textbooks as well as questions in study guides could be used for such a purpose. More specifically, doing exercises was used mainly to rehearse, consolidate, and/or improve understanding obtained during reading, as showed in the following quotes.

A useful way to check whether I've made sense of what I've read is to do some exercises. Questions in textbooks are fine [...] as they're usually designed to help students to go over the main points covered in textbooks. [...] My reading ends only when I'm sure that no problems in textbooks are left unsolved. [03S2]

I don't think it's possible to study economics well without doing exercises, especially for Econometrics. [...] Put simply, only by deducing the formula yourself could you really understand the deduction procedures written in the textbook. [...] There are quite a lot of practices of this kind in study guides. They help me a lot in improving my understanding of this subject. [01G2S4]
Regulation activities

Those students who claimed to read with the aim of understanding also provided extensive evidence on what they did to facilitate their reading processes. Generally speaking, those relevant comments as a whole conveyed the students' conscious reflections on their reading outcomes, and their attempts to mobilise various kinds of learning resources during reading.

Monitoring reading outcomes

Consistent with the reported intention to understand, quite a few students pointed out the importance of having their reading outcomes under scrutiny during reading. Below is an example.

You can't just read and let yourself be led by what you're reading. I mean, it's good to look back frequently or to stop for a while now and then during reading. [...] It [thus] gives me a chance to recall what I've read and fixed into the framework I've already had in mind. [...] Such a pause in the reading process makes me feel confident in carrying out further reading. [01S4]

Managing some reading-related issues

The students observed quite often in the interviews that reading for understanding was not an easy task and therefore required a good management of several issues around reading. As indicated in Table 5.1, the possible targets for management included the adopted methods of reading, the time and effort spent on reading, and the emotional fluctuations arising from reading. Three extracts are deployed here to illustrate these aspects of reading process management.

It's important to decide what to read first and what to read next, [for] academic reading needs to be systematic and organised. [...] I usually read notes and textbooks first, and then move on to some references listed in the textbooks or recommended by teachers. Seeking different ideas from wider references always comes last. when I think I've got the content required by the teacher understood well enough. [...] [00S2]

I like to have reading as an everyday job that needs to be done continuously.
I believe that progress in reading comes along gradually, just like the fact that digesting food needs time. [...] This is so true for studying Economics [given that] Economics textbooks are always substantial and full of technical terms. [...] I have a reading plan for almost every course, and ask myself to read according to it. [...] I've been reading in this way for two years, and usually get every textbook read through twice or three times by the end of the term. [02G2S4]

Reading is hard work [...] and sometimes is even a frustrating experience. [...] You know, I'm not good at maths at all. So, whenever I come across mathematical content in my reading, I need to struggle with it to get it through. During the past three years, there have been several times that I almost decided to give up making an effort to study material of that kind. But, fortunately, I didn't really do that [for] I tried to shrug off the negative emotions quickly. [02G1S5]

Categories in a surface approach to academic reading after class

Intentions

Intention to avoid missing out key points in notes

In contrast to those students who read with the aim of understanding, there was a group of students who talked about reading mainly for the purpose of going over what had been covered in class so as not to miss important points that the teachers had made. As shown in the extract below, a baseline concern for such an intention was related to future performance in exams.

I: What did you do when read for this course?
S: Um, I read through the notes or sections in the textbooks right after the class to go over what the teacher had said.
I: So, why you do that, do you think?
S: Um, It's mainly to check whether there was any point missed in my notes. [Indeed] I usually do this for every course, [for] I know that if I don't do this, I'll then put my performance in exams at risk, [as] points in notes are more likely to be assessed in exams.
[02S5]

Cognitive strategies

Checking and making up notes and/or underlining sections in textbooks

The main cognitive strategies adopted in reading for missing points were
fairly straightforward. More specifically, checking and making notes on missing points and underlining sections in textbooks were the two most frequently mentioned strategies. Below is an example.

I checked through my notes by referring to the notes taken by someone else. [...] This helped me to identify what I'd missed in my notes. [...] For those missing points, I'd either copy them down into my notes, or underline the relevant sections in the textbook. Which of these two I choose usually depends on the quantity of my missing points. [03G1S1]

**Regulation activities**

**Tidying up notes promptly after a class**

Comments relating to the adoption of regulation activities during such a reading process were rare. Furthermore, as illustrated in the quote below, all those regulation activities that could be identified from the students' comments seemed to share an interest in managing prompt work so as to maintain the intention for carrying out such reading.

In my opinion, it's better to have it [checking and making notes] done as soon as possible. Otherwise, you'd become less willing to do so once you realise that you've got so many things to make up. [...] Since we usually have to take several courses every day, I always make myself get this work done immediately after class. [03G2S4]

**5.2.2 Categories in approaches to essay writing**

As indicated by the students, all essay assignments set within the degree programme appeared to aim at assessing understanding of some important theories or models that had been extensively explained in lectures. In addition, essay assignments were usually assigned with stipulated titles expressed in such forms as 'Explain Marx's Labour Value Theory' (for the course 'Political Economics'), or 'Describe Your Understanding of the Production Possibility Curve' (for the course 'Macroeconomics'). As a result of the completion of the 2001-03 project in the school on curriculum reform (Section 1.2), all students who took the same course would do the same essay-writing
task. All essays were expected to be within 500-1000 words and to be handed in two to three weeks after they had been assigned. With regard to each essay, the teacher would recommend which chapters were most relevant, or give some advice on which books students should consult.

Generally speaking, three generic procedures, i.e. obtaining references, reading references, and constructing essays, made up the process of essay-writing as described by the majority of the interviewees. Such a process duplicated to a great extent the writing process that has been reported in both Hounsell (1984) and Campbell et al.’s work (1998). However, as shown in the fourth column of Table 5.1, the students generally indicated two fundamentally different ways of essay-writing even though they all followed a similar process.

Categories in a deep approach to essay writing

**Intentions**

*Intention to draft an essay showing an understanding of what the teacher had said on the essay topic*

Facing an essay-writing assignment as described above, a relatively small proportion of the interviewees expressed their attempts to write essays showing an understanding of what the teacher had said on the essay topics in lectures. The main feature of such an intention was that it was aimed at understanding the topic, while being limited to the ideas about the topic which the teacher had discussed. Below is a typical comment.

Gener ally speaking, essay writing for me is a process of going over what has been covered in class on a specific topic. In my opinion, it’s a really good chance for a collective reflection on all relevant content around a topic, [and] I can always get the teacher's presentations in lectures understood much better through such a process. [03S3]
Cognitive strategies

The cognitive strategies displayed by the students who claimed to write with the aim of understanding were classified by the researcher into two main categories: one was those to do with the content of an essay, the other was those to do with the structure of an essay.

Picking out relevant issues/ideas through reading references in a deep manner

This category was ascribed to the strategies some students claimed to use in deciding on the content of their essays. As indicated by the wording of this category, reading references was the core activity during this process; nonetheless, such reading was not identical to the reading that has been described in Section 5.2.1, because it was targeted at understanding a specific essay topic for an essay-writing task rather than reading on one's own initiatives for an understanding of the subject. As illustrated in the extract below, a main feature of such reference reading was that it was directed at sorting out ideas which appeared to be relevant to the essay topics based on a searching for relationships, although the ways in which relationships between ideas were worked out involved similar strategies that have been reported in Section 5.2.1.

I read relevant notes and chapters in the textbook. During this process, I focused on picking out points pertinent to the topic through examining relationships between ideas [or] thinking about ways that an argument was carried out [so as to] get reading materials processed in ways that might be useful when it was time to write the essay. [...] Generally speaking, I think it's really important for writing a good essay to sort out relationships between those materials that I like to use. [02G1S3]

Organising materials obtained from preparatory reading into a coherent text pertinent to essay topics

A series of strategies some students claimed to adopt to work out the structure of their essays were ascribed to this category by the researcher. Generally speaking, in order to construct an essay showing understanding, a common belief shared by the students was that the structure of the essay
needed to reflect relationships between ideas that came out of preparatory reading. The students' ways of arriving at such a structure, however, were not identical. For instance, the first quote below shows a student beginning to work with the logical structure as soon as she embarked on reading for the essay, while the second extract exemplifies an attempt to work out a structure once all relevant materials had been processed.

I began to think about the structure of my essay as soon as I began to read ... [for] I had a general idea what I might want to say in the essay. But, it was a very loose structure, and was under modification throughout the reading process. [01G1S3]

When I read, I concentrate on ideas. [...] When it's time to write up, I'll go back to ideas and try to map out where to put this and where to put that by taking into account the main themes that I want to follow in the essay. [...] I feel it hard to know how to construct an essay without first understanding well the ideas I want to express. [00S3]

**Regulation activities**

The regulation activities that had been suggested by the students who appeared to write with the aim of understanding could be summarised into two categories: one was monitoring the writing process, and the other was managing the time allowed for essay writing.

**Monitoring the writing process**

This category was coined to capture the conscious reflections displayed by some students on the activities that would arise from an essay-writing task. The following quote is typical of this aspect. It represents the student's reflections throughout the three stages involved in an essay writing process, namely, obtaining references, reading references, and constructing essays.

Generally speaking, I don't begin to write right after the task is assigned. I like to spend some time thinking about how I should go about this task. For instance, I'll think about where to obtain references and how many references I like to read for a particular essay. [...] This often requires an assessment of how well I've done on a subject or a particular issue. Then, when I begin to read for the purpose of writing, I like to check whether my reading is closely related to what I'm going to write. [...] When it's time for writing, it seems invariably important that you keep an eye
Managing the time allowed for essay writing

As mentioned at the beginning of Section 5.2.3, all essay assignments were required to be handed in within two to three weeks. This was a relatively tight timetable, given that no particular blocks of time were allocated for students to undertake essay assignments. In such a circumstance, it seemed very understandable that quite a few students mentioned the importance of seeking ways of using time allowed for essay writing efficiently.

Essay writing, in my opinion, is a time-consuming task in nature ...[as] what it requires is quite extensive reading, thinking and reflection on a topic. [...] However, since only 2-3 weeks are usually allowed for such a task, you need to make good use of the prescribed time [if] you want to do a good job. [...] Generally speaking, I like to start with reading references as soon as the essay topic has been assigned [so as to] ensure sufficient time for in-depth reading. [...] Around one week before the submission, I'll ask myself to begin drafting the essay ... to allow enough time for me to come up with a satisfactory essay. [01G1S1]

Categories in a surface approach to essay writing

A large proportion of the interviewees did not show an attempt to write essays based on a thorough understanding of the essay topics. Those students' descriptions of their essay writing processes contributed to the development of the categories included in the surface approach to essay writing.

Intentions

Intention to recapitulate relevant information teachers provided on essay topics

Among this group of students, to 'repeat' relevant information the teacher had provided on the essay topic was more commonly taken as their core purposes for essay writing. Furthermore, there was little evidence showing that such an attempt to recapitulate involved reflective thinking about the
ideas collected from teachers' presentation. A quotation is provided to exemplify this point.

I: Could you describe for me the way you wrote the essay on this course?  
S: You mean the mid-term essay? [I: Yeah.] Oh, it’s a fairly simple process [for]  
it’s just to repeat all that the teacher had said about this topic in the lectures. [...]  
[Since] every word the teacher had said was in my notes [...], what I needed to do  
was to pick them out and turn them into a structured essay. [00S1]

Cognitive strategies

The strategies the students claimed to take to fulfil the essay-writing tasks  
with the kind of intention described above were also directed at the two main  
components of an essay: content and structure. However, an intention to  
produce an essay mechanically rather than reflectively prevented the  
students from engaging in deep-level processing strategies.

Processing essay-relevant materials mechanically to pull out discrete pieces of knowledge

As was evident earlier, a feature of a deep approach to essay-writing was a  
concern for inter-relationships between ideas so that essays as a whole could  
reflect an understanding of topics. By contrast, one characteristic of a surface  
approach to essay-writing was the absence of an intention to seek meaning of  
ideas. Without a clear inclination to understand, the reference-examination  
process almost became a superficial skimming-process, during which  
relevant parts of notes or textbooks were quickly processed without too  
much apparent thinking.

I read and underlined those sections that might be put directly into my essay. [...]  
It's quite straightforward, ... and didn't need too much thinking. [...] The notes  
from the teacher were neat enough with a clear focus on each of the topic she had  
discussed. [03G2S4]

Arranging materials into a structured text

A dearth of thinking on how to organise relevant content into an essay was
also a feature of the strategies this group of students took to construct their essays. However, this did not mean that the students failed to notice the importance of having their essays look clearly structured, but that the students gave their essays a structure in a somewhat perfunctory way.

I seldom really think about essay structure. I mean, I know that an essay should be organised to become an essay, but it might just mean that you need to have several sections and sub-sections that is each titled with something. It's not difficult to do this. [01G2S1]

**Regulation activities**

*Planning time in advance to ensure enough time for carrying out necessary work for essays*

The comments that had been pinpointed by the researcher as suggesting the use of strategies to put the essay writing process under some sort of control among this group of students were rare, and seemed to share a theme that time management was important for essay assignments.

I: Was there anything difficult for you during essay writing, and how had you coped with it?
S: A difficult thing? I don't think I have any [difficulty] in writing [so long as] I can fix in advance a time to work on it.
I: What do you mean by that?
S: I mean, although we generally have 2-3 weeks to write an essay, without fixing a date to work on it, time always goes fast and turns the essay writing into a last-minute rush. It's hard to achieve a good-looking essay, even though I usually don't really care about what it really says. [...] So, I'll put a date into my diary [in order to] to remind myself that I need to spend some time on this task. [02S6]

**5.2.3 Categories in approaches to examination revision**

All courses in the degree programme, as reported by the students, required a written exam at the end of the term. Since the completion of the 2001-03 Project in the school on curriculum standardisation (Section 1.2), standardised examination papers with questions selected randomly from a question bank had commonly been used throughout the degree programme.
To facilitate the students’ revision for exams, it was a routine practice to have an assigned session for consultation, in which the teachers would lead students through the whole course content that had been covered in the term quickly and specify what was more likely to be assessed in the upcoming examination.

The students’ own exam revision effort generally started in earnest after such an assigned session, and as displayed by the majority of the interviewees, it could be summarised as a two-stage procedure, including material selection for revision and working with selected materials for the exam purpose. Such a general procedure seemed to parallel the two-stage revising process that can be inferred from Entwistle and Entwistle’s studies (1991, 1997). However, the students’ revision differed in essential aspects as manifested by the categories included in the fifth column of Table 5.1.

Categories in a deep approach to exam revision

**Intentions**

*Intention to understand what would be assessed as had been explained by teachers*

When the interviewees were asked what they did to cope with exams, fewer than half of them seemed to set out on their revision with an attempt to make sense of the course content that would be assessed. More specifically, the majority of this group of students reported intending to understand what would be assessed in ways adopted by the teacher or prescribed in the textbook.

I think I revised for this course, as well as for many other courses, in a way trying to make sense of those things that would be tested in the exam. I mean, I like to take revision as a process to read all over again what had been covered in class, to read it as a whole, [so as to] improve my understanding of what the teacher had conveyed to me. [OOS2]
Only a small proportion of the students in this group went a bit further by expressing their interest in developing their understanding of the course content beyond what the teacher had communicated in class. Such students were usually those who thought they had worked well enough during term time on the subject, such as had read fairly extensively on the subject. In particular, as illustrated by the extract below, an extended understanding for exam took a form of having more underpinning evidence, or showing more complex relationships.

I: Could you describe how you went about the exam revision for this course?
S: Just like others did, I think. [...] However, during revision, I'll also think about how to make use of what I've read myself on the subject to show something that might sound deeper than what the teacher has taught.
I: What does your 'sound deeper' mean exactly?
S: Um, it's to show something that you know but most of your classmates don't, such as some up-to-date or more pertinent evidence in your argument, or some more complex relationships between ideas around a topic that the teacher did not talk about in class. [...] These things help in showing teachers that you've understood what they taught much better than others.

Cognitive strategies

Generally speaking, several key strategies commonly taken by the students to revise with the aim of understanding were very similar to those used by the students who had claimed to read with the aim of understanding during term time (Section 5.3.1), but with more revision-specific characteristics.

Making sense of selected course materials through examining evidence and seeking relationships between ideas

As indicated by the wording of this category, the strategies coded with this category were similar to the strategies the students claimed to use during reading, which had been coded as 'Focusing on underlying relationships between ideas' and 'Examining the use of evidence in argument'. Rather than reiterating the meaning of these categories, a quote is provided here to illustrate the
evidence that had been used to suggest this category for exam revision.

Most of my revision time is spent on understanding how meaning is abstracted from data, and what I might be expected to know from such a way of reasoning. [...] Quite often, an understanding of a subject depends on whether you’re able to look at its issues as a network [of interrelationships]. To devise such a network requires hard work on examining the relationships between ideas. [00G1S2]

Memorising accurately for/with understanding while revising

‘Memorising for/with understanding’ has been reported as a category describing the strategies the students displayed when reading in a deep manner. This category was employed again by the researcher during the data analysis to capture a frequently mentioned strategy the students used when revising for understanding. One more word, ‘accurately’, was added to this category, however, to indicate that the ‘memorising for/with understanding’ during revision had a clear emphasis on precision compared with the ‘memorising’ in reading.

During revision I always try to memorise things I’ve understood in order to use them in exams. [...] I like to make sure that what I’ve remembered are all in accurate forms, especially for equations, definitions, diagrams, or descriptions of theories. Also, there might be some sentences or paragraphs I’ve learned from somewhere that I want to cite in my exams [...] [I appreciate] precision [for it] is not only what’s crucial for giving a correct answer, but also something that will be appreciated by the marker. [03S2]

Answering sample exam questions to enhance understanding

This was a category similar to the category ‘Doing exercises to facilitate a deep engagement with reading content’ included in the deep approach to reading. However, as indicated by the way the category was coined, sample exam questions became the dominant type of exercises. This made the strategy more particularly targeted at the forthcoming exams.

I looked through some sample exam questions to see whether what I’d revised was sufficient to answer them. I was not in a hurry for answers during this process. but to revisit what I’d learned during revision [...], and to think about which part of the course content the questions really assessed. [...] It’s better to see such a process as a way of checking how well I have understood the course content during revision.
and it helped me to spot the points for additional work. [00G2S1]

Condensing materials to map out relationships between pieces of knowledge

In contrast with the above three categories, this category was specific to exam revision. What had contributed to the generation of such a category were the students' descriptions of working on condensed notes to indicate relationships between ideas for exam purposes. In other words, it was not only to summarise revision outcomes but also to facilitate performance in exams. The condensed notes were usually made into a 'map', as indicated by the students, which could be easily visualised in exams. Such an experience described by the students seemed to take on several features of a 'knowledge object' as described in Entwistle and Entwistle's work (2003).

I always leave one or two days [at the end of the revision] to look back at all I've covered [and] to work out a 'map' for each subject which contains all the main points that could possibly be tested. [...] The relationships between ideas and how ideas make sense in these relationships are the main foci of such a map. I hope they can work for me as a kind of thinking guidance in exams to locate relevant information [...] and control my explanations. [00S2]

Regulation activities

Managing time, making effort and/or maintaining concentration (to facilitate understanding)

There were quite a few comments indicating how those students who claimed to revise with the aim of understanding had regulated their revision. More particularly, the students seemed to consistently emphasise the need for managing time, making effort, and maintaining concentration during revision.

You can always feel short of time during revision, especially when you need to cope with several upcoming exams that are all close to one another. In order to make good use of time, I always work out a plan at the beginning of revision. It's about the order of subjects for revision and how many days to spend on each of them. [...] Such a plan is made mainly according to the extent to which I feel confident in my own understanding of the subject. It might be modified during
Although I've kept studying rather regularly during term time, I still think I need to make a greater effort during revision. [The reason for saying this is that] I need to take forward some more work that I'll only do for revision, such as reciting things and working out a structured summary for each subject. [...] Academic success is always associated with making efforts in studying. [02G1S3]

To be concentrated during revision is crucial for securing the efficiency of study during this period of time. [...] Unlike reading during term time when you can adjust your pace of reading freely, revision requires highly intense work. You need to be organised and focus on what you're doing. [...] A quiet place always works for carrying out such work without being disturbed. [02G2S4]

**Categories in a surface approach to exam revision**

**Intentions**

*Intention to commit to memory as many pieces of knowledge as possible*

The revising intentions of fewer than half of the interviewees seemed to have a relatively limited relationship with an understanding of the course materials. However, it was only seldom that the students explicitly claimed to revise by memorising a large amount of details. Much more commonplace was the lack of intention to seeking meaning during revision.

Exam revision can be carried out in many different ways. For me, what really matters during revision is whether sufficient things have been fixed into memory. Those details always work well in exams. [01S01]

**Cognitive strategies**

What tended to accompany an aim of memorising as many details as possible were some very straightforward strategies taken to facilitate a focus on memorising during revision.

*Seeking short-cuts in solving problems or sample exam questions*

As indicated by the phrasing of this category, the strategies the students
adopted to solve problems related to course content and sample exam questions involved spending minimal time studying the course material themselves. Typically, they would ask for explanations of the problems and correct answers to the questions directly from other students; and, it was also important to point out that the impetus to do this usually was that the students believed that these issues would probably emerge in the forthcoming tests. In other words, they prepared beforehand by repeating in exams what their peers had told them. There was no clear evidence, however, on to what extent they had understood the problems explained by their peers.

If I find something very difficult to recite, I'd either omit it completely or ask someone to explain it [...] Generally speaking, when I choose to ask, it means that I'm afraid that the issue would turn up in the exam, and then I would have nothing to say. [03S5]

I felt that some of those sample questions would repeat themselves in our exams [for] they were on the topics that the teacher said would be assessed. [So] if I prepared the answers in advance, then I'd have no trouble in answering them in the exams. [...] However, there seemed no time for me to answer them by myself, for I needed to concentrate on memorising quite a lot of other things. Seeking help from my classmates became the best way of solving this problem. [...] Generally speaking, there is always someone who can help. [02G3S1]

Repeating to strengthen memory

This was the most frequently reported strategy that this group of students claimed to use when revising. In contrast with the memorisation used to facilitate revision for understanding, the kind of memorisation described by this category was characterised by an interest in quantitative accumulation.

The main strategy I took for the revision was to go over selected pieces again and again. [...] The first time I read, I just read to get familiar with them; the second time I read I'd have begun to cram them in. To go over such a process more times [so as to] fix firmly into my mind as much as possible of the exam content was what I mainly did during the revision. [01S4]

Regulation activities

Managing time, making effort and/or maintaining concentration (to aid rote
The categories used to describe the activities the students took to manage their revision mainly for taking in sufficient items of knowledge were the same as the categories included in the deep approach to revising. However, as illustrated in the quote below, although the targets under management – time, effort and concentration – were similar, the reasons for having those elements of studying under control were different.

To commit things into memory is a very hard process [...] especially when you have to remember quite a lot of things that don't really make sense to you. [...] The only thing I can rely on in such a situation is my effort and determination. [...] Besides eating and sleeping, I use almost all the available time to cram my brain. [...] Staying up late till midnight is very common for me during revision. [...] If possible, I like to have a place where I can read aloud without being disturbed or disturbing others to facilitate memorising [03S3]

5.3 Students’ approaches to studying

In this part of the chapter, the data on the students’ approaches to studying will be considered more holistically to draw some general conclusions. Firstly, for every learning task, there were categories in each of the three facets of students’ ways of studying that were particularly pursued in the present study – intentions, cognitive strategies and regulation activities. This seemed to indicate the appropriateness of applying the Western originated construct – approach to studying – in examining the students’ ways of studying, and therefore satisfied the conceptual equivalence (Watkins 2001) required for adopting Western developed inventories on approaches in the Chinese setting involved in this study.

Secondly, the variations across the categories coined to describe the students’ approaches to academic reading, essay writing, and exam revision appeared to support the decision to look at approaches to studying from a task-specific perspective. In addition, as read from the categories in Table 5.1, although variations between categories were evident, there were also some basic
features shared between categories. For instance, the intention to understand, seeking relationships between ideas, and monitoring studying process could be extracted from the categories in the 'deep' group across the three learning tasks; and, when those categories in the 'surface' group were examined as a whole, the dearth of intention to understand and the perfunctoriness of the studying process seemed to be prevalent. Moreover, since these generic features had been employed to develop the relevant items and scales in the CETLQ, the findings lent support to the appropriateness of the inventory items and scales employed to describe approaches in this particular context.

Thirdly, taking into account both the findings from the inventory and the interview data on students' approaches, it seemed possible to say that, at a collective level, the students' descriptions of their ways of studying manifested the existence of two kinds of approaches that each mapped onto some defining features of either a deep or a surface approach. This was a very important conclusion for the whole study, because a basic assumption underlying the study was that qualitative differences in the students’ ways of studying paralleling the deep/surface dichotomy could be identified. However, such a conclusion did not apply to individual students. An examination of individual students' comments on their ways of studying by using the categories in approaches revealed that, only a small proportion of the interviewees appeared to study in a consistent way – either deep or surface – across courses and varied tasks; on the contrary, the majority of the students mentioned adjusting their ways of studying to address specific courses or tasks they were working on, and therefore displayed both deep and surface approaches to studying in their descriptions.

Additionally, it seemed necessary to point out that the students as a whole appeared to be adept at regulating studying and emphasise effortful learning, notwithstanding the fundamental differences in their intentions to do so. Such a finding provided a possible explanation for the high means obtained on the scales on 'Monitoring studying' and 'Study organisation and management' in the CETLQ. However, the interview data did not seem to be supportive of the much higher means the 'Deep approach' scale obtained than
that of the 'Surface approach' scale, because the majority of the students who inclined to study in a surface manner when writing essays and preparing for exams, although more than half of the students reported reading in deeper manners. Such an inconsistency was considered to be interpretable, nonetheless, given that the students were asked to respond to the inventory with specific reference to the target courses, whereas a wider range of courses were referred to by the students in the interviews. Yet another possibility was that the students' interview comments might be less idealised than their inventory responses, because what was said in the interviews tended to be more 'particularised' – i.e. tied to particular instances or situations. This point highlighted the importance of having interview data alongside inventory data to obtain a more reliable picture of student learning in this study.

Fifthly, some fine-grained information about the students' ways of studying could be found when looking at individual categories more closely. For example, as far as the categories in intentions were concerned, the respect for authorised knowledge could be discerned throughout those intentions associated with deep approaches to studying. Such a finding mirrored the literature on Chinese students' inclination towards respectful learning (Pratt et al. 1999). Moreover, such a prevalent belief in authorised knowledge as indicated by the categories, together with the paucity of comments indicating attempts to question what had been taught by the teachers, seemed to provide a basis for rejecting the inventory item in which an idea of questioning authorised knowledge at earlier stages of studying was conveyed (Section 4.2). However, respectful learning did not necessarily work against being critical during studying, as it was evident that the students would search for different or even critical ideas during their post-class reading to obtain an extended understanding of what they had learned from their teachers.

Finally, more information on the students' use of memorisation could also be obtained through comparisons between relevant categories. More specifically, memorising without understanding as a way of fixing
fragmentary pieces of knowledge into memory was found to be employed during exam revision, rather than reading and essay writing. Such information might indicate that rote learning was more likely to be a task-specific cognitive strategy. In addition, memorising in combination with understanding was evident in reading and revising in deeper manners, and therefore provided support for the claim that memorisation can be considered as an indispensable part of a deep approach to studying in Chinese settings (Kember 2000a, Watkins 2000). Moreover, although there were students who reported seeking explanations from their peers for some difficult questions they encountered during revision, it was hard to figure out to what extent such a process had contributed to their understanding of the problems based on their own comments.

In sum, the interview data pinpointed a series of features related to the students' ways of studying, and the most important one with regard to the purpose of the present study was the existence of the envisaged differences in the approaches the students adopted for course studying. Based on the aforementioned findings, the following two chapters will move on to explore the students' approaches to studying in relation to what the students described about their orientations, beliefs and perceptions of the TLEs – the variables associated with personal and environmental contexts of student learning – to enhance the understanding of the variations in the students' approaches highlighted in this chapter.
Chapter Six

Findings from interview data (2):
Students' orientations to education, beliefs about knowledge and learning, and relationships with approaches to studying

6.1 Introduction

The two variables that are closely associated with a student's personal context, i.e. orientations to education and beliefs about knowledge and learning, constitute the main foci of this chapter. More specifically, the aim of this chapter is to examine whether the students' adoption of different approaches to studying might be related to the orientations and beliefs they claimed to hold.

6.2 Orientations to education and relationships with approaches to studying

Orientations refer to the whole domain of higher education students' personal goals, intentions, motives and expectations for their studies (Gibbs et al. 1984). This part of the chapter focuses on the findings on this dimension of the students' experiences and their relationships with approaches to studying. Given the rich variations in the students' comments on their expectations of university experiences, a series of categories were developed first during the analysis to capture the main types of orientations suggested by the students. These categories will be reported in the first section of this
part. With these categories in orientations and the categories in approaches to studying (see earlier Table 5.1), the students' interview materials were further examined to explore the functional relationship between their orientations and approaches. The second section of this part will focus on the findings on this relationship.

6.2.1 Types of orientations to education

Table 6.1 (see overleaf) gives a summary of the categories adopted by the researcher to indicate the core features embodied in the main concerns with university study as displayed by the students. The ways of labelling these categories, as shown in the table, were based directly on the work of Morgan (1993), Beaty et al. (1997), and McCune (2000). The rationale for doing so was that the main concerns expressed by this group of students did not show fundamental differences from those reported in the aforementioned studies. However, subtle differences existed between the categories reported here and the categories in the Western literature. For instance, there were some concerns (in italics in the table) that have not been reported or specified in the Western literature.

The evidence that gave rise to these categories will be displayed next. However, since almost all the categories, except the social orientation, in the table were either well-established in the Western literature or self-evident, a single quote was deemed necessary by way of exemplification. And, as was the case with the categories in the approaches to studying reported in Chapter Five, all these categories were developed to describe the broad variations rather than idiosyncratic features in the students' orientations, based on comments suggesting a similar theme from at least four different interviewees.
Table 6.1 Categories in orientations to education as displayed by a group of mainland Chinese Economics students

<table>
<thead>
<tr>
<th>Category</th>
<th>Main concern(s) captured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic</td>
<td>Studying a course for its own sake because of intellectual interest in its content</td>
</tr>
<tr>
<td></td>
<td>Obtaining grades good enough to secure a move up the academic ladder</td>
</tr>
<tr>
<td>Vocational</td>
<td>Acquiring knowledge and skills that can be used in specific future employment</td>
</tr>
<tr>
<td></td>
<td>The value of a degree certificate in improving employment prospects</td>
</tr>
<tr>
<td></td>
<td><em>The value of certificate(s) to signify possession of generic skills in improving employment prospects</em></td>
</tr>
<tr>
<td></td>
<td><em>The value of a postgraduate degree in improving employment prospects</em></td>
</tr>
<tr>
<td>Personal</td>
<td>Improving oneself into a more independent and confident person through engaging deeply with course content</td>
</tr>
<tr>
<td></td>
<td>Proving oneself to others/Avoiding losing face</td>
</tr>
<tr>
<td></td>
<td><em>Becoming more skilled in dealing with interpersonal relationships</em></td>
</tr>
<tr>
<td>Social</td>
<td>Improving parents' welfare, e.g. happiness, dignity and living standards, through making progress in academic studies</td>
</tr>
</tbody>
</table>


Academic intrinsic orientation

Studying a course for its own sake because of intellectual interest in its content

A wish to engage with subjects out of the interest in the course content itself were identified from quite a few students’ comments, and the evidence of such an interest contributed to the adoption of this category.

I want to do Economics. The interesting thing about Economics is that it's a hard science in social and humanities sciences. [...] I mean it's different from, for instance, History. It requires logical thinking. It involves mathematical operations. Studying it doesn't involve memorising things, but getting used to a new way of thinking and doing things. [02S4]

As shown in the quote below there was another way that had been adopted by the students to convey their intellectual interest in the subject content, which was to do with pursuing an advanced degree after their undergraduate studies.

I'd love to continue my study, I mean, to read a Master's or even a Doctor's degree in Economics. [...] I think this is a very natural idea, [for] you're interested in something and you like to read more and know more about it. [02G1S2]

Academic extrinsic orientation

Obtaining grades good enough to ensure a move up the academic ladder

This category was characterised by those students who were concerned with grades rather than studying the course for its own sake. A feeling shared among those students was that participating in higher education was, to a large extent, a natural progression they made in academic studies.

I think it’s what is supposed to happen after I’ve gone through my school years. [...] Whichever the subject I choose, I’ll try to make a good job of studying it. Grades are always important for moving forward along the academic path. [03S4]
Vocational intrinsic orientation

Acquiring knowledge and skills that can be used in specific future employment

The adoption of this category was based on the evidence showing an intention to be well-prepared in subject knowledge and skills so as to be able to take on a good job in the relevant industry in the future. In addition, the relevance of the course content to the envisaged careers, and the involvement in practices were more often mentioned along with such an intention.

I came here ... for knowledge and skills that can really contribute to my competency in the field. [...] I welcome those courses that are built up in close relationship with the real practices and the latest developments in the field. [0152]

Vocational extrinsic orientation

The value of a degree certificate in improving employment prospects

An emphasis on the qualification aspect of university study and taking it as an end to get an undergraduate-level job characterised this category.

I: What had contributed to your decision to enrol in higher education?
S: Probably it’s the certificate. To be more accurate, I choose Economics because its degree is well-recognised in job seeking. [00G152]

The value of certificate(s) to signify possession of some generic skills in improving employment prospects

It seemed, however, worthwhile to note some variations in the students’ interest in certifications. For instance, the quote below demonstrates a concern that a degree certificate was not enough in itself for job seeking purpose; some other certificates were also needed.

A degree is what I want. But, in order to make the academic certificate more useful, I think I need some other certificates as well. There are certificates issued to signify a person’s competence in using English and a computer. They’re often required when looking for a job today. [00G151]
The value of a postgraduate degree in improving employment prospects

Another variation in concerns with qualification was suggested by those students who aspired to pursue postgraduate study so as to respond to the demands for advanced degrees when competing for attractive job vacancies.

My main aim to be here is to get prepared for postgraduate study. It's not to say that I'm particularly interested in this subject, for I do so because I realise that a Bachelor's degree is not enough at present for securing a good job. [02G1S1]

Personal intrinsic orientation

Improving oneself into a more independent and confident person through engaging deeply with course content

This category was characterised by those students who mentioned seeing education as a means of changing as a person. It was not difficult to find an emphasis on academic studying in those students' comments. However, as shown in the quote below, academic studying was more likely to be pursued as a means of getting something out of it for oneself, rather than in order to know more about the subject per se. Such a feature distinguished this category from the academic intrinsic one.

I decide to be here for I think the university can be a good place for me to develop myself. [...] My reason for saying so is that I believe that knowledge makes one more self-confident and more independent. It doesn't matter to anyone else. You learn something, and you get something out of what you learned. [02S1]

Personal extrinsic orientation

Proving oneself to others/Avoiding losing face

An attempt to prove to others that they were an able student by performing successfully in their everyday academic studies epitomised some students' concerns. As indicated in the quote below, such an intention could be blended with an attempt to prevent loss of face.
I was not a very good student in my school teachers' eyes. I was then determined to become a university student, and a student in Economics, [therefore] to show them that, indeed, I'm a good student. [...] Such a feeling also contributes to my work here. I want to do well on course studying; otherwise, I'll again be regarded as a bad student by teachers and classmates here. I don't want to lose face. [01S4]

*becoming more skilled in dealing with interpersonal relationships*

Another kind of concern that had also been classified into this category was an interest in becoming adept in interpersonal relationships. The reason for introducing this new definition was that the majority of the students providing such comments expressed an intention to realise their concerns through social content and opportunities rather than through academic studying.

When I first set foot in this university, I told myself that this is a place for changing myself. [...] The change I look for is not the increase in subject knowledge, but from a person who only knows how to study to someone who is good at dealing with interpersonal relationships. I dislike the 'me' in the past that only knew studying. [...] Most of my time is now spent on participating in various social events on the campus. I believe that I can learn what I want to learn on those occasions. [01G3S2]

*Social orientation*

*Improving parents' welfare, e.g. happiness, dignity and living standard, through making progress in academic studies*

In Beaty *et al.*'s work (1997), there was a social extrinsic category characterised by an interest in having a good time on campus through participating in social activities or using sports facilities on campus. A recently identified characteristic of a social intrinsic orientation was to help others through what was learned in higher education (Boulton-Lewis *et al.* 2000; McCune 2000). However, the present study found it hard to interpret some typical statements in line with these two types of social orientation. For instance, as illustrated below, some of the students in the present study expressed their concerns with other people’s (in particular, the parents of the student) welfare – e.g. happiness, dignity and living standard – by means of
seeking progress in academic study, and the students' exact intentions in relation to the learning content (either intrinsic or extrinsic) were not necessarily clear.

[Happiness] I don't want to deny my attempt to please my parents through making progress in academic study, for I know this is what they're most happy to see. This, to some extent, cuts across my own happiness, for if it's not for them, I might have chosen to do other things else rather than to be here. But they're happy, and so I'm happy. I like to do this because I'm their child. [03G2S3]

[Dignity] I live inside X University as my parents are both professors of that university. [...] In such an environment, what people are most likely to talk about after dinner is whose child is now doing a PhD abroad, and whose child is still struggling to take [his/her] college entrance exams the third time around [...] Oh, my God! You seem to have no choice but to work hard and make good progress in academic studying. I don't want to be taken as a negative example when talked about by them, ...[for] though I'm too far away from them to hear it, my parents can't avoid coming face to face with them every day. [01S2]

[Living standard] Knowledge can change fate, I believe in this. I want to study hard so that to have myself equipped with knowledge and skills to take on a good job after graduation so as to change my parents' poor life. I know what I can earn a month after graduation will amount to their annual income. [00S3]

It appeared to be necessary to spell out these types of orientation, albeit the difficulties in ascribing them into either the intrinsic or the extrinsic category, for similar comments were not rare in the interview data. In addition, they were believed to be culturally grounded, given that 'children have become a precious commodity since the one-child policy, and families are often prepared to make considerable personal sacrifices as they invest in a son or daughter's future' (Edwards and Ran 2006: 1). It was decided, therefore, to simply classify them as culturally specific variants of social orientations without further differentiation.

In concluding this section, it seemed necessary to reflect on the categories that have been reported above in relation to the items on orientations to education used in the CETLQ. In brief, besides that the two types of social orientations were not found in the interviews, all other types of orientations were confirmed and therefore lent support to the adoption of the inventory items in this study. A possible explanation for the absence of the two social
types of orientations (which had not been pointed out by the students as inapplicable to their situations) in the interview studies could be that, the social orientations as defined in the Western literature did not express the types of social issues that particularly concerned the students, although they did describe some aspects of university life that were appreciated by the students.

6.2.2 Orientations to education and relationships with approaches to studying

The categories displayed in the preceding section were developed to enquire into the students’ orientations to education and relationships with approaches to studying. More specifically, three research questions had been posed to facilitate the investigation: Firstly, at a collective level, what were the main features of the orientations displayed by this group of students? Secondly, to what extent did the students think that their orientations to their university experiences had influenced their ways of studying? Finally, what could be learned about the functional relationships between orientations to education and approaches to studying? This section aims to provide answers to these three questions based on the findings from the students’ comments.

Question One:
What were the main features of the orientations displayed by this group of students as a whole?

Answers to this question were obtained by analysing individual students’ comments on their concerns or expectations related to their university studies by using the categories in orientations first, and then drawing out the generic features from individual cases. More specifically, the features that had been picked out could be summarised as the following two points:

- The majority of the students reported mixed orientations, which usually took on features captured by more than one category, although there were a few cases in which the students only mentioned one type of orientation.
In addition, there seemed to be no students indicating a lack of any clear orientation. In particular, vocational orientations – either intrinsic or extrinsic – stood out from other types of orientations in terms of the number of interview fragments containing pertinent information.

- As a whole, the students' orientations could be classified into three types: those which only containing either intrinsic or extrinsic concern(s), and those suggesting a combination of the two. Furthermore, there were far fewer students reporting orientations dominated by extrinsic concerns than there were those who had displayed intrinsic or mixed orientations.

A comparison of the features of the students' orientations derived from the interview data and what came out of the inventory data suggest that the two sets of data displayed a quite consistent picture.

**Question Two:**
*To what extent did the students think that their orientations to their university experiences had influenced their ways of studying?*

In the interviews, once the questions designed to encourage the students to reflect on their reasons for or concerns with undertaking higher education were answered, questions such as 'To what extent do you think your concerns have contributed to your ways of studying on your courses?' had been asked to explore the relationships between orientations and approaches. The answer to this research question was then inferred from the two different kinds of responses the students provided to such interview questions.

Around one out of four interviewees implied that his/her concerns had played an important role in making decisions on how to learn. Below is an example of such a kind of response.

I: To what extent do you think your concerns have contributed to your ways of studying on your courses?
S: Well, first of all I think that what my concerns are does have an important impact on what I’ve studied and how I’ve studied here in all these years.
[00G2S1]
Among the other three-quarter of the interviewees, in contrast, the majority of them thought that their concerns with their university life might have only played a minor role in their everyday studies, and therefore did not feel confident in giving an affirmative answer to the researcher’s question, albeit finding it also difficult to deny it.

I: Do you think these things that you are concerned with have influenced your ways of studying on courses?
S: Um, it’s really hard to say. I mean, it’s not true if I say ‘no’, for I’m aware at times that I’d likely do something mainly because it’s what I want to do. But, for the most part, I don’t think what has influenced my ways of studying most is those concerns.
[01S2]

In particular, there were several students who provided a clear negative answer to the question and therefore denied that their orientations had had any influence on their approaches to studying.

I: What do you think your concerns have contributed to your ways of studying on your courses?
S: I’m afraid I don’t think they have influenced my ways of studying at all. What you want is not what you can achieve here. My dreams have surrendered to the reality — I think I have to say that.
[02G2S4]

Based on these findings, a general conclusion that could be made on to what extent the students as a whole believed that the orientations they held had influenced their ways of studying was that: although there was some evidence that functional relationships between orientations and approaches generally existed, in the majority cases, the relationship did not seem to be very strong.

Question Three:
What could be learned about the functional relationships between orientations to education and approaches to studying?

This was a rational follow-up question asked after the existence of the impact of orientations on approaches had been confirmed by the students. In order
to address this research question, further interview questions had been asked of the two groups of students who had contrasting attitudes towards the influence of orientations on approaches. More specifically, for those one quarter of students who implied that their concerns had played an important role in their decisions on how to learn, the researcher had moved on to ask them to describe the influences they perceived; while for the other three-quarters, the researcher went to ask them to explain why they did not think that their concerns had influenced their ways of studying very much. Findings from the students' responses to these two types of questions together contributed to the answers to this third research question. The following two sub-sections will focus on how the relevant data had been analysed and how the findings were derived.

Analysis I: Ways in which approaches to studying were influenced by orientations

The analysis reported in this sub-section was based on the descriptions of the ways in which the students felt that their approaches had been influenced by the orientations they held. More specifically, the following three steps had been taken to analyses these relevant data:

- Firstly, categories in approaches to studying as reported in Section 5.2 and categories in orientations to education as displayed in Section 6.2.1 were applied to examine the nature of the approaches and the orientations that an individual student described in his/her interview. Those categories that had been employed during this analysis process formed the basis for the further examination of the relationships between orientations and approaches.
- Once all these individual cases containing the relevant information were examined in such a way, they were then put into two groups according to the nature of individual students' approaches: deep and surface. The reason for doing so was twofold. One was that, for the students who claimed about a functional relationship between approaches and orientations, there seemed no evidence in their comments showing that
they studied in a way having both deep and surface characteristics. The other was that, for the purpose of this study, differences mapping onto the deep/surface dichotomy were the foci, and the influences of the orientations was investigated to suggest possible explanations for these two types of approaches.

- Finally, the nature of the orientations was examined both within and between the two groups so as to draw out some generic descriptions of the types of relationships that had seemed more likely to contribute to the adoption of different types of approaches to studying, applicable to the majority of the individual cases.

Figure 6.1 summarises the general descriptions derived from the analysis along a dichotomy with two dimensions, i.e. the nature of the students' approaches to studying, and the nature of the students' orientations to education. In regard to the dichotomy, one extreme illustrates the relationship between a 'deep approach' and a 'predominately intrinsic type of orientations', while the other extreme is employed to specify the relationship between a 'surface approach' and a 'wholly extrinsic types of orientations'.

Figure 6.1

Relationships between orientations and approaches
as suggested by a group of mainland Chinese Economics students

<table>
<thead>
<tr>
<th>Nature of the students' approaches to studying</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface approach</td>
</tr>
<tr>
<td>Wholly extrinsic type of orientation(s)</td>
</tr>
<tr>
<td>Deep approach</td>
</tr>
<tr>
<td>Predominately intrinsic type of orientation(s)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nature of the students' orientations to education</th>
</tr>
</thead>
<tbody>
<tr>
<td>* with some exceptions</td>
</tr>
<tr>
<td>* with some exceptions</td>
</tr>
</tbody>
</table>
In order to explain further the meaning of the two extremes of the dichotomy, four segments taken from the coding-sheets (for details of the coding-sheets, see, Section 3.3.3) that had been used in the interview data analysis will be provided here. Table 6.2 (see overleaf) contains these four pieces of segments. As seen in the table, these coding-sheet segments displayed the ways in which the students’ orientations (underlined with straight lines) and approaches (underlined with wavy lines) were analysed with the categories specifically developed for the present study. The important information indicating the relationships between these two was also highlighted (with dotted lines).

The two segments of the interview material in the first part of Table 6.2 are provided to suggest what the relationships between a ‘deep approach’ and a ‘predominantly intrinsic type of orientation(s)’ meant, and how this kind of relationship had been drawn out from the original data. As seen in these two segments, the relationship per se was established not by deduction, but based on the explicit claim made by the students on the influence they perceived their orientations had on their approaches to studying. Moreover, the conclusions made on the nature of the students’ ways of studying and the nature of the students’ orientations were based on the examination of the categories used to code the main features reflected in their descriptions of these two dimensions of learning experiences. However, although it seemed straightforward to name the approaches to studying that these two students demonstrated as a ‘deep’ approach’, this did not apply to describe the orientations that had been claimed to influence the adoption of a ‘deep approach’. Two general points identified in the students’ descriptions of their orientations accounted for such a situation.

One point was that, in most cases, the orientations appeared to be a mixture of different types of orientations rather than taking a single form. The other point was that, although in most cases the students only mentioned intrinsic types of orientations, it had been occasionally found that some students also suggested some supplementary concerns, which indeed were extrinsic in nature. For instance, the personal extrinsic orientation, which was
### Table 6.2
Coding-sheet segments illustrating the two kinds of relationships between orientations to education and approaches to studying as suggested by a group of mainland Chinese Economics students

#### Part I: Coding-sheet segments suggesting a relationship between a ‘deep approach’ and a ‘predominately intrinsic type of orientation(s)’

<table>
<thead>
<tr>
<th>Interview material</th>
<th>Code</th>
</tr>
</thead>
</table>
| **I:** What had contributed to your decision on joining higher education? **S:** Of course it’s the possibility of learning something more challenging and inspiring. […] Economics is amazing in its ways of using numbers and graphs to interpret real-life problems. […] What I’m really keen on is to become a professional analyst in Economics, like those who turn up in TV programmes explaining the stock market curves. They look so professional. [...] **S:** So, what do you think that your interest in Economics has influenced your ways of studying on courses? **I:** Well, I think these ideas are very important for me. […] Since I’d like to be professional in my future career, I think I should always try to understand what I learned in Economics. […] Reading is helpful for this in a general sense. [And] I find that it’s useful to seek relationships between ideas, or think for a while why the argument is carried out in this way during reading for achieving a good understanding of subject content. [02G2S5] | (academic intrinsic).  
(vocational intrinsic)  
(confirmation of the existence of influence from orientation)  
(intention to understand)  
(focusing on relationships); (examining the ways of arguing)  
(intention to understand) |
| **S:** University is a place with plenty of freedom and opportunities, and allows me to change myself towards the direction that I expect. More specifically, I want to be more capable in my subject. It’s, on the one hand, for my interest in the subject content, while on the other hand for a decent job in the future. **I:** So, have those expectations influenced your ways of studying on courses? **S:** Yes, of course. […] In order to study the course well, I take seriously whatever the coursework the teachers assign. I use them as chances for me to think about what I’ve learned and how well I’ve learned. […] Taking essay-writing as an example, as I’ve mentioned earlier, I take these tasks as chances to develop my understanding of a specific topic. I really enjoy the process of searching and reading references for writing, for I’ve a focus in reading and this helps me to make connections between ideas. As well, writing-up is also a challenging process, for I need to find a way to express ideas that makes sense not only to me but also to my readers. [02S2] | (personal intrinsic)  
(academic intrinsic); (vocational intrinsic)  
(confirmation of the existence of influence from orientation)  
(monitoring studying)  
(intention to understand)  
(reading materials for related ideas)  
(organising materials into a coherent text) |
<table>
<thead>
<tr>
<th>Interview material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>S: What I want to take away from here is very simple: a degree certificate, and if possible, some other certificates that I can manage to get during these years.</td>
<td></td>
</tr>
<tr>
<td>I: What do you mean by saying 'other certificates'?</td>
<td></td>
</tr>
<tr>
<td>S: Like certificates signifying the possession of English and computing skills, or even a driving licence. [...] I read from your face that you may want to ask why I'm interested in these certificates. Well, I learn from those graduates that these are the things that really matter when looking for a job.</td>
<td></td>
</tr>
<tr>
<td>I: But it's not an easy task to obtain these certificates, right?</td>
<td></td>
</tr>
<tr>
<td>S: Well, yes. The time I spend on course studying is rather limited, for obtaining these certificates all needs hard work. English might be the most time-consuming one, and I know many of my classmates, including me, spend quite a lot of time on learning English rather than studying subject courses. Comparatively speaking, getting a pass in subject course is not difficult: to recite enough things before exams usually works.</td>
<td></td>
</tr>
<tr>
<td>[00G3S1]</td>
<td>(vocational extrinsic)</td>
</tr>
<tr>
<td>S: What I appreciate most on the campus is not how much subject-knowledge I'll obtain, but how to promote myself through various social events. [...] In my opinion, a more socialised person, who is good at dealing with interpersonal relationships will be appreciated more than a person who only knows studying. [...] But I also care about obtaining a degree certificate in Economics, for it works well in opening doors to a job, and therefore brings me opportunities to display my competence.</td>
<td></td>
</tr>
<tr>
<td>I: So, do you think that these ideas, at least to some extent, have influenced your ways of studying on courses?</td>
<td></td>
</tr>
<tr>
<td>S: Well, I think I should say that they've influenced my ways of studying quite a lot. Since I don't care too much about my academic study, it seems inevitable that I won't spend quite a lot of time on it. Besides taking class, which is necessary, almost all my spare time has been spent on participating different social events. And it's not exaggerating that I only sit down to concentrate on course work when it's time for revision. [...] I've made a lot of friends, and they help me lot in sorting out things that might be tested in exams, and sometimes even in the form of 'questions and answers'. The main task that is then left to me is to fix into memory these materials. During revision, I cancel all social events and concentrate on doing this.</td>
<td></td>
</tr>
<tr>
<td>[01S5]</td>
<td>(lack of engagement in course studying)</td>
</tr>
<tr>
<td></td>
<td>(dearth of references to understanding): (rote-learning)</td>
</tr>
<tr>
<td></td>
<td>(personal extrinsic)</td>
</tr>
<tr>
<td></td>
<td>(vocational extrinsic)</td>
</tr>
<tr>
<td></td>
<td>(confirmation of the existence of influence from orientation)</td>
</tr>
<tr>
<td></td>
<td>(seeking short-cuts in working with course materials)</td>
</tr>
<tr>
<td></td>
<td>(memorise without trying to understand first):</td>
</tr>
<tr>
<td></td>
<td>(managing time and concentration to aid rote learning)</td>
</tr>
</tbody>
</table>
characterised by an interest in proving oneself to others through academic work, was taken by quite a few students as a natural thing they would expect through studying the course for its own sake. However, since such types of orientations were just subsidiary concerns that could be fulfilled alongside other perhaps more important ones, the appearance of some extrinsic concerns in the students’ comments did not appear to have prevented the students from studying in a deep manner. It was, therefore, decided to name the orientations held by those students who took a deep approach to studying while admitting explicitly the influences of their orientations on their approaches as ‘predominantly intrinsic type of orientation(s)’.

The second part of Table 6.2 contains the two segments picked out to illustrate the relationship between a ‘surface approach’ and a ‘wholly extrinsic type of orientation(s)’. The process through which the relationship was derived from the data was identical to the one described above. Moreover, the plurality in the term was utilised to reflect a fact that, in most cases, more than one type of extrinsic orientations could be found in the students’ descriptions. The reason for using ‘wholly’ rather than ‘predominantly’ was that there seemed no evidence suggesting any intrinsic type of orientation in those students’ comments, indicating the adoption of a surface approach as well as an clear relationship with the orientations they held.

Besides the above findings, it is also necessary to mention that some types of orientations seemed to be associated with both deep and surface approaches to studying, and were therefore hard to classify into either type of relationship. A classic example was the social orientation defined as aiming at ‘improving parents’ welfare, e.g. happiness, dignity and living standard, through making progress in academic studying’. It was found that, generally speaking, when the focus was on studying to improve parents’ living standard, it was more likely to be related to the adoption of a deep approach; but, when it was to study for parents’ happiness and dignity, the adopted approaches to studying were less likely to be deep. Three quotes below illustrate these situations.
[Living standard] I tend to improve my parents’ life through my educational experiences. I mean, if I worked well enough on courses, then I can probably assume myself of a good job after graduation. [...] Such an idea encourages me to spend more time on studying, and trying to make sense of the things I learned.

[Happiness] I’ve said that I’d not have been here if I could ignore my parents’ expectations. This influences me quite a lot, for I don’t study for my interest in these courses, but take it as a task, a task that I have to complete. It’s only if I can pass all the exams and keep staying on here, that my parents will be fine. [...] You know that, a good memory can always work well for passing exams.

[Dignity] I like good marks because they signify your capability in studying. [...] To be regarded as being able to study well is also what my parents care about, and I like to make an effort to achieve good marks [...] regardless whether I’m interested in the courses I’m studying.

Another example came from the vocational orientation expressed as valuing ‘a postgraduate degree certificate in improving employment prospects’, which was ostensibly an extrinsic orientation. However, since to obtain an advanced degree required passing a highly competitive exam which calls for a good mastery of subject knowledge, the students seemed to have no other choice beside studying courses in a way that could serve their aims, which generally took on some main features of a deep approach.

I want to do a Master’s degree, for it’s more useful in job-hunting. But there is a logic that runs like this: if you want a Master’s degree, you need to first of all pass the postgraduate entrance exam; then, since the exam requires a sound understanding of the subject, you need to work for this requirement; then, you can’t process your course materials in a superficial way, for no understanding could be obtained in that manner. [...] O.K., then, I’ll do this, for I really want a Master’s degree.

Bringing together all the points that have been made in this sub-section, which were derived from the analysis of the interview data provided by those students who claimed to have perceived clearly the influence of their orientations on their approaches, it seems possible to make the following observations:

- There were clear indications of internal relationships between ways of studying and orientations among this group of students. Such a conclusion
was consistent with the one made by Morgan and Beaty (1997) which has contributed to their coining the term ‘study contract’.

- The types of relationship derived from this group of students’ comments generally confirmed the ‘intrinsic-deep’ and ‘extrinsic-surface’ relationships that have been widely reported in the Western literature (Entwistle 1998a). Nonetheless, there may be exceptions to these generic conclusions, especially given the possible influences of some social concerns and the vocational extrinsic concerns related to the value of a postgraduate degree certificate on approaches.

**Analysis II: Reasons for questioning or denying influences of orientations on approaches**

Having displayed the findings supporting the functional relationships between approaches and orientations, this sub-section focuses on the findings from the examinations of the interview data produced by the other three-quarters of the students who were not sure about or even denied the existence of a functional relationship. More specifically, the reasons they gave for their claims were analysed.

Generally speaking, what came out of the reasons provided by the majority of the students who were not sure about the existence of the functional relationship was a common theme suggesting that they would be more likely to attribute their ways of studying courses to the TLEs in which they studied everyday rather than the orientations they held. Below is a typical quote.

I: Do you think your concerns have influenced your ways of studying on courses?
S: Um, it's really hard to say. [...] In most cases I don't think they are what have influenced my ways of studying most.
I: So, what do you think has influenced you most then?
S: I want to say it's some very specific things that I encountered during my everyday study, [such as] the particular course I'm taking, the quality of the teacher's presentation, and other things like that.

Those who had denied the existence of the functional relationship suggested a theme that they adjusted their ways of studying to the TLEs even though
they were aware that their ways of studying were not consistent with their true concerns with higher education experiences.

I: What do you think your concerns have contributed to your ways of studying on your courses?
S: I'm afraid I don't think they have influenced my ways of studying at all. What you want is not what you can achieve here — I think I have to say that.
I: Can you explain this a little bit more?
S: Sure. What I originally intended to take away from the university when I first set foot in it was a solid knowledge base in Economics that can support me to take on a professional job in the field. But I soon realised that what I might most likely to take away from here is just a certificate, for the teaching in the university appears to be targeted in a different direction. Such a reality influences my everyday studying, rather than what I myself truly want.

[02G2S4]

A possible answer to Question Three

Up to now, the findings from the two types of analyses that had been carried out to explore the relationships between orientations and approaches have all been reported, and it seemed possible to provide an overall answer to the research question asking what could be inferred from the students' comments about the functional relationships between orientations to education and approaches to studying. In brief, it was reasonable to conclude that orientations could have an impact on how the students tackled their studies, but to a varying extent among them. In contrast with extrinsic types of orientations, intrinsic types of orientations were more likely to contribute to the adoption of a deep approach to studying. Compared with the influences from other sources, especially the TLEs, the impact of orientations appeared to be less significant.

6.3 Beliefs about knowledge and learning and relationships with approaches to studying

The other variable associated with a student's personal context that had been of concern in this research was students' beliefs about knowledge and learning. More specifically, among the various possible perspectives on
learning and related phenomena, the present study chose to focus on three important perspectives on learning, i.e. the students' beliefs about the nature of learning, the nature of knowledge, and their roles in the process of learning in relation to that of their teachers. Following the structure of the preceding part of the chapter, a series of main themes that had been picked out to facilitate the exploration of the students' beliefs will be reported in the first section of this part. The answers to the three similar research questions that had been asked to aid the exploration of the students' beliefs and their relationships with approaches to studying constitute the second section in this part.

6.3.1 Main themes within the students' perspectives on knowledge and learning

During the interviews, the students had been asked to describe their beliefs about the nature of learning, the nature of knowledge, and the role of learner in relation to that of the teacher's respectively. Table 6.3 (see overleaf) summarises the main themes that had been derived from the examination of the students' responses to relevant questions, with a Chinese-specific theme highlighted in italics. 'Reproductive' and 'Interpretive', the two words commonly used in the literature to refer to fundamental differences in students' beliefs about learning as discussed in Section 2.4.1 were employed to discriminate themes related to a same perspective on learning.

Evidence from the students' comments that had been used in generating these themes will be displayed next. Since the majority of the themes were well-documented in the Western literature (Baxter Magolda 1992; Marton et al. 1993; Vermunt 1996), a single quote was deemed necessary by way of exemplification. As was the case with the categories in the students' approaches and orientations, all these themes were developed to capture broad variations, shared by at least four different students, rather than idiosyncratic characteristics in the students' beliefs.
Table 6.3
Main themes in beliefs about varied perspectives on learning as displayed by a group of mainland Chinese Economics students

<table>
<thead>
<tr>
<th>Perspective on learning</th>
<th>Reproductive</th>
<th>Interpretive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of learning</td>
<td>Learning as the increase of knowledge</td>
<td>Learning as changing as a competence in understanding things</td>
</tr>
<tr>
<td></td>
<td></td>
<td>person Learning as a continuous process of ‘Xue’ (acquiring) and ‘Xi’ (analysing and applying reflectively)</td>
</tr>
<tr>
<td>Nature of knowledge</td>
<td>Knowledge as that which is defined by authority</td>
<td>Knowledge as that which has been understood and can be applied</td>
</tr>
<tr>
<td>Roles of students as learners</td>
<td>The roles of students are to absorb the materials defined by teachers</td>
<td>The roles of students are to understand the learning content under teachers’ guidance</td>
</tr>
</tbody>
</table>
Beliefs about the nature of learning

The students generally spoke about their learning in one of two ways: One was to talk about learning in terms of the kind of knowledge or skills they looked for during studying, and the other one was to interpret learning as a process involving different procedures. Themes were developed relating to both of these ways of talking about learning.

Path I: Learning in terms of what was looked for during learning

What came out of those students' comments relating to what they looked for during learning included: learning as the increase of knowledge, learning as the increase of competency in understanding things, and learning as changing as a person. They overlapped to some extent with several conceptions in Marton et al.'s work (1993). A typical quote is provided for each of these three types of conceptions of learning in turn below.

Learning as the increase of knowledge

1: When you think of learning something, what does it mean to you?
S: To gain some knowledge, I think.
I: Um, could you explain a bit more?
S: Well, I think I'm referring to picking up more bits of information, like facts, procedures, equations, and etc. [...] We do things like this every day, don't we? I obviously want to learn more, and I like to build up a substantial information base for future use.
[03G1S3]

Learning as the increase of competency in understanding things

1: What're your views of learning?
S: I think to learn is to understand, or learning is a process through which your ability in understanding things increases.
[01G1S2]

Learning as changing as a person

Well, I think learning in its broadest sense is not to do with knowledge per se, but
the person who carries out the learning. No matter what subject you've majored in or what specific courses you've taken, learning for a person is to make him/her change through the learning process. We see our growth in our everyday learning.

Path II: Learning as a process involving different procedures

Learning as a continuous process of ‘Xue’ (acquiring) and ‘Xi’ (analysing and applying reflectively)

Marton et al. (1996b) found that the Chinese students they surveyed appeared to prefer talking about learning as a continuous process. Similarly, in the present study there were quite a few students who had reported their views of learning as a process involving different procedures. Generally speaking, the majority of those comments suggested interpreting the meaning of ‘Xue Xi’, the Chinese translation of the English word ‘learning’, by first interpreting the meaning of its two characters ‘Xue’ and ‘Xi’ separately, and then bringing them together.

I: Could I ask your opinions on what learning means to you?
S: Sure. I think this is a really simple question. ‘Xue Xi’, just as its wording implies, means to ‘Xue’ and to ‘Xi’. To ‘Xue’ is to take in something. We take classes every day, and in my opinion it is to ‘Xue’. To ‘Xi’, which usually takes place after ‘Xue’, is mainly to reflect, practise, and analyse what we have ‘Xue’. […] To ‘Xue’ is to ‘eat’, while to ‘Xi’ is to digest. They are two facets of the same process of absorbing information first and then reflecting upon it.

I: What do you think that learning means to you?
S: Well, what came into my mind immediately after hearing your question was an old Chinese saying, that ‘in the process of ‘Xue’ [taking in new things] and frequently ‘Xi’ [practicing the things newly taken in so as to understand and being able to apply them], is there no pleasure?’ I agree with such a saying, and would like to see ‘Xue Xi’ as a process in which I get to know something that I didn't know before, and through thinking and using these things later on to bring them into my own knowledge base.

Above are just two quotations taken from a series of comments expressing a similar attitude towards learning. A further examination of these quotes further suggested the possibility of equating the word ‘Xue’ in ‘Xue Xi’ with
the English word 'acquiring', for it was usually referred by the students to an accumulating process of taking in something. Similarly, it also seemed rational to equate the meaning suggested by the word 'Xi' with the meaning of analysing and applying respectively in English, as 'Xi' had been interpreted as a process of 'reflecting, practising and analysing' or of 'thinking and utilising' what had been newly acquired, as displayed in the above two quotes.

Another point that would be important to mention was that when the learning was interpreted as a process involving acquiring, knowing and applying reflectively, it was more often to be taken as an interactive process repeating the stages involved.

Learning [...] is an continuous process that could last for ever, [as] the more you know, the more you find you don't know, and you then need to start a new process of learning. We always say that 'live and learn' or 'knowledge is infinite', and what I've said just now is my interpretation of these popular sayings. [OOG2S3]

Taking into account the features in these comments suggesting looking at learning as a 'Xue' and 'Xi' process, it would be reasonable to ascribe such a view of learning to an interpretive rather than a reproductive view of learning.

**Beliefs about the nature of knowledge**

The two main themes that came out of the students' comments on their views of the nature of knowledge suggested two contrasting views. One was seeing knowledge as that which is defined by authority; while, the other was seeing knowledge as that which has been understood and can be used. These two types of views of knowledge closely parallel the findings reported in Kember's work (2001a) on a group of Hong Kong tertiary students' beliefs about knowledge, which had been labelled 'reproductive' and 'interpretive' respectively. Two exemplifying quotes are provided below.
Knowledge as that which is defined by authority

In my opinion, knowledge refers to what is written in textbooks [...]. [and] those that had been proved true and widely accepted. [03G2S3]

Knowledge as that which has been understood and can be applied

Knowledge comes from thinking and reflecting rather than simply taking in what you’re told [...]. To really know something is different from having knowledge of something, I think. Knowledge is what you’ve understood and what you can use when the situation arises. [01S4]

Beliefs about the roles of students as learners

The students' views of themselves as learners differed in ways that broadly represented two generic types of views on this issue.

The roles of students are to absorb the materials as defined by teachers

One type of view of the role of the student as a learner was suggested by those students, who were inclined to interpret the role of student in a ‘transmitting and receiving’ relationship with their teachers. In such a relationship, the students chiefly saw themselves as receivers, whose main task was to take in what teachers taught; while teachers were taken for granted as presenters or providers, who should be able to cover the syllabus with accurate explanations and clear instructions.

I think as a student I should be docile, and learn closely following the teacher’s guidelines. [...] I really hope that every teacher can give clear presentations and tell us what to know and how to do things, [for] this is very important if we students are to learn something. [03S3]

The roles of students are to understand the learning content under teachers' guidance

In contrast, there were students who espoused defining the role of students in a ‘facilitating and transforming’ relationship with teachers. In such a
relationship, students would take on more responsibilities for their own learning rather than following strictly teachers' guidance, and teachers' main task was to facilitate learning rather than simply to transform knowledge.

I like to see myself as being more active in the learning process. I mean, I like to see teachers providing us with more opportunities to think about for ourselves before accepting what they teach inside of class; [...] and that teachers could give us more guidance on how to develop our understanding of the subjects after class. [...] However, this seems to be too perfect a situation. I mean, it's always good if there is a teacher who can help us in studying; but, if they can't do this, it then demands more input from ourselves. [OOG2S4]

6.3.2 Beliefs about knowledge and learning and relationships with approaches to studying

Paralleling the inquiries on the students' orientations to education and their relationships with approaches to studying, three research questions had also been asked to facilitate the similar investigations on the students' beliefs about knowledge and learning. This section focuses on the findings derived from those inquiries.

Question One:
What were the main features of the beliefs displayed by this group of students as a whole?

Answers to this question came from examining individual students' comments on the three perspectives on learning, first with the aid of the themes reported in the preceding section, and then pulling out the generic features suggested by the individual cases. The picture of the students' beliefs that came out of such an analysis could be described as follows:

- When exposed to the interview questions on varied perspectives on learning, almost all the interviewees turned out to be able to provide some comments on them, and most of them appeared to talk about learning as something they did rather than something that happened to them. This seemed to suggest that the students as a whole were capable of conceiving
and discussing learning and related phenomena.

- There was a high consistency in the nature of views of different learning related phenomena within individual students' comments. For example, if a student reported a conception suggestive of learning as an increase of understanding, it would be invariable to find that his/her view of knowledge was that of what has been understood and can be applied, and that he/she would like to take on a more active role in studying to construct personal understanding.

**Question Two:**

*To what extent did the students think that their beliefs had influenced their ways of studying?*

Following those interview questions focusing on different perspectives on learning, the students were subsequently asked questions like ‘To what extent do you think your beliefs have contributed to your ways of studying on your courses?’ The students’ answers to these questions helped to arrive at the answer to the second research question on the students’ beliefs. More specifically, only around one out of five students suggested that their ways of studying had been influenced by the beliefs they held about learning and related phenomena.

I: What do you think your beliefs have contributed to your ways of studying on your courses?

S: Well, I think I can say that my ways of studying are fundamentally influenced by my beliefs about learning.

[02G3S2]

For the majority of the interviewees (around four-fifths), however, a common feature of their answers was that it was considered to be inappropriate to provide a very affirmative answer to the inquiry, while it was also hard to deny totally the existence of impacts from their beliefs on their ways of studying. Based on this information, it seemed reasonable to emphasise that, although almost none the students denied that their beliefs had some effects on their approaches, the strength of the beliefs was generally lower than, for instance, that of the TLEs.
I: Do you think all these ideas (about learning) that you have just mentioned are influential in your ways of studying on courses?
S: Well, sometimes, yes; but in most cases, I don’t think so. You can’t always do things in ways you believe to be right. It’s not unusual to feel that what you believe to be right is not what is appreciated by the contexts in which you stay.

Question Three
What could be learned about the functional relationships between beliefs and approaches?

As was the case with the inquiry on the students’ orientations to education, different follow-up questions had been asked to the students who had shown different ideas on their attitudes towards the impact of the beliefs on their approaches. More specifically, for that one-fifth of students who had indicated the important role of beliefs in their studying, the researcher had moved on to ask them to describe the influences they meant; while for the remaining students, an explanation for their responses was expected. The following two sub-sections will focus on the findings from the interview data produced by asking these two kinds of follow-up questions, and the answers to the third research question on the students’ beliefs.

Analyses I: Ways in which approaches to studying were influenced by beliefs

The students’ descriptions of the influences of the beliefs on their approaches as they perceived had been explained following a similar process of analysis applied to the inquiries into the students’ orientations. Figure 6.2 on the following page displays the general relationships that were identified on the basis of the students’ descriptions. A two-dimensional illustration is employed to indicate the contrasting nature between the two types of relationships that were established between the beliefs the students explained and the approaches they adopted. As shown in the table, one extreme is used to specify the relationship between a ‘reproductive view of learning’ and a ‘surface approach’ to studying, while the other extreme illustrates the relationship between an ‘interpretative view’ of learning and a ‘deep approach’ to studying.
Figure 6.2
Relationships between beliefs and approaches
as suggested by a group of mainland Chinese Economics students

![Diagram showing relationships between beliefs and approaches]

By ways of illustration, two coding-sheet segments for each of the two types of relationships between beliefs and approaches are provided in Table 6.4 (see overleaf). The information contained in the segments that had been picked out by the researchers to capture the nature of the students’ beliefs and their approaches was highlighted on the one side, and the categories that had been employed to indicate the meaning of these highlighted extracts were listed on the other side. Similarly, straight, wavy and dotted lines were used respectively to underline the information on beliefs, approaches, and relationships between them.

The two segments in the first part of Table 6.4 were picked out to illustrate what the relationship between a ‘deep approach’ and an ‘interpretive view of learning’ means, and how it had been extracted from the students’ comments. As seen in the two segments, the relationship was constructed from the students’ explicit claims about the influence they perceived from their beliefs on their approaches to studying. Moreover, the categories that had been used to code those illuminating points in the comments constituted the basis for
Table 6.4
Coding-sheet segments illustrating the two kinds of relationships between beliefs about knowledge and learning and approaches to studying as suggested by a group of mainland Chinese Economics students

Part I: Coding-sheet segments suggesting a relationship between a ‘deep approach’ and an ‘interpretive view of learning’

<table>
<thead>
<tr>
<th>Interview material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 We’ve just talked about various issues related to learning. May I ask if you think that those ideas you’ve mentioned have some impacts on your ways of studying on courses? S Um, yes I think so, and I always study in the ways that I believe to be right rather than taking into account whether it’s appropriate or not in some specific circumstances. […] I learn for understanding, and that’s it. I consider myself at the centre of the learning process. If the teacher is fine, it’s perfect; but even when the teacher fails to help with my studying on some courses, it doesn’t matter. I can rely on myself more to make up for this. […] I like to study in my own way, which is reading consistently during the term and trying to grasp the meaning of what I’m reading. […] I really enjoy the feeling that I finally get everything I read connected with each other. [0084]</td>
<td>(confirmation of the existence of influence from beliefs) (learning as understanding) (an active role as a learner) (making efforts in learning); (intention to understand) (seeking relationships between ideas)</td>
</tr>
<tr>
<td>S In my point of view, learning includes a process of absorbing knowledge, and a follow-up process of exploring what you’ve taken in. These are the two aspects of ‘Xue Xi’. […] Through learning, you become more able to understand things. The more you have learned, the more you become competent in the process of learning. 1 So, to what extent have these beliefs affected your ways of studying? S I think they’re very important. […] You learn for understanding things, you see yourself growing in the process of learning, and so you learn more diligently and purposefully. […] I don’t care that when others are having fun, I’m still reading or doing exercises … [for] what I enjoy is the moment like when I suddenly get a point after I’ve been working on it for a long time. [01S5]</td>
<td>(Learning as a process of ‘Xue’ and ‘Xi’) (learning as the increase of competence in understanding things) (confirmation of the existence of influence from beliefs); (learning as changing as a person); (active engagement with the learning process); (reading and doing exercise to seek understanding); (concentrating and making efforts)</td>
</tr>
</tbody>
</table>
Part II: Coding-sheet segments suggesting a relationship between a *surface approach* and a *reproductive view of learning*

<table>
<thead>
<tr>
<th>Interview material</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: What’s your view of learning?</td>
<td>(learning as reproducing)</td>
</tr>
<tr>
<td>S: Um, I think to study was mainly to obtain knowledge. I'd like to know more things that I didn't know before and can repeat them. [...] There seems to be many things to take in. [...] I've got quite a lot of things taken down in my notes and underlined in the textbooks. I need to memorise them.</td>
<td>(knowledge as that which is defined by authority)</td>
</tr>
<tr>
<td>I: You mean to fix them into memory?</td>
<td>(dearth of preference for understanding); (rote learning)</td>
</tr>
<tr>
<td>I: Yeah, to recite as many as possible. [...] It’s sometimes a bit boring to go through things over and over again, but I think I should do this, and it’s what’s required for studying a subject like Economics, which contains a lot of things to know about.</td>
<td>(confirmation of the existence of influence from beliefs); (knowledge as that which is defined by authority)</td>
</tr>
<tr>
<td>[03G383]</td>
<td></td>
</tr>
<tr>
<td>S: I think learning indeed is a fairly straightforward process. For every course, we have a textbook, and the teacher will teach us through this textbook. Once the textbook is completed, we learn more about a subject. [...] I hope there don’t seem to be many differences from what we did at school.</td>
<td>(knowledge as that which is defined by authority)</td>
</tr>
<tr>
<td>I: So, do you mean that your ways of studying courses haven’t changed much from what you did at schools?</td>
<td>(a passive role as a leaner)</td>
</tr>
<tr>
<td>S: Yeah, I think so. I do what is required by teachers, and try to take in what has been taught in class.</td>
<td>(learning as the increase of knowledge); (rote learning)</td>
</tr>
<tr>
<td>[02G186]</td>
<td></td>
</tr>
</tbody>
</table>
judging the nature of the beliefs and the approaches the students described. A similar situation applied to the two segments in the second part of the table, which provided evidence on the relationship between a ‘surface approach’ and a ‘reproductive view of learning’. In brief, what came out of the analysis of these students’ comments were two types of relationships between beliefs and approaches that were consistent with the literature characterising the relationships between these two aspects of student learning (Marton and Saljo 1984, 1997).

**Analysis II: Reasons for questioning the influence of beliefs on approaches**

Most of the interviewees, however, held a conservative view of the influence of their beliefs on the ways they studied. A further investigation on what had contributed to such an attitude was then carried out to explore the relationships between beliefs and approaches more fully.

Generally speaking, a common theme could be pulled out from the reasons these students raised for their conservative attitudes: what seemed to influence their approaches more profoundly was less their beliefs than their perceptions of the TLEs.

1: Do you think all these ideas (about learning) that you mentioned have influenced your ways of studying on courses?

S: Well, I think, it really depends. Generally speaking, if you believe in something, you should always insist on it without being influenced by other things. But, quite often you'll find it really hard to stick by your beliefs when the context you live in isn't favourable to them. I like to suggest taking into account the influences I feel from our everyday teaching-learning practices. I'm sure that I have a lot to say on such a topic.

[01G1S4]

Such an attitude appeared to mirror the attitude that most of the students held towards the relationships between orientations and approaches, and therefore underscored the importance of examining the impact TLEs.
A possible answer to Question three:

Having reported the findings from the two types of analyses that had been carried out to explore the relationships between beliefs and approaches, it now seemed possible to answer the particular research question asked. In short, it appeared reasonable to conclude that beliefs about knowledge and learning could have an impact on the ways the students learned, but to different extents for different students. Furthermore, an interpretive view of learning was more likely to encourage the adoption of a deep approach, while a reproductive view of learning appeared to work against studying in a deep manner. However, the findings as a whole seemed to indicate that the TLEs might have a greater influence on the students' ways of studying than the students' beliefs about knowledge and learning.

6.4 An overall reflection

In this chapter, the two variables belonging to a student's personal context were examined in relation to the students' approaches to studying. From the findings, it seemed that, in some cases, the adoption of qualitatively different approaches to studying could be associated with the fundamental differences in the students' orientations and beliefs. More specifically, the relationship between an intrinsic orientation/an interpretive view of knowledge and learning and the adoption of a deep approach to studying, and the relationship between an extrinsic orientation/a reproductive view of knowledge and learning and the adoption of a surface approach were pulled out from a relatively small proportion of the interviewees' comments. Although the majority of the interviewees did not reject the assumption that their approaches to studying had been influenced by their orientations and beliefs, they suggested the necessity of taking into account the influences of the TLEs in which their everyday studies took place when exploring why they claimed to study in a particular way. The following chapter will follow such a hint to explore the TLEs as the students perceived and their impacts on their approaches to studying.
Chapter Seven

Findings from interview data (3):
Students' perceptions of teaching-learning environments
and relationships with approaches to studying

7.1 Introduction

As indicated at the end of Chapter Six, this final chapter on the findings from the interview data shifts to answer the questions that had been asked about the students' perceptions of the TLEs, and in what ways their approaches to studying had been influenced by the perceived TLEs. In the interviews, three aspects of a TLE – course characteristics, classroom teaching, and assessment – had been particularly in focus. Moreover, although the four courses that had been targeted in the inventory studies had been referred to in the interview questions, the majority of the students also mentioned their feelings towards other courses. It seemed, therefore, reasonable to interpret what will be seen in this chapter at the degree programme level.

7.2 Themes in students' descriptions of teaching-learning environments

This part of the chapter is devoted to exemplifying the main themes that had been picked out by the researcher from the students' comments on the TLEs. These themes had been taken as suggesting possible foci for understanding the students' ways of examining the TLEs. Figure 7.1 (see overleaf) summarises these themes.
Figure 7.1 Main themes in a group of mainland Chinese Economics students’ comments on the teaching-learning environments

**Theme 1: Quality of course content**
- Intellectually interesting
- Relevant to career interest
- Accessible for student readers

**Theme 2: Amount of workload**
- Amount of workload for individual courses
- Amount of workload for the degree programme

**Theme 3: The extent to which students were allowed control over what was learned**
- Choice over what was learned in individual courses
- Choice over what was learned in the degree programme

**Theme 1: Affective aspects of classroom teaching**
- (teacher as a person)
  - Respect for students
  - Empathy towards students
  - Expectations of students
  - Enthusiasm for the subject and the teaching task

**Theme 2: Operational aspects of classroom teaching**
- (teacher as a teacher)
  - Competence in providing a classroom experience that runs smoothly
  - Organising ideas in presentation
  - Controlling lecturing pace
  - Managing the whole classroom experience
  - Competence in facilitating students mastery of the subject
  - Connecting theory with practice
  - Teaching beyond textbooks
  - Anticipating and handling ‘trouble spots’ for students (including maths)

**Theme 1: Status of a particular type of assessment in students’ university life**

**Theme 2: Demands for understanding of the subject required by assessment tasks**

**Theme 3: Teachers’ support on assessment**

**Theme 4: Feedback and marking**
Although the three facets of the TLEs are connected to each other in the figure, the ‘congruence’\textsuperscript{14} between them was not the foci of the present study. In addition, a necessary reiteration was that only those themes that had been found in at least four students’ comments were included in order to ensure the representativeness of these themes.

7.2.1 Themes related to course characteristics

The main concerns expressed by the students in their comments on course related issues were summarised into three themes. The first one was the theme related to the quality of course content, the second one was the theme in regard to the amount of work required by taking courses, while the third one was associated with the students’ feelings towards the choices they were allowed over what was learned when taking courses.

Theme 1: Quality of course content

As far as the quality of course content was concerned, the students’ comments generally shared three foci: whether the course was intellectually interesting, was relevant to career concerns, or was accessible for student readers. The meanings of the former two foci speak for themselves, and below are two illustrative extracts.

\textit{Intellectually interesting}

It [the course] is a bit boring, I think. It’s all about descriptions of procedures, principles, or regulations. To take a course like this is mainly to know something, rather than to make progress in your ability of thinking. It’s not difficult at all for me, and I don’t like courses of this kind. [00S3]

\textsuperscript{14} ‘Congruence’ or ‘alignment’ is a term used to indicate that all aspects of a TLE, albeit perfect on their own, should work in alignment to benefit student learning. Such an idea has its origins in Biggs’s (1996) ‘constructive alignment’, and has since then been developed by Biggs himself (2003) and many other researchers. Among them, Hounsell \textit{et al.} ‘s work on ‘congruence’ (e.g. Entwistle \textit{et al.} 2003; Hounsell 2005), and De Corte and colleagues’ work on ‘powerful learning environment’ (e.g. De Corte 2000) are most representative.
Relevant to career interest

The course per se should be fine [for] it’s clearly presented and the ideas sound good in themselves. But, I’m not sure whether it’s really useful to take this course. I mean, as a student in Economics, or whatever major, we need to have our courses focused on the subject, on the kind of job that we would be most likely to take in the future. If it’s to learn everything without a clear focus, we’ll finally lose the meaning of having a particular major. [01G2S1]

Accessible for student readers

The third one, ‘accessible for student readers’, was employed to refer to whether the course content had been written in a way that was easy for students to follow. Particularly, the students appeared to be able to judge this facet of the course content through highlighting three aspects: first was whether the fundamental ideas had been introduced sufficiently at the beginning; second was whether the language used was too technical to understand; and, third was how efficiently the abstract ideas had been explained. A quote is provided here to illustrate this viewpoint.

I don’t know what others feel, but I think I can’t really keep reading the textbook for five minutes. It’s so hard to follow, [e.g.] the language is too technical to understand, and there are always some ideas that you’ve never read before but are used as background knowledge in the textbook. [01G1S4]

Theme 2: Amount of workload

This theme reflected another aspect of the courses with which the students were concerned. In contrast to the first theme, which was mainly to do with what a student was required to learn, this theme focused on how much work a student had to do. The theme ‘workload’ was employed here to describe the amount of work as perceived by the students. In other words, the ‘workload’ was on the one hand closely related to the real amount of work as prescribed in the curricula, while on the other hand also depended on the students’ feelings. As indicated by the two quotes below, there were some students who focused on the workload they perceived within a course, while
there were also some who described their feelings with regard to the situation in the whole degree programme.

Amount of workload for individual courses

Some courses turn out to be very hard in terms of the amount of work we have to do. [...] The textbooks are really dense, and I need to work extremely hard during the term to read the whole book. [02G2S4]

Amount of workload for the degree programme

What I find to be challenging, and sometimes confusing, is that there are so many courses to take as a student in Economics. [...] My dormitory is next to dorms of students in Maths. They don't have to attend class every day like us. [01G2S1]

Theme 3: The extent to which students were allowed control over what was learned

This theme was picked out from those comments in which the students expressed their feelings about the freedom they had in deciding what to learn. Again, both a particular course and the overall degree programme had been referred to when the students expressed their feelings of this kind.

Choice over what was learned in individual courses

This course is good ... with regard to the fact that it allows me some freedom in focusing on those topics that I'm interested in. The course is organised around topics, and each of them suggests a reasonable direction to follow. [...] It's not like quite a few other courses which make you feel that everything included in the course materials is equally important and you'd better not to show any preference during studying. [00G1S1]

Choice over what was learned in the degree programme

In terms of those courses that we are asked to take, I think one thing that I'm not quite sure about is what is the use of mounting those electives for us, if we're not allowed to choose them. [...] As I understand, to have electives is to make the curriculum somewhat tailored to individual students' needs. [...] But with compulsory courses that take up around 80% of the total credits, we can actually only have one or two electives at most in each term. This almost means no choice
In concluding this section, it seemed necessary to point out that the students commonly touched upon several different themes when they were asked to comment on course related issues in the interviews. For this reason, the three themes discussed above were connected with each other in Figure 7.1.

7.2.2 Themes related to classroom teaching

When the students were asked about their perceptions of classroom teaching, they generally suggested two main themes that mapped onto the affective and operational aspects of teaching discussed in Section 2.4.1.

Theme 1: Affective aspects of classroom teaching (teacher as a person)

This theme was employed to highlight a series of comments indicating the judgement the students made on their teachers as a person through ways they were treated (emotionally) in class. More specifically, those aspects that would contribute to the students' judgments of this kind included whether teachers respected their students, felt for their students, had positive expectations of their students, and demonstrated enthusiasm towards their teaching careers and subjects.

Respect for students

'Respect for students' was employed to refer to a feeling of being treated as equal partners by the teacher. More particularly, teachers' awareness of and responsiveness to their students' needs and concerns were found more likely to give rise to such a feeling.

I think the teacher was good. [...] There seemed no distance, especially the kind of distance between a junior and senior in the communications with the teacher. She didn't look down upon her students, but took us as equally important partners in the teaching process, [and] appeared to be very responsive to our needs. [02G2S3]
Empathy towards students

'Empathy towards students', if interpreted in some students' words, meant to what extent the students felt that their teachers had 'put their feet in students' shoes'. Those teachers who were used to saying to students that they should have known an item of knowledge when the students' appeared to be unfamiliar with it without first asking for an explanation were more likely to be regarded as lacking empathy. The quotation below, however, displays a model teacher in regard to this aspect.

This course is the one that I really like. [...] In class, you seldom heard that the teacher said that she had no time to explain this or that for we should have already known it. On the contrary, if she noticed that we really didn't know some pre-knowledge that we should have had before taking her class, she would then use a few minutes to explain the points to us. [00G2S1]

Expectations of students

'Expectations of students' described a feeling that tended to accompany teachers' indications that they believed their students' capabilities in studying the subject well. As shown in the quotation below, the teacher who focused on details and precise repetitions could be interpreted as lacking confidence in her students' competence in study.

Um, it's rather routine teaching, [...] and it's not a bad thing to take her class, as everything she talked about was very clear and detailed. However, it seemed that she did so because she didn't really believe that we could learn this subject better without such a clear and detailed guidance. [...] Comparatively speaking, I like to take classes in which teachers leave us enough space and freedom to carry out personal studying, and encourage us to make contributions to teaching and learning. [02S2]

Enthusiasm for the subject and the teaching task

Teachers' enthusiasm for the subject they taught and the teaching job they undertook also turned out to be an important dimension that could contribute to the students' emotional status when they were in class. As indicated by the quote below, although it was hard to measure enthusiasm, it
seemed evident in the extent to which the teachers were confident in what they were talking about in the class, and to what extent their emotions in class could be read by the students.

This was a really interesting course. The teacher was good at fuelling your interest in the course through passing his enthusiasm for the subject on to you. He was so keen about what he was working with, so we were influenced. [...] He was outstanding in terms of his capability in inspiring students, in my opinion, compared with many other teachers in this degree programme. [03G2S1]

Theme 2: Operational aspects of classroom teaching (teacher as a teacher)

Generally speaking, there are two sub-themes in those students' comments which indicated concerns with teachers' competences in teaching. One was the ability in providing students with a smooth classroom experience, and the other was the effectiveness in facilitating students' mastery of the subject.

Competence in providing a classroom experience that runs smoothly

As described by quite a lot of the students, a smoothly running lecture was what they basically looked for. More specifically, they were keen to see that the ideas being presented were organised, the lecturing pace was consciously controlled, and any disharmony inside the classroom had been taken care of.

Organising ideas in presentation

In the literature, this is a commonly found facet of teaching that is appreciated by the students. There was sufficient evidence in the students' comments in this study showing that they also appreciated this aspect of teaching.

The teacher was good at expressing his ideas clearly. You never felt lost, for he was in fact leading you through those points that he intended to cover. [...] His blackboard writing was very clear as well. Clues were on the blackboard to help you to keep up with what was being taught in class. [...] You knew where you were, and everything looked in a good order. [01S3]
Controlling lecturing pace

Similar to the organisation of ideas, lecturing pace also appeared to be a common concern among the students. Moreover, as suggested in the quote below, the student wanted a considerable effort made by the teacher to slow down the fast pace, rather than simply complained about the pace of lectures.

It's usually not easy to be as quick as teachers suppose us to be, I think. [...] [Although] it's quite understandable [for] there are usually too many things to cover, if teachers appear to be more considerate and slow down a little bit, it'll be great. [03S2]

Managing the whole classroom experience

Unlike the former two aspects of teaching which were related to teachers' presentations, this focus was to do with teachers' control of their students' performance inside class. Quite a few interviewees claimed that they appreciated those teachers who intended to and knew how to control the atmosphere inside class, for it helped them to maintain concentration in lectures.

The teacher was good, in my view, [for] if he found that the class was quite bored, he won't let the class continue in that way. He would make some funny statements, lower his talking speed, or do other things to catch the students' attention, such as suddenly clapping his hands. All these helped to make us maintain concentration in his class. [02G4]

Competence in facilitating students' mastery of the subject

Compared with abilities in organising teaching, competence in facilitating students' mastery of the subject turned out to be the capability of an advanced kind that if possessed by the teacher then would greatly benefit the students' academic studying. More specifically, three types of competences were suggested by the students.

Connecting theory with practice
This was a kind of capability that appeared to work very efficiently to make the students believe that what they were learning was useful.

This course was one of the best ones that I’ve ever had [for] the teacher was very good at relating the course content to what happens in the outside world. [...] The lecturer seemed very good at identifying these examples in the world around us to show what this or that means. [...] This was good, for it made me believe that what I was studying was something useful. [01G3S3]

Teaching beyond textbooks

This aspect of teaching was derived from some students’ comments in which dissatisfaction with textbook-based teaching was expressed. It seemed that teachers who were enslaved to textbooks would be more likely to convey the students a feeling that teaching was mainly about knowing rather than thinking and reflection.

To have a good teacher is a lucky thing. [...] There are not that many good teachers in the degree programme, in my view, [for] it seems that most of them still rely on textbooks heavily. They lead you through every detail in the textbooks, but can’t show you things beyond that. [...] It's very easy to get a misconception that taking class is mainly for a huge amount of information on a subject written in the textbook, rather than for practising thinking. [00G1S1]

Anticipating and handling ‘trouble spots’ for students (including maths)

The term ‘trouble spots’ was borrowed from Perkins’ (2005) work and used here as a generic term referring to difficulties that might be commonly felt by any student who began to study a new subject. What was learned from the students’ comments was that, teachers who had such a competence could usually enhance their students’ confidence in overcoming difficulties in their studies.

The teacher seemed to know quite well what sort of content might be difficult for us to make sense of. You could feel that she was prepared for this, [because] almost every point that I felt hard to understand she had spend a few more minutes providing some examples to explain it. [...] I find this was really helpful [for] I didn’t have to be afraid of having difficulties in studying [because] I knew that the teacher was there ready to help. [00S5]
In many cases, the students mentioned that maths was what generally looked difficult to them when taking Economics courses. Therefore, those teachers who were prepared to help their students to deal with maths content were invariably appreciated.\footnote{It seemed necessary to mention that the reason for having students who were not good at Maths in an Economics degree programme was that a Bachelor's degree in Economics in China does not place special requirements on student candidates' skills in Maths. Such a situation might be different from the general practice in Western universities.}

I have trouble with maths. I admit this and see it as a disadvantage for me for having chosen this subject. The overall demand for maths in studying this subject makes me feel quite stressful as well. [...] But, things will turn better whenever teachers appear to be more capable of explaining maths to me. [03G2S5]

Before closing this section, it was worthy of mentioning that when individual students were talking about teaching in the interviews, they were more likely to touch upon several themes simultaneously. And frequently, to see teachers as a teacher and as a person were intermingled in the students' comments, and therefore suggested that these two aspects of teaching were really difficult to separate from each other in the students' points of view. Such a situation was quite consistent with what has been discussed in the literature, that teaching is a multi-dimensional phenomenon in which teachers are expected to take on a series of roles (Tigelaar et al. 2004; Vermunt 2005b). From this point of view, the themes related to teaching are connected to each other in Figure 7.1.

7.2.3 Themes related to assessment

What was learned from the students' descriptions was that essay assignments and written exams were the two forms of assessment implemented in the degree programme. More specifically, essay assignments generally took place in the middle of a term when roughly half of the course content had been covered, and mainly asked the students to explain or describe some key theories and issues that had been covered in lectures. A written exam designed to be completed within a set of time, two-three hours in general, was launched for every course at the end of a term, and before the
When the majority of the students were asked to say something about their assessment, it was a judgement on whether a particular task was important. Generally speaking, what contributed to such a judgement was the percentage that different tasks took up in the students' overall performance on the courses.

Theme 1: Status of a particular type of assessment in students' university life

What had emerged as the first reaction when the majority of the students were asked to say something about their assessment was a judgement on whether a particular task was important. Generally speaking, what contributed to such a judgement was the percentage that different tasks took up in the students' overall performance on the courses.

I think essays are not very important. It just accounts for one fifth of the overall mark on the course. Put another way, even if you don't write an essay at all, you can still ensure a pass for a course so long as you do well enough in its exam.

Exams are extremely crucial. [...] If you fail in exams, you might probably have no way to ensure a pass on the course, as essays and your attendance rate together only contribute to 30% of your performance.

Theme 2: Demands for understanding of the subject required by assessment tasks

This theme reflected another kind of judgement reported by the students in their accounts of the assessment tasks they had encountered. As far as essay assignments were concerned, it seemed that official requirements included in essay-task descriptions were less influential on the students' judgement compared with what they learned from their teachers' attitudes towards essays. The two quotations below together illustrate this viewpoint.

An essay assignment, in most cases, is not a very difficult task. [...] Although it literally requires an understanding of a particular topic, there is no need to be frightened by this, [...] because my experiences tell me that teachers seldom take
Obviously, this essay assignment was different from others, although it didn't look different. [The reason for saying this was that] the teacher spent twenty minutes explaining the essay task, such as what he would like us to write, [...] where we could find relevant materials, [and] some possible points that might be worthy of further exploration through writing. [...] All the information made me feel that the teacher was serious about this essay assignment and expected us to hand in a good essay. [01G1S1]

With regard to the written exams, based on the students' accounts, it was understood that all questions in exam papers were produced by drawing questions from question banks by the assessment committee in the degree programme to cover main points in the prescribed teaching content so as to make written exams look more standardised. Faced with exams of this kind, a very prevalent feeling towards the requirement of written exams among the students was that the exams were mainly to test details rather than an understanding of the course content.

It [standardised exam] is mainly to test your grasp of main points that had been covered in lectures. [...] All those classes teaching the same course will use the same test paper. [...] Although you can usually find varied types of questions, such as multiple-choice questions, short-answer questions, or even questions requiring prose-answers, what's essentially the same is that all these questions have been developed to cover different sections in the textbook. [00G2S1]

Theme 3: Teachers' support on assessment tasks

There were students who mentioned their concerns with to what extent they could obtain help and instructions from their teachers when they were asked to undertake an assessment task. As far as essay assignments were concerned, the students had generally mentioned their expectations of obtaining support on writing skills. When it came to exams, the students appeared to appreciate help in solving questions they might encounter during revision.

I didn't think that the teacher had spent enough time helping us to develop our writing skills. I'm in my first year, and I'm not sure what I should do when writing an essay. [...] But, it seemed that the teacher hadn't noticed this point [for] he left us a topic to write without saying anything else. [03G3S5]
A point that I want to mention is that it's hard for me to accept the fact that exam revision is a self-study process, for I can hardly find any teacher during this process. [...] I think, although teachers have finished their lectures, we're still studying these courses. [And] in my point of view, I'm more likely to have questions to ask teachers during revision than any other time in the term. [02S2]

Theme 4: Feedback and marking

Another common issue that had been picked up by the students when talking about essay assignments was the feedback or the marks they obtained for their task performance. In particular, the students appeared to care about whether the feedback was sufficient and constructive, and whether the mark they obtained was justified.

- You got nothing more than a grade from the teacher. and more importantly, you found that everyone in the class almost got the same grade. [...] It's ridiculous, you know, because different students much have done different work on the same task. [00G2S2]

    I really appreciate this essay-writing task [because] I learn a lot about writing through it. [...] The teacher gave me a sophisticated comment which contained very pertinent suggestions. I get to know what my problems are and how to solve them. [01G1S3]

Because exams were only marked for grades, and the marking was carried out by comparing the students' answers with standardised answers, seldom were there comments on this issue in the students' descriptions of their perceptions of written exams.

Albeit varied from each other in their foci, the four themes related to assessment were more often mingled together in the students' comments, and contributed together to the students' overall impressions of the assessment. For such a reason, the relevant themes for assessment are linked to each in the Figure 7.1.
7.3 Perceptions of teaching-learning environments and relationships with approaches to studying

The themes displayed in the preceding part were developed to enquire into the students' perceptions of the TLEs and relationships with approaches to studying. More specifically, two research questions had been posed to facilitate the investigation. One was what were the main features at a collective level of the TLEs in the students' points of view. The other was what might be the possible relationships between the TLEs as perceived by the students and the approaches they adopted. During the interviews, once the students completed their descriptions of the TLEs, they were asked to comment on the impact of the TLEs on their ways of studying.

More specifically, the findings were obtained through a two-stage analysis process. In the first stage, the themes for the TLEs and the categories in approaches to studying (Section 5.2) were employed to analyse individual students' comments, so as to discern their perceptions of the TLEs and the relationships with their ways of studying. In the second stage, pictures drawn from individual cases were collated to generate a collective image of the students' experiences sought in this study. During this synthesising process, each theme for the TLEs was targeted to clarify how positively the TLEs had been perceived by the students in relation to that particular theme, and whether it had been mentioned as influential in the students' approaches to studying.

The investigations launched for all of the themes listed in Figure 7.1 will be displayed next with some typical quotations extracted from the students' comments. Moreover, to facilitate readers' reading of those quotations, the relevant segments that had been picked out by the researcher as indicating the students' attitudes towards the TLEs they encountered and the nature of the approaches they adopted were underlined with straight and wavy lines respectively. However, rather than moving directly into these findings, it seemed better to clarify two points beforehand.
One was that, although almost every theme listed in Figure 7.1 had been found to be influential on the students' ways of studying, it had arisen from the collective examination of the students' comments. In other words, it would be inappropriate to expect that the impact from every dimension of the TLEs should be found in each individual case.

The other one was that, although the majority of the extracts used in this part might appear to suggest a neat association between a particular aspect of the TLEs and the students' approaches to studying, the interactions between these two constructs as actually reflected in the majority of the students' comments were more complex than this. For instance, it was typical to have several aspects of the TLEs working in combination on the students' ways of studying, and it was also possible that a blend of personal beliefs and concerns had also been a factor when the students adjusted their approaches to studying according to the perceived TLEs, as seen in the previous chapter.

In short, this part of the chapter does not aim to provide a fine-tuned description of the interactions between the perceived TLEs and the approaches to studying that were pertinent to individual cases. Instead, it attempts to use some clear-cut examples to illustrate the 'likely' relationships between these two constructs that could be inferred from the students' comments.

7.3.1 Course characteristics and their influences on approaches to studying

The students suggested three themes related to course characteristics: the quality of course content, the amount of workload, and the choice allowed to the students over what was learned. This section focuses on how positively the TLEs had been perceived by the students with regard to these three themes, and whether these themes had been mentioned by the students to be influential on their ways of studying.
Theme 1: Quality of course content

The quality of course content, in the students’ points of view, was reflected in the extent to which the course content could help them to develop their academic interest in the subject and their career plans, or the extent to which the course content was written in ways accessible to them. Generally speaking, this was an issue that had been picked up by the majority of the interviewees in their descriptions of the TLEs, and most of them seemed to suggest that they were not very satisfied with the quality of the course content they were taught. In particular, some students indicated that the quality of the textbooks used as the core of their courses was problematic in their points of view.

I like to suggest that someone takes a look at the textbooks that we are asked to learn. In most cases, the content is obviously outdated and the structure is not very clear. [In addition], quite often some ideas that have been abandoned can still be found in the textbooks. This looks very strange to me. [02GIS2]

It might not be right to use the same textbook for many years, for the development in our fields of study is rapid. [...] In order to make the course content more interesting and up-to-date, to add some additional material in teaching has become a common practice among the teachers. [...] Why shouldn't we think about changing the textbook completely rather than spending time amending them? [01GIS4]

The quality of the course content or the textbook also turned up to be a frequently mentioned theme when the students were talking about the impact they felt from the TLEs on their ways of studying. Generally speaking, what was learned from the students’ comments was that a perceived high-quality course content/textbook was more likely to contribute to the adoption of a deep approach to studying, and vice versa. Below are three pairs of quotations demonstrating how such relationships were established based on the students’ accounts. However, it seemed necessary to keep in mind that those cases in which a deep approach was reported (as these listed on the left hand side) were less common compared to those cases in which a surface approach was displayed (as these listed on the right hand side).
Intelligently interesting

This course is good in terms of its content. I feel that it's challenging enough for intellectual development. [...] Since the demand for thinking capability is high, and I welcome such a challenge, I've tried varied ways to help me to make sense of the content. As I've told you just now, I've done quite a lot of exercises that I found from different sources to reinforce firmly what I've read on the course. [01G1S1]

Relevant to career interest

This course (Stock Market) is amazing! It gives me the kind of knowledge that I'm looking for. [...] I put all my heart into my studying on this course. I read relevant material to enlarge my knowledge base on the subject; I practise what I learned by analysing the stock market every day. I compare my analyses with those carried out by the professional analysts that I can read from newspapers. [01S5]

Accessible for student readers

I read the textbook used in this course extensively. [...] To be more accurate, the textbook I read isn't the textbook as it originally looks but the one modified by the teacher. I did a comparison between the original structure of the textbook and the new structure the teacher used to organise the course content, and found that the latter one makes more sense to me. [01S4]

Theme 2: Amount of workload

The amount of workload referred to how heavily the students thought they had been occupied with the course studying either in a particular course or in the degree programme as a whole. Roughly less than half of the interviewees had touched upon this issue in their descriptions of the TLEs.
Among them, two contrasting viewpoints were discerned in terms of whether the workload was manageable. The next two quotations were extracted from two students who were involved in the same class, and therefore provide a vivid contrast between these two viewpoints.

There are many things to read, to think, and to practise for studying this course (Econometrics). [...] But, it’s fine for me, and I really enjoy the feeling of being engaged. [...] Compared with those courses that are easy to cope with, I find myself learning more things when studying courses with a high demand of workload. [01G2S3]

It looks too much for me. The exercises the teacher asked us to do seemed to be endless, and I really feel tired of working so extensively on a course. [...] I want an easy life. [01G2S4]

When it came to the influence on ways of studying, two corresponding views were also evident. More specifically, a workload perceived to be too heavy to manage was more likely to discourage a student from adopting a deep approach to studying. While those who thought that the workload was manageable, even though it was quite heavy, showed their tendencies to be more autonomous in studying. These two possible relationships are illustrated in parallel below.

I know what I should do [and] a somewhat tight timetable is good for me to accomplish what I want. [...] Generally speaking, the higher the demands for effortful learning and creative learning, the more I feel encouraged to undertake a high-quality studying. [02G1S1]

It seems that it [the workload] is not what I can cope with. [...] Because of such pressure, I have to drop some parts of the course content [or] just try my best to cover as much as possible, [...] although I know it’s not wise to do so for the sake of studying. [03G1S5]

Such a finding seemed to provide a possible explanation for the interesting finding from the inventory study, which was that a perceived high workload demand turned out to be related positively to both the deep and the surface approach. In other words, the interview findings indicated a necessity to further explore whether the workload, no matter how heavy it was, was perceived to be manageable by the students in terms of its impact on their ways of studying. Such a finding echoed a similar opinion expressed by Kember and Leung (2006).
Theme 3: The extent to which students were allowed control over what was learned

Only a small proportion of the interviewees had mentioned their concerns with the choice they had over what was learned either in a particular course or in the degree programme when describing the TLEs they perceived, and an overall impression from those students' comments was that the choice was insufficient compared with what the students expected. However, it was interesting to note that a few students expressed different ideas when they heard what their classmates said in the group interviews. A question they raised was whether it was a good thing for students to have many choices over what was learned.

S2: I think I'm really concerned with whether I can make choice about what to learn. It always makes me feel bad when I find that I have to know this or know that without being asked whether I really like to know it. [...] Such a situation seems to be prevalent here, however, as the courses you need to take and the textbooks you need to read have all been prescribed in the curriculum. Not only you but also teachers have to follow it closely.

S3: Well, I agree with you to some extent, I think. To have choices is a good thing, but only if you are sure that you can make a good choice. I mean, as a student, I'd prefer having clear guidance to being left to make decisions now and then on which course to take and which book to read. [...] Choices allow space for personal preference, but might not always be good for establishing a solid and overall foundation for future study. [in 01G2]

Most of the students who seemed to believe that they should be allowed some freedom in deciding what to learn also picked up this issue when they commented on the influences of the TLEs on their ways of studying. A consensus shared by those students was that a feeling that choice was lacking worked against their willingness to study in a deep manner.

You feel less enthusiasm when you find that you hardly have any choice over what to learn. [...] Learning should be related to personal interest and preferences [...] so as to encourage more active engagement in the learning process. [...] I think I'd been busy with coping with the majority of the courses I've taken rather than learning them. [for] I know that I've seldom really looked deeply into those course content. My reason for doing so was that most of the courses represent what I have to learn rather than what I want to learn. [00G2S5]
An overview of the themes related to course characteristics

Up until this point in the section, some key findings on the students' perceptions of the aspects related to courses characteristics have been reported, and therefore supported making the following observations on this aspect of the TLEs:

- The quality of course content turned out to be an important theme for the majority of the interviewees mentioned this issue. However, the overall quality of course content or the textbooks in use did not look high from the students' points of view.
- The students had different perceptions on whether the workload was manageable and to what extent they should be allowed choice over what was learned. Although these were not issues that had been frequently mentioned, at least some students expressed their unhappiness with these two aspects of the courses.
- As far as the impact on the students' ways of studying was concerned, high-quality course content, a manageable workload, and a feeling of having appropriate control over what was learned had been demonstrated to be supportive of the adoption of a deep approach. While, the students' judgment on these issues might be conceived as subjective. Entwistle and Ramsden's research (1983), it should be noted, came to a similar conclusion.

7.3.2 Classroom teaching and its influences on approaches to studying

With regard to classroom teaching, the students generally suggested two main themes in their comments: the affective and the operational aspects of teaching. This section will concentrate on how positively the classroom teaching had been perceived by the students in relation to these two themes, and whether they had been mentioned as having impacts on the students' ways of studying.
Theme 1: Affective aspects of classroom teaching (teacher as a person)

The students as a whole showed a tendency to appraise their teachers' performance in terms of how well they had been treated emotionally in class when talking about their feeling towards the TLEs in which they were involved. More specifically, the students' attentions were focused on whether teachers respected their students, felt for their students, had reasonable and positive expectations of their students, and demonstrated enthusiasm towards their teaching careers and subjects. Generally speaking, the majority of the teachers that had been mentioned in the interviews met the students’ expectations of this kind, although there were also some teachers who had left unpleasant impressions on their students.

Unsurprisingly, the majority of the students also voiced their concerns about their emotional relationships with the teachers when they commented on how the TLEs had influenced their ways of studying. Four pairs of extracts were picked out by the researcher to illustrate the kinds of influences the students described. Put simply, a ‘good’ teacher who met the students’ expectations in these regards was more likely to encourage the students to adopt a deep approach to studying, and vice versa.

**Respect for students**

I think the teacher was good. [...] She didn't look down upon her students, and would like to listen and respond to our needs. [...] I've made great efforts to really understand the course content. [02G2S3]

Obviously you're someone who needs to show respect to him rather than being respected by him. He asked us to raise questions, but it's not to help us to solve them but to make us realise how little we know. Such a way of teaching is really odd. [...] I think no one likes to be in his class, let alone spending time on his coursework. [03S2]
Empathy towards students

If the teacher noticed that we didn't know something which was really important for understanding the course, even though it's outwith her course, she'd explained it to us. [...] I felt that she was taking care of her students and really hoped that we can learn something from her. [...] It was [then] my duty to work hard on this course. [otherwise] I'll feel ashamed faced with the teacher's concerns for us. [00G2S1]

Expectations of students

The teacher believed that we can contribute to his knowledge of the subject during the process of studying with us. He didn't take himself as the authorised body, but welcomed us to think along with him and raise any question that we came up with. [...] Everyone wants to do well when he/she is believed to be able to do so, and so do I. [...] I've read quite extensively and tried to get my understanding on the subject improved. [03S2]

Enthusiasm for the subject

This was a really interesting course. The teacher was good at fuelling your interest in the course through passing his enthusiasm for the subject on to you. [...] Once you get interested in something, you'd be more likely to undertake work of high quality even though it means you have to spend more time and make more efforts on it. I really enjoy the process in which I see myself understand the subject better and better. [03G2S1]

Theme 2: Operational aspects of classroom teaching (teacher as a teacher)

The other main issue associated with classroom teaching that had been suggested by the students concentrated on the teachers' competences in
teaching, which had been further divided into a basic and an advanced kind.

**Competence in providing a classroom experience that runs smoothly**

This basic kind of competence in teaching had been frequently mentioned by the students in their descriptions of the TLEs as something they assumed that every teacher should possess. More specifically, they appeared to take it for granted that the ideas being presented were organised, the lecturing pace was elegantly measured, and the whole classroom experience was under the teachers' control. As a whole, the students generally appreciated their teachers' capabilities of this kind, although there were also a few teachers who turned out to be deficient in these basic competences from the students' points of view.

As anticipated, quite a lot of the interviewees looked at the impact of the TLEs on their ways of studying in terms of the classroom experience they perceived. As will be seen in the three pairs of quotations below, a clearly organised presentation, a well-paced lecture, and some efforts made to help the students to maintain concentration in class had been reported as contributing to the students' adoptions of a deep approach, and vice versa.

**Organising ideas in presentation**

I felt quite comfortable when I was in her class because her presentation led me smoothly through the issues she'd like me to grasp. [...] The notes I took on her course were always the first ones that I like to pick up for the post-class reading. Every point was self-explanatory, and it helped me to revisit the points she made in class and get my understanding of course content improved. [01G2S1]

It's really frustrating, you know, that sometimes you can’t make sense of what the teacher is talking about. I have a course this term which presented such a problem for me. [...] At first, I felt it's my problem, but later I found that most of my classmates had the same feeling. Some of them have already given up this course totally and are preparing to pass its exam through rote learning at the end of the term. [03G1S5]
Controlling lecturing pace

She regularly returned to some points mentioned before to slow down the lecturing pace, while giving us a chance to look back at the way we've gone through an issue. [...] This was really helpful because you got an opportunity to think for a while on a topic that had been newly introduced in class. [...] My experiences tell me that it's highly possible for me to carry out more reading and thinking on those issues that I've got a chance to think about for myself in class. [02S2]

Managing the whole classroom experience

The teacher on this course showed his capability in controlling whatever happened inside the classroom, and helped me a lot to maintain concentration. [...] For me, I think this is a very important point, albeit tiny as it looks, because how much I can learn from taking lectures always influences my further studying on the course. It's hard for me to study a course from scratch in a deep manner without sufficient input from lectures. [02G4]

In closing this sub-section, it seemed necessary to mention the acknowledgements showed by some students towards the constraints that might have prevented their teachers from providing students a pleasant classroom experience. Generally speaking, in some students' opinions, the rapid pace of lecturing and the inefficiency in keeping the whole classroom experience under control were also related to the characteristics of the teaching task the teachers faced with in the degree programme.

The average speed of lecturing is fast. [...] But, I know it's sometimes not what the teachers themselves want, but because they seem to have no other options if they are to cover the large body of knowledge in a limited time as required by the degree programme. [01G1S2]
It's hard for a teacher to deal with a large-class lecture in which there are sixty to seventy students. Teaching such a large class should be very stressful, and it's not very fair to ask the teacher to be responsible for every student's behaviour in the classroom, I think. [02S1]

Competence in facilitating students' mastery of the subject

The students also showed their interest in whether the teachers had this advanced type of competence when they described the classroom teaching they had experienced. However, although the teachers who had this kind of competence were invariably appreciated by the students, it seemed that such teachers were not numerous in the degree programme. Moreover, rather than assuming that every teacher should be capable of facilitating high-quality learning, the students appeared to agree that being able to help students to understand a subject thoroughly required rich experiences in teaching and profound knowledge of the subject, and these could only be obtained from years of practice.

The teacher had just graduated a few years ago. She needs time to become more efficient in presenting ideas. [...] I can see her intentions to do well in class, but sometimes she didn't know what we wanted and what we found difficult. [0053]

Nonetheless, even though the students showed their acknowledgements of the constraints the teachers had to work with, the teachers' impact on their intentions to take forward high-quality learning varied quite a lot between those teachers who possessed an advanced kind of competence and who did not. Below are three pairs of quotations illustrating this particular point.

Connecting theory with practice

This course was one of the best ones that I've ever had [for] the teacher was very good at relating the course content to what happens in the outside world. [...] This made me believe that I was studying something useful [and therefore] provided me with the impetus to do well on the course. [01G3S3]

Well, I like to say that the teaching was so dry. It turned up to be all about theories – one theory after another – and no examples showing how the theory works. [...] I thought there should be more things behind the theories that really needed to be touched upon in class, but this didn’t happen. [...] Faced with such a situation, it’s really hard to have enthusiasm for carrying out a high-quality study. [03G1S2]
Teaching beyond textbooks

This teacher knew the subject very well and never needed to look at the textbook during teaching. [...] He was teaching for you to understand based on his own understanding of the subject. [...] I found myself making improvement on this course every day, and becoming more interested in the subject. This encouraged me to know more about the subject. [00S3]

If all the teacher can do is to read about the textbook to the students, then I think teaching becomes meaningless. Unfortunately, I have met quite a few teachers of this kind in the past few years. [...] I think they hardly made contribution to my studying, but, on the contrary, hindered my interest in engaging actively with the courses that have been taught in this way. [00G1S2]

Anticipating and handling ‘trouble spots’ for students

He looked very experienced in reading your mind, and always made sufficient efforts to help us to get through those difficult points in our studying. [...] Although the course itself was not easy to understand, we were confident in overcoming the difficulties met during studying, for the teacher was there willing to help. [00G2S2]

I’ve tried my best to understand maths, but it’s just not going to happen. [...] I’d once counted on the help from the teacher, but she seemed to lack methods of helping us students who were not good at maths. [...] Since it’s hardly to overcome the difficulty myself, the only choice for me was to rely on memorising and keep my figures acrossed for a pass in the exam. [00G1S2]

A close examination of the last pair of the quotations above and some similar comments indicated a way to understand a potentially confusing finding from the inventory data. As mentioned in Chapter Four, the high demands for subject knowledge and skills (e.g. mathematical skills) positively associated with both the deep and surface approaches, while indeed the demand scale was expected to be a factor working against the adoption of a deep approach based on the literature. A possible way of explaining the inventory findings, informed by the interview data, was therefore that: if the teacher appeared to be capable of helping their students to overcome the difficulties in grasping the course content and/or in using maths in studying Economics, the students could obtain encouragement to overcome these difficulties. In this regard, difficulties in studies could contribute to students’ ways of studying. Another illuminating example is provided here to further support such a claim.
Generally speaking, I don’t want to take a course that heavily depends on maths. But, for this course, things were different, even though it was Econometrics. [...] The teacher didn’t use too much maths in his presentation as I supposed [because] he’s good at using other ways, not all that mathematical, to help us to understand a model or a theory. [...] When it seemed that he had to use maths in his presentation, he was able to explain those things in a way that was friendly to a person who was not good at maths. [...] I now feel more confident in maths and the subject, and I think the teacher helped me a lot in this regard. [01G2S1]

An overview of the themes related to classroom teaching

In concluding this sub-section, some observations that had been made based on the aforementioned findings on the students’ perceptions of the classroom teaching were summarised as follows:

- Classroom teaching appeared to be a very important aspect of the TLEs in the students’ points of view because varied aspects related to classroom teaching had been found in the majority of the interviewees’ comments on the influence of the TLEs on their ways of studying.
- The students turned out to care about both how professionally and effectively a teacher did as a teacher and what he/she was like as a person.
- Although the degree programme did not lack ‘good’ teachers in the students’ eyes, there were a few teachers who might need to reflect on their ways of teaching so as to reduce the negative impact on their students’ learning.
- Despite showing their acknowledgements of the constraints the teachers might have to work with, the students generally expressed their expectations that teachers would help them to broaden their understanding of the subject.

7.3.3 Assessment and its influences on approaches to studying

Assessment for course studying in the degree programme included two types of tasks: essay-writing assignments and written exams. In regard to these two types of assessment, the students generally suggested four themes in focus: the status of a particular type of assessment in their university life, the demands for understanding of the subject, teachers’ support, and
feedback and marking. This sections will investigate how positively the assessment was perceived by the students in relation to these four themes, and to what extent they had influenced the students’ ways of studying.

**Theme 1: Status of a particular type of assessment in students’ university life**

The students’ perceptions of the status of essays and exams were associated with the prescribed percentages that they took up a student’s overall performance on a particular course. The common practice in the degree programme was that marks on exams and essays contributed 70 and 20 percent respectively to the students’ performance on a course, while the remaining 10 percent came from their lecture attendance rate. Almost all of the students had mentioned such a practice when they were asked to talk about their views of the assessment implemented in the degree programme.

As far as the impact of the prescribed status of essays and exams on the students’ ways of studying was concerned, the minor role of essays seemed to commonly work against the intention to engage actively with the writing task, while the important status of exams appeared to be a sufficient reason for the students to be organised and diligent during revision.

It [the essay assignment] is not important, and I seldom take much care in doing it. [...] No matter how well you did on this task, it could only contribute to 20% of your overall grade on the course. It's not worth a lot of hard work from this point of view. [02G2S4]

Exams are always important. No matter how well or how bad you have studied during the term, you need to get a grade that is good enough to obtain a pass at least. It's a regulation that applies to everyone. [...] So, it's better or necessary to sit down and think about how to take forward an effective revision. [00G3S2]

However, although there seemed to be a consensus that revision needed to be organised and effortful, this did not necessarily mean that the students would revise in a deep manner. In other words, an emphasis on study regulation during revision, although commonly reported by the students, could derive from different intentions held by the students when facing the exams. Two quotations below illustrate such an observation.
Exam revision is a good opportunity for me to revisit holistically what I've learned during the term. [...] However, since you have to complete your revision for several courses within a short period of time, it's highly recommended to be organised during this period of time. [02G2S1]

I need a grade good enough to ensure a pass [because] I know that I've not worked hard on the course in the term. [In order to do so], I ask myself to be diligent and to make good use of my revision time, so as to fix in my mind sufficient amount of information that can help me to pass it. [00G3S2]

**Theme 2: Demands for understanding of the subject required by assessment tasks**

This was another common focus in the students' descriptions of the assessment they had encountered. A judgement on what was really required by the assessment tasks, or what would be appreciated by the markers of these tasks seemed to be an issue that concerned every student, and was also influential on their ways of studying.

As far as essay assignments were concerned, the majority of the interviewees indicated that how the teachers treated the essay tasks they assigned had a fundamental impact on their interpretations of the requirement of the task. There was evidence showing that faced with similar essay tasks, the students from different classes conveyed different attitudes towards the requirement of the task, and below are two quotations typical of this viewpoint. However, as both students indicated, the majority of the essay tasks they had encountered did not require writing with understanding.

In my point of view, this is a different essay task from what I've done before. [...] The teacher spent time explaining why he would like us to write this essay, and what he would like to see in our essays. In addition, he provided us quite sufficient reading materials and ideas that might worth thinking about for developing the essay topic. [...] You realised [from what the teacher did] that you'd better take this essay task as a serious one and read more intensively for it. [01G1S2]

Essays are just so-so: you hand in something and you get a mark, and there is no need to think too much during the writing process. [...] The essay on this course was just another one of this kind, I think. for I couldn't detect any difference in the ways it was assigned to us: the teacher left us with an topic and a hand-in time right before the class was over without any additional word on the task. [01S6]

Comparatively speaking, there was no clear patterns of variations in the ways the students described their understanding of what was required by exams.
As mentioned in Section 7.2.3, the 'standardised exams' were more often reported leaving the students an impression that the exams were weighted towards the quantity rather than the quality of course studying. Furthermore, what was learned from the students' comments was that such a situation appeared to be more likely to discourage them to revise in a deep manner.

S1: Exams emphasise more coverage than depth, [and] my experiences tell me that it's highly possible to pass and even to get good marks if you are good at memorising details.
S3: Yeah, I agree. And ...sometimes even for those questions asking for a prose-answer, [it is also applicable]. I mean, although such types of questions look like asking for an explanation or an analysis, indeed they could be answered very well if you can remember the relevant sections in the textbook.

[In 02G3]

Theme 3: Teachers' support on assessment tasks

Support from teachers on assessment tasks was not an issue that had been frequently mentioned by the students in the interviews. Furthermore, there were more comments on the teachers' support on essay assignments than on exams. However, although the relevant information was limited, the students' descriptions still helped to draw a general conclusion that the dearth of support on assessment tasks was a common phenomenon in the degree programme. The evidence backing up this conclusion was that most of the students who touched upon this issue indicated that they were talking about an experience that they obtained from taking part in different courses. In particular, the paucity of support on writing skills for essays and on solving difficult problems for exams was reported as working against the students' willingness to undertake a high-quality study. Two extracts are provided below to exemplify this viewpoint.

I don't think I know how to write a real essay, (even though) I'm now in the final year. [...] We had no particular sessions on writing skills, right? (The student turned to ask for a confirmation from others in the same interview group, and obtained an affirmative answer). [...] You know something? I'd been writing in my own ways for years, which I personally think is nothing more than cut-and-paste. I know clearly it's not the right way to write essays, but I also know little about how to write. [...] We're now facing the degree dissertation, and I have no idea what to do with it. [00G1S2]
I think having no teachers to ask questions during revision is a problem. You can't have your questions solved when you're most likely to come up with some questions related to the course content. [...] This sometimes forces me to give up an attempt to understand something first before trying to memorise them. In other words, I have to cram for exams. [03S1]

Theme 4: Feedback and marking

The availability and the quality of feedback and the fairness of marking was another issue that had been picked up by the students when describing their experiences of assessment. As explained in Section 7.2.3, however, this was an issue that had been almost exclusively found in the students' comments on essay assignments, because the students had been led to expect that their exam papers would be fairly graded.

With regard to those students who touched upon this issue, the majority of them did not think the feedback they obtained on their essays was sufficient, nor that their essays had been seriously evaluated in terms of the marks they obtained. The negative impact of these perceptions on the students' ways of studying was also evident.

I've hardly received any feedback on those essays that I've handed in during the last two years. [...] If I can draw anything from this, it's that an essay task is not a really serious task [and] it's just something we need to do, or the teacher needs to do for whatever reasons. [...] I learn from this not to spend too much time and effort on essay-writing now. [01G2S3]

As far as I know almost everyone can get a not bad mark just by handing in something [...] and you can't guarantee a good mark by working hard on it as well. [Therefore] it becomes meaningless to spend too much time producing a good essay. [00G1S4]

There were some exceptions, however, as shown in the quotation below.

The teacher gave me the most sophisticated feedback that I've ever got on my essays. I really appreciated the comments the teacher had made. They (the comments) were pertinent and constructive, and showed me the ways to improve my writing as well as my understanding of the essay topic. [...] I feel a very strong impetus to improve my writing skills from such a pleasant experience. [01G1S3]
An overview of the themes related to assessment

Up to this point in the section, some key findings on the students' perceptions of the assessment have been presented. Some observations on this facet of the TLEs and its impacts on the students' ways of studying, informed by these findings, were summarised as follows:

- Assessment was an important aspect of the TLEs almost for every student because of the status it played in measuring students' achievement in academic study. However, the prescribed ratio between the two forms of assessment tasks – essay and exam – seemed to work against the students' enthusiasm for carrying out high-quality essay writing.
- The students generally expressed a negative view of the essay assignments they had encountered. More particularly, the students seemed to suggest that quite a few teachers had not paid sufficient attention to the essay tasks they assigned, and provided their students with sufficient feedback and reasonable marks. Nonetheless, there were some teachers who did very well in this regard.
- With regard to exams, a key issue might be the methods taken to make the exams implemented in the degree programme standardised, because the standardised exams always left the students with an impression that success in an exam relied more on memorising details rather than understanding the subject. Comparatively speaking, the lack of support from the teachers was only a subsidiary issue, although it could also hinder students from carrying out a more desirable way of studying during revision.

7.4 An overall reflection

The two research questions asked at the beginning of the chapter, i.e. what were the TLEs perceived by students and in what ways had their approaches to studying been influenced by these perceived TLEs, have been answered. Table 7.1 (see overleaf) summarises the findings on these two
<table>
<thead>
<tr>
<th>Aspect of the TLEs with which the students were concerned</th>
<th>In the students' points of view, a 'good' TLE was one in which:</th>
<th>Shortcomings of the real TLEs as perceived by the students included the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality of course content</strong></td>
<td>course content was intellectually interesting, relevant to career concerns, and/or expressed in ways accessible to students</td>
<td>generally speaking, the course content as prescribed by the textbooks was insufficiently intellectually interesting, relevant to career concerns, and/or expressed in ways accessible to students.</td>
</tr>
<tr>
<td><strong>Amount of workload</strong></td>
<td>the workload on course studying was manageable although not necessarily light</td>
<td>in some students' points of view, the workload on some particular courses could be too heavy for them to cope with.</td>
</tr>
<tr>
<td><strong>Choice over what was learned</strong></td>
<td>appropriate choice over what was learned was allowed to students, although not necessarily to leave the majority of the choice to the students.</td>
<td>the choice allowed to students on what was learned in some particular courses was not sufficient in a few students' views.</td>
</tr>
<tr>
<td><strong>Affective aspects of teaching</strong></td>
<td>the teacher was a considerate, sympathetic and enthusiastic person</td>
<td>several teachers appeared to lack consideration, sympathy, and/or enthusiasm compared with their colleagues.</td>
</tr>
<tr>
<td><strong>Operational aspects of teaching</strong></td>
<td>the teacher was good at providing clear and organised lectures at an appropriate pace.</td>
<td>a few teachers were perceived to be less capable in providing a clear and organised lecture at an appropriate pace.</td>
</tr>
<tr>
<td></td>
<td>the teacher was able to facilitate the students' understanding of the subject beyond what had been prescribed in the textbook, through connecting theory with practice and handling 'trouble spots' for students.</td>
<td>However, sometimes such a situation could be related to some generic characteristics of the teaching task the teachers faced in the degree programme, i.e. large-class lecturing and a large volume of teaching content.</td>
</tr>
<tr>
<td><strong>Demands for understanding</strong></td>
<td>assessment tasks were directed towards assessing understanding rather than reproducing details.</td>
<td>the vast majority of the assessment tasks were weighted towards reproduction, even though the essay tasks were supposed to assess understanding in the way they had been designed.</td>
</tr>
<tr>
<td><strong>Support from teachers</strong></td>
<td>sufficient and pertinent support on assessment tasks was available from the teachers.</td>
<td>the paucity of teachers' support on assessment tasks turned out to be a common phenomenon.</td>
</tr>
<tr>
<td><strong>Feedback and marking</strong></td>
<td>assessment tasks were carefully evaluated both for constructive feedback and for fair marks.</td>
<td>the feedback and marks seldom embodied a systematic evaluation of the students' performance, and worked against their intentions to achieve a high-quality performance.</td>
</tr>
</tbody>
</table>

Table 7.1 Students' perceptions of the teaching-learning environments
topics in a way that clarified the main themes that the students had touched upon in their comments, the characteristics of a 'good' TLE in their points of view, and what might be the problems of the TLEs they perceived to be important for their studies.

An examination of the key aspects of the TLEs (1st column in the table) together with the features of these aspects that constituted a 'good' TLE in the students' points of view (2nd column in the table) seemed to suggest that the students in this study generally displayed similar concerns with the TLEs to those that their Western counterparts have indicated, based on the literature review reported in Section 2.5.1. Such a finding, therefore, added support to the adaptation of inventory measures used to assess Western students' perceptions of the TLEs in the present study. What the third column shows is more detailed information about the shortcomings of the TLEs as indicated by the students.

Pulling together all the main points that had been picked out from the students' comments, Table 7.1 provides a holistic understanding of the TLEs that were in focus in the present study. Generally speaking, in the majority of cases the students appeared to be satisfied with the classroom teaching, although only few teachers were perceived as highly skilled in facilitating high-quality learning in the students' points of view. Comparatively speaking, the students' evaluation of the courses and the assessment they had encountered was not high, although they also mentioned quite a few positive examples of practices. Such a finding was consistent with what came out of the inventory data, i.e. the means of the scales related to teaching were higher than the means of the scales on assessment and courses. At the same time, the interview data also helped to interpret the differences between these means.
Chapter Eight

Discussion and implications

8.1 Introduction

This final chapter of the thesis is more analytical than descriptive, compared with the foregoing four chapters, so as to reflect on the overall study informed by the findings and the literature review reported in Chapter Two. More specifically, the main body of this chapter is divided into three parts, and each part aims to examine the findings from a different perspective. Firstly, the findings on this group of mainland Chinese Economics students' learning experiences will be investigated from a research perspective to evaluate to what extent they support the adoption of the four constructs at the heart of SLR in the present study, and in what ways the findings can contribute to the existing knowledge of student learning. Secondly, some key issues related to the research design of this study will be reviewed to verify the applied research design and to consider some methodological implications. The third main part will focus on measures that might be taken to enhance the teaching practices in the degree programme and how far the measures can be generalised to other contexts. The chapter ends with a reflection on the limitations of the overall research reported in the thesis and some suggestions for future studies on mainland Chinese students' learning experiences.
8.2 An examination of the findings from a research perspective

From a research perspective, the present study had two main characteristics. One was that the research was built upon four Western originated constructs at the heart of SLR: approaches to learning and studying, orientations to education, beliefs about knowledge and learning, and perceptions of TLEs. The other was that a group of mainland Economics Chinese students were involved, and this type of sample is uncommon in the existing SLR. Two questions therefore arise: one is how efficiently the Western originated constructs have worked in this non-Western context, and the other is what the present study might contribute to the existing knowledge of student learning.

Students’ approaches to studying

The concept ‘approach to learning and studying’ was taken as a central theme in this study. The working definition used to inform the whole study, as described in Section 2.2.1, contained three components – intentions associated with the content of learning, cognitive strategies, and regulation activities – and was described as a ‘deep/surface’ dichotomy. The students’ approaches to studying on courses were explored in this study both through inventories and interviews. More specifically, the inventory included five scales embodying a deep and a surface approach and some aspects of study regulation, aiming at detecting some general patterns of the students’ ways of studying. In contrast, the interview studies, with a focus on three different task settings – academic reading, essay writing, and exam revision – were employed mainly to more fully capture the potential of the deep/surface dichotomy in describing the students’ ways of studying.

Generally speaking, what came out of the inventory and interview data was a broad distinction in the students’ ways of studying closely paralleling the ‘deep/surface’ dichotomy. More specifically, the deep approach displayed by the students was characterised by an intention to understand and an active engagement with their studies, while the corresponding surface approach
was represented by the absence of an intention to understand and resorting to strategies suitable for coping with learning tasks minimally. In this regard, the findings not only confirm a basic assumption that qualitative differences mirroring the deep/surface dichotomy could be found among the students, but also lend support to the conceptual equivalence (Watkins 1996a, 2001) required for using approach to learning and studying, a Western concept, in the non-Western context involved in this study.

Besides obtaining such a generic picture of the students' approaches to studying, the findings also contain more information on this aspect of the students' learning experiences. For instance, taking into account the varied intentions associated with the deep approaches to studying on different tasks captured in the categories for describing approaches in the interview data analysis, it seems reasonable to suggest that the findings echo previous claims about Chinese students' appreciation of respectful learning (Salili 1996). More specifically, intentions to absorb essentials or understand what the teacher had taught could be gleaned from these categories in the deep approaches to studying on various tasks. Occasionally, some students mentioned an intention to broaden their understanding of the topics introduced by the teachers through reading for different or even critical ideas. Whereas, as shown in Chapter Five, these students also emphasised that such an intention could only be fulfilled once they had grasped firmly what the teacher had taught.

Looking at the cognitive strategies categories holistically, a rich picture of the students' ways of using memorisation was also evident with subtle differences between varying tasks. An overall impression was that it would be inappropriate to judge the students' use of memorisation in the process of studying without taking into account the specific contexts and ultimate purposes that had contributed to their employment of such a strategy. More specifically, in the majority of the cases, memorisation was used to facilitate reading for subject understanding or prepare for exams with an attempt to understand. Rote learning – as well as seeking limited understanding before rote learning – was also evident, but only when the students felt the necessity
to 'cram' for exams. Although the findings per se do not suggest any new perspective on Chinese students' ways of using memorisation during studying (Marton and Trigwell 2000), they validate a general claim that ways of using memorisation is an issue worthy of attention when looking at Chinese students' approaches to studying (Kember 2000a).

The categories in the students' ways of regulating their studies on different occasions as a whole suggest that, the students surveyed in this study were generally adept at keeping their studying under control, and this was not necessarily associated with an intention to seek meaning during studying. Put another way, the students generally regulated their study in one of two ways: either they mobilised fully the available resources (e.g. effort and time) to achieve high-standard learning, or they aimed to ensure a low-standard outcome through making limited use of the resources. When the students were faced with exam revision, the prevalent preference for regulating study and the contrasts between these two types of study regulation were noteworthy. Such a finding seems to confirm a claim that a surface approach to studying is not necessarily less organised or effortful, for students can engage fully with their studies in a surface manner (Volet 1997).

A comparison between the students' ways of studying on different tasks also seems to be illuminating. Generally speaking, for a significant proportion of the interviewees, academic reading was a central study task. Moreover, the students also reported a profound way of reading for understanding the subject in which varied methods had been relied on to facilitate understanding, such as focusing on underlying relationships between ideas and doing exercises to facilitate a deep engagement with reading content. In contrast, the approaches that the majority of the students adopted for essay writing appeared to be more perfunctory because they reported pulling out materials and arranging ideas into a structured text without clear references to understanding essay topics through writing. Exam revision, in most cases, turned out to be an extension of the academic reading carried out during term time: the deeper the students had engaged in reading for understanding during term time, the more likely they were to report preparing for exams
with an intention to understand the subject, while grasping substantial pieces of knowledge appeared to be more important for those students who had not acquired sufficient understanding of the course content during term time.

The variations in the students’ ways of tackling different tasks seem to support taking approaches to studying as context-reliant concepts rather than styles inhere in an individual (Biggs 2001). However, to what extent the students’ ways of studying on these tasks might have been disciplinarily grounded should be left open, it is argued, because no other disciplines had been involved in the present study with which comparison might be made. By drawing considerably upon the relevant literature (Section 2.2.2), it can only be speculated that a need to acquire a large knowledge base of bare facts might have contributed to the employment of memorising during reading and an emphasis on precision of memorisation in revision, and hereby restricted the students’ intentions to seek personal understanding when concentrating on building up knowledge base in the subject.

**Students’ orientations to education**

The students’ goals, intentions and expectations in undertaking higher education were explored in this study through inventories and interviews. Ten questionnaire items, each focusing on a different type of orientation suggested by the Western literature (Beaty et al. 1997; McCune 2000), help to discern a generic distinction between intrinsic and extrinsic concerns related to higher education experiences held by the students. In addition, the close interrelationships between the items seem to indicate that the students were more likely to hold a mixture of varied types of orientations. These findings were largely confirmed in the interview studies. More specifically, besides the social intrinsic and extrinsic orientations as defined in the literature, all other types of orientations were found in the students’ interviews. The majority of the students expressed their orientations in a form of profile, in which more than one type of orientations could be identified. Additionally, the students displayed a leaning towards vocationally related orientations, which could be understood by the value placed in China on social and
economic advancement through education, and such a finding therefore replicates some claims made by Kember and Leung (1998a).

Some new variants have also been generated from the interview data. One minor variant was to the vocational extrinsic orientation, which was expressed as an interest in the value of supplementary certificates to signal possession of generic skills (e.g. English and Computing skills) and the value of an undergraduate degree as a means to taking a postgraduate degree, which in turn would lead to a high-status job. The rationale for classifying these two new variants into the vocational extrinsic category was that the students displaying these two concerns seldom mentioned their interest in the particular courses they were taking. Another new variant turned up in the personal extrinsic orientation and was characterised by a concern with becoming more capable of interpersonal relationships through participating in varied social activities. These new variants are considered by the researcher as culturally grounded, because possessing some generic skills, holding an advanced degree, and being adept at dealing with interpersonal relationships are greatly appreciated in the mainland Chinese job market.\footnote{Research Report: Influential factors in undergraduates' job-seeking. China Education Daily, 13 June 2005. [Online at http://www.booker.com.cn/gb/paper126/4/class012600008/hwz141521.htm]}

More interesting variations arose when it came to social orientations. The literature suggests that the social orientations expressed in the CHC are more to do with achieving social harmony through teaching moral rules that sum up the obligations of a person in his/her relationships with family members and others (Tu 1998). In particular, when it comes to education, to do well in academic work has been found to be taken as an obligation of children to the family. For example, several studies reported that school children in Hong Kong studied in ways that almost equivalent with a deep approach, not for some kind of intrinsic intentions as defined in the Western literature, but for the obligation their had towards their families (Salili 1996).

The present study developed the understanding of this topic through its
findings on the social orientations displayed by some tertiary students. In brief, three kinds of concerns related to using academic study as a way to meet parental obligations were identified: first was to preserve one’s parents’ dignity through performing well academically; second was to meet parents’ expectations through one’s commitment to higher education; and, third was to improve one’s parents’ living standards through obtaining a good job based on one’s educational achievement. It proved problematic to assign the extracts relevant to these three themes to extrinsic or intrinsic groupings, as each might logically have intrinsic or extrinsic variants, and the students’ exact intentions were not necessarily clear. Therefore, it was decided to simply classify them as new variants of social orientations without further differentiation. Furthermore, as defined in this study, these social orientations seem likely to be culture-specific, because quite a few researchers who have studied Chinese students’ learning for many years have pointed out that, the willingness of family or even extended family members to contribute to educational costs in Chinese society is unusual in other societies, and therefore exerts far-reaching influences on those who benefit from these investments (Watkins and Biggs 2001a).

**Students’ beliefs about knowledge and learning**

This is a topic that had been investigated solely through interviews. The findings generally suggest a fairly similar picture to what came out of the Western literature. For instance, the students reported three kinds of views of learning, which overlap to a great extent with three views of learning in Marton et al.’s model (Marton et al. 1993) – learning as the increase of knowledge, learning as the increase of competency in understanding things, and learning as changing as a person. Furthermore, a preference for talking about learning as a process was evident, because there were quite a few interviewees who chose to explain the meaning of ‘learning’ from the literal meaning of the two Chinese characters that constitute the word ‘learning’ – ‘Xue’ and ‘Xi’ – as a process of acquiring, analysing and applying knowledge reflectively. As discussed in Section 6.3.1, the identification of the view of learning as a process involving ‘Xue’ and ‘Xi’ stages not only validates
Marton et al.'s claim (Marton et al. 1996b) about being aware of such a dimension for understanding Chinese students' views of learning, but also provides a clue to understand why Chinese students appeared to prefer talking about learning as a process. Finally, the students generally differed in whether to have an active or passive view on their own roles in the process of studying in relation to the roles they expected teachers to take on. In particular, a situation in which the students could study autonomously under teachers' guidance was generally considered to be better than a situation in which the students had to work on their own initiative without sufficient input from teachers. These findings mirror what have been reported by Western researchers on students' perspectives on roles played by themselves and their teachers (Vermunt 1998).

Teaching-learning environments as perceived by the students

Both the interview and inventory studies on this topic focused on the TLEs at the course level, and three aspects of such a TLE were of particular interest: course characteristics, classroom teaching, and assessment. What came out of these two kinds of data could be interpreted as a multi-dimensional picture of the TLEs as perceived by the students, which share a similar pattern with what came out of the Western literature (Entwistle 2003). Moreover, a scrutiny of the aspects of TLEs that came out of the review of the literature on Western students' perceptions of TLEs and the main dimensions of the TLEs touched upon by the students in this study (as summarised in Figure 7.1) in parallel makes it clear that, the majority of those facets of a TLE that have been typically mentioned as important by Western students were replicated by the students involved in the present study.

In brief, with regard to course-related aspects of a TLE, the students showed their preferences for judging the quality of course content in terms of whether it was intellectually interesting, or whether it could contribute to their enhancement in varied skills; whether the workload was manageable; and, whether they were allowed sufficient choice over what and how to learn. As far as classroom teaching was concerned, the students showed their
appreciation of teachers' respect for students, expectations, empathy and enthusiasm; teachers' competences in delivering clearly organised presentations; and, teachers' competence in facilitating students' mastery of the subject. What concerned the students most in relation to assessment were two common issues: requirements of assessment, e.g. whether the assessment emphasised understanding, and support and feedback from staff, e.g. whether appropriate support and sufficient and prompt feedback were available.

As far as the kind of TLEs in the degree programme as described by the students was concerned, the TLEs surveyed in this study seem to take on a series of features corresponding to some well-documented culture- and/or discipline-specific characteristics of a TLE. Taking themes related to classroom teaching as examples, teaching dominated by lecturing could be taken as both a Chinese- and an Economics-specific feature according to the literature (Biggs and Watkins 2001; Becker and Watts 2001). Moreover, rapid lecturing pace and textbook-based teaching are two common issues that have been extensively discussed in the studies describing the characteristics of common teaching practices in Economics (Siegfried 1998), while textbook-based teaching is also a mainstream teaching method that is adopted in the majority of the classrooms in mainland China (Mok et al. 2001). Furthermore, an emphasis on teaching or teachers' performance has been frequently reported in those studies focusing on Chinese students' perceptions of teaching-learning environments, and is generally explained by taking into account the respect for scholars and education that is greatly appreciated in the CHC (Cortazzi and Jin 2001).

With regard to the course characteristics, the quality of textbooks, not necessarily the ones used in Economics, is a common target for critique in
educational research in mainland China\textsuperscript{17}, and the quality of textbooks used in Economics also constitutes a major concern in some Western studies (Richardson 2004). A similar situation also applied to the characteristics of the assessment reported in the present study. In brief, an emphasis on grasping fundamental knowledge could be found in the literature discussing the characteristics of exams in Economics (Heyne 1995) and in a Chinese context (Tang and Biggs 1996), while a tendency to weight assessment towards written exams rather than essays has also been well-documented in Economics teaching literature (Hansen 1998).

\textbf{Relationships between constructs}

All of the four constructs were considered to have played different roles in the study, and they did show significant relationships with each other in the inventory findings (Section 4.6). However, rather than to investigate these constructs simultaneously, the present study focused on the impact of orientations, beliefs, and perceptions of the TLEs on approaches. In other words, a single-direction relationship was particularly pursued without considering potentially more complex interactions between constructs. Furthermore, although some of the students' comments reported in the study appeared to convey a kind of causality relationship between the constructs, the present study had a preference for interpreting the relationships built upon these findings as suggesting 'likelihood' rather than the 'absoluteness' of a causal relationship between constructs.

As far as the relationships between orientations to education and approaches to studying were concerned, the present study broadly confirmed the 'intrinsic–deep' and 'extrinsic–surface' relationships described in the literature (Entwistle 1998a). Besides these findings that paralleled the existing literature, the study also displayed a few findings that supplied new

\textsuperscript{17} There were a series of investigations undertaken and published by \textit{University Week} between 2001-2003 asking university students from varied institutions to fill out questionnaires. Generally speaking, the result was very disappointing, and the core problems were related to dated content, bad printing quality, and irrelevant to subject study.
dimensions to the relationships between these two constructs:

- In addition to the coexistence of vocational intrinsic, academic intrinsic and other types of orientations which has been reported by Kember and Leung (1998a), the study suggested another type of orientation which had also been more often found to be held in combination with other types of orientations: the personal extrinsic orientation defined as proving oneself to others. Moreover, the appearance of such an extrinsic orientation did not necessarily discourage the adoption of a deep approach to studying.

- The newly introduced variant for vocational extrinsic orientation, which indicated a concern with the value of an postgraduate degree for job hunting, was found to be empirically associated with a deep approach to studying, because obtaining an postgraduate degree necessitates passing a highly competitive exam which calls for a good mastery of subject knowledge.

- The newly introduced type of social orientation was found to be linked to either a deep or a surface approach. Such a finding was considered as further evidence on the difficulties in drawing a clear picture of the social concerns expressed by the Chinese students within the intrinsic/extrinsic dichotomy defined in the Western literature.

Findings on the relationships between beliefs and approaches and between perceptions of the TLEs and approaches did not offer any new dimension. Generally speaking, the relationships between beliefs and approaches repeated the well-established 'interpretive-deep' and 'reproductive-surface' relationships (Marton and Saljo 1997). With regard to the influence of the TLEs, the approaches adopted by the students did seem to vary according to the differences they perceived in the TLEs (Prosser and Trigwell 1999). However, the students’ judgements of the quality of the TLEs did not necessarily employ a uniform criterion (Geisler-Brenstein et al. 1996).

Although to what extent the orientations, beliefs and perceptions of the TLEs had worked holistically on the students’ approaches to studying was not an explicit concern of the present study, the findings from the students’
comments enable comparing the significance of the influences from different sources. Generally speaking, all the three variables, i.e. orientations, beliefs and perceptions of TLEs, were influencing factors; however, in comparison, the perceptions of TLEs appeared to be more influential than orientations and beliefs. While this particular finding may, in part at least, be a function of the setting within which the data were gathered, it would nevertheless seem to provide support for the view that appropriate changes to TLEs can foster high-quality learning (Tynjala 1997; De Corte 2000).

Up to this point in the section, the findings from this group of students have been examined in relation to what has been reported in the existing literature. The findings, albeit not particularly surprising, document the views of a sample of Economics students in mainland China. In the end, it seems necessary to point out that to what extent some of the findings suggesting new variants could be claimed to be mainland Chinese-specific or even Chinese-specific should be left open, given the well-known variations across mainland China, and across Chinese ethnic groups in other regions and countries. Indeed, quite a few researchers, it should be noted, have already pointed out that it would be a serious mistake to treat Chinese students as a homogeneous group (Smith and Smith 1999; Edwards and Ran 2006).

8.3 An examination of the findings from a methodological perspective

The overall research design of the present study had three fundamental characteristics: one was the decision to focus on the students' perspectives; one was to concentrate on what was happening inside a particular setting without involving any other institution; and, a third one was to use inventories and interviews in combination to generate data. This part of the chapter moves on to evaluate to what extent the research design with these features has served the purpose of this study.
To take the students' perspectives when looking at their experiences of learning was the most important choice the researcher had made for carrying out the present study. As indicated in Chapter One, the student's perspective, which is advocated by SLR, was adopted mainly for two considerations. One was that students' self-report material could be utilised as a valuable and reliable source in enhancing an understanding of their experiences (Entwistle 1995), while the other one was that students' perceptions and experiences have been proved to contain important and worthwhile implications for practice (Gibbs 2002).

Generally speaking, the findings from the present study echo those beliefs. More specifically, the richness of the overall findings as reported in the foregoing four chapters, and the consistencies between what came out of the inventory and the interview data are supportive of adopting the students' perspectives in this study. In addition, as we shall see in the next part of the chapter, the findings derived from the students' comments contain rich information for raising suggestions on teaching improvement, and therefore throw light on the practical value of focusing on this perspective.

The decision to concentrate on a single setting was considered to be apt for the purpose of the present study, which could be expressed as an intention to understand what was happening inside a particular degree programme, and whether the findings could inform changes suitable for the context. Based on the findings reported in the foregoing four chapters, it seemed that such a decision did help to undertake an in-depth investigation and to produce a detailed description that served the purpose of the research appropriately. However, the inherent shortcoming of such a choice of research setting was also obvious. In brief, the generalisability of the findings from a study involving only one particular setting is invariably limited.

Nonetheless, given the large population of tertiary students in more than one and a half thousand higher education institutions in mainland China, even a survey of several institutions would not necessarily have yielded findings of unquestionable generalisability. Indeed, most of the published studies in SLR
have been carried out in single settings (personal communication with David Kember in November 2003). Furthermore, the context-dependent findings from those single-setting studies can still contribute to the existing knowledge of student learning, because their detailed accounts of the specific contexts enable others from different settings to make comparisons and contrasts, and thus to identify what might be most relevant to them (Lincoln and Guba 1989).

The adoption of a marriage of inventories and interviews was mainly to make use of the well-established advantages of using these two methods in producing rich and reliable data in SLR (Watkins 1996a). As will have been apparent from the findings reported in the preceding four chapters, each of the methods had produced data that contained different yet complementary types of information on the students' learning experiences. For instance, the difficulties the students reported in responding to an inventory item which implied a necessity to be critical when absorbing teachers' presentations were very consistent with the findings that there were seldom interviewees who mentioned being critical when they were studying new subjects with teachers. Another example would be the explanations obtained from the interview data for the positive relationships between high demand for subject study and deep approaches to studying. In sum, the high-level convergence of the results from the two types of data helps to provide evidence of the validity of the data and the rigour of the research findings.

Besides demonstrating the appropriateness of using these two methods in combination, the findings reported in this thesis also contained a questionnaire, named the CELTQ, which has shown itself to be a generally successful adaptation of one Western instrument – the ETLQ. More specifically, the majority of the alpha internal consistency reliability estimates for responses to the scales on approaches, orientations, and perceptions of TLEs exceed .50, a magnitude considered acceptable for a research instrument. The alpha values lower than .50 happened to three scales on approaches – 'Surface approach', 'Organised study' and 'Effort management'. The lower alphas of the latter two scales were solved by combing them into a new
scale ‘Study organisation and management’, for it was considered reasonable to attribute the low alphas for the original scales to the limited number of items they each contained. Based on a similar consideration, a lose criterion for judging its reliability was applied to the ‘Surface approach’ scale.

As far as the construct validity was concerned, the factor structure underlining those inventory scales on different aspects of student learning generally confirm the envisaged scale structures embedded in the original inventory. For instance, two (negatively) correlated factors associated with the students’ approaches to studying were obtained, and each of them was collectively defined by the items in either the deep or the surface approach scale in the CETLQ. One or two global factors could be extracted from the scales on varied aspects of the perceived TLEs, which echoes the assumption that the TLEs as perceived by the students was better to be understood as a multi-dimensional phenomenon. The broad distinction between the intrinsic and extrinsic concerns with higher education was also confirmed in the factor solutions of the orientation items. In brief, these findings as a whole provide support for the demands of ‘metric or scalar’ equivalence (Watkins 1996a, 2001) for using a Western instrument in a non-Western context.

Compared with other Western questionnaires that have not been adapted to and tested in mainland Chinese contexts, the CETLQ would have manifest attractions to those researchers who have an intention to undertake quantitative studies in a similar setting. However, a wider implementation of the CETLQ requires more work on improving the inventory. The researcher had at one point attempted to improve the questionnaire in response to some identified problems, such as the lower alpha value of the ‘Surface approach’ scale, and the potentially less pertinent items on social orientations. However, such an attempt was finally abandoned, given the workload involved in improving questionnaires and the resource limitations of doing a doctoral study. It is to be hoped, nevertheless, that the CETLQ as reported in the study both in Chinese and English, and the strategies taken to facilitate the process of administrating questionnaires and to assure the quality of the students’ responses as described in Chapter Three, could still inform future
As far as the interviews reported in this research were concerned, they can be taken as a substantial pilot study for future qualitative inquiries into mainland Chinese students' learning experiences. The reason for saying so is that there are only a small number of published interview studies done by mainland Chinese researchers in Mandarin, and seldom have these studies provided fine-grained descriptions of the steps and considerations involved in designing and carrying out the interview study. In this regard, although other studies might well use different questions and follow varied styles of interviewing, the present study may still be helpful to Chinese readers in grasping some practical issues that might take place in interviews. In particular, the researcher would like to stress that if interview questions are to be written in English and then translated into Chinese, great attention needs to be paid to ensure, on the one hand, that the translation is appropriate to the language tradition in Chinese, while on the other hand, the translation retains the features of a good interview question embedded in its original English version.

8.4 An examination of the findings from a practical perspective

As will have been apparent throughout this thesis, a fundamental goal of the study was not only an improved understanding of the students' learning experiences, but also findings which could inform more effective teaching practices in the degree programme in addressing the rapid changes happening to the student population. A belief that the findings contain very important implications for teaching reforms is shared by the researcher and colleagues, because the findings have not only provided a rich picture of how the students learn in the degree programme, but also new perspectives on ourselves as teachers and on our teaching practices. This part of the chapter will focus on some implications for teaching in the degree programme by reviewing the findings from a practical perspective. Figure 8.1 (see overleaf) maps out the synthesised understanding of the students' learning
Figure 8.1 Findings on a group of mainland Economics students' experiences of learning and teaching
experiences obtained from this research in a way that is illuminating for making suggestions.

In the diagram, the themes and findings have been divided into two hemispheres: the left one with the 'deep approach' as the central theme, and the right one with the 'surface approach' as the core variable. Each hemisphere is then further divided into three sections for illustrating the two variables associated with students' personal context – orientations to education and beliefs about knowledge and learning – and the one environmental variable – the TLEs as perceived by the students. The deep and surface approaches, albeit placed at the centre, are better to be taken as the background of the diagram, and in the foreground are those variables influencing approaches. Furthermore, the proportion allowed to the three variables is not equal: to reflect its relative strength of influence, the perceived TLEs is allowed a bigger portion of the area in both hemispheres compared with that allowed to orientations and beliefs.

Presented in this way, the pedagogical implications of the findings become apparent, that is, a deep approach to studying can be encouraged and a surface approach discouraged if appropriate measures are taken to improve the TLEs. In fact, the extensive findings reported in Chapter Seven seem to be richly suggestive of ways of improving teaching practices in directions that would be appreciated by the students. More specifically, if at least some of the problems in the TLEs that had been pointed out by the students as listed in the final column of Table 7.1 could be resolved, it would be plausible to expect enhancement in the students' approaches to studying. Taking into account the nature of the problems the students raised, the researcher attempts to articulate some measures that might be taken to enhance the teaching practices in the degree programme. Table 8.1 (see overleaf) lists the measures arising from the problems they seek to address, which have been taken directly from the final column of Table 7.1.
Table 8.1 Measures which might be taken to enhance students' perceptions of teaching-learning environments in the degree programme

<table>
<thead>
<tr>
<th>Part I. Course characteristics</th>
<th>Measures individual teachers might take</th>
<th>Measures the degree programme might take</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shortcomings of the real TLEs as perceived by the students included the following:</strong></td>
<td>• Examine the quality of the course content by taking into account what the students might look for when taking a particular course. More specifically, the students suggest that it might be worthwhile paying attention to the following three aspects of the course content: To what extent it can generate students' intellectual interest; To what extent it is career related; To what extent the course material has been prepared in ways that are accessible for students. • If any problem is identified, make some modifications to improve the quality of the course content.</td>
<td>• Scrutinise the quality of textbooks in use for: Whether they reflect the latest developments in the field; Whether they are well-written and readily understandable ones from students' perspectives. • Replace those inappropriate textbooks in due cause.</td>
</tr>
<tr>
<td><strong>Quality of course content</strong></td>
<td>• Be aware that some of the students might experience difficulties when coping with the required workload. • Carry out some inquiries into the students' perceptions of the workload and make necessary adjustments to help students with difficulties.</td>
<td>• Examine the prescribed academic work for each course and the overall degree programme to make sure that the overall workload for individual students is within a reasonable scope.</td>
</tr>
<tr>
<td><strong>Amount of workload</strong></td>
<td>• Since an appropriate choice over what is learned has the potential to encourage more active learning, it would be better to discuss this issue with students and arrive at a solution appropriate for the majority of the students.</td>
<td>• Think about the possibility of increasing the ratio allocated to electives, because some students raised the point that compulsory courses took up a relatively high ratio of the overall credits required for the degree study, and therefore left them with little space to choose electives.</td>
</tr>
<tr>
<td><strong>Choice over what was learned</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Part II. Classroom teaching

<table>
<thead>
<tr>
<th>Shortcomings of the real TLEs as perceived by the students included the following:</th>
<th>Measures individual teachers might take</th>
<th>Measures the degree programme might take</th>
</tr>
</thead>
</table>
| **Affective aspect of teaching** | - Notice that students care about the ways they are treated emotionally in class.  
- Pay attention to some details to promote affective relationships with students, such as:  
  Express your concerns for the students' needs and let students know that you would like to help them with any difficulty they meet during studying.  
  Put yourself into the students' shoes when you find that students have difficulties in studying rather than ignoring them, e.g. ask yourself why something looks difficult to your students and how can you help them with it.  
  Give students opportunities to articulate their personal thinking on the subject you are teaching.  
  Show your interest in the subject you are teaching through the emotions you bring to the whole class. | - Since large-class lecturing and a large volume of teaching content have been reported to prevent some teachers from providing students with a smoothly running lecture, think about possible ways to reduce class size and the amount of teaching content in those courses where similar concerns have arisen. |
| several teachers appeared to lack consideration, sympathy, and/or enthusiasm compared with their colleagues. |  | - Provide teachers, especially younger teachers, with in-service training to develop their professional knowledge and skills. |
| **Operational aspect of teaching** | - Pay attention to display the structure of your presentation so as to make following lectures easier for your students. Clear and structured blackboard writing can help.  
- When speaking in class, think about your audience and how fast they can follow you. Adjust your speed when it seems too fast.  
- Be aware of the whole classroom atmosphere and think about methods to prevent it from becoming boring or annoying. |  |
### Part III. Assessment

**Shortcomings of the real TLEs as perceived by the students included the following:**

<table>
<thead>
<tr>
<th>Demands for understanding</th>
<th>Measures individual teachers might take</th>
<th>Measures the degree programme might take</th>
</tr>
</thead>
</table>
| the majority of the assessment tasks were weighted towards reproduction, even though the essay tasks were supposed to assess understanding in the way they had been designed | • Spend some time explaining the essay-writing tasks to students. More specifically, the students would appreciate it if you provide them:  
  - A recommended reading list;  
  - A brief interpretation of the essay-writing requirement with an emphasis on understanding;  
  - Some related issues that might be worth looking at during reading for essay writing. | • Increase the percentage prescribed to essays in the students’ overall performance on course studying, so as to enhance the levels of students’ attention to essay tasks.  
• Encourage teachers to devote more energy to essay-writing tasks.  
• Reconsider the standardised assessment for their (negative) influence on student learning. |

| Support from teachers | |  
|-----------------------| |  
| the paucity of teachers’ support on assessment tasks turned out to be a common phenomenon. | • Be aware of students’ need for guidance on writing and help with solving problems during revision.  
• Think about ways of and/or allocate time for providing students with the expected support. | • Arrange workshops on writing skills.  
• Encourage teachers to provide students support on writing. |

| Feedback and marking | |  
|----------------------| |  
| the feedback and marks seldom embodied a systematic evaluation of the students’ performance and worked against their intentions to achieve a high-quality performance. | • Be aware of students’ demands for feedback and their concerns with the fairness of the marking process.  
• Spend more time on giving feedback besides marking.  
• Pay attention to the marks you give to students’ work. | • Encourage teachers to spend more time on examining students’ coursework, so as to give them sufficient feedback and appropriate marks. |
As seen in the table, the recommendations made are aimed at individual teachers and the degree programme respectively. The reason for doing so is that obviously there are some aspects of practice that are within individual teachers' control, and there are some others that can more feasibly be pursued at the degree programme level. Because all of these measures are relatively self-evident as responses to the concerns raised by the students based on their perceptions of the TLEs, the researcher does not consider it necessary to provide any commentary to accompany these suggestions. Of course, it is important to bear in mind that the extent to which any measure will have its intended impact cannot be guaranteed, as they all rely on students' responding to changes within the TLEs in the ways anticipated.

Another consideration that has contributed to the researcher's decision not to provide an accompanying commentary is that it is regarded as more important to take these proposed measures as the background, while putting some generic issues that can be derived from these suggestions in the foreground. In particular, the researcher considers it helpful to focus on two issues – embedded in these measures but not spelled out in the table – which are believed to be fundamental to the long-term improvement of teaching practices in the degree programme: one is a need to encourage teachers to do research to get to know students better, and, the other one is the desirability of promoting reflective teaching among the teachers.

Issue 1: To understand students better through doing research on student learning

This point is rooted in a fundamental requirement of teachers that could be gleaned from almost every suggestion listed in the table, which is that a good teaching practice depends on a sufficient understanding of students. In other words, without achieving an understanding of the students' needs, concerns, problems and expectations, quite a lot of the measures cannot be effectively implemented. From this point of view, it seems reasonable to advocate that teachers should make a greater effort to understand their students' learning better.
In fact, to encourage teachers to undertake practice-orientated research is not a new idea in the educational development literature. For example, Biggs (2003) and Kember (2001b) have both been involved in making efforts to encourage and support teachers doing some research so as to come to know more about their students, and therefore to gain insights into what innovations in their teaching might be appropriate. Over 90 teaching reform projects based on teacher-orientated research on students' learning have been carried out within eight universities and colleges in Hong Kong, and demonstrated to be useful in promoting high-quality teaching and learning in these institutions (Kember 2000b).

Moreover, as Biggs (2003) and Kember (2001b) suggest, for individual teachers to do research into student learning so as to inform their teaching practices, the research might not need to be very complicated in its design. Even an informal chat with a small proportion of the students involved in the lectures, or a quick questionnaire survey in the middle of the term could be sufficient to gain a better grasp of how well the teaching has been going and what might need to be modified. In particular, quite a few researchers have attempted to develop valid and reliable questionnaires in a form suitable for use by teachers in evaluating the learning approaches of their students (Kember et al. 1999; Biggs et al. 2001; Entwistle 2003).

**Issue 2: To understand teaching better through reflection**

The focus of the first point was the student; with the second point, the focus shifts to the teacher and the teaching. The rationale for the researcher to come up with this point is that all the suggestions made on teaching reform share a principle that teaching needs to be reflective with students at the centre. Again, that good teaching is fundamentally reflective teaching is not a new idea, and there is now a body of knowledge that underpins how to carry out reflective teaching (Biggs 1999; Kreber 2002).

Generally speaking, the teachers are encouraged to reflect on some key issues associated with teaching, such as what is teaching? what is learning? what
kind of students are we facing? what are the problems in the teaching-
learning process? and, how can we solve the problems with our knowledge
in teaching, learning, students and subject? For instance, Kane et al. (2004)
carried out a study, which investigated the reflections carried out by some
excellent tertiary teachers in science, and found that all these issues could be
identified in the reflections reported by an excellent teacher.

However, to embark on a reflective teaching is by no means an easy task. For
instance, although it is highly recommended to take forward thoroughgoing
reflection, it could be a very difficult task to reflect simultaneously upon all
the issues that might need to be considered. From this point of view, the
researcher would like to suggest teachers embark on their reflection from the
conceptions of teaching they hold. Such a preference is informed by a body of
research on teachers' conceptions of teaching (Trigwell and Prosser 1996a,
1996b; Trigwell and Shale 2004), which is predicated on the belief that
genuine improvement in teachers' teaching has to begin with a change in
their thinking about teaching. Generally speaking, conceptions that see
teaching as the transmission of information are typically associated with
didactic teaching approaches, while conceptions that see teaching as
facilitating student learning are more likely to be linked with teaching
encouraging learning.

The degree programme also plays an important role in facilitating reflective
teaching, based on a consensus in the literature that an important impetus for
teachers to devote time in carrying out high-quality teaching is to have their
teaching efforts rewarded (Boyer 1991; Biggs 1999). There is now a body of
research showing ways to support high-quality teaching at degree
programme or institutional level. For example, Major and Palmer (in press)
reported an intervention programme with a PBL (problem-based learning)
initiative to influence teachers' pedagogical knowledge. Ho et al. (2001) and
Watkins (2004) reported a project aiming at changing conceptions of teaching
held by teachers in a Hong Kong university, which had achieved very
convincing results. While a detailed account of these projects is outwith the
scope of the present study, they could serve as models for launching
initiatives to promote good teaching practices.

In concluding this part of the chapter, it seems necessary to point out that when making the above suggestions, the researcher's main focus has been the specific degree programme involved in this study. However, there are potentially important implications for other similar degree programmes, although how far they can be generalised to other contexts depends on some specific considerations. For instance, for those measures listed in Table 8.1, their applicability would mainly depend on the similarities between contexts (including student, subject, course and institution). Nonetheless, some well-documented uniformity in Economics teaching (Becker and Watts 2001) and teaching practices in Chinese classrooms (Watkins and Biggs 2001a) lend support to a claim that those suggestions might be of wider application. In terms of the two general points raised by the researcher, an even wider generalisability can be envisaged because they actually address some fundamental ideas that have been well-established in the teaching research literature.

8.5 Limitations of the research and suggestions for future inquiries

Up to this point in the chapter, the study reported in this thesis had been scrutinised and its implications discussed from three perspectives, i.e. research, methodological and practical. Although the study appears to have contributed to the understanding of the students' learning in the degree programme as well as the existing knowledge of student learning, the limitations of the research need to be acknowledged. In concluding this chapter as well as the whole thesis, this final part will concentrate on the limitations of the study and the potential for further research.

From a research perspective, the description of the students' learning experiences reported in the present study is limited given the fact that it only
took into account four constructs of student learning that came out of SLR. In addition, the special interest in exploring differences in the students' approaches to studying in terms of the differences in the students' orientations, beliefs and perceptions of the TLEs worked against the possibility of discerning multi-dimensional relationships between constructs. Although those decisions were proved productive in serving the research interests of the present study, what came out of the study should be regarded only as a greatly improved understanding of the students' learning experiences rather than a complete one.

In the present study, the students were taken as the sole source of data. Although the reliability of the students' comments was demonstrated through the high-level consistency between what came out of the inventory data and the interview data, more data from other sources, e.g. their teachers, might enhance the trustworthiness of the data. In addition, even though data analyses were carried out under close supervision of the researcher's two supervisors, and with help and comments from some other experts in SLR, the majority of the work was done by the researcher. It is, therefore, highly possible that if the data were examined by other researchers, some additional important points could be found.

With regard to those suggestions that were made on teaching reform in the degree programme, the level of the effectiveness of these recommendations is yet to be researched. It would be better, therefore, if these suggestions could be implemented and systematically monitored in the degree programme to further test the utility of listening to students' voices for implementing reforms, and how far the suggestions have captured the students' main concerns expressed in the interviews.

Taking into account the above limitations, it may be worthwhile if more variables in student learning are investigated to develop the inquiry into the students' learning. In fact, the variables such as age and gender that had been touched upon but not explored in detail in this study have been proved influential on student learning (Richardson and Woodley 2003; Vermunt
In addition, a survey of more complex relationships between the students' approaches, orientations, beliefs and perceptions of TLEs would be desirable, because the more sophisticated an understanding of the students' learning we get, the more pertinent and effective can be the measures taken to facilitate their studying (Nicol 1998). Furthermore, given the evidence on the relative robustness of the CETLQ, further work to improve and validate this inventory in other subject areas and in a wide range of universities will be beneficial. Last but not least, it is expected that the rich findings reported in the thesis will encourage more teachers and degree programme managers to do research of a similar kind, and therefore contribute to the dissemination of good practices informed by SLR.

Indeed, there is a general and pressing need for more studies on mainland Chinese students' learning experiences, and the researcher would like to make an appeal for this at the end of the thesis based on two concerns. First, the population of mainland Chinese students in tertiary institutions both inside and outside of China is growing rapidly (ASEC 2005). Secondly, compared with the understanding of Western students' learning experiences that has been achieved through a substantial amount of work over the past thirty years, studies into mainland Chinese students' learning are far from sufficient; and, the paucity of understanding of mainland Chinese students' learning has already caused major difficulties for many institutions in maintaining teaching standards in the wake of the rapid growth in student numbers (Zhang 2001; Tan 2003). This is a challenging as well as a rewarding task to undertake.
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Appendix I

1.1 (Chinese version) Experiences of Teaching and Learning Questionnaire (CETLQ) in English

Experiences of Teaching and Learning Questionnaire

Name__________ Age__________ Gender__________ Year of study__________

1 What do you expect to get from the experience of higher education?

Please put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.

\[ \checkmark = \text{very strongly} \quad \checkmark? = \text{fairly strongly} \quad ?? = \text{about average} \quad \times? = \text{rather weakly} \quad \times = \text{very weakly/not at all} \]

If what the item describes is not applicable to your case, or you have never think of that aspect, leave it BLANK.

<table>
<thead>
<tr>
<th>Item</th>
<th>(\checkmark)</th>
<th>(\checkmark?)</th>
<th>??</th>
<th>(\times?)</th>
<th>(\times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a I want to develop knowledge and skills I can use in a career.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>b I hope the things I learn will help me to develop as a person and broaden my horizons.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>c I'm focused on the opportunities here for an active social life and/or sport.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>d I hope the whole experience here will make me more independent and self-confident.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>e I'm mainly here because it seemed the natural thing: I'd done well academically in the past.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>f I want to learn things which might let me help people, and/or make a difference in the world.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>g I want to study the subject in depth by taking interesting and stimulating courses.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>h I mainly need the qualification to enable me to get a good job when I finish.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>i I want an opportunity to prove to myself or to other people what I can do.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>j When I look back, I sometimes wonder why I ever decided to come here.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

2 Approaches to learning and studying

This part of the questionnaire has been designed to allow you to describe, in a systematic way, how you go about learning and studying in this particular course unit or module. The technique involves asking you a substantial number of questions which overlap to some extent but provide good overall coverage of different ways of studying. Most of the items are based on comments made previously by other students. Please give your immediate reaction to every comment, indicating how you really do study.

Please put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.

\[ \checkmark = \text{very strongly} \quad \checkmark? = \text{fairly strongly} \quad ?? = \text{about average} \quad \times? = \text{rather weakly} \quad \times = \text{very weakly/not at all} \]

If what the item describes is not applicable to your case, or you have never think of that aspect, leave it BLANK.

<table>
<thead>
<tr>
<th>Item</th>
<th>(\checkmark)</th>
<th>(\checkmark?)</th>
<th>??</th>
<th>(\times?)</th>
<th>(\times)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I've often had trouble in making sense of the things I have to remember.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2 I've been over the work I've been done to check my reasoning and see that it makes sense.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
3 Experiences of teaching and learning

We would like to know about your experiences of teaching and learning in this particular unit or module. Please rate every comment, using the same scale as in the previous section. Please give a rating for every comment.

Please put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.  

✓ = very strongly ✓? = fairly strongly ?? = about average ×= rather weakly ×x = very weakly/not at all

If what the item describes is not applicable to your case, or you have never think of that aspect, leave it BLANK.

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It was clear to me what I was supposed to learn in this course unit.</td>
<td>✓</td>
<td>✓?</td>
<td>??</td>
<td>×</td>
<td>x</td>
</tr>
<tr>
<td>2</td>
<td>The topics seemed to follow each other in a way that made sense to me.</td>
<td>✓</td>
<td>✓?</td>
<td>??</td>
<td>×</td>
<td>x</td>
</tr>
<tr>
<td>3</td>
<td>We were given a good deal of choice over how we went about learning.</td>
<td>✓</td>
<td>✓?</td>
<td>??</td>
<td>×</td>
<td>x</td>
</tr>
<tr>
<td>4</td>
<td>The course unit was well organised and ran smoothly.</td>
<td>✓</td>
<td>✓?</td>
<td>??</td>
<td>×</td>
<td>x</td>
</tr>
<tr>
<td>5</td>
<td>We were allowed some choice over what aspects of the subject to concentrate on.</td>
<td>✓</td>
<td>✓?</td>
<td>??</td>
<td>×</td>
<td>x</td>
</tr>
</tbody>
</table>
6 Staff gave me the support I needed to help me complete the set work for this course unit.
7 We were encouraged to look for links between this unit and others.
8 I can imagine myself working in the subject area covered by this unit.
9 The explanations teachers gave on this course were often in mathematical or statistical terms.
10 On this unit I was prompted to think about how well I was learning and how I might improve.
11 I could see the relevance of most of what we were taught in this unit.
12 We weren't just given information; staff explained how knowledge is developed in this subject.
13 The teaching encouraged me to rethink my understanding of some aspects of the subject.
14 Plenty of examples and illustrations were given to help us to grasp things better.
15 This unit has given me a sense of what goes on 'behind the scenes' in this subject area.
16 The teaching in this unit helped me to think about the evidence underpinning different views.
17 The feedback given on my set work helped to clarify things I hadn't fully understood.
18 This unit encouraged me to relate what I learned to issues in the wider world.
19 Unless you're good at Maths or Stats, it would be difficult to do well in this course.
20 This course unit provided plenty of opportunities for me to discuss important ideas.
21 I found most of what I learned in this course unit really interesting.
22 Staff tried to share their enthusiasm about the subject with us.
23 Staff were patient in explaining things which seemed difficult to grasp.
24 Students' views were valued in this course unit.
25 Staff helped us to see how you are supposed to think and reach conclusions in this subject.
26 To do well in this course unit, you had to think critically about the topics.
27 Students supported each other and tried to give help when it was needed.
28 Talking with other students helped me to develop my understanding.
29 The ideas and problems I had to deal with on this course were demanding.
30 Organising and being responsible for my own study was necessary for studying this course.
31 I was encouraged to think about how best to tackle the set work.
32 The set work helped me to make connections to my existing knowledge or experience.
33 You had really to understand the subject to get good marks in this course unit.
34 The feedback given on my work helped me to improve my ways of learning and studying.
35 Doing the set work helped me to think about how evidence is used in this subject.
36 In order to cope with the amount of required coursework, I need to organise my study.
37 To grasp what I was expected to know on this course was not an easy task.

How satisfied are you with the way the course has been taught and assessed? Please try to rate objectively, based on your previous answers to the questionnaire items.

<table>
<thead>
<tr>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>About average</th>
<th>Not so satisfied</th>
<th>Not satisfied at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ☐</td>
<td>4 ☐</td>
<td>3 ☐</td>
<td>2 ☐</td>
<td>1 ☐</td>
</tr>
</tbody>
</table>

Please check back to make sure that you have answered every question. Thank you very much!
### Appendix I

**1.2 (Chinese version) Experiences of Teaching and Learning**

**Questionnaire (CETLQ) in Chinese**

大学生学习方式与学习经历调查问卷

- **姓名:** ———— **性别:** ———— **年龄:** ———— **学号:** ————

#### 第一部分 对高等教育的期望

请您根据您对以下每一个描述的认可程度给相应的圆圈涂黑。

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>⊗</td>
<td>⊠</td>
<td>？</td>
<td>⊥</td>
</tr>
</tbody>
</table>

#### 1. 我想通过大学学习获得在将来工作中有用的知识和技能。

#### 2. 我希望大学生活可以开阔我的视野、帮助我实现个人的发展。

#### 3. 我喜欢大学校园里的社交活动和各种运动设施。

#### 4. 我希望大学的学习生活能使我变得更加自立和自信。

#### 5. 我上大学是因为我高中时学习成绩不错。

#### 6. 我希望学到更多的知识和技能为社会服务。

#### 7. 我希望通过学习一些有用的课程来加深我对这个专业的了解。

#### 8. 我希望获得一个本科文凭以便找工作。

#### 9. 我把上大学看作是向亲人、朋友证明我自己的一个机会。

#### 10. 我有时会感到困惑为什么要上大学。

#### 第二部分 学习方式

在回答的这个部分，我们希望您能比较系统地描述您学习这门课程的方式和方法。请您根据您的真实感觉判定您对每一个问题的认可程度，以便让我们了解您在其他方面学习状况。请把与您的认可度相应的圆圈涂黑。

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>⊗</td>
<td>⊠</td>
<td>？</td>
<td>⊥</td>
</tr>
</tbody>
</table>


第三部分 教学环境

在问卷的这个部分，我们希望了解您在学习这门课程的过程中所获得的各种感受。请对每一个项目根据您的认可，运用和上一个部分相同的方式做答。

\[\checkmark = \text{非常同意} \quad \checkmark? = \text{比较同意} \quad ?? = \text{中立} \quad ?? = \text{不太同意} \quad \times = \text{不同意}\]

\begin{tabular}{|c|c|c|c|c|c|}
\hline
1 & 我很清楚这门课程要求我们学什么。 & \checkmark & \checkmark? & ?? & ?
\hline
2 & 我认为课程章节的设置是连贯而有效的。 & \checkmark & \checkmark? & ?? & ?
\hline
3 & 关于如何学习这门课程，我们有比较充分的选择权。 & \checkmark & \checkmark? & ?? & ?
\hline
4 & 这门课程的教学进度安排的很好，进行的也很顺利。 & \checkmark & \checkmark? & ?? & ?
\hline
5 & 在这门课上，我们可以进行一定的范围内选定自己的学习重点。 & \checkmark & \checkmark? & ?? & ?
\hline
6 & 课堂上讲授的内容与大纲上规定的内容比较吻合。 & \checkmark & \checkmark? & ?? & ?
\hline
7 & 老师鼓励我们把在这个课上学到的知识和在其他课上学到的知识结合起来。 & \checkmark & \checkmark? & ?? & ?
\hline
8 & 我可以想象出将来在与本学科相关的领域中工作的情景。 & \checkmark & \checkmark? & ?? & ?
\hline
9 & 老师经常使用数学或统计学的方法讲解这门课程的内容。 & \checkmark & \checkmark? & ?? & ?
\hline
10 & 这门课经常促使我去思考和改进我的学习方式。 & \checkmark & \checkmark? & ?? & ?
\hline
11 & 这门课上讲授的知识大部分都能与实践结合起来。 & \checkmark & \checkmark? & ?? & ?
\hline
\end{tabular}
<table>
<thead>
<tr>
<th>序号</th>
<th>问题</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>老师不是单纯地灌输知识，而是经常讲解知识的来龙去脉。</td>
</tr>
<tr>
<td>13</td>
<td>老师的教学时常鼓励我去重新审视自己对某些知识的理解。</td>
</tr>
<tr>
<td>14</td>
<td>大量的例子和图示被用来讲解新知识。</td>
</tr>
<tr>
<td>15</td>
<td>这门课程让我体会到这个学科的某些深层次的规律。</td>
</tr>
<tr>
<td>16</td>
<td>这门课程的教学让我有机会去接触和思考不同观点。</td>
</tr>
<tr>
<td>17</td>
<td>老师对作业的评阅帮助我澄清了一些原本比较含糊的问题。</td>
</tr>
<tr>
<td>18</td>
<td>老师鼓励我们把所学到的知识运用到实际生活中去。</td>
</tr>
<tr>
<td>19</td>
<td>数学或统计学好才能学好这门课。</td>
</tr>
<tr>
<td>20</td>
<td>这门课程给我们提供了充足的机会讨论重要的观点。</td>
</tr>
<tr>
<td>21</td>
<td>我觉得在门课程学到的知识大部分是比较有趣的。</td>
</tr>
<tr>
<td>22</td>
<td>老师尽力让我们分享他（她）对这门课程的热爱。</td>
</tr>
<tr>
<td>23</td>
<td>老师总能很耐心地讲解难懂的知识点。</td>
</tr>
<tr>
<td>24</td>
<td>学生的观点在这门课程上受到尊重和重视。</td>
</tr>
<tr>
<td>25</td>
<td>老师帮助我们了解和掌握这个学科特有的思维方式。</td>
</tr>
<tr>
<td>26</td>
<td>学会批判地思考对于学好这门课程是必要的。</td>
</tr>
<tr>
<td>27</td>
<td>学生们经常互相帮助，并在需要的时候互相帮助。</td>
</tr>
<tr>
<td>28</td>
<td>和其他同学在一起探讨问题帮助我发展了自己对知识的理解。</td>
</tr>
<tr>
<td>29</td>
<td>这门课程讨论的观点和问题是比较比较深的。</td>
</tr>
<tr>
<td>30</td>
<td>这门课程的考试（或考察）要求是清楚的。</td>
</tr>
<tr>
<td>31</td>
<td>想要学好这门课必须努力。</td>
</tr>
<tr>
<td>32</td>
<td>老师鼓励我们寻找解决问题的更好方法。</td>
</tr>
<tr>
<td>33</td>
<td>老师布置的作业与教学目标是吻合的。</td>
</tr>
<tr>
<td>34</td>
<td>只有真正掌握了这门课程的内容才能在该课程的考核中获得好的分数。</td>
</tr>
<tr>
<td>35</td>
<td>老师的评语帮助我改进了学习方式。</td>
</tr>
<tr>
<td>36</td>
<td>做作业的过程是一个理论联系实际的过程。</td>
</tr>
<tr>
<td>37</td>
<td>为了我们学好这门课程，老师给我们提供了所需要的各种帮助。</td>
</tr>
<tr>
<td>38</td>
<td>想真正掌握这门课程讲授的内容并不是一件容易的事情。</td>
</tr>
</tbody>
</table>

您对这门课程的教学及考核方式是否满意？请根据您对问卷前面相关内容已做的回答客观地进行评价。

- 非常满意
- 满意
- 一般
- 不太满意
- 不满意

请您确认您已经回答了全部的问题。感谢您的合作！
Appendix 1

1.3 Experiences of Teaching and Learning Questionnaire (ETLQ – ETL Project)

Economic and Social Research Council
Teaching and Learning Research Programme
Enhancing Teaching-Learning Environments in Undergraduate Courses

Experiences of Teaching & Learning Questionnaire

Introduction to the Project
The ESRC Teaching and Learning Research Programme is a nationwide initiative designed to provide a more effective research base to help staff to enhance the teaching they provide for students. Our project is the only one at university level, and we are investigating how students learn with differing kinds of teaching and support. We are looking at students’ experiences in five contrasting subject areas in some 30 course settings across Britain. This is the last questionnaire that we are asking you to complete and it brings together your approaches to studying with your experiences of teaching and learning in this particular course unit or module.

Our overall findings (but none of your individual answers) will be fed back to staff to allow them to develop this course unit further. We are grateful for your involvement in this project. If you are interested in the progress of our work, our web site is http://www.ed.ac.uk/etl

Data Protection Act
If you have not already done this, please complete the following declaration. If you have, start with the Background Information section.

In accordance with the Data Protection Act, we have to ask you to sign the following declaration. You can be quite sure that all the information we collect will be used only for the purposes of research and kept confidential to the research team itself: it will not be released to anybody else.

I agree to allow the university to provide the research team with my name, contact details, grades and other information about my course of study. I also agree that this information, and the data collected from me, may be held and processed by the team for the purposes of research.

Sign

Date

Background Information
Print name
Institution
Overall programme of study
This course unit or module

Identity number
Age
Male
Female

Year of study

For Office Use
1 Approaches to learning and studying
You may have already filled out a longer questionnaire about your general approaches to studying, but this time we want you to relate your answers directly to this particular course unit or module. Please give your immediate reaction to every comment, indicating how you really have been studying.

Put a cross in the box to indicate how strongly you agree with each of the following statements.

✓ = agree   ✓? = agree somewhat   X? = disagree somewhat   X = disagree

Try not to use ?? = unsure unless you really have to, or if it cannot apply to you or your course unit.

| 1. I’ve often had trouble in making sense of the things I have to remember. |
| ✓ ? X X X |
| 2. I’ve been over the work I’ve done to check my reasoning and see that it makes sense. |
| ✓ ? X X X |
| 3. I have usually set out to understand for myself the meaning of what we had to learn. |
| ✓ ? X X X |
| 4. I have generally put a lot of effort into my studying. |
| ✓ ? X X X |
| 5. Much of what I’ve learned seems no more than lots of unrelated bits and pieces in my mind. |
| ✓ ? X X X |
| 6. In making sense of new ideas, I have often related them to practical or real life contexts. |
| ✓ ? X X X |
| 7. On the whole, I’ve been quite systematic and organised in my studying. |
| ✓ ? X X X |
| 8. Ideas I’ve come across in my academic reading often set me off on long chains of thought. |
| ✓ ? X X X |
| 9. I’ve looked at evidence carefully to reach my own conclusion about what I’m studying. |
| ✓ ? X X X |
| 10. When I’ve been communicating ideas, I’ve thought over how well I’ve got my points across. |
| ✓ ? X X X |
| 11. I’ve organised my study time carefully to make the best use of it. |
| ✓ ? X X X |
| 12. It has been important for me to follow the argument, or to see the reasons behind things. |
| ✓ ? X X X |
| 13. I’ve tended to take what we’ve been taught at face value without questioning it much. |
| ✓ ? X X X |
| 14. I’ve tried to find better ways of tracking down relevant information in this subject. |
| ✓ ? X X X |
| 15. Concentration has not usually been a problem for me, unless I’ve been really tired. |
| ✓ ? X X X |
| 16. In reading for this course unit, I’ve tried to find out for myself exactly what the author means. |
| ✓ ? X X X |
| 17. I’ve just been going through the motions of studying without seeing where I’m going. |
| ✓ ? X X X |
| 18. If I’ve not understood things well enough when studying, I’ve tried a different approach. |
| ✓ ? X X X |

2 Experiences of teaching and learning
We would also like to know about your experiences of teaching and learning in this particular course unit or module. Please rate every comment, using the same scale as in the previous section, remembering not to use ?? = unsure unless you really have to, or if it cannot apply to your course unit. Please give a rating for every comment.

✓ ✓? ?? X? X

Organisation and structure
1. It was clear to me what I was supposed to learn in this course unit. |
| ✓ ? X X X |
| 2. The topics seemed to follow each other in a way that made sense to me. |
| ✓ ? X X X |
| 3. We were given a good deal of choice over how we went about learning. |
| ✓ ? X X X |
| 4. The course unit was well organised and ran smoothly. |
| ✓ ? X X X |
| 5. We were allowed some choice over what aspects of the subject to concentrate on. |
| ✓ ? X X X |
| 6. What we were taught seemed to match what we were supposed to learn. |
| ✓ ? X X X |
**Teaching and learning**

7. We were encouraged to look for links between this unit and others.  
8. I can imagine myself working in the subject area covered by this unit.  
9. The handouts and other materials we were given helped me to understand the unit.  
10. On this unit, I was prompted to think about how well I was learning and how I might improve.  
11. I could see the relevance of most of what we were taught in this unit.  
12. We weren’t just given information; staff explained how knowledge is developed in this subject.  
13. The teaching encouraged me to rethink my understanding of some aspects of the subject.  
14. The different types of teaching (lectures, tutorials, labs, etc.) supported each other well.  
15. Plenty of examples and illustrations were given to help us to grasp things better.  
16. This unit has given me a sense of what goes on ‘behind the scenes’ in this subject area.  
17. The teaching in this unit helped me to think about the evidence underpinning different views.  
18. How this unit was taught fitted in well with what we were supposed to learn.  
19. This unit encouraged me to relate what I learned to issues in the wider world.  
20. The web pages provided by staff helped me to understand the topics better.  

**Students and teachers**

21. Students supported each other and tried to give help when it was needed.  
22. I found most of what I learned in this course unit really interesting.  
23. Staff tried to share their enthusiasm about the subject with us.  
24. Talking with other students helped me to develop my understanding.  
25. Staff were patient in explaining things which seemed difficult to grasp.  
26. I enjoyed being involved in this course unit.  
27. Students' views were valued in this course unit.  
28. Staff helped us to see how you are supposed to think and reach conclusions in this subject.  
29. I found I could generally work comfortably with other students on this unit.  
30. This course unit provided plenty of opportunities for me to discuss important ideas.  

**Assessments and other set work**

31. It was clear to me what was expected in the assessed work for this course unit.  
32. I was encouraged to think about how best to tackle the set work.  
33. I could see how the set work fitted in with what we were supposed to learn.  
34. You had really to understand the subject to get good marks in this course unit.  
35. The feedback given on my work helped me to improve my ways of learning and studying.  
36. Doing the set work helped me to think about how evidence is used in this subject.  
37. Staff gave me the support I needed to help me complete the set work for this course unit.  
38. To do well in this course unit, you had to think critically about the topics.  
39. The set work helped me to make connections to my existing knowledge or experience.  
40. The feedback given on my set work helped to clarify things I hadn’t fully understood.
3 Demands made by the course unit

In this section, please tell us how easy or difficult you found different aspects of this course unit.

\(\checkmark\) = very easy \(\checkmark?\) = fairly easy \(??\) = unsure/not applicable \(x?\) = fairly difficult \(x\) = very difficult

- a. What I was expected to know to begin with.
- b. The rate at which new material was introduced.
- c. The ideas and problems I had to deal with.
- d. The skills or technical procedures needed in this subject.
- e. The amount of work I was expected to do.
- f. Working with other students.
- g. Organising and being responsible for my own learning.
- h. Communicating knowledge and ideas effectively.
- i. Tracking down information for myself.
- j. Information technology/computing skills (e.g. WWW, email, word processing).

Other demands (please specify): ........................................................................................................................................................................

4 What you learned from this course unit

Now we would like to know how much you feel you have gained from studying this course unit.

\(\checkmark\) = a lot \(\checkmark?\) = quite a lot \(??\) = unsure/not applicable \(x?\) = not much \(x\) = very little

- a. Knowledge and understanding about the topics covered.
- b. Ability to think about ideas or to solve problems.
- c. Skills or technical procedures specific to the subject.
- d. Ability to work with other students.
- e. Organising and being responsible for my own learning.
- f. Ability to communicate knowledge and ideas effectively.
- g. Ability to track down information in this subject area.
- h. Information technology/computing skills (e.g. WWW, email, word processing).

Other gains (please specify): ........................................................................................................................................................................

Finally, how well do you think you’re doing in this course unit as a whole? Please try to rate yourself objectively, based on any marks, grades or comments you have been given.

very well well quite well about average not so well rather badly

9 8 7 6 5 4 3 2 1

Please check back to make sure that you have answered every question.

Thank you very much for spending time completing this questionnaire: it is much appreciated.

Appendix 1

1.4 Learning and Studying Questionnaire (LSQ – ETL Project)

Economic and Social Research Council
Teaching and Learning Research Programme
Enhancing Teaching-Learning Environments in Undergraduate Courses

Learning and Studying Questionnaire

Introduction to the Project

The ESRC Teaching and Learning Research Programme is a nation-wide initiative designed to provide a more effective research base to help staff to enhance the teaching they provide for students. Our project is the only one at university level, and we are investigating how students learn with differing kinds of teaching and support. We shall be looking at students' approaches to learning and studying in five contrasting subject areas in some 30 course settings across Britain. We shall also be asking students about their experiences on a particular course unit and about the kinds of knowledge and skills they feel they have developed. Staff will also be working with us on the project, and the overall results for the class (not for individuals) will be fed back to the staff to allow them to develop the course unit further. Bringing together findings from all the different course unit settings is intended to produce a general picture of the ways in which research can inform teaching. We hope that you will be prepared to join in this important study by completing this questionnaire and another one later on in the course unit, and that some of you will also be ready to talk to us about your experiences in higher education. If you want to find out more about the study, you can look at the web site at http://www.ed.ac.uk/etl

Data Protection Act

In accordance with the Data Protection Act, we have to ask you to sign the following declaration. You can be quite sure that all the information we collect will be used only for the purposes of research and kept confidential to the research team itself; it will not be released to anybody else.

I agree to allow the university to provide the research team with my name, contact details, grades and other information about my course of study. I also agree that this information, and the data collected from me, may be held and processed by the team for the purposes of research.

Sign

Print name

Date
### Background information

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<tr>
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**FOR OFFICE USE**

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<th>Year of study</th>
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<th>Female</th>
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</table>

### 1 What do you expect to get from the experience of higher education?

Put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very strongly</th>
<th>Fairly strongly</th>
<th>Somewhat/ not sure</th>
<th>Rather weakly</th>
<th>Very weakly/ not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I want to develop knowledge and skills I can use in a career.</td>
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<tr>
<td>b. I hope the things I learn will help me to develop as a person and broaden my horizons.</td>
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<tr>
<td>c. I'm focused on the opportunities here for an active social life and/or sport.</td>
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<tr>
<td>d. I hope the whole experience here will make me more independent and self-confident.</td>
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<tr>
<td>e. I'm mainly here because it seemed the natural thing: I'd done well academically in the past.</td>
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<td>f. I want to learn things which might let me help people, and/or make a difference in the world.</td>
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<td>g. I want to study the subject in depth by taking interesting and stimulating courses.</td>
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<td>h. I mainly need the qualification to enable me to get a good job when I finish.</td>
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<tr>
<td>i. I want an opportunity to prove to myself or to other people what I can do.</td>
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<tr>
<td>j. When I look back, I sometimes wonder why I ever decided to come here.</td>
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</table>

### 2 Reasons for taking this particular course unit or module

Put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Very strongly</th>
<th>Fairly strongly</th>
<th>Somewhat/ not sure</th>
<th>Rather weakly</th>
<th>Very weakly/ not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. It's something I expect to find interesting.</td>
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<td>b. It's supposed to be a fairly easy course unit.</td>
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<tr>
<td>c. It should look good on my CV.</td>
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<tr>
<td>d. It should help me to understand the subject better.</td>
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<tr>
<td>e. It's an area I will need to know about for my career.</td>
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<tr>
<td>f. It's not what I would have chosen but it's compulsory.</td>
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<td>g. I understand it's a course unit that's particularly well taught.</td>
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<td>h. People I know and like are also taking this unit.</td>
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<td>i. It fits in well with the rest of my timetable.</td>
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</tbody>
</table>

Other reasons ...........................................................................................................
3 Approaches to learning and studying

This next part of the questionnaire has been designed to allow you to describe, in a systematic way, how you go about learning and studying. The technique involves asking you a substantial number of questions which overlap to some extent to provide good overall coverage of different ways of studying. Most of the items are based on comments made previously by other students. Please give your immediate reaction to every comment, indicating how you really do study.

We want to know about your typical ways of studying in the subject area of which this module or course unit forms a part. If you have not yet encountered a particular situation, try to imagine how you would react.

Put a cross in the appropriate box to indicate how strongly you agree with each of the following statements.

- ✓ = agree
- ✓? = agree somewhat
- x? = disagree somewhat
- x = disagree

Try not to use ?? = unsure unless you really have to, or unless the item cannot apply to you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>✓</th>
<th>✓?</th>
<th>??</th>
<th>x?</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I usually set out to understand for myself the meaning of what we have to learn.</td>
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<tr>
<td>2. When I'm communicating ideas, I think over how well I've got my points across.</td>
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<td>3. I'm pretty good at getting down to work whenever I need to.</td>
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<tr>
<td>4. Topics are presented in such complicated ways I often can't see what is meant.</td>
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<tr>
<td>5. When I've finished a piece of work, I check to see it really meets the requirements.</td>
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<tr>
<td>6. I try to make sense of things by linking them to what I know already.</td>
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<td>7. I try really hard to do just as well as I possibly can.</td>
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<td>8. On the whole, I'm quite systematic and organised in my studying.</td>
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<tr>
<td>9. Often I have to learn over and over things that don't really make much sense to me.</td>
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<tr>
<td>10. I'm quite good at preparing for classes in advance.</td>
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<tr>
<td>11. I tend to take what we are taught at face value without questioning it much.</td>
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<tr>
<td>12. For an essay or report, I don't just focus on the topic, I try to improve my writing skill.</td>
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<tr>
<td>13. Ideas I come across in my academic reading often set me off on long chains of thought.</td>
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<tr>
<td>14. If I'm not understanding things well enough when I'm studying, I try a different approach.</td>
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<tr>
<td>15. I try to relate ideas I come across to other topics or other courses whenever possible.</td>
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<tr>
<td>16. I carefully prioritise my time to make sure I can fit everything in.</td>
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<tr>
<td>17. I often have trouble in making sense of the things I have to remember.</td>
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<tr>
<td>18. I generally keep working hard even when things aren't going all that well.</td>
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3 continued

19. I'm just going through the motions of studying without seeing where I'm going.  
   20. Concentration is not usually a problem for me, unless I'm really tired.  
   21. Much of what I've learned seems no more than lots of unrelated bits and pieces in my mind.  
   22. I generally put a lot of effort into my studying.  
   23. I think about what I want to get out of my studies so as to keep my work well focused.  
   24. It's important for me to follow the argument, or to see the reason behind things.  

   25. I organise my study time carefully to make the best use of it.  
   26. I go over the work I've done to check my reasoning and see that it makes sense.  
   27. In making sense of new ideas, I often relate them to practical or real-life contexts.  
   28. Whatever I'm working on, I generally push myself to make a good job of it.  
   29. I don't think through topics for myself, I just rely on what we're taught.  
   30. When I find something boring, I can usually force myself to keep focused.  

   31. I tend to just learn things without thinking about the best way to work.  
   32. I work steadily during the course, rather than just leaving things until the last minute.  
   33. When I'm reading for a course, I try to find out for myself exactly what the author means.  
   34. I try to find better ways of tracking down relevant information in my subject.  
   35. I look at evidence carefully to reach my own conclusion about what I'm studying.  
   36. I pay careful attention to any advice or feedback I'm given, and try to improve my understanding.  

Finally, how well do you think you're doing in this subject area, based on your performance and comments you have received on your work? Please try to rate yourself objectively, based on the grades you have been obtaining.  

<table>
<thead>
<tr>
<th></th>
<th>very well</th>
<th>well</th>
<th>quite well</th>
<th>about average</th>
<th>not so well</th>
<th>rather badly</th>
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<td>1</td>
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In case we would like to talk to you or send you an email about the project, would you be prepared to give us contact details?

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Have you answered every question? Please check.

We are very grateful to you for spending time completing this questionnaire.

© C-ALS2001c, first-year early, ETL Project, Universities of Edinburgh, Durham and Coventry (http://www.ed.ac.uk/etl)
### Appendix II Guiding interview questions in English and in Chinese

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<th>Sub-topic</th>
<th>Sample Question</th>
<th>Chinese translation</th>
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<td>Introduction</td>
<td>開篇問題</td>
<td>Thanks for participating in this interview. I’d like to take this chance to know something more about your learning experiences. For example, how you undertake your everyday learning tasks, how you feel about the teaching-learning environments around you, and what are your views of learning, and your experiences of being a university student. All we will talk about on this particular occasion will only be used by me for the purpose of my research, without being exposed to any third party.</td>
<td>首先感谢您参与今天的访谈。今天的访谈主要是希望您能进一步了解您的学习经历。比如，您是怎么具体开展课程学习的、您印象中的教学环境怎样、以及您对大学生活持什么态度？等，今天的访谈只用于本人的研究，而不会对任何他人开放。</td>
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<tr>
<td>Approaches</td>
<td>学习方式</td>
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<td></td>
<td>阅读</td>
<td>What do you usually do for your studies on courses?</td>
<td>请问和课程学习相联系的的主要学习活动是什么？</td>
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<td></td>
<td></td>
<td>What is the way you read for this course or, and any other course that you would like to talk about?</td>
<td>您是怎么进行阅读的？能不能以这门课程，或任何其他您想读的课程为基础，展开一下这个问题？</td>
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<td></td>
<td></td>
<td>Would there be anything important for carrying out good reading?</td>
<td>您是不是认为一个好的阅读取决于一些具体要素或者环节？</td>
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<td></td>
<td>写作</td>
<td>What kinds of assignments have you done on this course?</td>
<td>请问在这门课程上您都写了什么作业？</td>
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<td></td>
<td></td>
<td>How have you worked on it/them?</td>
<td>您是怎么完成这些作业的？</td>
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<td></td>
<td>Could you describe for me the way you wrote your last essay?</td>
<td>您能不能给我描述一下您是怎么写的上一篇课程短文？</td>
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<td>Is there any difference in ways your write essays on different courses?</td>
<td>您完成不同课程的短文作业的方式是不有不同呢？</td>
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<td></td>
<td>考试</td>
<td>Do exams play an important role in your course study?</td>
<td>考试在您的学习中是不是占了重要的位置？</td>
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<td></td>
<td></td>
<td>What do you usually do to deal with exams?</td>
<td>您一般是怎么准备考试的？</td>
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<td>Is there any special strategy you take for exam revision? What is it?</td>
<td>为了准备考试，您会不会采取一些比较特别的手段呢？</td>
</tr>
<tr>
<td>Orientations</td>
<td>学习动因、目的</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>动机、目标</td>
<td>What influenced you to undertake higher education?</td>
<td>是什么因素影响了您选择上大学？</td>
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<td></td>
<td>What do you think you want to take away from here?</td>
<td>您觉得您希望从这几年的学习经历中获得什么？</td>
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<td></td>
<td>学习方式的关系</td>
<td>To what extent do you think your concerns have contributed to your ways of studying on your courses?</td>
<td>您觉得您的这些想法是不是影响了您的学习方式？</td>
</tr>
<tr>
<td>Beliefs about knowledge and learning</td>
<td>When you think of 'learning' something, what does it mean to you?</td>
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<tr>
<td>Beliefs about knowledge</td>
<td>What would you say 'knowledge' means to you?</td>
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<tr>
<td>Beliefs about the role of a learner in the learning process</td>
<td>Can you describe for me the kind of role you expect yourself to take on during studying?</td>
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<tr>
<td>Relationships with approaches and your ways of studying on your courses</td>
<td>To what extent do you think your beliefs have contributed to your ways of studying on your courses?</td>
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</tr>
<tr>
<td>Perceptions of teaching-learning environments</td>
<td>If you were to talk about the best/worst aspects of the course(s) you take, what are they? Do you think the course is, or the courses you have taken are demanding? Why?</td>
<td></td>
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</tr>
<tr>
<td>Teaching</td>
<td>Can you describe for me the classroom teaching you have experienced on this course, or any other course that you like to talk about? What are your opinions towards these classroom-teaching practices?</td>
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</tr>
<tr>
<td>Assessment</td>
<td>What are your attitudes towards the assignments and exams you have ever encountered? Is there anything about assignments or exams that has left a very deep impression on you? What is it?</td>
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</tr>
<tr>
<td>General ideas</td>
<td>What would you say your ideal teaching-learning environment in general?</td>
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</tr>
<tr>
<td>Relationships with approaches and your ways of studying on your courses</td>
<td>Do you think your ways of studying on course(s) have been influenced by the teaching-learning environments as you perceived them?</td>
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</tbody>
</table>

**Closing question**

| Is there anything that you want to share with me? Tell me if you like. |

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**Thank you for taking part in this interview! 谢谢您参与这次访谈!**