Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University

By

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Using learning style knowledge to enhance student learning and skill
DECLARATION

I, Sirirat Chaunkamnerdkarn, declare that the PhD thesis entitled Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University is no more than 100,000 words in length, exclusive of tables, figures, appendices, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Sirirat Chaunkamnerdkarn
Date: 24 August 2006
I would like to thank all those who have contributed in so many ways to the completion of this thesis:

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 RELATED PUBLICATIONS

Chaunkamnerdkarn, S. & Gillet, S. 2006, 'Enhancing the Employability of Thai Hospitality Graduates: Understanding of Skills Required in Food and Beverage Service', paper presented to International Hospitality and Tourism Virtual Conference, Purdue University, May 22-25.

ABSTRACT

The knowledge of how individuals learn differently is integrated into many higher educational courses in Western countries. In Thailand there is still a need for hospitality teachers to understand students' different ways of learning so that they can effectively facilitate student learning and skill development in higher education. This research was concerned with identifying the dominant learning styles of hospitality students in Thailand, using a case study approach. The study aimed to understand students' learning styles in order to assist teachers in improving and developing effective and appropriate instructional methods within the teaching and learning process of the hospitality program at the Thai university selected for the case study.

The study explored the constructs within the teaching and learning process at the case study university in Thailand. These constructs included students' individual variables, learning styles and instructional methods. The exploratory study was conducted to examine the required skills for hospitality graduates to work in the hotel food and beverage supervisory and management positions in Thailand and the gaps between student learning and their skill development to meet the industry’s requirements. The in-depth interviews were conducted with hotel personnel involved in the recruitment of hotel food and beverage supervisory and management staff. The interviews with thirty managers provided the initial understanding of essential skill requirements as seen by the industry and the identified problems in student learning in Thai hospitality higher education. The results showed an emphasis on certain skills including technical food and beverage skills and human relations skills. Accordingly, the skill deficiencies of hospitality graduates were explored and discussed in relations to teaching and learning process in Thai hospitality higher education. The results from this exploratory study led to the importance of understanding the ways teaching and learning in Thai hospitality higher education.

In order to understand the ways hospitality students learn, the quantitative research with two sample groups was undertaken in the study. Two sample groups comprised
of a cohort of 324 hospitality students enrolled in two selected food and beverage-based subjects at the case study university, and 376 hotel food and beverage supervisory and management staff in Thailand. Two standardised learning style instruments which were developed in the West were used to examine the learning styles of hospitality students at the case study university. Prior to the main study, the pilot test was conducted to examine the validity and reliability to use with the Thai students. The use of these learning style instruments focused on individual differences in the process of learning rather than within the individual learner. Means and standard deviations were calculated and the t-test and analysis of variance were performed on the data to determine both the students’ learning styles and learning style differences between hospitality students and professionals, as well as among student samples as grouped by individual variables.

The quantitative results suggested that these hospitality students preferred learning in a concrete or hands-on manner. They also adopted the approach to learning of trying to find out the deeper meaning in the text, and relating what they learned to their previous knowledge with their intrinsic motivation to learn. Statistically significant differences were found between students’ learning styles as grouped by individual learner variables including age, gender and academic achievement. In addition, significant differences were also found between the learning styles of hospitality students and hospitality professionals (hotel food and beverage supervisory and management staff).

For the qualitative research in-depth interviews were conducted with two hospitality teachers at the case study university in Thailand. This was to investigate the current instructional methods that they implemented. The results suggested that the teachers interviewed had utilised limited instructional methods in their subjects. Traditional methods such as lectures still dominated in both subjects, supplemented by a small number of other modes of instruction including laboratory work, discussion and demonstrations.
The quantitative and qualitative results showed a disparity between the ways that teachers taught and the ways that students learnt. From the results of this study, recommendations were put forward for the design, improvement and development of pedagogically effective hospitality learning environments, particularly at the case study Thai university. Each recommendation was presented to illustrate the varying pedagogical needs and instructional requirements relating to students' learning styles. In particular, the use of learning style knowledge in student learning enhancement needs to be conducted with careful consideration of other factors, including students' individual variables and the skills that students are expected to achieve from Thai hospitality higher education.
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CHAPTER ONE
OVERVIEW

1.1 INTRODUCTION

In higher education teachers are aware that some students find learning easy whereas some others find it difficult. It is widely accepted that all students cannot learn equally well because of individual differences in learning (Sims & Sims 1995). Consequently, the academic achievement or learning outcomes that students gain from their learning experience in higher education differ. In this regard, research about student learning has gained importance and, as a sequence, findings indicate that the constructs within the teaching and learning process need to be carefully designed (Beattie, Collins & McInnes 1997; Entwistle & Ramsden 1983; Honey & Mumford 1986; Kolb 1984; Ramsden 1992; Rayner & Riding 1997).

While Fry, Ketteridge and Marshall (2003) pointed out the importance of understanding how students learn in order to enhance effective student learning, they claimed that little attention has been paid by teachers to learning style theories. The concept that students learn in different ways is not new (Sternberg & Grigorenko 2001). Individual differences in learning are of interest in educational and psychological research (Sternberg & Grigorenko 2001). It is unfortunate that some academics teach students without having much formal knowledge of how students learn differently (Fry et al. 2003).

According to learning style theory, individuals learn best in many different ways because they have different learning styles (Honey & Mumford 1992). Nevertheless, teachers may not always present information and learning experience in the ways that best suit all students in the classroom. Possible adjustments of instructional strategies can be effective if the concept of learning style is introduced (Biggs 1999a, 1999b; De Vita 2001; Entwistle & Ramsden 1983; Honey & Mumford 1986; Kolb 1984; Ramsden 1992; Sims & Sims 1995; Sutliff & Baldwin 2001). Research into student learning has suggested that, when teachers take learning styles into account,
they can improve the effectiveness of their pedagogical practices and, hence, enhance
the quality of learning of students (Sternberg & Zhang 2001). Knowledge of learning
styles can be of great benefit to both teachers and students, particularly to students,
as many aspects of their lives and careers would involve teaching and learning
experience. Recent research into learning styles and instructional methods has been
undertaken, and has documented improvement in the area of student achievement
(e.g. Lashley 1999). Reflection upon the concepts of learning styles in hospitality
education is therefore without doubt significant.

1.2 STATEMENT OF PROBLEMS

Rapidly shifting paradigms, globally competitive markets and a changing workforce
represent challenges for the hospitality industry. In Thailand the tourism industry is
recognised as being economically important (Chaisawat 2000). In response to the
growth of tourism industry, and to assist the hospitality industry to cope with such
challenges, hospitality higher education plays an important role as a labour source of
hospitality professionals in the workplace. Hence, higher educational institutions
have a pivotal role to play in preparing skilled graduates for entry to the industry and
to perform an important role in the national economy (National Identity Office
2002).

Expectations of learning experience provided by higher educational institutions have
been increasing. This in turn has put pressure on teachers to improve students’
learning outcomes. For this reason, a key concern for hospitality teachers is how to
provide a meaningful learning experience for their students so that they are able to
achieve high quality learning outcomes, which include not only academic
achievement but also the required skills for their prospective careers. However, in
Thailand, reports still show the dissatisfaction of the hospitality industry with the
educational provision made for hospitality students (Chaisawat 2000; Esichaikul &
Baum 1998; Sripun & Ladkin 2000). The criticisms often link the lack of required
skills of graduates to the poor quality of learning experience provided by hospitality
programs (Esichaikul & Baum 1998; Sripun & Ladkin 2000). Therefore, it is
possible that a discrepancy may exist between learning environments and the ways students learn. Gaps between the teaching and learning process can hinder the quality of student learning in Thai hospitality higher education. This is consistent with the statement by Ministry of Education in Thailand (Ministry of Education 2005) that in Thailand, challenge lies ahead in understanding the learning process and transformations will be required inside teaching and learning practice. Therefore, basis of the change in teaching and learning process in Thai hospitality higher education will be through learning theories and learning model being integrated into a modern Thai teaching and learning culture.

Accordingly, an important consideration for Thai hospitality programs is the issue of student learning. According to learning style theory, effective student learning is affected by many factors. Research in higher education consistently suggests that students’ ways of learning, or learning styles, constitute a significant factor in quality learning. In Western educational contexts hospitality teachers have begun to consider the application of learning style theory for improving instruction. Theories on individual differences in learning have been extensively studied and there has been a significant amount of research internationally on how individual students learn differently in hospitality management programs (Bagdan & Boger 2000; Barron & Arcodia 2002; Berger 1983; Hsu 1997, 1999; Hsu, Smith & Finley 1991; Hsu & Wolfe 1993; Lashley 1999; Wong, Pine & Tsang 2000).

The problem is that such student learning research has not been conducted and translated to provide practical guidance for hospitality teachers in Thai higher educational institutions. There is no evidence about the connection between students’ learning styles and teachers’ pedagogical practices in the facilitation of these ways of learning in Thailand. There is also no evidence on how this connection is linked to the expectations of prospective employers of those hospitality students. Given the significance of the knowledge on individual student learning styles in improving the quality of student learning, there is a strong need for teachers in Thai hospitality programs to conduct research on learning style theories and to integrate this knowledge into their pedagogical practices.
The rationale of the present study is, therefore, quite clear. Research on student learning in Thai hospitality higher education is underdeveloped compared to such research in Western countries. Little attention, if any, has been paid to how Thai hospitality students learn. Thus, this study contributes to research into student learning in a particular culture and context, on the grounds that Thailand is an Asian country and its culture and educational system certainly differ from those of Western countries. Hence, successful strategies or approaches used to enhance the quality of student learning in Western countries may not work in Thai hospitality higher education. It is, therefore, worthwhile to study how students learn in this particular context and culture.


These two learning style models have been developed in the Western contexts. In this regard, Richardson (1994) also showed evidence that learning styles vary systematically from one culture to another. This raises the attention to the cross-cultural learning style study, particularly in Asian countries. Nevertheless, several past studies of learning styles across cultures (Barron & Arcodia 2000; Hayes & Allinson 1988; Lashley 1999; Pimprayon et al. 2000; Richardson 1990, 1991, 1993, 1994, 1995, 1997, 1998; Van Zwanenberg et al. 2000; Wong et al. 2000) provide a valuable insight on how individual learning styles are shaped and developed in a particular culture. As mentioned that no learning style research was undertaken in Thailand, the implementation of these two learning style models would extend the knowledge in different cultural contexts.
The aim of this study is to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. If higher educational institutions are to be successful in producing hospitality graduates who can engage in quality learning and develop the skills demanded of their future professions, individual differences in student learning and learning styles cannot be neglected. The present study is geared to address this issue.

1.3 AIMS OF THE STUDY

Having previously identified the background of this study its aim can now be stated. Given the attempts of teachers in hospitality education to provide effective learning experience, the current study proposes an application of learning style theories (Entwistle & Ramsden 1983; Honey & Mumford 1986) to examine learning styles and their relationships to other constructs within the teaching and learning process in Thai hospitality higher education.

The aim of this study is to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. For this purpose the study has been placed in the context of food and beverage-based subjects at the case study university in Thai hospitality higher education and food and beverage operations in the hotel industry. The rationale behind the particular interest to select and study only hospitality food and beverage based subjects is due to the fact that majority of hotel general managers came up through the food and beverage department (Ladkin 2000; Nevel, Lee & Vidakovic 1995). In this regard, the research into food and beverage subjects would be useful for hospitality higher educational institutions in preparing their graduates to work and progress in their careers.
1.3.1 Aims of the Exploratory Study

Initially, the exploratory study was conducted with the aim to examine the required skills for hospitality graduates to work in hotel food and beverage supervisory and management positions. This is also to verify the existing gaps between student learning and their skill development to meet the industry’s requirements. After the problems in teaching and learning process were verified from the exploratory study, the main study was conducted.

1.3.2 Aims of the Main Study

The ultimate aim of this study is to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. To achieve this ultimate aim, the associated aims are as follows:

1. To investigate the dominant learning styles of hospitality students in food and beverage-based subjects in hospitality higher education in Thailand.
2. To identify the learning styles hotel staff employed in food and beverage supervisory and management positions in Thailand.
3. To examine current instructional methods implemented in hospitality food and beverage-based subjects in Thailand.
4. To present the implications of the results of this study with regard to student learning, instructional methods and skill development in hospitality food and beverage-based subjects at the case study university in Thailand.

Additionally, there are individual learner variables relating to the way students learn, which have been explored in many hospitality research studies (Bagdan & Boger 2000; Berger 1983; Hsu 1997, 1999; Hsu & Wolfe 2003). Thus, the present study attempts to establish the relationship between these individual variables, which
include age, gender and academic achievement. Hence, it is possible to make a comparison with previous studies and contribute more understanding to this area.

1.4 RESEARCH QUESTIONS

This enquiry aims to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. In accordance to the aims of this study, research questions are clearly identified for the exploratory study and the main study as follows:

1.4.1 Research Question for the Exploratory Study

What are the desirable learning outcomes in terms of the required skills for working in hotel food and beverage supervisory and management positions in Thailand?

1.4.2 Research Questions for the Main Study

After the research question for the exploratory study has been addressed, three main research questions and a range of subsidiary questions are addressed in order to bridge the gap between the bodies of knowledge relating to learning theories, pedagogical practices, and learning outcomes in Thai hospitality higher education. These research questions are as follows:

1. What are the dominant learning styles in Thai hospitality contexts?
   1.1 What are the dominant learning styles of hospitality students in food and beverage-based subjects in the case study hospitality program in Thailand?
   1.2 Are there any significant learning style differences among these students according to their age, gender and academic achievement?
1.3 What are the dominant learning styles of food and beverage supervisory and management staff in hotel in selected regions in Thailand?

1.4 Are there any differences between the learning styles of these hospitality students and those of the Thai hotel food and beverage supervisory and management staff?

2. What are the current instructional methods implemented by hospitality teachers in hospitality food and beverage-based subjects in the case study university in Thailand?

3. How can this study be utilised for the enhancement of student learning, effective instructional methods and skill development in hospitality education at the case study university in Thailand?

1.5 SIGNIFICANCE OF THE STUDY

The aforementioned problem of Thai hospitality teachers is to provide meaningful learning experience to their students so that they achieve quality learning and skill development. No study on how students learn in the Thai hospitality higher educational context has been previously conducted. The present study therefore proposes an application of learning theories related to individual differences in learning, namely Honey and Mumford’s (1986) learning style theory and Entwistle and Ramsden’s (1983) learning approach, to understand the ways that Thai hospitality students learn.

The study provides an understanding of these constructs in a specific non-Western context. From a theoretical perspective, the current study makes an important contribution to existing educational research and knowledge by providing an insight into student learning that is discipline specific (hospitality education) and within a particular cultural context (Thailand).

From the outset of this study, a strong emphasis was sought on understanding the complexities of learning styles in Thai hospitality teaching and learning process. A
successful application of Honey and Mumford’s (1986) and Entwistle and Ramsden’s (1983) theoretical frameworks in the current study could guide future instruction practice in hospitality education in Thailand. For hospitality teachers, an insight into students’ learning styles will assist them to work on instructional methods directed towards effective student learning and skill development. For hospitality students the present study is helpful for their learning in higher education as well as in their future workplace.

This research study aims to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. Investigating other constructs such as individual learner variables and learning outcomes is another key issue in term of achieving effectiveness in instruction. A greater understanding of these constructs within the teaching and learning process for the food and beverage-based subjects in the hospitality program at the case study university may indicate the transferability of particular concepts and theories in this study to further research in other Thai hospitality programs.

1.6 ORGANISATION OF THE STUDY

This chapter has provided a brief orientation to the research and has outlined its aims and significance. The present study focuses on an ongoing concern about the quality of student learning in hospitality higher education in Thailand.

Chapter Two reviews the relevant literature relating to the key learning theories. Theories and concepts on individual differences in learning, or learning styles are discussed. Discussion of two significant theories on learning styles in higher education provides the theoretical foundation of this study. Individual learner variables are critically reviewed to justify their relationships to students’ learning styles.
Chapter Three provides further theoretical explanation of the application of learning style theories in the hospitality context. The research literature on instructional methods in higher education and how they are utilised to facilitate students' different learning styles is reviewed. Employers' expectations of the skills required for hospitality graduates to work in the industry are also discussed. The significant role of hospitality learning experience in higher education in skill development is also apparent within the literature. Thus, the chapter also discusses and analyses the theoretical foundations and empirical research in each of these areas in order to establish the hypotheses of the present study.

Chapter Four provides a detailed discussion on the research design for this study. The chapter details the selection of participants, methods of data collection and analysis that were used in the present study. Statistical measures used to analyse the data and to test the research hypotheses are explained.

In Chapter Five, the results on exploratory study are reported on the required skills for Thai hospitality graduates gathered from the in-depth interviews with hotel managers in Thailand. The concerns about the quality of teaching and learning in Thai hospitality higher education are also explored and discussed with the literature. The results from the exploratory study were critically analysed in order to verify the deficiencies in teaching and learning process in Thai hospitality higher education and provide the foundation for the main study.

In Chapter Six, the data analysis for quantitative research is explored by providing demographic and learning style information about the respondents. The findings from the quantitative surveys related to learning styles are reported in accordance with the stated hypotheses. In Chapter Seven, quantitative findings, as reported in the previous chapter, are discussed. A comparison of the consistency of quantitative results in the present study is made with those of previous studies.

The qualitative research findings on current instructional methods in Thai hospitality higher education are reported in Chapter Eight. In Chapter Nine the conclusions of
the study are drawn by bringing together both quantitative and qualitative findings. Limitations of the study are stated and the implications from both theoretical and practical perspectives are considered.
CHAPTER TWO
THEORETICAL EXPLANATIONS FOR LEARNING

2.1 INTRODUCTION

As discussed earlier, the ultimate aim of the present study is to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. In this chapter, the review of the literature examines the related learning theories and conceptualisations. The literature reviewed has influenced the direction of this enquiry, assisted the development of the research methodology and supported the discussion related to the findings.

The vast body of existing theoretical and empirical research on student learning is reviewed. The appropriate integration of learning style theories into the design of pedagogical practices has the potential to contribute significantly towards effective student learning and the review in this chapter, therefore, is divided into two main areas of theoretical explanation. Firstly, learning theories on how people learn differently within a teaching and learning process are examined. Two particular learning style theories, including Honey and Mumford's (1986) Learning Style Theory and Entwistle and Ramsden’s (1983) Orientations to Studying are critically reviewed. Secondly, previous studies on the relationship of individual learners' characteristics to learning style differences are investigated to provide more understanding of student learning.

2.2 EDUCATIONAL SYSTEM OF THAILAND

Thailand's education system is divided into pre-school, primary, lower secondary, upper secondary (general and vocational), and higher education. A student in Thailand goes through 6 years of primary education and 6 years of secondary education. The key entrance mechanism of students to higher education is the high school entrance examination taken at the end of year 12. This is in order to attend vocational training or university education (Ministry of Education 2005).
In today’s Thailand, the state owns and operates the majority of universities and other higher education institutions. Education system in Thailand is detailed in the Figure 2.1.

**Figure 2.1 The Thai Education System**

<table>
<thead>
<tr>
<th>Approximate Age</th>
<th>Grade</th>
<th>Level of Education</th>
<th>Non Formal Education Pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>Pre-Primary</td>
<td></td>
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<tr>
<td>4</td>
<td>2</td>
<td>Primary</td>
<td></td>
</tr>
<tr>
<td>5</td>
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<td>Lower Secondary</td>
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<td>6</td>
<td>4</td>
<td>Upper Secondary</td>
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</tr>
<tr>
<td>7</td>
<td>5</td>
<td>Undergraduate</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>6</td>
<td>Postgraduate</td>
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<tr>
<td>9</td>
<td>7</td>
<td></td>
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<tr>
<td>10</td>
<td>8</td>
<td></td>
<td>Short Course Training</td>
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<td>11</td>
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<td>12</td>
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<td>20</td>
<td>18</td>
<td></td>
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</tr>
</tbody>
</table>

Source: Ministry of Education (2005)

Higher education is provided in universities, institutions, colleges and other types of institutions. There are two distinct levels of educational attainment: associate degree or diploma levels and degrees. It is commonly agreed that Thai students in today’s society are under a lot of pressure to excel academically. It is therefore not surprised if some students may aim at passing examinations and tend to learn by rote. In Thai traditional culture, teachers are looked on as symbols of authority, and learning takes
place in a passive manner. Therefore, the issue of student learning and learning methods become one of the challenges facing Thai higher education sector (Ministry of Education 2005).

In Thailand, the first hospitality program did not open its door until 1993. Dusit Thani College, located in Bangkok, was the first school of hospitality in Thailand and it offered a two-year program. Later on, more Thai universities had previously offered hotel courses within their management schools to address the growing need of the hospitality industry for qualified managers in Thailand. In most universities, hospitality students will receive the Bachelor Degree of Business Administration (Hotel Management) after completing the courses divided among general education and specialized hotel and tourism management subjects as well as the practical internship held in the hospitality industry.

2.3 INDIVIDUAL DIFFERENCES IN LEARNING: WHY SOME STUDENTS LEARN MORE EFFICIENTLY THAN OTHERS DO

Student learning is central to higher educational institutions. It is the higher educational institutions' responsibility to promote and provide learning experience that enhance student learning and fulfil both students' and employers' expectations and needs of higher education.

In higher education, teachers often wonder why some students find it difficult to learn, whereas others find it easy (Sims & Sims 1995). The fact that students learn differently has always been known, yet has often been ignored by teachers (Schmeck 1988). Some educational theorists and researchers (Marton & Ramsden 1988; Poon & Joo 2001) suggest that how students respond to instruction in higher education is regularly taken for granted. Teachers often assume that all students will perceive and process information in the same way. This misunderstanding leads to poor quality student learning. In other words, teachers who design their pedagogical practices without considering, or having a knowledge of, individual differences in learning will have some students who learn and others who do not learn efficiently in their
classrooms. As a result, there is a need to ensure deep and meaningful learning experience for all types of students. The literature suggests that by underpinning the teaching and learning process with an understanding of individual differences in learning, it is possible to make improvements to the quality of student learning by altering to the contexts in which learning occurs (Entwistle & Ramsden 1983).

2.4 DEFINITION OF LEARNING STYLE

Theories related to individual differences in learning have been introduced since the 1950s (Stemberg & Grigorenko 2001). The fact that individuals perceive and process knowledge in different ways leads to the approach defined as ‘learning style’ theory. Learning style concepts have been developed from different theoretical foundations. In psychological and educational research many studies have established definitions, models and theories relating to learning styles. As Hickcox (1995) reported there exist at least twenty-one learning style models, numerous theories and models on learning styles, making it difficult to provide a single definition.

Keefe (1979) provided a definition of learning styles which has been widely adopted in many studies (De Vita 2001; Felder & Brent 2005; Hyman & Rosoff 1984; Ladd & Ruby 1999; Matthew 1991). Keefe defined learning style as ‘the characteristic cognitive, affective and physiological behaviours that indicate how learners perceive, interact with, and respond to the learning environment’ (1979, p.4). Included in this comprehensive definition are cognitive styles, which are intrinsic information-processing patterns that represent an individual’s mode of perceiving and processing information. That is, learning style explains the interaction of different learning experience with cognitive characteristics of the learners.

2.5 CONCEPTUALISATIONS OF LEARNING STYLE

The literature indicates that numerous and diverse conceptualisations of individual differences in learning exist. Although there is a large body of literature on learning styles which supports the existence of differences between learners in terms of acquisition of knowledge, research in this area has been hindered by the problem of
elucidating a generally agreed-upon taxonomy of learning style conceptualisations (Cassidy 2004). There have been many attempts by educational and psychological theorists to categorise learning style conceptualisations. Among these attempts, Curry (1983) undertook a critical analysis using a psychometric survey of twenty-one learning style concepts and instruments, and proposed a categorisation of learning style theories and models. According to Curry (1983), learning style theories and models could be categorised into three different dimensions. These three dimensions are as follows:

i) The central personality dimension, which does not interact directly with the environment but is an underlying and relatively permanent personality construct;

ii) The information processing dimension, which shows how people tend to take in and process information; and

iii) The instructional preferences dimension, which is influenced by social interaction with the environment.

From the review of previous studies conducted in higher education, it appears that most learning style research has fallen into the information-processing dimension according to Curry's classification of learning styles (Marshall 1987). Hickcox (1995) indicated that there are many learning style theories which are at the information-processing level (Biggs 1979; Entwistle & Ramsden 1983; Hunt 1971; Kolb 1985; Schmeck, Ribich & Ramanaiah 1977; Schroeder 1967 cited in Hickcox, 1995). Rather than review all these historical theories the following sections of this chapter suggest that the review of literature should focus on learning style theories that are influential in higher education and in hospitality contexts. To be more specific, the present study critically reviews and assesses Honey and Mumford's (1986) Learning Styles Theory based on Kolb's (1984) Experiential Learning Model as well as the Entwistle and Ramsden's (1983) Approaches to Studying.
2.5.1 Learning Approach Theory

‘Learning approach’ theory (Entwistle & Ramsden 1983) is one of the most influential concepts in the literature and is concerned with teaching and learning in higher education. The ‘approach to learning’ research framework assumes that an approach to learning is a student’s response to a context. Accordingly, the learning approach may change depending on how the student perceives the context (Entwistle & Ramsden 1983). This section examines the learning approach theory which is in the layer of information processing model, namely Entwistle and Ramsden’s (1983) Approach to Studying.

Since Marton and Saljo’s (1975) phenomenographic research on the surface approach and the deep approach to studying a considerable amount of investigation into the learning approaches used by students in higher education has been undertaken in an attempt to improve learning outcomes (Biggs 1987; Entwistle & Ramsden 1983). Among these researchers, Entwistle is one who has contributed most significantly to the understanding of student learning. Working with Ramsden, Entwistle and Ramsden (1983) examined the relationships between personality, motivation, study methods and academic performance (Tickle 2001). Entwistle and Ramsden (1983) proposed a theory of orientations to study, namely ‘Meaning Orientation’, ‘Reproducing Orientation’ and ‘Strategic Orientation’. Study orientations can be explained as the consistent ways in which students approach their study, but they are changeable and responsive to the contexts of teaching, assessment and good curriculum (Beattie et al. 1997; Entwistle 1988). These three orientations have been extensively studied and also described in terms of their approaches, including ‘Deep’, ‘Surface’ and ‘Strategic’ approaches.

Entwistle and Ramsden (1983) proposed three different learning approaches, which can be briefly described as follows.

Students with a ‘Meaning’ (deep) orientation want to find out the deeper meaning in the text. They are critical, logical and relate what they learn to their previous
knowledge. Their motivation is intrinsic, and they look for a personal comprehension independent of the syllabus.

Students with a ‘Reproducing’ (surface) orientation concentrate on memorising without finding a deeper meaning or understanding of the materials. They are most concerned about passing the exams and are not really interested in the topic itself. Their motivation is extrinsic and they take on a syllabus-bound approach to studying.

Students with a ‘Strategic’ (strategic) orientation are efficient at organising their work, managing their time and work hard in their studies. They care about their working conditions and have clear goals for their studies. They aim to achieve the highest possible marks. They have an intrinsic motivation and a positive study attitude (Entwistle 1988; Entwistle & Ramsden 1983).

In Australia, Biggs (1987) proposed his theory on learning styles and extended upon the work of Entwistle and Ramsden (1983). He stated that the ‘deep’ and ‘surface’ approaches are concerned with determining observable motives and strategies for learning (Boulton-Lewis, Marton & Wilss 2001). Biggs (2001) claimed that approaches to studying are part of a teaching and learning system so they need to be considered in conjunction with the system as a whole. With an attempt to represent this system, Biggs (1987) proposed the ‘3P’ model of teaching and learning. His ‘3P’ model captures the relationships between characteristics of learner and the learning context (presage), student approaches to a particular learning task (process) and outcomes of learning (product).

Both Entwistle and Ramsden (1983) and Biggs (1987) emphasised the influence of learning environment on the way students learn and their learning theories can be seen as an attempt to link instructional preference to information processing of the learners (Riding & Rayner 1998; Sims & Sims 1995). In order to assess the way students learn Entwistle and Ramsden (1983) developed the Approaches to Studying Inventory (ASI) which classifies learning in terms of a ‘Meaning’ (deep) orientation and a ‘Reproducing’ (surface) orientation towards higher education study.
In summary, there are two major orientations to studying measured in the Approaches to Studying Inventory (ASI). These are as follows:

(a) A ‘Meaning’ (deep) orientation consisting of the subscales concerned with a deep approach, inter-relating ideas, the use of evidence and logic, intrinsic motivation and comprehension learning; and
(b) A ‘Reproducing’ (surface) orientation consisting of the subscales concerned with a surface approach, syllabus-boundness, fear of failure, disorganised study methods, negative attitudes to studying and improvidence.

Entwistle and his colleagues have continually developed the Approaches to Studying Inventory (ASI), and various versions exist. Different versions of this instrument have been used extensively in higher education contexts and in different cultural settings, for example, in Asian contexts (Pimparyon, Roff, McAleer, Poonchai & Pemba 2000), in Australian context (Harper & Kember 1986), or in other Western contexts (Duff 1999; 2000a; 2002b; 2003; Hayes & Richardson 1995; Richardson 1990, 1991, 1993, 1994, 1995, 1997, 1998; Richardson & Landbeck 1995; Richardson, Morgan & Woodley 1999; Sadler-Smith 1996). This instrument was also administered to Asian students, specifically Thai students, in the study of Pimparyon et al. (2000). They implemented the short version of Entwistle and Ramsden’s (1983) Approaches to Studying Inventory (s-ASI) in the same cultural context as the present study, that is, Thai higher education (see also section 2.6.3). Previous extensive studies, utilising the Approach to Studying Inventory, support the reliability and validity of the instrument in higher educational contexts, including in Asian contexts (Pimparyon et al., 2000).

Previous studies supported the judgement that the ‘Meaning’ (deep) approach is considered best for learning and most appropriate in higher education as it facilitates a higher level of understanding from learning. As previously discussed, students’ approaches to learning are not fixed qualities. Instead, students tend to adopt different approach to studying depending upon both individual factors within the
learners. Previous findings in higher education relevant to these issues are further examined and discussed in the following section (see section 2.6).

2.5.2 Experiential Learning Model

This section examines a learning style theory which has been extensively studied in higher education: the Experiential Learning Model of Kolb (1984). This is one of the most influential information processing models in higher and professional education.

In Kolb’s Experiential Learning Model (1984), learning is conceived as a four-stage cycle and is a continuous process grounded in experience. Kolb’s model of experiential learning involves two sets of polar opposites, which are the active-reflective dimension and the abstract-concrete dimension. He proposed that individuals grasp experience immediately in a concrete manner or abstractly in an indirect manner, and, consequently, their experiences are transformed through reflective observation or active experimentation. Four models of the learning process, namely Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualisation (AC) and Active Experimentation (AE) are proposed and associated with four learning styles including ‘Diverger’, ‘Assimilator’, ‘Converger’ and ‘Accommodator’. These four learning models and styles are presented in Figure 2.2.
These four learning styles of Kolb (1984) can be measured by means of a self-description questionnaire, namely the 'Learning Style Inventory' (LSI). Although Kolb's theory of learning style is regarded as widely acceptable, this instrument has received many criticisms in terms of its apparent lack of validity and reliability to assess the learning styles of all learners (Allison & Hayes 1988; Freedman & Stumpf 1978, 1980; Garner 2000; Riding & Rayner 1998). After examination of Kolb's Learning Style Inventory (LSI), Allison and Hayes (1988) proposed that there was a need for a more reliable and valid measure. They claimed that subjects from different cultures could have experienced difficulty discriminating between the meanings of some of the thirty-six statements which have to be rank ordered in Kolb's Learning Style Inventory (LSI) in terms of how they characterise learning styles arguments (Allinson & Hayes 1988). Thus, there are limitations with the Kolb's approach because of its lack of psychometric rigour.

Source: Kolb (1984, p.42)
Kolb's model has received considerable amount of criticism. Some criticism involved the difficulties related to its instrument's response format (ipsative) (Freedman & Stumpf 1980; Sims et al. 1989). For his learning model, some researchers raised the concerns on the confusion around whether Kolb's learning styles are as flexible states or stable traits decontextualised from cultural and social milieu (Garner 2000). Despite some criticisms on the Experiential Learning Model, there is a considerable body of research which positively reports Kolb's work. Many studies strongly emphasised the usefulness of Kolb's learning theory with respect to individual development and the learning process. Kolb's theory is a well-developed theory that has now received careful analysis and some testing in the educational research community, highlighting that it was a useful way of showing the different possible approaches to learning (Garner 2000; Loo 1997).

For the present study, the Experiential Learning Model was studied as it aimed to study the learning cycle as a way of highlighting the different approaches to learning and the different stages that are necessary within the learning process. Then, trying to find the way to facilitate those learning styles, rather than assigning students to learning styles and associating those with degree courses (Garner 2000). With the aim to encourage self development of students, it would strongly argue that the Experiential Learning Model of Kolb (1984) would be appropriate for this study, regardless some criticisms from the literature.

Considering the strengths and usefulness of Kolb's (1984) Experiential Learning Model, Honey and Mumford (1986) developed their learning style theory based on Kolb's model. They built on Kolb's Experiential Learning Model to produce a Learning Style Questionnaire (LSQ) that identifies an individual's preferred learning style. They proposed four learning styles, which are strongly associated with the four stages of the learning cycle. These four learning styles are 'Activist', 'Theorist', 'Reflector' and 'Pragmatist' as presented in Figure 2.3.
To help understand the four learning styles in their learning cycle Honey and Mumford (1992) described the characteristics of these four learning styles.

‘Activists’ involve themselves fully and without bias in new experience. They tend to act first and consider the consequences afterwards. They tackle problems by brainstorming. Learners whose learning style is ‘Activist’ tend to thrive on the challenge of new experience by involving themselves in the activities with other people. They are dominated by here-and-now experience when learning. They are relatively bored with implementation and long-term consolidation.

‘Reflectors’ like to stand back and review experience from different perspectives. Before coming to conclusions they tend to collect data, consider all possible angles and analyse it thoroughly. They are cautious and thoughtful people who enjoy observing other people in action. They tend to adopt a low profile. They listen to others and get the drift of the discussion before making their own points.
'Theorists' are keen on assumptions, principles, theories, models and system thinking. They think problems through in a vertical, step-by-step and logical way. They tend to be detached, analytical and dedicated to rational objectivity rather than to anything subjective or ambiguous, which will make them feel uncomfortable. They tend to be perfectionists who will not rest easy until things are tidy and fit into a rational scheme.

'Pragmatists' search out new ideas, theories and techniques and test them to see if they work in practice. They are keen to use relevant ideas from courses and take the first opportunity to experiment with applications. They like to get on with things with clear purpose and tend to be impatient with ruminating and open-ended discussions.

Honey and Mumford (1986) suggest that effective learners must have a versatile style of learning. Effective learners are those who can go beyond their preferred styles through all four stages of the learning cycle. Thus, they suggest that it is imperative to identify learning styles of students before the proper learning activities are designed and offered to them.

The LSQ of Honey and Mumford (1986) received a mixed review from researchers, indicating varied levels of psychometric rigor (Caple & Martin 1994; De Ciantis & Kirton 1996; Van Zwanenberg, Wilkinson & Anderson 2000). Most criticisms on the LSQ psychometric properties were on its low internal consistency and its construct and predictive validity still not established (Duff 2001; Fung et al. 1993) which questioned its use to categorise students’ learning styles and to prescribe instruction based on its results. The caution was that the LSQ may not be sufficiently sophisticated to describe the learning that takes place within some academic disciplines.

Although the predictive validity of the LSQ still needs to be established, Allinson & Hayes (1990) stated that although the factor structure of learning styles of the LSQ was confirmed with the use of manager and student samples. In spite of this, in terms of the instruments developed for measuring learning styles of the learners, Honey
and Mumford's (1992) LSQ is used in the hospitality area more frequently than is any other instrument (Barron & Arcodia 2002; Lashley 1999; Wong et al. 2000). The LSQ is considered an applicable instrument to assess students’ styles of learning, as previous studies have confirmed its validity and applicability for samples of hospitality students (see detailed description in section 4.6.1, Chapter Four).

2.5.3 Summary

The review of theories on learning in the preceding sections shows that learning style theories have originated from different schools of thought. Previous research about individual differences in learning has usually been undertaken with the emphasis on a particular model or theory. It is, however, arguable that each learning style theory is valuable and contributes in different ways to the learning process. As previously discussed, two learning style theories, Orientations to Studying (Entwistle & Ramsden 1983) and Learning Style Theory (Honey & Mumford 1986), have been extensively studied in higher education. There are similarities between these two theories as both represent tendencies that are situation dependant, as opposed to fixed traits. In other words, these learning style theories are characterised by a specific focus on individual differences in the process of learning rather than differences within the individual learner. They have a primary interest in the impact of individual differences upon pedagogy and the enhancement of learning achievement. Also, they are similarly concerned with the process of learning and its contexts (Felder & Brent 2005; McLoughlin 1999; Sadler-Smith 1997). As a result, these two theories, Honey and Mumford’s (1986) Learning Style Theory and Entwistle and Ramsden’s (1983) Orientations to Studying, are helpful for teachers in assisting them to understand the different ways their students learn and the way they contribute to a student’s learning style.

Previous studies investigating learning styles of students in higher education have used a wide variety of theoretical frameworks and instruments. In the examination of previous studies in the following sections of this chapter the generalised term ‘learning style’ is used in order to avoid confusion surrounding the terms associated
with learning styles, preferences, approaches and strategies. The term ‘learning style’ is used to describe the collection of these conceptualisations, various theoretical approaches and constructs that have been employed by the different researchers. Therefore, wherever discussed, the orientation of each researcher towards learning styles or approaches to studying is identified as part of the discussion of learning style research.

2.6 INDIVIDUAL LEARNERS’ CHARACTERISTICS AND LEARNING STYLES

According to Entwistle and Ramsden (1983) and Honey and Mumford (1986), when trying to understand individual learning styles, there are several influencing variables to consider. In higher education students bring with them a wide variety of other individual characteristics, which influence their learning experience. These variables cannot be ignored when trying to understand students’ learning styles (Brown, Fry & Marshall 2003; Marriott 2002). The variables examined in the present study included age, gender and academic achievements. The effects of these variables on students’ predisposition towards particular learning styles have received considerable attention in previous studies.

2.6.1 Age: Mature and Non-Mature Students’ Learning Styles

A significant number of theorists and researchers have argued that learning styles are heavily influenced by relative fixed traits and characteristics. An example of this is the Dunn and Dunn learning style model (Coffield, Moseley, Hall & Ecclestone 2004). On the other hand, other researchers argued that learning styles are not determined by inherited characteristics but develop through experience (Kolb 1984). Individual’s learning styles could be changed to become more analytical and reflective with age. This section reviews previous studies on age differences in learning styles with two theoretical fundamentals. These are:
i) Age appears to show a trend for older students to become less active and hands-on while learning, but rather to become more reflective and observant; and

ii) Older students tend to adopt a 'Meaning' (deep) approach to studying more than do younger students, as age is assumed to be positively related to a preference for 'Meaning' (deep) approach.

The investigations of the relationship between age and learning styles reported in previous studies are not conclusive in their findings. In some previous research no learning style differences between students in different age groups could be demonstrated (Bagdan & Boger 2000; Heffler 2001; Hsu 1997; Pimparyon et al. 2000; Spoon & Schell 1995; Truluck & Courtney 1999). However, some other investigations (Berger 1983; Duff 1999; Harper & Kember 1986; Richardson 1994; 1995; Richardson et al. 1999; Sadler-Smith 1996) report age as an affecting variable in the different ways students learn. Notably, the age ranges of students in some studies were not very wide (Bagdan & Boger 2000; Heffler 2001; Hsu 1997; Pimparyon et al. 2000) whereas in other studies, students’ age ranges were much wider (Richardson 1994; 1995; Richardson et al. 1999; Sadler-Smith 1996). The diversity of age ranges across these studies may, therefore, lead to inconsistent findings on relationships between age and learning styles.

Among those studies which found no relationship between age and learning styles, the study of Heffler (2001) implemented Kolb’s Learning Style Inventory (LSI) with undergraduate students in Sweden. Heffler concluded that learning styles were not correlated in a systematic way with different age groups across the range of 19 to 37 years. Although no statistical significance was found in his study a tendency for students to become more analytical and reflective learners with age was noted. Another significant study by Pimparyon et al. (2000), which was conducted in Thailand, also did not find any differences in learning styles among students from different age groups whose age ranged from 17 to 27 years old. They implemented the short version of Approaches to Studying Inventory (s-ASI) with nursing students
in Thailand. No significant differences in learning styles were found among this student sample.

In hospitality educational settings two studies using Kolb’s Learning Style Inventory (LSI) consistently reported no age differences in learning style preferences. The studies of Bagdan and Boger (2000) and of Hsu (1997) were both undertaken with US hospitality students. Findings from both studies derived from student samples with an age range of only 18 to 25 years old. Both studies in hospitality contexts suggested that, contrary to anecdotal evidence, age does not play a significant role in students’ learning styles. It should be noted that in these studies (Bagdan & Boger 2000; Hsu 1997), there was a restricted age range, which may possibly limit the impact of maturational differences and may explain apparent inconsistencies in the results compared to other studies (Berger 1983).

On the other hand, earlier research conducted by Berger (1983) reported different findings to those of Bagdan and Boger (2000) and Hsu (1997). Berger investigated the relationship between age and learning styles of hospitality students utilising Kolb’s Learning Style Inventory (LSI). Although his study did not clearly report the age range of the student sample, Berger concluded that age was a significant factor in determining learning style preferences. His definition of mature and non-mature students was identified by the year of study. The patterns of relationship between age and learning styles reported were that non-mature students (freshmen - sophomores) scored higher on ‘Diverger’ (concrete experience/reflective observation) and lower on ‘Converger’ (abstract conceptualisation/ active experimentation) learning style compared to the mature cohorts (junior - senior).

With the implementation of the Approaches to Studying Inventory of Entwistle and Ramsden (1983), consistent results were found in the relationship between age and learning styles. Previous investigations utilising different versions of Approaches to Studying Inventory (ASI) consistently reported age as being positively related to a preference for ‘Meaning’ (deep) approach (Duff 1999; 2003; Harper & Kember 1986; Richardson 1994; 1995; Richardson et al. 1999; Sadler-Smith 1996).
Sadler-Smith (1996, 1997, 1999, 2001) is one of the significant researchers who have extensively undertaken research in the area of learning styles. In his earlier work, Sadler-Smith (1996) used the 38 items in the revised version of the Approaches to Studying Inventory (RASI) with undergraduate students in the UK. His study showed that the responses of mature students indicated a 'Deeper' approach than did those of non-mature students. In his study, one-way analysis of variance by age was undertaken on the mean scores for each scale of the revised version of the Approaches to Studying Inventory (s-ASI). The sample, aged between 18 and 58 years, was divided into two age groups, which were mature students (age 23 years or over) and non-mature students (age less than 23 years). Mature students scored higher on all four subscales of the 'Meaning' (deep) approach than did non-mature students. In addition, the non-mature students scored higher on all four subscales of the 'Reproducing' (surface) approach than their mature counterparts. These results are entirely consistent with those of Richardson (1994, 1995) and Richardson et al. (1999).

Richardson also used age 23 to distinguish between mature and non-mature students. Mature students adopted more of a 'Meaning' (deep) orientation to study and less of a 'Reproducing' (surface) orientation than non-mature students (Richardson 1995). In his study Richardson (1995) reported that age was significantly related to the scores of the subscales of deep approach, inter-relating ideas and the overall score for 'Meaning' (deep) orientation. It was concluded from his study that age was positively correlated with all four of the subscales defining a 'Meaning' (deep) orientation according to the short version of Entwistle and Ramsden's (1983) Approaches to Studying Inventory (s-ASI). His studies with other researchers consistently suggested that mature students exhibit a more desirable approach to academic learning in higher education (Richardson 1994; Richardson et al. 1999).

Harper and Kember (1986) conducted another investigation on the relationship of age and learning styles using the 64 items version of the Approaches to Studying Inventory (ASI). With a sample of college students in Australia they found that age had significant effects on students’ responses to four subscales of the Approaches to
Studying Inventory (ASI). Older students obtained higher scores than younger students on the ‘Meaning’ (deep) orientation on the subscales of deep approach, inter-relating ideas and intrinsic motivation. In addition, older students also scored lower on the subscale of syllabus-boundness. In this regard, Harper and Kember identified the effects of instructional and assessment practices in secondary schools, which oriented students toward a surface approach. Thus, a surface approach may remain in students even after they entered higher education (Harper & Kember 1986).

Table 2.1 summarises the findings on relationships between age and learning styles as reported in previous studies.
### Table 2.1 Summary of Previous Studies Investigating Age with Learning Styles

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Sample Characteristics</th>
<th>Instrument</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagdan and Boger (2000)</td>
<td>424</td>
<td>US: undergraduate hospitality students at four universities: Age from 18 to more than 25 years.</td>
<td>Kolb’s LSI</td>
<td>No age difference</td>
</tr>
<tr>
<td>Harper and Kember (1986)</td>
<td>779</td>
<td>Australia: college students</td>
<td>ASI (64 items)</td>
<td>Significant differences on the ‘Deep’ approach, relating ideas and intrinsic motivation which older students scored higher.</td>
</tr>
<tr>
<td>Heffler (2001)</td>
<td>155</td>
<td>Sweden: undergraduate students: Age from 19 to 37 years.</td>
<td>Kolb’s LSI</td>
<td>No age difference, but there was a tendency for students in this study to become more analytical and reflective learners with age.</td>
</tr>
<tr>
<td>Hsu (1997)</td>
<td>384</td>
<td>US: undergraduate hospitality students: Age from 18 up to 25 years.</td>
<td>Kolb’s LSI</td>
<td>No age difference</td>
</tr>
<tr>
<td>Pimparion et al. (2000)</td>
<td>258</td>
<td>Thailand: nursing students: Age from 17 to 27 years.</td>
<td>s-ASI (32 items)</td>
<td>No age difference</td>
</tr>
<tr>
<td>Richardson (1995)</td>
<td>99</td>
<td>UK: undergraduate students: 61% non mature students (less than 23 years old) and 39% mature students (more than 23 years old)</td>
<td>s-ASI (32 items)</td>
<td>Age was positively correlated with all four of the subscales defining a ‘Meaning’ orientation and negatively correlated with all four of the subscales defining a ‘Reproducing’ orientation.</td>
</tr>
<tr>
<td>Richardson et al. (1999)</td>
<td>2,288</td>
<td>UK: distance learning undergraduate students: Age from 22 to 77 years.</td>
<td>s-ASI (32 items)</td>
<td>Age differences were found on the score of ‘Meaning’ orientation where older students scored higher on a ‘Meaning’ orientation, but lower on a subscale of extrinsic motivation.</td>
</tr>
<tr>
<td>Sadler-Smith (1996)</td>
<td>245</td>
<td>UK: business studies undergraduate students: Non mature students (less than 23 years) / Mature students (23 years old and over)</td>
<td>RASI (38 items)</td>
<td>Mature students scored higher in all four scales of ‘Deep’ approach than did non-mature students.</td>
</tr>
</tbody>
</table>
From the summary presented in Table 2.1 previous investigations on age differences in students’ learning styles appear to be inconsistent and differ in their findings across various studies. These studies show differences in terms of instruments, sample characteristics and, hence, findings. Remarkably, previous studies implementing the Approach to Studying Inventory (ASI) reported consistently that older students tended to be more motivated by intrinsic goals. This may reflect their prior life experience that encourages a ‘Meaning’ (deep) approach towards studying in higher education. On the other hand younger students acquire a ‘Reproducing’ (surface) approach in the final years of secondary education.

The study conducted by Pimparyon et al. (2000) reported no age difference in the way students learn, a finding which is inconsistent with most studies (Harper & Kember 1986; Richardson 1994, 1995; Richardson et al. 1999; Sadler-Smith 1996). This may be explained by the assumption that in Pimparyon et al. (2000) the age range of students was smaller or more limited than in other studies. This small age range may limit the effects of age on learning styles, and may not be suitable to use to group or classify students as mature (older) or non-mature (younger) students. From Table 2.1 other investigations with limited age range of students also included those undertaken by Bagdan and Boger (2000) and Hsu (1997).

Furthermore, although mature students were usually defined as aged over 23 or 25 years (see Table 2.1), it should be noted that definitions of terms such as 'adult' or 'mature' are still problematic. Previous studies showed that the definition of age groups was context bound and varied considerably both within countries and between countries. These contradictions in previous studies need further development into clear and consistent definitions of mature and non-mature students. Nevertheless, as some previous studies supported age as an affecting variable on students’ learning styles (Berger 1983; Harper & Kember 1986; Richardson 1994, 1995; Richardson et al. 1999; Sadler-Smith 1996), age should not be underestimated for its significance in understanding the different ways that students learn.
2.6.2 Gender: Gender Differences in Learning

The investigation of gender differences in learning styles has been given importance since women have gained more access to higher educational institutions (Richardson 1991). Gender has been investigated as to whether it is a significant differentiating variable with regard to a variety of learning styles in various disciplines in higher education, for instance, in hospitality education (Bagdan & Boger 2000; Berger 1983; Hsu 1997, 1999; Hsu & Wolfe 2003) or in other disciplines (Duff 1999, 2002, 2003; Hayes & Richardson 1995; Heffler 2001; Philbin, Meier, Huffman & Boverie 1995; Richardson et al. 1999; Sadler-Smith 1996; Sadler-Smith & Tsang 1998). This section reviews previous studies investigating gender differences in learning styles.

Previous studies reported mixed results on the relationships between gender differences and learning styles. Among those studies which claimed no relationship between gender and learning styles three studies were undertaken in hospitality educational settings (Bagdan & Boger 2000; Hsu 1997, 1999). Working with Kolb’s Experiential Learning Model, Bagdan and Boger (2000) and Hsu (1997, 1999) found that learning styles between gender groups were not significantly different among US hospitality students.

Different findings were identified by other studies using the same instrument, Kolb’s Learning Style Inventory (LSI) (Berger 1983; Heffler 2001; Hsu & Wolfe 2003; Philbin et al. 1995). These studies consistently reported significant gender differences in learning styles. The investigation conducted by Heffler (2001) reported that, among Swedish undergraduate students, female students scored higher in ‘Concrete Experience’ (CE) than male students. A significant gender difference in learning styles existed in the combination of ‘Concrete Experience’ (CE) and ‘Abstract Conceptualisation’ (AC) while there was no significant difference in ‘Active Experimentation’ (AE) and ‘Reflective Observation’ (RO) accordingly (Heffler 2001).
A survey of gender and learning styles was undertaken specifically by Philbin et al. (1995). A statistically significant difference between male and female learning styles resulted from the administration of Kolb’s Learning Style Inventory (LSI). Male students tended to prefer traditional analytical learning and were more prevalent in the ‘Assimilator’ (reflective observation/abstract conceptualisation) learning style while females showed their preference for ‘Diverger’ (concrete experience/reflective observation) and ‘Converger’ (abstract conceptualisation/active experimentation) learning styles (Philbin et al. 1995). However, the researchers noted limitations and a possible sample bias in their method of sample selection through using the sample of friends, colleagues and acquaintance, as well as an overload of female subjects.

In hospitality educational contexts Berger (1983) and Hsu and Wolfe (2003) consistently identified that male students were more likely to prefer learning styles related to ‘Abstract Conceptualisation’ (AC) and ‘Active Experimentation’ (AE) than were females students. Both studies found that female hospitality students tended to learn by concrete experience. Overall, previous studies which implemented Kolb’s Learning Style Inventory (LSI) reported consistent patterns of gender differences in learning styles. Despite different academic disciplines females tended to prefer learning styles related to concrete experience while males preferred learning styles related to abstract conceptualisation (Berger 1983; Heffler 2001; Hsu & Wolfe 2003; Philbin et al. 1995).

Among learning style research utilising another instrument, the Approaches to Studying Inventory (ASI), Richardson was a significant researcher who contributed extensively to the investigation of gender differences in learning styles. Richardson (1993) implemented the short version of Approaches to Studying Inventory (s-ASI) to investigate the possibility of gender differences in the learning styles of undergraduate social sciences students. No significant differences were reported between male and female students in regard to their approaches to studying. Later, however, Richardson and his colleagues again implemented the short version of Approaches to Studying Inventory (s-ASI) to investigate the relationships between age and learning styles. He investigated the learning styles of 99 undergraduate
students in the UK (Richardson 1995) and of 2,288 distance-learning students (Richardson et al. 1999). These two studies reported inconsistent findings on gender differences in students' learning styles.

In the earlier study Richardson (1995) reported that significant differences were found as male students scored higher on a 'Meaning' (deep) approach to studying while females scored higher on a 'Reproducing' (surface) approach. On the other hand, no gender differences in orientations to studying were tracked in another study conducted by Richardson et al. (1999). Although there was no statistical significance between the ways males and females approached their study the researchers reported that, from the obvious patterns of responses, female students tended to obtain higher scores on a 'Reproducing' (surface) orientation, (Richardson et al. 1999).

Sadler-Smith (1996), utilising the revised version of Approaches to Studying Inventory (RASI), found that males scored higher than females on a 'Deep' approach while females scored higher on a 'Surface' approach. Concerning gender differences in approaches to learning, five studies administering the Approaches to Studying Inventory consistently reported that females scored higher on a 'Surface' Approach (Duff 1999, 2002, 2003; Sadler-Smith 1996; Sadler-Smith & Tsang 1998). As well, Harper and Kemper (1986) found significant gender differences in the ways students learn when they adopted the Approaches to Studying Inventory (ASI) with college students in Australia. However, they did not indicate the direction of these gender differences.

Table 2.2 summarises the findings on relationships of gender and learning styles as reported in previous studies.
Table 2.2 Summary of Previous Studies Investigating Gender with Learning Styles

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Sample Characteristics</th>
<th>Instrument</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagdian and Boger (2000)</td>
<td>424</td>
<td>US: undergraduate hospitality students</td>
<td>Kolb’s LSI</td>
<td>No gender difference</td>
</tr>
<tr>
<td>Berger (1983)</td>
<td>241</td>
<td>US: undergraduate hospitality students</td>
<td>Kolb’s LSI</td>
<td>Females scored higher on ‘Diverger’ learning style while males scored evenly among the four learning styles.</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>US: hospitality professors</td>
<td>ASI (64 items)</td>
<td>Significant gender difference, but the researchers did not provide the direction of these differences</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>US: hospitality managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Harper and Kember (1986)</td>
<td>779</td>
<td>Australia: college students</td>
<td>ASI (64 items)</td>
<td>Females scored higher on ‘Concrete Experience’ (CE) and significant differences between males and females on the combination of ‘Concrete Experience’ (CE) and ‘Abstract Conceptualisation’ (AC).</td>
</tr>
<tr>
<td>Heffler (2001)</td>
<td>155</td>
<td>Sweden: undergraduate students</td>
<td>Kolb’s LSI</td>
<td>No gender difference</td>
</tr>
<tr>
<td>Hsu (1997)</td>
<td>384</td>
<td>US: undergraduate hospitality students</td>
<td>Kolb’s LSI</td>
<td>No gender difference</td>
</tr>
<tr>
<td>Hsu (1999)</td>
<td>500</td>
<td>US: undergraduate hospitality students</td>
<td>Kolb’s LSI</td>
<td>No gender difference</td>
</tr>
<tr>
<td>Hsu and Wolfe (2003)</td>
<td>550</td>
<td>Hong Kong: undergraduate hospitality students at a university</td>
<td>Kolb’s LSI</td>
<td>Males scored higher than females on ‘Abstract Conceptualisation’ and ‘Active Experimentation’ which is ‘Converger’ learning style.</td>
</tr>
<tr>
<td>Philbin et al. (1995)</td>
<td>72</td>
<td>US: friends, colleagues and acquaintances of the researchers</td>
<td>Kolb’s LSI</td>
<td>Males scored higher on ‘Assimilator’ (Reflective Observation/ Abstract Conceptualisation) while females preferred ‘Diverger’ and ‘Converger’.</td>
</tr>
<tr>
<td>Richardson (1993)</td>
<td>132</td>
<td>UK: social science students</td>
<td>s-ASI (18-items)</td>
<td>No gender differences</td>
</tr>
<tr>
<td></td>
<td>90</td>
<td>UK: undergraduate students</td>
<td>s-ASI (32-items)</td>
<td>No gender differences</td>
</tr>
<tr>
<td>Richardson (1995)</td>
<td>99</td>
<td>UK: undergraduate students</td>
<td>s-ASI (32 items)</td>
<td>Males scored higher on a ‘Meining” orientation than females who scored higher on a ‘Reproducing’ orientation.</td>
</tr>
<tr>
<td>Richardson et al. (1999)</td>
<td>2,288</td>
<td>UK: distance learning undergraduate students</td>
<td>s-ASI (32 items)</td>
<td>No gender differences, but females scored higher on ‘Reproducing’ orientation.</td>
</tr>
<tr>
<td>Sadler-Smith (1996)</td>
<td>245</td>
<td>UK: business studies undergraduate students</td>
<td>RASI (38 items)</td>
<td>Females scored higher on a ‘Surface’ approach. Males scored higher on a ‘Deep’ approach and ‘Academic Self Confidence’</td>
</tr>
</tbody>
</table>
To conclude, most previous studies investigating gender differences in learning styles were conducted in US and UK educational contexts as presented in Table 2.2. The literature shows the sparse number of studies in gender differences in Asian learning style research (Hsu & Wolfe 2003). Hence, further studies need to be conducted as gender differences in learning styles may arise within particular educational contexts that are specifically favourable to one gender or the other (Hayes & Richardson 1995; Richardson et al. 1999). Some arguments on gender as an affecting variable on learning styles can possibly be made as follows.

First, studies on learning styles have provided mixed results concerning male and female learning styles in higher education. Yet, in those studies reporting gender differences in learning styles, some consistent patterns were reported. These patterns were as follows:

i) Males tended to learn in the ways that were more related to abstract conceptualisation while females showed their stronger preferences for learning in a concrete manner; and

ii) Females tended to adopt a more ‘Reproducing’ (surface) approach in their learning than males, who adopted a more ‘Meaning’ (deep) approach.

Next, from the summary as presented in Table 2.2 it is reasonable to hypothesise that differences in the results of studies on learning style of males and females may reflect fundamental definitional differences, respecting the different learning style instruments. With respect to the research using Kolb’s learning style theory previous studies reported mixed results on gender differences in learning styles. On the other hand, more consistent findings confirming a strong relationship between gender and learning styles, were reported in those studies utilising Entwistle and Ramsden’s Approaches to Studying Inventory (ASI).

In conclusion, given the inconclusive results on gender difference in learning styles, further research is needed to extend knowledge in this area. Nevertheless, although the
review of previous studies shows inconclusive findings it is important for teachers to ensure that male and female students receive equal educational opportunities in higher education. Previous studies provide validation for diversifying instructional styles to address the learning needs of both male and female students. Effective instruction will be that which anticipates the individual learning characteristics of students in a classroom.

2.6.3 Academic Achievement: Educational Bias of Some Learning Styles

Researchers have undertaken extensive investigation into learning styles and their relationship to students’ academic achievements. Educational researchers believe that students with certain learning styles tend to perform better. An understanding of these relationships is therefore significant for the enhancement of student learning. This section examines previous studies investigating this matter to understand whether any bias or advantages exist towards students with particular learning styles. Overall, the literature has shown a consistent and justifiable relationship between students’ learning styles and academic achievement.

Earlier learning style research in the hospitality area was undertaken by Berger (1983). He implemented Kolb’s Learning Style Inventory (LSI) with the sample of 241 hospitality students in the US. The student sample in his study included all level of undergraduate students from freshmen to senior. He reported significant relationships between learning styles and academic achievement. Across students grouped by their grade point average (GPA), students with a ‘Diverger’ learning style (concrete experience/ reflective observation) were found to under-perform compared to their cohorts in the other three learning styles. Importantly, most underclassmen (freshmen and sophomore) students showed their strong preference for the ‘Diverger’ learning style while the upperclassmen showed their strong preference for a learning style related to abstract conceptualisation. The research showed the inefficient learning skills of underclassmen compared to their upperclassmen counterparts.
Other learning style research in hospitality education conducted by Bagdan and Boger (2000) also investigated learning styles of students at all levels (freshmen to senior). The relationships between learning styles and academic achievement of hospitality students were analysed by using the analysis of variance (ANOVA). Hospitality students who had lower academic performance were those with a 'Diverger' (concrete experience/reflective observation) learning style while students with higher academic performance were those with a 'Converger' (abstract conceptualisation/active experimentation) learning style. The results showed that students who prefer learning in theoretical and reflective ways had an advantage from the learning experience provided in hospitality education.

Similar results were found in another study conducted by Hsu (1997) with the same instrument in the US. The association of learning styles with academic achievement was reported when grouping students into five groups of different grade point average levels. Hospitality students with the 'Converger' learning style (Abstract Conceptualisation/Active Experimentation) showed a higher performance as measured by grade point average (GPA) than other student groups (Hsu 1997). It is apparent that in hospitality education, students who had the 'Converger' learning style, perceiving information abstractly and processing it reflectively, were higher achievers according to Kolb's (1984) Experiential Learning Model.

In addition to learning style research in the hospitality educational setting, some investigations of relationships between learning styles and academic achievement were conducted in other educational disciplines (Jones, Reichard & Mokhtari 2003; Matthews & Jones 1994; Pimpanyon et al. 2000). In studying college students' learning styles Jones et al. (2003) investigated the extent to which variations in grade achievement corresponded with variations in learning styles. Within the sample in their study, students' learning styles appeared to vary by academic performance as measured by grade point average (GPA). Students with an 'Assimilator' (reflective observation/abstract conceptualisation) learning style had a higher course achievement as measured
by grade point average (GPA) than students with other learning styles. These learners perceive information abstractly and process it actively by getting involved in pragmatic problem solving in learning activities (Kolb 1984).

Interestingly, in Thailand, the study undertaken by Pimparyon et al. (2000) contributed significantly to the investigation of the relationship between students’ learning styles and academic achievement. Although their study was conducted with nursing students, the nature of nursing programs and hospitality programs is, to some extent, similar in regard to their strong vocational-based nature. Pimparyon et al. (2000) investigated students’ learning styles utilising the short version of Entwistle and Ramsden’s (1983) Approaches to Studying Inventory (s-ASI), and examined the course achievements of the nursing student sample. It was found that Thai nursing students in the low academic achievement group had higher scores on ‘Reproducing’ (surface) orientation to studying while those in the high academic achievement group were students with a ‘Meaning’ (deep) orientation to studying (Pimparyon et al. 2000). Their study thus confirmed that learning styles affect course achievement within a Thai educational environment.

Table 2.3 summarises the findings on the relationships between students’ academic achievements and their learning styles in previous studies, discussed earlier. From the summary as presented in Table 2.3, a relationship between students’ learning styles and their academic achievement were reported consistently. Despite the different instruments utilised in investigating students’ learning styles, previous studies consistently reported that students with some learning styles tended to perform better in their learning than others. In particular, previous research in hospitality education contexts strongly confirmed the relationship between learning styles and academic achievement of students (Bagdan & Boger 2000; Berger 1983; Hsu 1997). In general, across all levels of study, hospitality students who exhibited their preferences for learning styles related to abstract conceptualisation and theoretical dimensions tended to achieve higher academic grades, while low achievers were those students who preferred learning styles related to concrete experience or hands-on learning. Furthermore, students who adopted the
‘Meaning’ (deep) orientation tended to achieve higher academic performance than those who adopted the ‘Reproducing’ (surface) orientation. The evidence found in previous research was in agreement with the theoretical statement that students who adopt a ‘deep’ approach to learning achieve better outcomes in higher education than students who adopt a ‘surface approach’ to learning (Biggs 1999b; Entwistle & Ramsden 1983; Fry et al. 1999; Ramsden 1992).
Table 2.3 Summary of Previous Studies Investigating Academic Achievement with Learning Styles

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Sample Characteristics</th>
<th>Instrument</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bagdan and Boger (2000)</td>
<td>424</td>
<td>US: undergraduate hospitality students at four universities</td>
<td>Kolb’s LSI</td>
<td>Students with ‘Diverger’ learning style had lower academic achievement while students with ‘Converger’ learning style showed higher academic performance.</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>US: hospitality professors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>US: hospitality managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hsu (1997)</td>
<td>384</td>
<td>US: undergraduate hospitality students at a university</td>
<td>Kolb’s LSI</td>
<td>Students who show ‘Converger’ learning style perform better than other learning styles.</td>
</tr>
<tr>
<td>Jones et al. (2003)</td>
<td>105</td>
<td>US: community college students</td>
<td>Kolb’s LSI</td>
<td>Students with ‘Assimilator’ learning style have the highest academic achievement.</td>
</tr>
<tr>
<td>Matthews and Jones (1994)</td>
<td>334</td>
<td>US: undergraduate students in teacher education programs</td>
<td>Canfield Learning Style Inventory</td>
<td>Students with ‘Conceptual’ learning style of learning are higher achievers.</td>
</tr>
</tbody>
</table>
To conclude, previous studies have demonstrated the conclusive relationships between students’ learning styles and academic achievement. Some arguments on the relationship between learning styles and students’ academic achievement can possibly be made. First, the literature confirms that learners who preferred learning styles related to hands-on or concrete experience tended to be at-risk students or low achievers in hospitality education. Meanwhile, students who preferred learning styles related to the abstract conceptualisation and reflective observation dimensions of the learning cycle tended to excel in achievement. Sarasin (1999) stated that university students prefer learning through concrete experience while course content at the higher educational level often tends to be abstract by its nature. Students may therefore not understand concepts taught in higher education, and face difficulties in their learning.

It can be assumed that, to some extent, learning environments in these studies contribute to the existing relationships between learning styles and academic achievements of students. As in higher education, teachers predominantly implement traditional instructional methods such as lectures, and this method of instruction may give more advantages to students with some particular learning styles. The matter on instructional methods is discussed later in the next chapter (section 3.3, Chapter Three).

There is consensus that higher education aims to encourage students to adopt the ‘Meaning’ (deep) approach in their learning so that they can acquire meaningful learning experience (Biggs 1999b; Entwistle & Ramsden 1983; Ramsden 1992). The previous studies reviewed confirmed the statement made by Ramsden (1992) that the deep approach leads to longer retention of information as the information is learnt in context rather than by rote memorisation, and hence, leads to consistently higher academic achievement in learning.

In summary, existing relationships between learning styles and academic achievement are strongly confirmed by previous studies. It is important for teachers to understand the fact that students with certain learning styles or who have adopted
certain approaches in their learning perform better. Teachers need to understand students’ weaknesses in learning, and the disparity between students’ learning styles and learning environments, and then try to facilitate student learning, particularly for at-risk students.

2.7 Conclusion

The review of related literature in the three preceding sections in this chapter provides some conclusions regarding individual learner variables affecting learning styles. The literature shows the problematic definition of the variable of age in the existing learning style research. As well, the examinations of how learning styles were influenced by gender did not provide conclusive results across many studies. As a result, more research is needed to investigate learning style differences across these individual variables. Yet previous research has clearly demonstrated the relationships between students’ learning styles and academic achievement. In higher education students with some learning styles had advantages over others.

The review of literature favours the usefulness of the Experiential Learning Theory (Honey & Mumford 1986; Kolb 1984) and the Orientation to Studying (Entwistle & Ramsden 1983). Learners can be assisted to develop their strengths in learning so that they can engage effectively with a broader range of instructional techniques. The different frameworks for learning styles bring together other constructs in hospitality teaching and the learning process. Previous studies in hospitality education also confirmed many aspects of the theoretical explanations discussed in this chapter. Therefore, any learning style research conducted in hospitality educational contexts should not ignore these variables and their relationship to students’ success in academic achievement. To fit with the framework of the present study the application of learning theories and other constructs in a particular educational context, hospitality education, are investigated in the next chapter, Chapter Three.
CHAPTER THREE
LEARNING WITHIN A HOSPITALITY CONTEXT

3.1 INTRODUCTION

The preceding chapter provided theoretical explanations for learning, particularly learning style theories. The context of the present study is the hospitality education field, so it is necessary to understand theories of teaching and learning in this particular context. The application of learning style theories in hospitality contexts is discussed in section 3.2 of this chapter. Furthermore, the aim of the study is to suggest appropriate instructional methods to accommodate and facilitate student learning with regard to different learning styles. Existing theories, principles and research on instructional methods in higher education are reviewed in section 3.3. Then, in section 3.4 investigations of learning outcomes from hospitality learning experience in terms of required skills for hospitality graduates as derived from the industry’s viewpoint are discussed. This review of literature aims to support the investigation of the problems of teaching and learning in Thai higher education as identified from the literature. Arising from the theoretical foundations discussed in the Chapter Two and in this chapter, the hypotheses of the current study are stated in section 3.5.

3.2 THE APPLICATION OF LEARNING STYLES IN HOSPITALITY CONTEXTS

As previously discussed in Chapter Two learning styles have continuously been given importance in higher education. However, despite the numerous learning style studies in higher education it is only in recent years that learning style studies have been conducted in hospitality education. Many learning style research studies have now been conducted in order to understand the different ways in which hospitality students learn (Bagdan & Boger 2000; Barron 2002; 2004; Barron & Arcodia 2002; Berger 1983; Hsu 1997; 1999; Hsu et al. 1991; Hsu & Wolfe 2003; Lashley 1999; Lashley & Barron 2005; Wong et al. 2000). Interestingly, the Experiential Learning
Model is predominantly applied either with the assessment inventories of Kolb (1984) or of Honey and Mumford (1986).

Some of the more significant contributions to understanding learning style concepts and applications in hospitality education have been made by researchers such as Barron (2002, 2004), Barron and Arcodia (2002), Lashley (1999), Lashley and Barron (2005) and Wong et al. (2000). These researchers have directed their attention to the understanding of hospitality students’ learning styles utilising the learning style concept of Honey and Mumford (1986). The findings were similarly demonstrated in the studies of Barron and Arcodia (2002) and Lashley (1999). Learning styles of hospitality students were apparently dominated by the ‘Concrete Experience’ (CE) stage of the learning cycle, or showed the ‘Activist’ learning style according to Honey and Mumford (1986).

Lashley (1999) implemented the Learning Style Questionnaire (LSQ) to assess the learning styles of UK hospitality students. Hospitality students in his study exhibited a strong preference for the ‘Activist’ learning style, while they showed low preferences for the ‘Reflector’ and ‘Theorist’ learning styles. Using this knowledge of students’ learning styles Lashley (1999) assisted students who originally preferred the ‘Activist’ learning style to become more reflective and theoretical in their learning. He claimed that the reflective practitioner is the desirable type of learner preferred in both hospitality education and industry. Hence, pedagogical strategies were designed and implemented to achieve this goal. Students were successfully assisted to develop skills of reflection and theorising by developing their learning styles.

Another study conducted by Barron and Arcodia (2002) examined the learning styles of international students who were studying in hospitality programs in Australia. The learning styles of seventy-seven international students were assessed by using the Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ). The following findings arose from their work. Firstly, hospitality students exhibited their strong preference for the ‘Activist’ learning style, a finding consistent with that
reported by Lashley (1999). Secondly, offshore Asian hospitality students adopted different learning styles compared to their corresponding domestic cohorts in Asian countries as studied by Wong et al. (2000). Asian hospitality students, who had a Confucian heritage background, had an ‘Activist’ learning style. In contrast, while in their home country, they showed a strong preference for the ‘Reflector’ learning style. Finally, significant findings showed that Asian students who were from non-Confucian heritage cultures, such as Thai and Indonesian, expressed their preference for the ‘Activist’ learning style.

Wong and his colleagues conducted another study, which also implemented Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ) with hospitality students. While most studies showed that ‘Activist’ seemed to be the dominant learning style of hospitality students, Wong et al. (2000) reported that in their study Hong Kong, Singaporean and Taiwanese hospitality students exhibited the dominant learning style of ‘Reflector’. Considering these different findings a basic assumption may be that learning styles of students may be adapted from one style to another in accordance to the learning environment (Barron & Arcodia 2002). Although the samples in the studies of Barron and Arcodia (2002) and Wong et al. (2000) were both Asian with a Confucian heritage culture, the different contexts of the learning and the instruction strategies implemented by teachers may require students to adapt their learning styles to match various learning environments.

In the study of Wong et al. (2000) learning styles of hospitality managers were also examined. Hong Kong hospitality managers were inclined to perceive themselves as ‘Theorist’ and ‘Reflector’. In particular, in the case of restaurant managers a strong preference for all four learning styles was reported. These managers were versatile learners who could learn efficiently through the four stages of the learning cycle (Kolb 1984). In their comparison of learning styles between hospitality students and managers, their study found significant differences in the styles of ‘Theorist’ and ‘Pragmatist’.
As discussed earlier, the Experiential Learning Model appears to be a predominant concept in hospitality learning style research. Another learning style instrument extensively implemented in hospitality education is Kolb’s Learning Style Inventory (LSI). An earlier study of Berger (1983) applied Kolb’s Learning Style Inventory (LSI) to investigate the learning styles of US hospitality students. Students in his study exhibited a preference for the learning styles of ‘Accommodator’ (reflective observation/abstract conceptualisation) and ‘Diverger’ (concrete experience/reflective observation). Inconsistently, also in the US hospitality education, Bagdan and Boger (2000) reported the dominant learning style of hospitality students in their study to be ‘Assimilator’ (reflective observation/abstract conceptualisation). Consistent findings on hospitality students’ learning styles, based on the Kolb’s Learning Style Inventory (LSI), were revealed by the series of studies conducted by Hsu and her colleagues (Hsu 1997, 1999; Hsu et al. 1991; Hsu & Wolfe 2003). Hospitality students in these studies consistently exhibited their preference for the learning style of ‘Converger’ (abstract conceptualisation/concrete experience).

To conclude, learning style concepts have been continuously studied and implemented in many studies in hospitality education over the last two decades. With the application of Honey and Mumford’s (1986) learning style theory, the literature shows fairly consistent findings. Hospitality students consistently exhibited their preference for learning styles that were related to concrete experience or hands-on learning. The explanation of this phenomenon, that hospitality students in most studies preferred to learn by concrete experience, may result from the vocational nature of hospitality education. The vocational nature of hospitality education, which traditionally emphasised learning by hands-on experience, may attract individuals who prefer this style of learning.

3.3 INSTRUCTIONAL METHODS FOR STUDENT LEARNING

The importance of understanding students’ learning styles is clearly presented in the preceding sections. For teachers, it is their responsibility to ensure that the instructional strategies used address all learning styles found amongst students in
higher education. What these theorists and researchers (Beattie et al. 1997; Entwistle & Ramsden 1983; Honey & Mumford 1986; Kolb 1984; Ramsden 1992; Rayner & Riding 1997) have in common is an emphasis, not simply on the individual learner, but on the interaction between the learner, the context and the nature of the learning experience. The learning experience offered in higher education is therefore significant to student learning. This section examines previous studies on how instructional methods were implemented to support each learning style.

3.3.1 Teaching All Learning Styles

Research into learning styles appears to have proceeded in isolation from research into instructional methods. Hence, research in instructional methods faced the difficulty of demonstrating empirically and conclusively how the concept of learning style can be facilitated or affected by the contextual variables related to instructional methods. Yet many researchers (Biggs 1999a, 1999b; De Vita 2001; Entwistle & Ramsden 1983; Henson & Borthwick 1984; Honey & Mumford 1986; Kolb 1984; Ramsden 1992; Sims & Sims 1995; Sutliff & Baldwin 2001; Torres & Cano 1994) supported the importance of learning style knowledge to pedagogical practices in higher education. Furthermore, a remark that each learning style has both strengths and weaknesses in learning (Honey & Mumford 1992) suggests that no single instructional method is best, as students learn in different ways (Casado 2000). Traditional instructional strategies in higher education may have to be adjusted in order to meet the needs of students with different learning styles.

Previous studies highlighted a number of instructional methods commonly utilised in higher education. Ten methods of instruction have been implemented in the teaching and learning process, as shown in a wide body of higher educational research (Anderson 1997; Ball 1995; Bourner 1997; Casado 2000; Hsu et al. 1991; O'Bannon 2002; O'Halloran & O'Halloran 2000; Poon 2000; Sivan, Leung, Gow & Kember 1991; Sutliff & Baldwin 2001; Terry 2001; Trowbridge 1997). These methods include lecture, case study, group discussion, guest speaker, industrial visit, demonstration, self-study, laboratory work, internship and role-playing.
As mentioned earlier in section 2.5.2, Chapter Two, the Experiential Learning Model is one of the most influential learning style theories in higher education. Previous studies, therefore, have extensively investigated the appropriate and effective instructional methods for each of the four learning styles as follows.

**‘Concrete Experience’ (CE) mode**

Students who prefer a learning style related to concrete experience need to participate actively in experiential learning experience. According to Honey and Mumford’s (1986) learning style theory these students have a preference for an ‘Activist’ learning style. Instructional methods for active learning are therefore important to facilitate their learning. These may include role-playing, simulation or games, teamwork, practical exercises and internships (Barron & Arcodia 2002; Sarasin 1999; Sutliff & Baldwin 2001). The literature claims that these instructional methods keep the learning environment varied and exciting, and involve the students, as well as focussing on higher order cognitive skills. For instance, role-playing is a participatory and experiential learning method that emphasises learning by doing (Ruhanen 2006). To facilitate the ‘Activist’ learning style the use of internships tends to suit these students. They are often claimed to effectively support student learning in vocational disciplines, including hospitality education (Armstrong 2003; Beaty 1999; Harris & Zhao 2004; Shinn 2003). It is also necessary to note that this type of learner has a weakness as they may find it difficult to learn from some modes of instruction, particularly learning activities that require them to play a passive role such as listening to lectures, reading and watching (Honey & Mumford 1992).

In considering what previous studies identified as the appropriate and inappropriate instructional methods to facilitate learning for students with an ‘Activist’ learning style, this group of students may not fit academically with the nature of the traditional classroom setting in higher education. Current modes of instruction at the university level are the lecture as the dominant method, supplemented with laboratory work (Hsu 1999). These mismatches may therefore lead to poor student
performance. As the literature suggests that most hospitality students exhibited a strong preference for the 'Activist' learning style (Barron & Arcodia 2002; Lashley 1999), the learning environment in hospitality education may possibly discriminate more against this type of learner. The needs of students who preferred learning by concrete experience may not be accommodated in university learning settings, and may place them in danger of becoming at-risk students (as also section 2.6.3).

'Reflective Observation' (RO) mode

Students, who prefer a learning style related to the reflective observation dimension of the learning cycle have a preference for a 'Reflector' learning style, according to Honey and Mumford's (1986) learning style theory. Their learning can be facilitated by the use of discussions, brainstorming, observations and reflective journals, which require students to reflect on the content, ask questions and discuss the content (Sutliff & Baldwin 2001). The study conducted in hospitality education by George (1989) suggested the use of the critical-incident technique as an effective experiential learning technique where students can learn by observation. Overall, in higher education the mode of instruction that effectively facilitates the learning style related to reflective observation is the use of lectures, as in lectures students are required to listen to and interpret the presentation (Kolb 1984). Students whose learning style relates to the reflective observation mode also have weaknesses in learning. They feel uncomfortable in learning activities that involve making a quick decision and expressing opinions, as well as those that require them to act, such as role-playing (Honey & Mumford 1992).

'Abstract Conceptualisation' (AC) mode

Students whose learning style relates to abstract conceptualisation are those who have the learning style of 'Theorist' according to Honey and Mumford's (1986) learning style theory. As these students are analytical, logical and prefer a sequential approach to problems, the implementation of lectures, papers, model building, theory construction and questioning would facilitate their learning (Sutliff & Baldwin
2001). For a learning style related to abstract conceptualisation skills, the use of lectures encourages students to reason and to deduce conceptual relationships from what they hear. However, students whose learning styles relate to the dimension of abstract conceptualisation may not learn effectively if they have to learn in unstructured activities, or if they are required to act without clear and proper guidelines such as simulation or games (Honey & Mumford 1992).

Considering the literature related to instruction in higher education, lectures appear to be the dominant method of instruction in most disciplines. Generally, the learning styles of ‘Reflector’ and ‘Theorist’ are suited to the academic environment of higher education as the curriculum is mainly delivered through lectures. The lectures are implemented with laboratory work that enables these students to investigate topics and assemble information for reflection and analysis.

‘Active Experimentation’ (AE) mode

Students with a learning style related to active experimentation prefer to learn by searching out new ideas, theories and techniques and testing them to see if they work in practice. According to Honey and Mumford’s (1986) learning style theory, these students have a preference for a ‘Pragmatist’ learning style. While these students find it difficult to learn in activities that emphasise theoretical aspects, such as the lecture mode of instruction (Honey & Mumford 1992), instructional methods that emphasise practical application of information and skills in learning situations can effectively accommodate students with this learning style. These instructional methods include demonstrations, case studies, fieldwork, problem-solving situations, project work and laboratory activities (Sutliff & Baldwin 2001). In addition, Sarasin (1999) also claimed that these instructional methods would encourage the practical application of knowledge, which is important for developing the skills needed in the workplace, as these usually show the application of theory into practice. In hospitality education Hsu and Wolfe (2003) supported the use of laboratory work to enable students to try new ideas, and to then reflect upon their actions by writing a journal or participating in class discussion. The use of project work also encourages students’ active
involvement in learning. In hospitality education the lecture format is the most frequently used method (O’Halloran & Deale 2003), so as with the students who prefer learning by concrete experience, students with a learning style related to active experimentation appear to have difficulties in learning within traditional learning environments.

3.3.2 Teaching Students to Be Effective Learners and Reflective Practitioners

Instructional methods to address each learning style were presented in the previous section. According to learning style theorists (Honey & Mumford 1986; Kolb 1984), students who learn effectively are those who can learn through the four stages of the learning cycle. This means that effective learners are those who can actively utilise different strategies and approaches for a deep learning experience in different learning contexts. Learners must experience the entire learning cycle.

Integrating learning style knowledge with instructional methods is the way teachers can assist their students to learn. While instruction in higher education is mainly addressed to theoretical and abstract learners, research into the learning styles of hospitality students showed that these students did not naturally include preferences for ‘Theorist’ or ‘Reflector’ styles (Lashley 1999). Rather, they preferred an ‘Activist’ learning style. As effective learners are those who learn effectively through various learning experience it is therefore important for hospitality students to develop their ability to learn effectively through different teaching and learning activities within the curriculum. In developing hospitality students to move from ‘Activist’ to become ‘Reflective Practitioners’ Lashley (1999) designed instructional strategies in a cross modular scenario, which aimed to develop students’ learning skills and provided the direct support of group advisory sessions and tutorials. These teaching strategies were successful in assisting students to broaden their learning styles. Nevertheless, it is important that teachers assist all learners, not only those with an ‘Activist’ learning style, to be effective learners. As a result, there is a need to carefully implement various the teaching strategies in the teaching and learning process to enhance student learning.
In practice, educational researchers and practitioners have acknowledged the difficulties in implementing various instructional methods to meet all students’ learning styles due to large class sizes and scarcity of resources (McLoughlin 1999). The lecture is claimed to be the default method of instruction of a large class despite criticism of it as being a passive form of learning for the students (Biggs 1999b). Advice and strategies by Biggs (1999b) to improve large-class teaching and management skills would be of benefit to the individual teachers. These strategies include careful planning and preparation of the lecture. In Australia, teachers at tertiary educational level have also successfully implemented some instructional methods to enhance their large class teaching (Herbert & Hannam 2002). These methods included small or focus group discussions in lectures and tutorials, web-based course materials, discussion boards and on-line resources (including video clips of lectures), and the use of mixed media in lectures like videos, music, slides and overheads. In particular in relation to hospitality programs Hsu (1997) identified the fact that sharing learning style knowledge with students is one strategy to enhance student learning in a large class. She further suggested that teachers should assign students with different learning styles to work in a group in order to provide support for individual students having difficulty with some specific teaching methods.

3.3.3 Summary

To conclude, the design of instructional strategies in higher education should take into account two important issues related to students’ learning styles. First, instructional methods need to facilitate, accommodate and strengthen learners, with all learning styles being able to learn through the four stages of the learning cycle (Kolb 1984). Teachers need to assess the learning styles of students so that they know the weaknesses and strengths of individual students. Strategies to facilitate student learning for each learning style should then be implemented. To prepare students to be able to learn in various learning environments in educational or workplace settings in the future teachers need to counteract students’ weaknesses in learning. Second, it is well documented that deep and meaningful learning cannot
take place if students are passive in the teaching and learning process (Biggs 1987; Sivan et al. 1991). In higher education instructional methods such as the lecture mode are extensively implemented and promote passive learning. In consideration, of this, some alternative modes of instruction are needed to enhance active involvement in student learning. This matter requires further research to investigate current teaching practices in higher education, particularly hospitality education, to judge whether students’ needs and meaningful learning experience are enhanced.

3.4 LEARNING OUTCOMES IN HOSPITALITY EDUCATION: EMPLOYERS’ EXPECTATIONS

The literature review highlighted the view that current higher education may not be fulfilling the objective of developing student ability because the system does not cater for differences in individual learning styles. Improving the quality of student learning, which lies at the heart of the learning and teaching process, can achieve the student learning outcomes encapsulated in the set of core graduate skills defined by previous studies. Whilst the previous section indicated the importance of the interaction between learners and instructors through various methods of teaching and learning, an issue which has received more attention from hospitality researchers has concerned the nature of the hospitality curriculum (Christou & Eaton 2000; Doherty, Guerrier, Jameson, Lashley & Lockwood 2001). In other words, researchers and educators have fiercely debated what skills and knowledge hospitality graduates require, and the related question of how such skills and knowledge can be transferred to students through their learning experience in higher education. Traditionally, educational institutions have been viewed as places through which knowledge is transmitted to students. Hence, this section reviews previous studies on the required skills for hospitality graduates in order to understand what we expect as learning outcomes from the learning process in hospitality education. Then, the role of hospitality education is examined to determine whether hospitality teachers have fulfilled and enhanced student learning by equipping their students with those required skills after their learning experience in higher education.
3.4.1 Required Skills for Hospitality Graduates to Work in the Industry

Numerous studies have been undertaken in the last two decades in an effort to address the issues related to the skills required by tourism and hospitality graduates to succeed in the industry (Baum 1990, 1991a, 1991b; Dyke & Strick 1990; Fournier 2004; Ineson & Kempa 1996; Okeiyi, Finley & Postel 1994; Tas 1988). Much of the literature tends to be dominated by the Western context, especially the US (Emenheiser, Clay & Palakurthi 1998; Nebel, Braunlich & Zhang 1994; Nelson & Dopson 2001; Tas 1988) and the UK (Baum 1990, 1991a, 1991b; Gamble & Messenger 2001; Lennon 1989). Few studies exist in non-Western contexts (Chung 2000; Hsu & Gregory 1995).

The study by Tas (1988) appears to have had a strong influence on other later studies (Baum 1990, 1991a, 1991b; Christou & Eaton 2000; Okeiyi et al. 1994). He implemented a questionnaire survey with a sample of seventy-five hotel general managers in the US. In his study, ‘soft skills’ were identified as the most important for hospitality graduates to possess. The primary essential ‘soft skills’ or ‘human relation skills’ were managing guest problems, professional appearance and effective communication. In the UK Baum (1991b) studied the expectations of 118 UK hotel managers toward management trainees, replicating the methodology of Tas (1988). His studies demonstrated similar findings to those of the US despite the cultural differences.

During the 1990s, the studies representing the industry’s viewpoint collectively showed similar findings to those of the 1980s about the skills required by hospitality graduates. Human relations and managerial skills were rated most important for hospitality graduates to possess, while technical skills were surprisingly identified as less important (Hsu & Gregory 1995; Ineson & Kempa 1996; Okeiyi et al. 1994). Recently, in the European context, consistent findings were revealed in a study conducted in the Swiss hotel industry (Fournier 2004). Thus, it appears that the industry values human relations, interpersonal skills and managerial skills over technical skills. Technical food and beverage skills were claimed to be easily
acquired through on-the-job training if the graduates possessed human relations and interpersonal skills and the right attitude (Fournier 2004).

Ineson and Kempa (1996) explored the criteria used by industrial recruitment personnel in the selection of graduates from hotel and catering management courses for management trainee positions. Ineson and Kempa’s work allowed them to draw the conclusion that good interpersonal skills, self presentation, social skills and communication skills were considered to be of very great importance because of the high level of customer contact in most hotel and catering management jobs. Leadership skills were also advocated by many previous authors (Baum 1990; Gamble & Messenger 2001; Nelson & Dopson 2001; Tas 1988) as constituting one element of success in the hospitality industry.

The study of Emenheiser et al. (1998) contributed to a fuller understanding of the skills required in the hospitality food and beverage business. Their study implemented a questionnaire survey with ninety-three recruiters who were responsible for hiring or determining the hiring policies for new restaurant managers in the US. The findings from the US restaurant recruiters in this study led to findings similar to those of previous studies where attitude, human relations skills, managerial skills and leadership skills played the most important role. The manageable number of components in attributes and character traits were defined by Emenheiser et al. (1998). These include:

i) Functional job skills including communication skills, management skills, organisational skills, marketing skills and psychomotor skills;

ii) Personality;

iii) Leadership skills;

iv) Interpersonal skills; and

v) Attitude.

The study of Okeiyi et al. (1994) also revealed that the highest value was placed on human relation skills. The work of Okeiyi et al. (1994) contributed to research in a particular context of hospitality, the food and beverage area. She studied the
important skills and competencies for entry-level food and beverage managers by conducting surveys with forty human resource managers in the US food service industry. This work provided similar findings to the study of Tas (1988). Human relations, customer relations, motivation, leadership and teamwork skills were reported as significant skills for entry level food and beverage managers. Another study which replicated the methodology of Tas (1988) was conducted by Christou and Eaton (2000). Their study was conducted with ninety-one hotel general managers in Greece to find out the skills and competencies needed for working as management trainees. Christou and Eaton (2000) reported similar findings to those of Tas (1988), where the most important skills were still categorised as ‘soft skills’ such as managing guest problems. Table 3.1 summarises previous studies that investigated skills and competencies desired for hospitality graduates.
### Table 3.1 Summary of Required Skills for Hospitality Graduates

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<tbody>
<tr>
<td>1</td>
<td>Manage guest problems</td>
<td>Manage guest problems</td>
<td>Human relations</td>
<td>Interpersonal skills</td>
<td>Model attitude</td>
<td>Manage guest problems</td>
<td>Attitude</td>
</tr>
<tr>
<td>2</td>
<td>Professional and ethical standards</td>
<td>Hygiene and safety</td>
<td>Customer relations</td>
<td>Self presentation</td>
<td>Marketing Skills</td>
<td>Appearance</td>
<td>Hygiene practices</td>
</tr>
<tr>
<td>3</td>
<td>Professional appearance</td>
<td>Communication skills</td>
<td>Motivation principles</td>
<td>Social skills</td>
<td>Leadership Ability</td>
<td>Customer relations</td>
<td>Communication with customers</td>
</tr>
<tr>
<td>4</td>
<td>Communication skills</td>
<td>Interpersonal skills</td>
<td>Leadership and supervision</td>
<td>Communication skills</td>
<td>Interpersonal skills</td>
<td>Employee relationship</td>
<td>Dependability</td>
</tr>
<tr>
<td>5</td>
<td>Customer relations</td>
<td>Professional appearance</td>
<td>Team building</td>
<td>Emotional stability</td>
<td>Personality</td>
<td>Leadership skills</td>
<td>Enthusiasm &amp; self motivation</td>
</tr>
<tr>
<td>6</td>
<td>Interpersonal skills</td>
<td>Customer relations</td>
<td>Recruitment and training</td>
<td>Self confidence</td>
<td>Management skills</td>
<td>Professional and ethical standards</td>
<td>Willingness to learn</td>
</tr>
<tr>
<td>7</td>
<td>Leadership skills</td>
<td>Legal responsibilities</td>
<td>Time and energy management</td>
<td>Flexible thinking styles</td>
<td>Organisational skills</td>
<td>Motivation</td>
<td>Communication with supervisors</td>
</tr>
<tr>
<td>8</td>
<td>Motivation</td>
<td>Motivation</td>
<td>Communication skills</td>
<td>Judgement ability</td>
<td>Communication skills</td>
<td>Operational skills</td>
<td>Work with others</td>
</tr>
<tr>
<td>9</td>
<td>Supervision</td>
<td>Leadership skills</td>
<td>Professional conduct/ethics</td>
<td>-</td>
<td>Preemployment preparation</td>
<td>Communication skills</td>
<td>Hardworking</td>
</tr>
<tr>
<td>10</td>
<td>Ethical Standards</td>
<td>Conflict management</td>
<td>-</td>
<td>Legal Background</td>
<td>Productivity</td>
<td>-</td>
<td>Following instructions</td>
</tr>
</tbody>
</table>


The summary of findings of previous studies presented in Table 3.1, as well as earlier discussion in this section, shows considerable agreement amongst hospitality employers across various studies, identifying human relation skills as essential for working in the industry. Despite the cultural and time differences among various studies, the needed skills as identified by the hospitality industry still remain similar. Skill requirements in the hospitality industry are increasingly seen in terms of ‘soft’, rather than technical, skills as reported in previous studies of employer expectations (Baum 1991b; Christou & Eaton 2000; Emenheiser et al. 1998; Fournier 2004; Ineson & Kempa 1996; Okeiyi et al. 1994; Tas 1988). However, previous studies have been conducted predominantly in Western contexts. Employers in different countries might hold different expectations of hospitality graduates. For this reason, further research in other hospitality contexts would contribute more understanding.

3.4.2 Skills and the Teaching and Learning Process in Hospitality Education

While the previous section provided a discussion of learning outcomes in terms of needed skills as identified by the hospitality industry, earlier studies also criticised how these skills should be taught and developed through learning experience in higher education. This section examines the role of hospitality education in student skill development. The literature shows discouraging findings for hospitality teachers when the industry rated hospitality education as one of the least important components in recruiting people to work in the industry (Chan & Coleman 2004; Dyke & Strick 1990; Emenheiser et al. 1998; Goodman & Sprague 1991; Ineson & Kempa 1996; Nebel et al. 1994). Employers did not place much importance on whether people had experienced learning in hospitality when selecting candidates. This low regard for hospitality education may reflect ineffective student learning in the hospitality curriculum and resulting graduate skill deficiencies observed by employers (Esichaikul & Baum 1998).

Previous studies have investigated how learning experience in hospitality education can improve and develop needed skills through the enhancement of student learning (Okeiyi et al. 1994; Tas 1988). Researchers have claimed that some particular
instructional methods were effective in developing students’ skills. In their studies on skill requirements for hospitality graduates Okeiyi et al. (1994) and Tas (1988) agreed that instructional methods such as lectures were an effective way to develop most needed skills and competencies to work in the hospitality industry. Yet, there was also a need for some other methods like role-playing, case studies, internship and simulation, which were effective in the hospitality classroom in order to develop particular skills, including skills in human relations, leadership, communication and team building (Okeiyi et al. 1994).

Existing studies in hospitality educational research appear to support a key element of Kolb’s Experiential Learning Model. Kolb’s learning model places importance on learning by experience and action. The use of instructional methods that stress active student involvement and learning by having experience was emphasised in order that students learn effectively and develop skills needed for their future career. For a vocationally orientated discipline like hospitality education Sivan et al. (1991) and Ball (1995) also supported the implementation of experiential learning. Ball (1995) emphasised that the development of other transferable skills such as communication skills, problem solving skills or ability to work with others can be enhanced by a broadening of the learning environment and by emphasising more active learning. In the same fashion Beaty (1999) confirmed the use of experiential learning to support student learning. Experiential learning requires active learning and student involvement; hence, students can develop understanding, application of knowledge and problem-solving skills. These teaching methods that promote experiential learning inside university settings include laboratory work, simulations, case studies, project work and teaching in small groups. As well, the methods that promote experiential learning in workplace settings were field trips, internships and work-based learning projects (Beaty 1999).

Furthermore, there is substantial agreement among previous studies that practical work experience is vital for the future success of hospitality graduates, given the importance of work related experience (Dyke & Strick 1990; Gamble & Messenger 2001). Methods of teaching such as internship were claimed to respond to this need
Beaty (1999; McMahon & Quinn 1995; Shinn 2003). Beaty (1999) suggested the use of internship in hospitality education to enhance skill developments as well as work experience, while also providing an important link between classroom theory and workplace practice. Some effective and successful internship programs were illustrated in previous studies (McMahon & Quinn 1995; Shinn 2003) for benchmarking.

From the review of literature it is apparent that there is a need for practical activity in learning if hospitality education is to contribute towards students’ learning and skill development. The literature implies that, for hospitality students as well as teachers, traditional teaching approaches could fall short of the desired results in terms of students’ academic achievement and of skill possession as required by the industry. Hospitality researchers suggested the use of more alternative and innovative methods to be able to cope and address the needs of the industry. Therefore, it can be concluded that from previous studies that instructional methods used in hospitality education may need to be revised in order to prepare students for their future careers in the hospitality industry.

3.4.3 Summary

To summarise, this section clarified the expectations of hospitality employers in terms of the skills needed for hospitality graduates to work in the industry. Such needed skills should be developed through learning experience in hospitality education when teachers implement appropriate instructional methods that enhance student learning and employability. The review of previous research shows that most studies implemented a quantitative research method using questionnaire surveys. This may place limitations on the opinions about needed skills expressed from an industry viewpoint. There is an urgent need for further research conducted by in-depth interviews to gain more insights into the required skills (Christou & Eaton 2000). Deficiencies in graduate skills imply a need for hospitality education to improve student learning, in order that students can achieve those required skills and then fulfil the industry’s needs. There is still a need to fill the gap between the
learning experience provided by hospitality programs and those expected by hospitality employers. In this regard the literature suggests the importance of experiential learning in contributing to effective student learning and the enhancement of learning outcomes.

### 3.5 Hypotheses of the Study

As stated in section 1.3 (Chapter One), the current study aims to extend knowledge of learning styles of students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. The following hypotheses for the present study were established in order to achieve the stated aims.

**H1** Students’ learning styles will not be significantly different from those of the hotel food and beverage supervisory and management staff with respect to the four learning styles of Honey and Mumford (1992).

**H2** Learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the Learning Style Questionnaire (LSQ) vary based on differences in gender.

**H3** Learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the Learning Style Questionnaire (LSQ) vary based on differences in age.

**H4** There are significant differences in learning styles as measured by the Learning Style Questionnaire (LSQ) among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected food and beverage-based subjects at the case study university.

**H5** Orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI), adopted by students in selected hospitality food and
beverage-based subjects at the case study university vary based on difference in gender.

H6 Orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI) adopted by students in selected hospitality food and beverage-based subjects at the case study university vary based on difference in age.

H7 There are significant differences of orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI), adopted by student groups of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-based subjects at the case study university.

3.6 CONCLUSION

This chapter completes the literature review and provides a framework for student learning within a hospitality context. Through an examination of learning theories in the previous chapter and in this chapter it becomes clear that effective instructional methods need to take account, not only of the different learning styles of students, but also the development of needed skills for their prospective careers, which result from effective student learning.

The review of literature shows that possible gaps may exist between the body of knowledge relating to learning style theories, instructional methods and research into student learning in hospitality education, particularly in Thailand. In order to verify the gaps in teaching and learning in Thai hospitality higher education, the exploratory study is conducted on the skill requirements in Thai hospitality industry and the possible problems on student learning to meet these requirements. If any gaps exist between these theories and research, they may be bridged through the examination of three main issues. These issues are as follows:
i) How students learn differently in Thai hospitality higher education;
ii) How teachers teach their students as well as their acknowledgement of
student learning styles in designing instructional methods; and
iii) The nature and role of hospitality education in developing effective
learning outcomes in terms of required skills to work in the industry.

The review of literature highlights the type of data that needs to be collected in both
exploratory study and main study to provide answers to the research questions. It has
influenced the development of the methodology and the instruments used in the
enquiry, which are presented in the next chapter.
CHAPTER FOUR
RESEARCH METHODOLOGY

4.1 INTRODUCTION

The methodological design of the present study is described in this chapter. The research aims were to investigate the theoretical constructs in the teaching and learning process as presented in section 1.3, Chapter One (page 4). Given these research aims and that no previous study has been undertaken into learning style constructs in the Thai hospitality higher educational context, very little is known about these constructs in the Thai hospitality context. Therefore, a case study approach was considered most appropriate in order to gain rich data and a deep understanding of learning styles in this particular culture and context. A discussion on the case study as a research strategy is presented in section 4.2.

Many theorists (Babbie 2004; Bryman 2001; Patton 2002) argue that qualitative and quantitative approaches are viewed as complementary. Therefore, a mixed method design combining qualitative and quantitative approaches was adopted to guide the design and implementation of this study. These choices are discussed in section 4.3 of this chapter. Before undertaking the main study on learning styles, the exploratory study was undertaken in order to verify the existing problems in teaching and learning process in Thai hospitality higher education. This exploratory study is described in section 4.4 in terms of its objectives, participants, research instruments, data collection procedure and analysis.

In section 4.5, three types of research participants for the main study are described, as well as the sampling techniques for this study. Interviews (qualitative) and surveys (quantitative) were the basic techniques that were chosen to gather the data. The research instruments appropriate for the present study are discussed in section 4.6. The quantitative research instruments are introduced: Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ) and the short version of Approach to Studying Inventory (s-ASI) of Entwistle and Ramsden (1983). For the qualitative research
instruments the interview schedules with both hospitality managers and teachers were developed from the extensive review of literature as discussed in section 4.7. A brief description of the pilot study that was conducted to test the validity, reliability and practicality of data collection methods and instruments is provided in section 4.8.

This study was undertaken in three distinct parts as outlined in section 4.9. In the description of these parts the data collection procedures are provided. In addition, section 4.10 gives a broad picture of the methods of analysis for both qualitative and quantitative data. The statistical tests for quantitative data analysis are also discussed in relation to the hypothesis testing. Ethical considerations in maintaining participants’ rights and confidentiality are presented in section 4.11.

4.2 CASE STUDY APPROACH

4.2.1 Case Study as a Research Strategy

The usefulness of the case study approach has been identified in educational research. Many authors have asserted that the case study has been increasingly used in educational research to describe context-specific educational situations and to draw conclusions by generalising from the findings (Kyburz-Graber 2004; Macpherson & Brooker 2000).

Yin (1994) defines a case study as:

...an empirical enquiry that investigates a contemporary phenomenon within its real life context, when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used (p.13).

He also characterises a case study approach as suitable for the research questions of 'what', 'why' and 'how' (Yin 1994). The case study is an attempt to search for holistic explanations of the phenomenon through the flexibility in design and open-
ended nature in data generating that allows the case to be examined in considerable depth (Eisenhardt 1989). Macpherson and Brooker (2000) pointed out that the validity of the case study approach should be considered from the richness of the detail provided by a well-conducted case that develops insights allowing theoretical connections to be explored and established.

4.2.2 Reliability and Validity of Case Study Approach

In terms of reliability, replicability and validity of case study, a major discussion has centred concerns the external validity or generalizability of case study research (Bryman 2001; Patton 2002; Stoecker 1991; Yin 1994). This issue is concerned with the question of whether the results of a study can be generalised beyond the specific research context. To respond to this issue which occurs as a result of the misunderstanding of the logic of generalisation, Yin (1994) clarified the distinction between the statistical logic of generalisation and replication logic as follows:

- Statistical logic is used with quantitative research to generalise research findings from an adequately large number of responses to a distinct number of categories.
- Replication logic means that findings may be generalised to the extent to which they can be replicated in other cases. The close linkage of findings to the supporting theory counts as more significant than the large volume of data.

For the present study, in terms of external validity, this case study emphasises an understanding of the whole case and seeing the case within its context, rather than trying to make a single case being representative or make the findings being applied more generally to other cases. In order to enhance the validity of case study approach, the present study implements the methodological triangulation by using the data derived from both qualitative and quantitative methods (Yin 1994). Quantitative evidence in a predominantly qualitative research can keep researchers from being carried away by vivid, but false, impressions that may be given by the
qualitative data. Quantitative evidence can bolster findings when it corroborates the findings from qualitative evidence (Eisenhardt 1989). Therefore, the use of both methods enhances the validity of this case study as discussed later in section 4.3.

Considering its nature, strengths, limitations and characteristics, the case study strategy fits the aims and research questions outlined in Chapter One. As applications of case study methodology have been carried out in learning style research by many researchers (Barron & Arcodia 2002; Hsu 1999; Hsu & Wolfe 2003; Jones et al. 2003; Marshall 1987), based on the aims of this study, the use of the case study approach provided for a full understanding of students’ learning styles in a single institutional context, and contributed to the validity of the research.

4.2.3 The Selection of Cases

Following on from the issue of external validity, it is important to consider on the strategic selection of cases. Wolcott (1994) states that a single case can be used to test an existing, well-formed theory, while multiple cases are preferable when the purpose of the research is to describe phenomena and develop and test theories. A single case study would be more supportive to the nature of some research than multiple case studies, which may diminish the total attention that can be devoted to individual cases, forsaking the opportunity for a thorough study (Wolcott 1994).

According to Bryman (2001), there are three distinct types of case as follows:

- **The ‘critical’ case** where the researcher has a clearly specified hypothesis, and a case is chosen on the ground that it will allow a better understanding of the circumstances in which the hypothesis will and will not hold.

- **The ‘unique’ case** is an extreme case which is a common focus in clinical studies.

- **The ‘revelatory’ case** where a research has an opportunity to observe and analyse a phenomenon previously inaccessible to scientific
investigation. Much case study research is undertaken with a predominantly inductive approach to theory treats single case studies as broadly revelatory.

Since cases are used for theoretical rather than statistical generalisation, there is little point in selecting cases because they are in some sense representative of some wider population (De Vaus 2002). Single cases may be used to confirm or challenge a theory, or to represent a unique or extreme case (Yin 1994). Single-case studies are particularly ideal for revelatory cases where a researcher may have access to a phenomenon that was previously inaccessible. These studies can be holistic or embedded, the latter occurring when the same case study involves more than one unit of analysis. Yin (1994) remarks that the units of analysis within a case are related to the fundamental problems of defining what the ‘case’ is. According to Yin, the same case study may consist of more than one unit of analysis, which is called an ‘embedded case study design’. Hence, in the definition of this study’s unit of analysis, it is important to take into consideration the formulated research questions.

4.2.4 Context of the Case Study University

For the present study the researcher established a rationale for a purposeful sampling strategy to select a suitable case. The logic of purposeful sampling is to select an information-rich case for studying in depth, in order to provide a great deal of knowledge about issues of central importance to the research. Despite the strengths and usefulness of a case study approach Macpherson and Brooker (2000) identified the accessibility to empirical evidence such as secondary documents and the lack of trust of the researchers as the main difficulties in conducting case study research. To respond to this challenge, the case study university was selected as a revelatory case where a hospitality program at one Thai university was selected as a single case to allow investigation of the constructs within the teaching and learning process. In part, the selection of the case was rationally dictated by practical and purposive issues in terms of feasibility and ease of access.
In Thailand it tends to be difficult to obtain cooperation from other universities for administering a survey or in-depth interviews. To maximise the access needed to collect the case study evidence required the researcher to be familiar with the site at which the research is to take place. Having close contact with this case study university, the researcher had a convenient and thorough acquaintance with the university for data collection for the present study.

Two units of analysis of the present case study were identified:

i) The current instructional methods in hospitality subjects as gathered from hospitality teachers; and

ii) The dominant learning styles of hospitality students.

In the present study the university setting for the case study was in Bangkok, Thailand. At the time of data collection the university had more than 30,000 students. Undergraduate students at this university were dispersed among five faculties, namely Faculty of Education, Faculty of Sciences and Technology, Faculty of Humanities and Social Sciences, Faculty of Management Sciences and Faculty of Art and Design. The hospitality degree program was part of the Department of Tourism Industry, Faculty of Management Sciences. The Department of Tourism Industry was founded in 1990 and offered four-year degree courses in hospitality to approximately 1,000 students in the academic year 2004.

The four-year hospitality degree at this case study university combined career education with a strong base in the liberal arts and business disciplines. Hospitality undergraduates were required to complete their first two years of foundation studies, with liberal arts and business management studies combining with introductory courses in hospitality areas. The last two years of the undergraduate program allowed time for career-oriented specialisation in the hospitality area, such as food and beverage. Generally, in teaching hospitality courses, lectures were combined with hands-on hospitality laboratory work on campus, analysis of case studies and experiential off-campus training. In the last year of the hospitality degree students were required to venture off campus to test their skills in a workplace environment in
the form of industry internships, which usually involved full time work for 440 hours in the last year of their courses.

4.3 DESIGN OF THE STUDY

Positivist adopts a clear quantitative approach to investigate phenomena as opposed to post-positivist approaches which aim to describe and explore in-depth phenomena from a qualitative perspective. Positivism predominates in science and assumes that science quantitatively measures independent facts about a single apprehensible reality. This approach is inappropriate when approaching a social science phenomenon which involves humans and their real life experiences. Different approaches and methods are required for studying these phenomena and more often than not they focus on qualitative rather than quantitative features of the subject of study (Phillips & Burbules 2000).

This study therefore applied the research approach from a post positivist perspective. As in educational research, this study aims to understand hospitality students’ learning styles and at the same time contributing to knowledge in this area, rather than focusing on the notion of a generalisable theory. Therefore, the present study uses both qualitative and quantitative methods to achieve a more accurate indication of what is happening in reality (Phillips & Burbules 2000).

The combination of both qualitative and quantitative methods and their contributions in terms of strengths and weaknesses are discussed in this section. Bryman (2001) suggested a number of ways in which using a plurality of methods could be useful. These include:

i) Qualitative and quantitative data can be used to check on the accuracy of the conclusion reached on the basis of each;

ii) Qualitative data can be used to produce hypotheses, which can then be tested using quantitative methods;

iii) The two approaches can be used together so that a more complete picture of the subject being studied is produced; and
iv) Qualitative research may be used to illuminate why certain variables are statistically correlated.

For the present study both qualitative and quantitative approaches were used together so that a more complete picture of the subject being studied is produced. Table 4.1 provides an outline of quantitative and qualitative methods employed in this research.

Table 4.1 Aims and Data Collection for the Qualitative and Quantitative Research Methods in the Present Study

<table>
<thead>
<tr>
<th>Qualitative Methods</th>
<th>Aims</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exploratory Study</strong></td>
<td>To identify the required skills of hotel food and beverage supervisory and management staff in Thailand.</td>
<td>Manager interview schedule</td>
</tr>
<tr>
<td><strong>Main Study</strong></td>
<td>To verify the existing gaps between student learning and their skill development to meet the industry’s requirements.</td>
<td>Teacher interview schedule</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantitative Methods</th>
<th>Aims</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Study</strong></td>
<td>To investigate the dominant learning styles of hospitality students in hospitality higher education in Thailand.</td>
<td>Learning Style Questionnaire (Honey &amp; Mumford 1992) - The short version of Approaches to Studying Inventory (Entwistle &amp; Ramsden 1983)</td>
</tr>
<tr>
<td><strong>Main Study</strong></td>
<td>To examine learning style differences between students as grouped by their individual variables including age, gender and academic achievement.</td>
<td>Learning Style Questionnaire (Honey &amp; Mumford 1992) - The short version of Approaches to Studying Inventory (Entwistle &amp; Ramsden 1983)</td>
</tr>
<tr>
<td><strong>Main Study</strong></td>
<td>To identify the learning styles of hotel food and beverage supervisory and management staff in Thailand.</td>
<td>Learning Style Questionnaire (Honey &amp; Mumford 1992) - The short version of Approaches to Studying Inventory (Entwistle &amp; Ramsden 1983)</td>
</tr>
<tr>
<td><strong>Main Study</strong></td>
<td>To examine learning style differences between hospitality students and professionals.</td>
<td>Learning Style Questionnaire (Honey &amp; Mumford 1992) - The short version of Approaches to Studying Inventory (Entwistle &amp; Ramsden 1983)</td>
</tr>
</tbody>
</table>
4.3.1 Choice of Qualitative Method

Bryman (2001) describes qualitative research as an approach to studying the social world which seeks to describe and study the behaviour of a certain group of people from their point of view. Qualitative research is also defined, as research that produces findings not arrived at by means of statistical procedures or other means of quantification (Strauss & Corbin 1990). In choosing to conduct quantitative or qualitative research it is suggested that the nature of the research problem needs to be considered. Strauss and Corbin (1990) identified some areas of study that lend themselves more to qualitative research, for instance, research that attempts to uncover the nature of a person’s experience or to understand what lies behind a phenomenon. The common fieldwork of qualitative methods in gathering the data varies from interview, observation, field notes to document analysis (McMillan 2004).

There are several advantages to adopting a qualitative research method. Qualitative research methods permit the researchers to study selected issues in depth and in detail. Approaching fieldwork without being constrained by predetermined categories of analysis contributes to the depth, openness, and detail of qualitative inquiry (Patton 1990). Nevertheless, a qualitative method, which typically produces detailed information about a smaller number of people or cases, reduces generalisation (Patton 1990).

4.3.2 Choice of Quantitative Method

In contrast to the interpretative nature of qualitative research method, quantitative research method enables the researcher to numerically measure multiple dependent and independent variables for the purposes of analysis, using descriptive and inferential statistical techniques (Babbie 2004). McClintock, Brannon & Maynard-Moody (1979) indicated that quantitative methods use standardised measurements and sampling procedures which are intended to:
i) enhance the reliability of study;
ii) facilitate replication studies; and
iii) permit statistical analysis of data and generalisations to larger populations.

As the quantitative research method emphasises numbers, measurements, deductive logic, control and experiments this method suits research which aims to test theory, establish facts, show relationships between variables, predict or statistically describe something (McMillan 2004). The advantage of a quantitative method is that it is possible to measure the reactions of many people to a limited set of questions, thus facilitating comparison and statistical aggregation of the data. This method gives a broad and generalisable set of findings presented succinctly and parsimoniously (Patton 2002).

For the quantitative component of the research the survey method was selected utilising self-administered questionnaires as the technique for gathering data on learning styles. In this study, the survey required the use of standardised instruments as survey questionnaires so that the varying perspectives and experiences of the respondents could fit a limited number of predetermined response categories, to which numbers were assigned (Patton 2002). Previous studies on learning styles in hospitality education have also used surveys as the main technique to collect the data (Bagdan 2000; Barron & Arcodia 2002; Hsu 1991, 1999; Lashley 1999). The quantitative data collected for this study allowed for summary statistical indices of the learning styles studied.

4.3.3 Proposed Plan for the Study

An extensive literature review on learning style theories, instructional methods and skill requirement to work in the hospitality industry was conducted for the first stage. This provided background information for the research design for the present study. It was decided to conduct the exploratory study in order to identify the required skills of hotel food and beverage supervisory and management staff in Thailand and also to
verify the existing gaps between student learning and their skill development to meet the industry’s requirements.

After the problems within teaching and learning process in hospitality higher education were identified from the exploratory study, the main study was then conducted using questionnaire surveys for the quantitative component and in-depth interviews for the qualitative component. Questionnaire surveys were used to collect data from two sample groups of respondents, hospitality students and hotel food and beverage supervisory and management staff, in order to identify their learning styles. The learning styles’ data was expected to provide information on the different ways students learn in Thai hospitality higher education at the case study university. In-depth interviews were conducted to investigate current instructional methods implemented by hospitality teachers. Current instructional methods were analysed to identify any discrepancy between the ways students learn and the ways teachers teach. The information on the teaching and learning process was then analysed together to support recommendations for any improvements in the hospitality teaching and learning process at the case study university in Thailand.

4.4 EXPLORATORY STUDY DESIGN

This study was conducted in two parts. The first part was an exploratory study to verify the problems in teaching and learning process in Thai hospitality higher education which has affected the skill deficiencies for hospitality graduates to work in hotel food and beverage supervisory and management positions. Part two of the study was the implementation of learning style questionnaires and the exploration of instructional methods in Thai hospitality higher education at a case study university based on the outcomes of the exploratory study.

The aim of the exploratory study was to identify the required skills of hotel food and beverage supervisory and management staff in Thailand and also to verify the existing gaps between student learning and their skill development to meet the
industry’s requirements. In order to gather data on this issue, hotel personnel involved in the recruitment of these staff were selected for in-depth interviews.

4.4.1 Participants for the Exploratory Study

The researcher opted for purposive sampling with the aim of generating qualitative data through in-depth interviews. Purposive sampling is a non-probability sampling technique, whereby a sample is selected based on the researcher’s judgment of some appropriate required characteristics (Zikmund 2000). In the current study the participants were chosen because of their experience in the recruitment of food and beverage supervisory and management staff. This ensured that they had enough knowledge on the topic of the skills required for hospitality graduates.

The time and cost considerations associated with the collection of qualitative data limited the sample of participating hotels to a census of hotels in Bangkok, Chiangmai and Phuket. The hotels in these three geographic areas were selected because they are in the main tourism areas in Thailand where most hotels are located. A listing of 207 hotels was obtained from the database of the Thai Hotel Association. There were 119 hotels in Bangkok, 32 hotels in Chiangmai and 56 hotels in Phuket. The number of hotels classified by each geographical area is shown in Table 4.2.

<table>
<thead>
<tr>
<th>Area</th>
<th>Total</th>
<th>Participating hotels for the interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok</td>
<td>119</td>
<td>20</td>
</tr>
<tr>
<td>Chiangmai</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>Phuket</td>
<td>56</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>30</td>
</tr>
</tbody>
</table>

Each of these hotels’ general managers were contacted, requesting permission for both in-depth interviews with their personnel involved in the recruitment of food and beverage supervisory and management staff. For the in-depth interviews a total number of thirty respondents was achieved at the final stage, consisting of six human resource managers and twenty-four food and beverage managers. As suggested by McMillan (2004) at the outset there was no criterion for using an adequate number of
cases and there was no numeric limit imposed. Therefore, for the exploratory study of the current study, the precise number of thirty respondents was determined after the interviews resulted in obtaining substantially consistently similar information. In other words, additional interviews would add little or nothing to the totality of data collected.

4.4.2 Interview Schedule for the Exploratory Study

Most previous studies used the questionnaire survey to gather data from employers on the required skills for hospitality graduates (Baum 1988, 1991; Christou & Eaton 2000; Emenheiser et al. 1998; Fournier 2004; Hsu & Gregory 1995; Nelson & Dopson 2001; Okeiyi et al. 1994; Tas 1988). However, most of these studies were undertaken in Western countries.

For the present study, instead of using questionnaire surveys, the researcher decided to use the semi-structured interview to gather data about skill requirements for Thai hospitality graduates to work in food and beverage supervisory and management positions. In the previous studies limitations in the use of the questionnaire survey to examine people's views and attitudes on the skills needed in the hospitality industry often occurred, for instance, low response rates. The in-depth interview was considered to be more suitable than the use of a questionnaire survey, as it would contribute more detailed information (Christou & Eaton 2000). The interviews were conducted with the aim to answer this research question:

*What are the desirable learning outcomes in terms of the skills required for working in hotel food and beverage supervisory and management positions in Thailand?*

Questions for the interview schedule with hotel personnel involved in the recruitment of food and beverage supervisory and management staff were developed from a review of the literature (Baum 1991a, 1991b; Christou & Eaton 2000; Emenheiser et al. 1998; Ineson & Kempa 1996; Tas 1988). The schedule was mainly based on the study of Emenheiser et al. (1998). The rationale for this choice was that their study
particularly focused on the profiles of successful restaurant managers for recruitment and selection in the US by using questionnaire surveys. Similarly, the researcher in this study was interested in the extent to which these Thai managers endorsed their view of a successful restaurant manager. However, the present study utilised the in-depth interview with Thai managers as it enabled the gathering of richer information from the managers' perceptions. Interview questions were developed in both English and Thai as provided in Appendices A and B. Nevertheless, the interviews were conducted in the Thai language.

4.4.3 Data Collection Procedure for the Exploratory Study

Following the advice of Patton (2002), the interviews were conducted in a way that allows the interviewees to make free-flowing comments. The interviews were in-depth, using open-ended questions relating to the participants' opinions on the skills required of hotel staff in food and beverage supervisory and management positions. Furthermore, the respondents were also allowed to express their viewpoints on hospitality education in Thailand.

The general managers of the sample of 207 hotels were each sent a letter explaining the nature of the research, the research information sheet and the permission form. The research information sheets in both the English and Thai languages, which were given to participants in this research, are provided in Appendices C and D, respectively. The request for the interview provided information about the researcher, the aims of the exploratory study, its background, the confidential nature of the research and the benefits of the research findings (Cooper & Shindler 1998). The initial low responses confirming willingness to participate in the study required the researcher to send the same request documents to the hotel general managers twice more to maximise the response rate.

Finally, from the 207 hotel general managers contacted, the total response rate was 30.92% (64 hotels). There were four main reasons for refusals to participate relating to time pressure, their workload, hotel renovation and confidentiality. The response
rate in this study is slightly lower than those reported in the study of Johanson and Wood (1999). In their study they reported on the average response rate of hospitality research in both educational and business settings after examining the response rates of past hospitality publications from many journals. They established the desirable and attainable response rates to be in the range 40% to 45%. They also suggested response rates by particular type of participants in the hospitality field, which were 48% for college students and 40.7% for the business or industry sector (Johanson & Wood 1999).

Following the confirmatory response from sixty-four hotels, each participant was contacted by telephone to organise a time for the interviews. All the interviews took place in the hotel of each respondent. The respondents were hotel food and beverage managers and human resources managers who had many workload commitments. Unless the interviews were kept to a reasonable length of time they would not participate. The researcher therefore tried to keep the research interviews as close as possible to forty-five minutes. On average the interviews lasted forty-five minutes but individual interviews varied in length, with the shortest being only thirty minutes and the longest about two hours.

A standard introduction was used at the start of each interview to provide details about the study, including its aims, and to provide participants with assurances regarding the confidentiality and anonymity of the respondents. Respondents were then asked to sign the consent form (see Appendix E) before starting the interviews. During the interviews the researcher attempted to achieve a balance between letting the respondents talk freely about what they thought, and trying to keep the discussion focused to stay within the interview schedule.

Recording of the interviews was considered vital for the study, as the availability of audio recordings would have advantages in terms of assurance of the completeness and validity of data. Although a tape recorder was used as the method of recording responses the researcher also implemented other techniques, which were to take notes simultaneously and to repeat the response while writing it down (Cooper &
The results of the exploratory study are reported in the next chapter, Chapter Five.

4.5 SELECTION OF THE PARTICIPANTS FOR THE MAIN STUDY

The participants were selected utilising the purposive sampling technique, which is the most common form of non-probability sampling in order to gather the data for each research aims as identified in section 1.3, Chapter One (page 4). There were three groups of participants in this research. They were:

i) Hotel food and beverage staff in supervisory and management positions;
ii) Hospitality teachers at the case study university in Thailand and;
iii) Undergraduate hospitality students enrolled in the selected hospitality food and beverage-based subjects at the case study university in Thailand.

4.5.1 Hotel Food and Beverage Supervisory and Management Staff

For the main study, the quantitative research questionnaire surveys were implemented with the hotel food and beverage supervisory and management staff in order to identify their learning styles. Following the exploratory study, from a result of contacting 207 hotels in Thailand, a total of 64 of the hotel general managers agreed to let their staff participate in the questionnaire survey. The details of the participating hotels where the staff were permitted to participate in the questionnaire surveys are shown in Table 4.3.

<table>
<thead>
<tr>
<th>Area</th>
<th>Total</th>
<th>Participating hotels for surveys</th>
<th>Percentage of Hotels in Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok</td>
<td>119</td>
<td>50</td>
<td>42.01%</td>
</tr>
<tr>
<td>Chiangmai</td>
<td>32</td>
<td>6</td>
<td>1.87%</td>
</tr>
<tr>
<td>Phuket</td>
<td>56</td>
<td>8</td>
<td>1.42%</td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
<td>64</td>
<td>30.92%</td>
</tr>
</tbody>
</table>

As the unit of analysis was the hotel food and beverage supervisory and management staff in these hotels, the researcher asked for the implementation of the questionnaire survey with all hotel staff working in these positions. The staff were provided with
information about the research as well as the questionnaires that were designed to identify their learning style preferences. A total number of 461 food and beverage staff were contacted and participated in the questionnaire survey.

4.5.2 Hospitality Teachers

An embedded case study design (Yin 1994) involves multiple levels of analysis within a single study. For the present study, the sub-units of analysis at the case study university (as discussed previously in section 4.2) were hospitality teachers and students. Different research questions and data collection strategies were implemented for each unit of analysis at the case study university. Hospitality teachers at the case study university were selected in order to examine current instructional methods implemented in hospitality subjects.

Teacher participants were selected from only two hospitality-specialist subjects taught at the case study university. To justify the representativeness of these two selected hospitality subjects, follow up questionnaires were administered to other teachers who taught other hospitality subjects. The eight teachers in the group for the case study hospitality program were asked to provide information on their instructional practices. Similar findings on instructional methods implemented in various subjects were found. Therefore, on the basis of this information, the study was conducted with only two teachers who taught the two different hospitality-specialised subjects available at the time.

To protect the anonymity of respondents the participants were coded as Teacher A and Teacher B. At the time of the research interview Teacher A had been teaching the food and beverage-based subject (Subject A) at this university for six years. Teacher A had a long history of involvement with food and beverage-based subjects, in particular, working on the students' practical experience in food and beverage. Teacher B had been teaching the food and beverage-based subject (Subject B) at this university for six years. Teacher B had experienced working in hotel food and beverage departments for more than twenty years and in hotel bar operations for
approximately seventeen years. Teacher B was retired from the industry and undertook the role of a visiting teacher for Subject B.

4.5.3 Hospitality Students

As previously mentioned in section 4.5.2, these students were considered to be another sub-unit of analysis in this embedded case study. Student participants were those who were enrolled in the two selected food and beverage-based subjects at the case study university in Thailand in the academic year 2004. The selection of the student sample was made in order to collect data on their dominant learning styles of hospitality students. There was a total of 383 hospitality students enrolled in two food and beverage-based subjects at the time of the data collection. Thus, a census sample of students was selected and contacted to participate in the survey. These consisted of 231 students enrolled in Subject A and 152 students enrolled in Subject B. The data on learning styles were gathered by utilising the learning style inventories (see section 4.6).

4.6 QUANTITATIVE RESEARCH INSTRUMENTS

For the current study survey questionnaires were designed in order to gather information on learning styles. The inventory self-report approach is the most common method in which people give direct information by responding to various questions or preferences. Many self-report inventories have been developed to assess learning styles of individuals (Biggs 1987; Entwistle & Ramsden 1983; Honey & Mumford 1992; Kolb 1984). To gather learning style information in this study the Learning Style Questionnaire (Honey & Mumford 1992) and the short version of Approaches to Studying Inventory (Entwistle & Ramsden 1983) were selected, as discussed below, as the most appropriate questionnaires for assessing the learning styles of the sample in this study. The details, descriptions and justification for these two questionnaires are presented in the following sections.
4.6.1 The Learning Style Questionnaire (LSQ)

**Description of the Learning Style Questionnaire (LSQ)**

The Learning Style Questionnaire (LSQ) proposed by Honey and Mumford (1992) was empirically developed to report management trainees’ learning styles. The LSQ is a self-assessment inventory with 80 items or statements that are used to determine the respondents’ preferred learning styles. To rate each item or statement in this instrument a simple category scale (yes/no) was used to identify the respondents’ agreement with each statement. The respondents were required to use a tick (✓), indicating ‘yes’ or a cross (✗), indicating ‘no’.

Although there is criticism that the simple category scale or dichotomous scale provides a poor response distribution as people’s real position lies somewhere between the two extremes (De Vaus 2002), the researcher decided to keep the original scale of measurement of the LSQ for this study. The reason for this was that when Honey and Mumford (1992) tested the LSQ with a Likert scale version, it rendered the same preference as the version with the simple category scale. For the scale of the questionnaire, the dichotomous format of response has two response choices where the answer ‘yes’ is awarded one point and ‘no’ is awarded no points. The four styles each have the same score and total to a maximum of twenty, Honey and Mumford (1992) provide different responses to the scales by using norm references which categorise the scores into each learning style as shown in Table 4.4.

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Score Ranges For Norm References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activist</td>
<td>0-3</td>
</tr>
<tr>
<td>Reflector</td>
<td>0-8</td>
</tr>
<tr>
<td>Theorist</td>
<td>0-7</td>
</tr>
<tr>
<td>Pragmatist</td>
<td>0-8</td>
</tr>
</tbody>
</table>

Source: Adapted from Honey and Mumford (1992)
Although all learning styles' mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference.

_Justification of the Learning Style Questionnaire (LSQ)_

As extended from the Experiential Learning Model of Kolb (1984), like the LSI, the LSQ (80-item) has come under close scrutiny recently in terms of its psychometric properties. The major criticisms include low internal consistency (Cockerton et al 2002; Fung et al 1993), some items are low in content validity (Cockerton et al 2002; Swailes & Senior 1999) and concurrent validity (Fung et al 1993). If its psychometric value must first be established, it can be said that the use of the LSQ in educational research is useful.

Nonetheless, the LSQ has been applied mostly within management development and training, although it has been used regularly in educational settings (Cockerton et al 2002; Fung et al. 1993). The LSQ has been used extensively in previous studies, demonstrating its ability to be used as an inventory to assess learning styles of individuals, particularly with student samples (Barron & Arcodia 2002; Duff 2002; Lashley 1999; Wong et al. 2000; Van Zwanenberg et al. 2000). For the current study the LSQ was selected as the most appropriate instrument for assessing the learning styles of participating hospitality students and managers for three main reasons.

Firstly, the LSQ has been applied to both educational and industry settings (Allinson & Hayes 1988; Barron & Arcodia 2002; Hayes & Allinson 1988; Lashley 1999; Mumford 1995a, 1995b; Van Zwanenberg et al. 2000; Wong et al. 2000). Although it was originally constructed to assess the learning styles of management trainees, the review of previous studies also indicated its applicability in educational contexts. Its applicability across different populations in assessing the learning styles of various sample groups other than managers is demonstrated by previous research. Therefore, its application in previous studies signified its suitability for the nature of this study,
where subjects from hospitality education as well as hospitality professionals were assessed.

Secondly, the LSQ does not require extensive training to implement, and to assess learning styles of participants. It is seen to be a ‘user-friendly instrument’ (Honey & Mumford 1992; Lashley 1999). Thirdly, among many existing questionnaires the LSQ has been shown to have acceptable psychometrical properties (Allinson & Hayes 1988; De Ciantis & Kirton 1996; Swailes & Senior 1999: Van Zwanenberg et al. 2000). Its validity and reliability have been shown to be acceptable for assessing the construct of learning styles as discussed in the following section.

Validity and Reliability of the Learning Style Questionnaire (LSQ)

Validity is defined as an overall evaluation of the extent to which theory and empirical evidence support interpretations that are implied in given uses of the scores (McMillan 2004, p.136). Three main classifications of validity for research instruments are content validity, construct validity, and criterion validity. Brief descriptions of these three types of validity, as explained by De Vaus (2002) follow.

- **Content validity** refers to the assessment of validity based on whether the measure of the concept covers the concept’s full meaning.

- **Construct validity** is the evaluation of the validity of a measure by comparing results using that measure with the results expected on the basis of theory. If the results do not conform to the theory it is usually assumed that the measure, rather than the theory, is at fault.

- **Criterion validity** is used to evaluate validity by comparing results based on new measures of a concept with those using established measures.

As the LSQ had been studied in many learning style research projects, these studies provided some information on its validity. Allinson and Hayes (1988) examined the
measurement properties of the LSQ on content validity, construct validity and criterion validity and suggested that it was preferable to the Learning Style Inventory (LSI) of Kolb on account of the distribution of its scores, its temporal stability and its construct and face validity. Nevertheless, it should be acknowledged that its predictive validity still needs further investigation. Its validity, as noted in many previous studies (Barron & Arcodia 2002; Lashley 1999; Van Zwanenberg et al. 2000; Wong et al. 2000), made the LSQ suitable for assessing the learning styles of the hospitality sample for this study.

The concept of ‘reliability’ is briefly defined by Zikmund (2000) as the degree to which measures are free from error and therefore yield consistent results. There are three main perspectives of reliability which can be applied to this research, based on the distinction of time and conditions.

- **Stability** refers to secure consistent results when the same instrument is administered twice to the same subjects over an interval of less than six months. This test-retest method is used to determine the stability by administering the same scale or measure to the same respondents at two separate times. If the measure is stable over time, the test, administered under the same conditions each time, should yield similar results (Zikmund 2000).

- **Equivalence** represents the degree to which alternative forms of the same measure produce the same or similar results. The way to test the equivalence of measurements is to use parallel forms. Instruments with alternative scales are administered to the same group of subjects. If there is a high correlation between the two forms, the researcher can conclude that the scale is reliable (Zikmund 2000).

- **Internal Consistency** is the degree to which instrument items are homogeneous and reflect the same underlying constructs. The frequently used measuring tools to test this type of reliability are split-half, the Kuder-
Richardson Formula 20 and Cronbach’s Coefficient Alpha (Cooper & Schindler 1998).

The LSQ has been widely used to assess learning styles. Its validity and reliability have been tested in many studies. The reliability of the LSQ in measuring learning styles in the hospitality context has been supported by its previous application in many hospitality studies (Barron & Arcodia 2002; Lashley 1999; Wong et al. 2000). Furthermore, the results of previous research on the LSQ showed the moderate reliability of this questionnaire through coefficient alpha reliability (Allinson & Hayes 1988; De Ciantis & Kirton 1996; Sims, Veres & Shake 1989; Swailes & Senior 1999; Tepper, Tetrault, Braun & Romero 1993; Van Zwanenberg et al. 2000). A summary of previous studies on its reliability is shown in Table 4.5.

<table>
<thead>
<tr>
<th>Studies</th>
<th>Activist</th>
<th>Reflector</th>
<th>Theorist</th>
<th>Pragmatist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allinson and Hayes (1988)</td>
<td>0.71</td>
<td></td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>De Ciantis and Kirton (1996)</td>
<td>0.76</td>
<td>0.76</td>
<td>0.67</td>
<td>0.64</td>
</tr>
<tr>
<td>Sims et al. (1989)</td>
<td>0.68</td>
<td>0.68</td>
<td>0.78</td>
<td>0.75</td>
</tr>
<tr>
<td>Swailes and Senior (1999)</td>
<td>0.72</td>
<td>0.78</td>
<td>0.67</td>
<td>0.61</td>
</tr>
<tr>
<td>Tepper et al. (1993)</td>
<td>0.75</td>
<td>0.76</td>
<td>0.67</td>
<td>0.52</td>
</tr>
<tr>
<td>Van Zwanenberg et al. (2000)</td>
<td>0.74</td>
<td>0.68</td>
<td>0.64</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Source: Allinson and Hayes (1988); De Ciantis and Kirton (1996); Sims et al. (1989); Swailes and Senior (1999); Tepper et al. (1993); Van Zwanenberg et al. (2000).

Development of the Learning Style Questionnaire (LSQ)

When the LSQ was selected for this study the researcher contacted the copyright holder (Peter Honey Publications Ltd.) for permission to use and translate the questionnaire into Thai. Permission was granted (see Appendix F). As there is no previous learning styles study that has used the LSQ in Thailand there was a need to translate the questionnaire into Thai, which was the language used for the data
collection. Although time consuming, the double or back translation method (McGorry 2000) was conducted. The translation process of this instrument is illustrated in Figure 4.1.

Figure 4.1 Double Translation Process

The version of Learning Style Questionnaire (LSQ) in the original language (English) was translated by a first translator into Thai.

A second independent translator took the result from the previous step and independently translated the instruments back to English.

The researcher compared them for any inconsistencies, mistranslation, meaning or lost words and phrases.

The researcher consulted with the translators to find out how the instruments could be revised.

The researcher delivered the survey questionnaires to a pilot group of approximately 30 Thai hospitality students.

The researcher obtained verbal feedback immediately after data collection.

Basic statistical tests were undertaken to investigate the data before proceeding with the main study.

Source: Developed from McGorry (2000)

To summarise the process of double translation, as illustrated in Figure 4.1, the original English version of the LSQ (see Appendix G) was translated by a first translator into Thai. Then, a second independent translator took the results from the previous step and independently translated the LSQ back to English. The researcher compared both versions of the LSQ for any inconsistencies, mistranslation, meaning and lost words or phrases. Subsequently, the researcher consulted with both
translators as some minor inconsistencies and mistranslation were found. Finally, revision of the LSQ was undertaken before implementing the pilot test. The Thai version of the LSQ is provided in Appendix H.

4.6.2 The Short Version of Approaches to Studying Inventory (s-ASI)

Description of the Short Version of Approaches to Studying Inventory (s-ASI)

A short version of the Approaches to Studying Inventory (s-ASI) proposed by Entwistle and Ramsden (1983) was divided into two main scales, namely ‘Meaning’ and ‘Reproducing’ orientations. Each scale contains four subscales which the factor analyses of Entwistle and Ramsden (1983) had empirically identified with ‘Meaning’ orientation (deep approach, comprehension learning, relating ideas, and use of evidence and logic) and four subscales which had been empirically identified with ‘Reproducing’ orientation (surface approach, improvidence, fear of failure, and syllabus-boundness).

The 32 items in the s-ASI were presented in the same order in which they appeared in the original version of the Approaches to Studying Inventory (ASI). In the s-ASI, the 32 items represented eight subscales, four for ‘Meaning’ orientation and four for ‘Reproducing’ orientation as shown in Table 4.6.

<table>
<thead>
<tr>
<th>Subscales</th>
<th>Meaning</th>
<th>Items in the s-ASI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Approach</td>
<td>Active questioning in learning</td>
<td>2, 5, 11, 18</td>
</tr>
<tr>
<td>Relating Ideas</td>
<td>Relating to other parts of the course</td>
<td>1, 14, 24, 29</td>
</tr>
<tr>
<td>Comprehensive Learning</td>
<td>Interest in learning for learning’s sake</td>
<td>3, 10, 16, 22</td>
</tr>
<tr>
<td>Use of Evidence and Logic</td>
<td>Relating evidence to conclusions</td>
<td>17, 20, 28, 31</td>
</tr>
<tr>
<td><strong>Reproducing Orientation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface Approach</td>
<td>Preoccupation with memorisation</td>
<td>8, 9, 15, 19, 21, 23</td>
</tr>
<tr>
<td>Fear of Failure</td>
<td>Pessimism and anxiety about academic outcomes</td>
<td>6, 13, 27</td>
</tr>
<tr>
<td>Syllabus Boundness</td>
<td>Relying on staff to define learning tasks</td>
<td>4, 12, 26</td>
</tr>
<tr>
<td>Improvidence</td>
<td>Interest in courses for the qualifications they offer</td>
<td>7, 25, 30, 32</td>
</tr>
</tbody>
</table>
The respondents were instructed to show the extent of their agreement or disagreement with the relevant statements on a five-point Likert scale. The scale ranged from 5 for 'agree' to 1 for 'disagree'. The Likert scale is the most frequently used variation of a summated rating scale which consists of statements that express either a favourable or an unfavourable attitude towards the object of interest (Cooper & Shindler 1998, p.189). In the present study the respondents were asked to circle the number on the scale for each item to identify the extent of their agreement or disagreement with each item.

**Justification of the short version of Approaches to Studying Inventory (s-ASI)**

The s-ASI was justified as a suitable instrument for the present study as it had previously been used with Thai students in Thailand (Pimparyon et al. 2000). The present study used the s-ASI, which is an existing inventory translated into the Thai language by Pimparyon et al. (2000). Therefore, to some extent, the s-ASI may be suitable and applicable in a specific culture and context like Thailand, and may render the constructs of Entwistle and Ramsden’s (1983) learning style theory, and this instrument, appropriate for a hospitality student sample.

Furthermore, in the review of the literature it was noted that Richardson (1990) also supported the views that the short s-ASI is convenient and relevant for use by individual academics who are concerned to monitor and improve the effectiveness of their teaching.

**Reliability and Validity of the short version of Approaches to Studying Inventory (s-ASI)**

In this section the reliability and validity of the s-ASI are discussed. Richardson (1990) examined the reliability and replicability of the s-ASI. He reported satisfactory levels of internal consistency, and used factor analysis to successfully retrieve the two primary study orientations (Meaning and Reproducing orientations).
For the validity of its constituent subscales, Richardson (1990) recommended the s-ASI as a useful instrument for monitoring ‘Meaning’ and ‘Reproducing’ orientations in the investigation of student learning in higher education. Additionally, the s-ASI has been extensively validated with a wide variety of student groups in different systems of higher education (Pimparyon et al. 2000; Richardson 1990, 1991, 1993, 1994, 1995, 1997, 1998).

Importantly, in the particular cultural and educational context in Thailand, this instrument also demonstrated a satisfactory level of internal consistency for both study orientations when implemented with Thai students in the study of Pimparyon et al. (2000). The Coefficient Alpha was 0.78 for the overall scale, while for the scale of ‘Meaning’ orientation, it was 0.77 and for the ‘Reproducing’ orientation scale it was 0.65. For these reasons, the s-ASI was considered to be a useful instrument in the investigation of student learning styles in hospitality higher education in the present study.

**Development of the short version of Approaches to Studying Inventory (s-ASI)**

For the present study the Thai version of the s-ASI was judged to be suitable and applicable, hence the researcher contacted Professor Noel Entwistle for permission to use the questionnaire. Permission was granted as shown in Appendix I and the original version of this instrument is provided in Appendix J. Subsequently, the researcher contacted Praorn Pimparyon (Pimparyon et al. 2000) for the Thai version of the s-ASI. The Thai version of this instrument, as provided in Appendix K, was then adopted in the current study.

**4.6.3 The Demographic Variables**

While this study mainly aimed to assess the learning styles of hospitality students and of staff working in food and beverage supervisory and management positions, the survey also collected demographic information related to the respondents. The
information on demographics of respondents was utilised to investigate learning style differences of the samples as grouped by their individual variables.

For the hospitality students demographic variables including age, gender and academic achievement as measured by grade point average (GPA) were collected on the assumption that they have a relationship to the students’ learning style preferences as investigated in previous studies (Bagdan & Boger 2000; Berger 1983; Hsu 1997, 1999; Hsu & Wolfe 2003). The investigation of these individual variables for hospitality students was aimed at investigating if there were any learning style differences between different subgroups as classified by these variables. For the hotel food and beverage supervisory and management staff information on age, gender, current position held and level of educational qualification was also collected for the study.

4.7 QUALITATIVE RESEARCH INSTRUMENTS

For the qualitative research instrument the researcher decided to implement personal interviews for this study, despite the high cost and difficulties in making contact with the interviewees (Zikmund 2000). Data were gathered through the in-depth interviews with participants as the in-depth interview provides more information and complete answers than other interview techniques.

One aim of this study was to examine current instructional methods implemented in hospitality subjects at the case study university. An intensive literature search on various forms of research methodology enabled the researcher to formulate a suitable interview schedule to investigate current instructional methods in Thai hospitality higher education.

The in-depth interview, using open ended and semi-structured questions, was the technique used for collecting data on current instructional methods implemented by the teacher sample at the case study university. Questions in the interview schedule were developed with the aid of an extensive literature review (Casado 2000;
Emenheiser et al. 1998; Hsu et al. 1991; O'Bannon 2000; O'Halloran & O'Halloran 2000; Sutliff & Baldwin 2001; Terry 2001). The interview schedules were developed in both English and Thai versions as provided in Appendices L and M, consecutively. Nevertheless, the interviews were all conducted in Thai.

4.8 PILOT TEST

The interview schedules for this study were intended to be semi-structured, allowing the respondents to expand upon any part of the answer as they wanted. Therefore it did not seem necessary to have a formal pilot phase for the interview schedules. Prior to the main study the interview schedules were tested with a hospitality teacher, and with hotel personnel involved professionally in the recruitment and selection of hotel staff, to verify the wording, clarity of questions and to check the sequence and format of the interview schedules. It was found during the interview schedule with the hotel personnel that there was some repetition in the questions. As a result the interview schedule was slightly modified based on the participants' feedback.

For the quantitative research instrument the pilot test was conducted, not solely to ensure that the survey questions operated well, but also to ensure that the instrument as a whole functioned well (Bryman 2001). In the present study the objective of the pilot study was also to evaluate and validate the Thai version of the two learning style questionnaires. A convenience sample was used to test the reliability and the clarity of the questionnaire. The questionnaires were pilot-tested with a sample of thirty Thai hospitality students at Victoria University. They were asked to trial the questionnaires in their classes, subject to the permission of the lecturers and the willingness of the students. The questionnaires were personally administered by the researcher to the sample. After completing the questionnaires, a few students commented that they had difficulties understanding some individual items. These were revised as described later in this section (see page 87).

The pilot data were used to test the statistical techniques applied to test the reliability of the questionnaires. The Statistical Package for the Social Sciences Version 11.0
SPSS 11.0 was used to analyse and test the reliability of the questionnaires. The results of the reliability test, Cronbach’s Alpha Coefficient, for the pilot test are shown in Table 4.7.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Cronbach’s Coefficient Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Style Questionnaire (LSQ)</td>
<td></td>
</tr>
<tr>
<td>Overall Scale</td>
<td>0.80</td>
</tr>
<tr>
<td>Activist</td>
<td>0.72</td>
</tr>
<tr>
<td>Reflector</td>
<td>0.63</td>
</tr>
<tr>
<td>Theorist</td>
<td>0.43</td>
</tr>
<tr>
<td>Pragmatist</td>
<td>0.65</td>
</tr>
<tr>
<td>Short version of Approach to Studying Inventory (s-ASI)</td>
<td></td>
</tr>
<tr>
<td>Overall Scale</td>
<td>0.84</td>
</tr>
<tr>
<td>Meaning Orientation</td>
<td>0.63</td>
</tr>
<tr>
<td>Reproducing Orientation</td>
<td>0.76</td>
</tr>
</tbody>
</table>

As shown in Table 4.7, the coefficient alpha for the overall scale of the LSQ tested in this pilot test was 0.80. The coefficient alpha ranged from 0.43 to 0.72 for the LSQ, which was similar to previous studies as summarised in Table 4.5 on page 88. Only the scale of ‘Theorist’ revealed a low alpha value of only 0.43, casting some doubt on the reliability of this scale for a Thai hospitality student sample.

For the s-ASI, the coefficient alpha for the overall scale tested in this pilot test was 0.84 while ‘Meaning’ and ‘Reproducing’ orientations ranged from 0.63 to 0.76, respectively. The results were similar to those reported in previous studies (Richardson 1999; Pimparyon et al. 2000). In the study of Pimparyon et al. (2000) the instrument was implemented with Thai nursing students. In their study alpha coefficients of 0.78 for the overall scale, 0.77 for the scale of ‘Meaning’ orientation and 0.65 for the scale of ‘Reproducing’ orientation were reported.

From the reliability test results it can be said that these two learning style instruments appear to have moderately satisfactory reliability. They appear to be reliable instruments to assess the learning styles of subjects in the present study. Nevertheless, the pilot test indicated that some modifications were necessary in the language used in the Thai version of the LSQ. As it was translated from the original
(English) version, the Thai version of the LSQ had some statements where the sample commented on the clarity of the translated items. Subsequently, these statements were discussed and revised by the researcher and both translators before implementation in the main survey.

4.9 DATA COLLECTION PROCEDURES

In this section the data collection procedure designed to answer the research questions is described. This research method can be described as a mixture of techniques, originating from qualitative and quantitative research. The designed research method consists of three parts, which were:

i) A questionnaire survey with hotel food and beverage supervisory and management staff;

ii) Interviews with hospitality teachers; and

iii) A questionnaire survey with hospitality students.

4.9.1 Questionnaire Survey with Hotel Food and Beverage Supervisory and Management Staff

The aim of the questionnaire survey conducted with hotel food and beverage supervisory and management staff in the Thai hotel industry was to answer the following research question;

What are the dominant learning styles of food and beverage supervisory and management staff in the hotels in selected regions in Thailand?

In order to conduct a survey with hospitality professionals it is important to understand the nature of the hospitality field, as there are some factors which may affect the survey response rate. These include the limited time of respondents, seasonality of the business or unwillingness to cooperate. Wong et al. (2000) mailed questionnaires to hospitality managers in Hong Kong and received a low response rate of only 18%. Therefore, for the current study, the researcher decided instead to
use the drop-off technique for the survey. Cooper and Shindler (1998) suggested that the response rate for the drop-off system is typically above seventy per cent. For the drop-off delivery of the self-administered questionnaire in this study the researcher requested implementation of the questionnaire survey for all staff in food and beverage supervisory and management positions in the participating hotels.

The questionnaire used with this sample consisted of two parts as follows.

Part 1 Questions for collection of demographic data of respondents including age, gender, level of educational qualifications and current position held, as previously explained in section 4.6.3; and

Part 2 The Learning Style Questionnaire (LSQ) as previously described in section 4.6.1.

With permission from the hotel managers these staff were contacted indirectly via the food and beverage or human resource offices, depending on the convenience of each hotel. The questionnaires were packaged together with the information sheets (see Appendices C and D) and the date for return to the food and beverage or human resource offices. A summary of the questionnaire survey with hotel food and beverage supervisory and management staff is presented in Table 4.8.

<table>
<thead>
<tr>
<th>Questionnaire survey with Hotel Food and Beverage Supervisory and Management Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributed</strong></td>
</tr>
<tr>
<td>461</td>
</tr>
</tbody>
</table>

As shown in Table 4.8, a total of 461 questionnaires was personally delivered to the participating hotels. The completed questionnaires were collected from the hotels one week after delivery. Of the 461 distributed questionnaires, 397 questionnaires were returned. Twelve questionnaires were excluded from the study because the participants did not complete any of the questions. Thus, 385 questionnaires were usable, representing 83.50% of the total distributed questionnaires.
4.9.2 In-depth Interviews with Hospitality Teachers

The in-depth interviews were conducted in order to collect data on current instructional methods implemented by hospitality teachers at the case study university. The data collection was to answer the research question:

*What are the current instructional methods implemented by hospitality teachers in hospitality food and beverage-based subjects in the case study university in Thailand?*

The letter requesting the interview, the information sheets and permission forms were sent to the President of the university, explaining the study. After receiving a letter of reply indicating the President’s permission to conduct in-depth interviews with teachers and the questionnaire survey with students (see section 4.9.3) the researcher contacted the two hospitality teachers who taught food and beverage-based subjects at the case study university in order to make appointments for the in-depth interviews.

Each in-depth interview started with a standard introduction. This provided information about the study including the aims and the confidentiality and anonymity of the respondents as mentioned in the research information sheet (see Appendices C and D). The respondents were then asked to sign the consent forms (see Appendix N) before starting the interviews. Both interviews were conducted at the teachers’ offices during normal working hours. The interviews were tape recorded in order to ensure accuracy of the data. It took about one hour for each interview.

4.9.3 Questionnaire Survey with Hospitality Students

With the aim of determining the learning styles of hospitality students who enrolled in food and beverage-based subjects, the survey (see section 4.6) was implemented with hospitality students at the university to answer the following research questions:
What are the dominant learning styles of hospitality students in food and beverage-based subjects in the case study hospitality program in Thailand?

Are there any significant learning style differences among these students according to their age, gender and academic achievement?

Are there any differences between the learning styles of these hospitality students and those of the Thai hotel food and beverage supervisory and management staff?

The survey request letter and information sheets were sent to the President of the university, explaining the study. After receiving a reply granting permission to conduct the questionnaire survey with hospitality students the researcher contacted the teachers who were responsible for these classes to make appointments with them and their students. These students were contacted in their classes one week before the session time at which the main survey was to be conducted. Participation of students was on a voluntary basis. The researcher presented the recruiting notice to the class one week before conducting the survey by informing them of the following aspects:

i) Purpose of research;

ii) Participation was voluntary;

iii) If the students did not participate in this study, they would not be in any way disadvantaged;

iv) Full confidentiality would be respected; and

v) The session time for conducting the survey.

The questionnaire distributed to the hospitality students in food and beverage-based subjects comprised three parts, which were:

Part 1 Questions for the collection of demographic data of respondents, including age, gender and grade point average (GPA) as described in section 4.6.3;

Part 2 The Learning Style Questionnaire (LSQ) as described in section 4.6.1; and

Part 3 The short version of Approach to Studying Inventory (s-ASI) as described in section 4.6.2.
During distribution of the questionnaires for the main survey with these students each questionnaire was also accompanied by the information sheet about the study (see Appendices C and D). The questionnaires were administered in the controlled environment of formal class time with the permission of the teachers. Under the supervision of the researcher students were given an unlimited time to complete the questionnaires. Most students took approximately thirty minutes to complete the questionnaire.

The total of 383 hospitality students comprised 231 undergraduate students from Subject A and 152 undergraduate students from Subject B. The students returned 339 questionnaires. Fifteen questionnaires could not be used because some data were missing. The final response rate for the questionnaire survey with hospitality students was 84.38% (n = 324), which is considered to be highly satisfactory (Johanson & Woods 1999).

4.10 DATA ANALYSIS

After data have been gathered, analysis is needed in order to transform the data into meaningful results. To complete an effective analysis of the data qualitative and quantitative methods of analysis were applied to the data gathered from the in-depth interviews and from the survey questionnaires, respectively. The hypotheses (see section 3.5, Chapter Three) corresponding to the study aims (see section 1.3, Chapter One) were analysed using the Statistical Package for Social Sciences Version 11.0 (SPSS 11.0).

4.10.1 Qualitative Data Analysis

Silverman (1998) pointed out that checking the reliability of qualitative data analysis is closely related to assuring the quality of raw materials and guaranteeing the public access to the process of their production. Accordingly, for the current study, the quality of tapes and interview transcripts, which were considered as being the raw materials, had important implications for the reliability of the research.
In this study the interviews recorded on tape were thematically transcribed after the interviews. From the interview transcripts a summary of each respondent’s answers was developed in order to identify potential themes through comparing and contrasting the differences between respondents at a later stage.

As proposed by Miles and Huberman (1994) the interview transcripts were analysed and coded to identify emerging patterns and themes. Codes were developed for assigning meaning to words, phrases and paragraphs for clustering related segments to draw conclusions within the context of the research questions underlying the study. To ensure dependability of the qualitative data an audiotape of the interviews was analysed several times. Key points were listed on an analysis worksheet that was separated by themes and question numbers. The answers to each question in the interview transcripts were compared, analysed and described by using the cross case analysis frame in order to seek common patterns. The analysis compared each theme from the raw data, as suggested by Patton (2002).

4.10.2 Quantitative Data Analysis

Data from the questionnaires which were collected from the sample of hospitality students and hotel staff in food and beverage supervisory and management positions, were edited, coded and entered into the SPSS 11.0. Data cleaning, which consists of a final check on the data file for accuracy, completeness and consistency, was completed before any analysis (Fowler 1993). Subsequent analysis was conducted by SPSS 11.0.

Initially, there were thirty-four missing values for grade point average (GPA). To decide whether a remedy for missing data can be applied the researcher must ascertain the degree of randomness present in the missing data (Hair, Anderson, Tatham & Black 1998, p.49). Statistical tests were performed to determine whether significant differences existed between the two group observations with valid values and with missing data for grade point average (GPA) on other variables in the study. The non-response bias was checked by cross tabulation and the independent sample
t-test. In this study, systematic patterns of missing data were not found in the data set and no significant differences or any consistent patterns were found, that would indicate data missing at random (MAR). The missing values for grade point average (GPA) in those thirty-four cases of missing values were therefore substituted by means of valid sample responses in order to provide all cases with complete information.

Major types of quantitative analysis techniques were used to analyse the data for this study. To test the hypothesis mentioned in section 3.5, Chapter Three, learning style differences across various groups were interpreted by using the independent sample t-test and one way Analysis of Variance (ANOVA). In this study the statistical significance level selected was a p value of 0.05, a convention common for social sciences research.

**The Learning Style Questionnaires (LSQ)**

Data analysis for the Learning Style Questionnaire was carried out using the standard scoring procedures for the instrument. The mean scores on learning styles were interpreted by using the norm references of the Learning Style Questionnaire provided by Honey and Mumford (1992) (see Table 4.4, page 84). The data on learning styles enabled raw scores to be obtained, along with the norms and means for the general population. The scoring program was used in conjunction with the statistical package SPSS 11.0.

**The Short Version of Approaches to Studying Inventory (s-ASI)**

The responses to the short version of Approaches to Studying Inventory (s-ASI) were categorised into the ‘Meaning’ and ‘Reproducing’ orientations according to the guidelines supplied with the inventory. Accordingly, those who achieved the highest mean scores in 16 particular items were using the ‘Meaning’ orientation and those who achieved the highest mean scores in another 16 items were using the ‘Reproducing’ orientation (see Table 4.6, page 90 for items for each orientation).
Descriptive Statistics

It was stated in Chapter One that one aim of this study was to obtain a better understanding of any learning style differences between different groups of students as categorised by their individual learner variables. This can be achieved by describing the sample in terms of their age, gender, academic achievement and learning styles. Basic descriptive analysis using frequency tables provided the profiles of respondents. Descriptive statistics were used to calculate the frequency, mean and standard deviation based on the demographic profiles of the samples.

Independent Sample t-test

Zikmund (2000) stated that the t-test may be used to test a hypothesis stating that the mean scores of some variables will be significantly different for two independent samples or groups. For the present study, t-tests were considered appropriate for the current study. The independent sample t-tests determined any significant differences between the students’ mean scores and the professionals’ mean scores for each of the four learning styles contained in the Learning Style Questionnaire (Honey & Mumford 1992). This test was also used to determine any significant differences between the hospitality students’ mean scores when students were grouped by their gender.

Analysis of Variance (ANOVA)

Analysis of variance (ANOVA) was the appropriate statistical technique for testing these hypotheses as the mean scores of more than two groups or populations were compared (Zikmund 2000). In the present study the student sample, categorised by age and academic achievement as measured by grade point average, formed more than two groups. Analysis of variance (ANOVA) was used to test the differences among the learning style mean scores for different groups of students to determine any significant learning style differences between hospitality student groups. If any
significant result was found, a *post hoc* test was performed to find out where the significance lay.

### 4.11 RULES ON ETHICS AND CONFIDENTIALITY

There are four important ethical responsibilities involved in this research. These are voluntary participation, informed consent, no harm to participants and confidentiality and anonymity (De Vaus 2002). The present study necessitated careful attention to ethical issues arising during the data gathering phases. Ethical approval was granted by the Human Research Ethics Committee of Victoria University.

The present study adopted procedures to ensure ethical practices such as informed consent, openness about research aims and assurance of anonymity and confidentiality. A research information sheet (see Appendices C and D) providing details about the study was attached to the questionnaire, together with the consent forms for the in-depth interview participants (see Appendices E and N). Participants in both quantitative and qualitative studies were informed that, under the research ethic rules, their participation was entirely voluntary and that there were no risks to them, such as legal, psychological, moral and other risks. In addition, if they felt that the study was intrusive or if they were reluctant to answer any question they could withdraw at any stage of the process.

Completed survey questionnaires, transcripts and tape recording of the in-depth interviews are stored at School of Hospitality, Tourism and Marketing at Victoria University after analysis by the researcher. All data are held at the School of Hospitality, Tourism and Marketing at Victoria University. Only the researcher and supervisors can access the data in order to secure the confidentiality of the information. In relation to the anonymity issue the research results were reported in a form in which participants cannot be identified.
4.12 CONCLUSION

This chapter has presented an overview of the methodological perspective of the present study. The starting point in this discussion was the adoption of a mixed method of qualitative and quantitative research methods and the rationale for their selection and use were explained. Research design, selection of participants, data collection and data analysis were explained in detail in this chapter. In summary, Figure 4.2 shows the qualitative and quantitative research methods used in the present study in a diagrammatic form. As in all research, the present study was subject to three limitations, particularly in terms of its methodology. However, these methodological limitations will be later discussed together with other limitations in the last chapter, Chapter Nine.

The next chapter, Chapter Five, presents the results of the exploratory study. The descriptions on the results of skill requirements for hospitality graduates to work in hotel food and beverage supervisory and management positions as well as possible skill deficiencies in teaching and learning process in hospitality higher education as experienced by hotel employers are reported.
Figure 4.2 Qualitative and Quantitative Research Methods Used in this Study

Review of Literature

Exploratory Study
* Hotels

Research Design
* Quantitative: Questionnaire Surveys
* Qualitative: In-depth Interviews

Selection of Participants & Data Collection
* Hotels
* Case Study University

Data Analysis

- Quantitative: Descriptive statistics, t-test, Analysis of Variance (ANOVA)
- Qualitative: Cross-case Analysis
5.1 INTRODUCTION

This chapter describes the results of exploratory study, the purpose of which was to establish a conceptual framework within which the subsequent phase of the research regarding learning styles in Thai hospitality contexts could proceed. Thus, this exploratory research served to define the skill requirement of hospitality graduates to work in hotel food and beverage supervisory and management positions and particularly, hospitality graduates’ skill deficiencies to work in these positions as expressed by the industry.

This process comprised a comprehensive and critical review of the theoretical and research literature was undertaken in both Thai and Western contexts (presented in Chapter three). This was followed by the exploratory semi-structured interviews with hotel personnel who were involved in the recruitment and selection of food and beverage supervisory and management staff in Thai hotels. This exploratory study qualitatively examines and verifies the problems of teaching and learning in Thai higher education as identified from the literature by investigating the opinions of thirty hotel managers on the required skills for hospitality graduates to work in hotel food and beverage supervisory and management positions in Thailand. The data obtained from these semi-structured interviews are reported and discussed with the related literature.

A total of six human resources managers and twenty-four food and beverage managers participated in these interviews. As noted by Strauss and Corbin (1990) the objective of qualitative research is not to make statistical inferences but to explore, in an in-depth manner, the interviewees’ opinions on skills required for hospitality graduates to work in food and beverage supervisory and management positions in the Thai hospitality industry. Hence, statistical measurement and analysis are not attempted in the following discussion. Most previous studies were conducted
utilising quantitative methods such as questionnaire surveys, and most suffered from low response rates (Baum 1991a, 1991b; Fournier 2004; Nelson & Dopson 2001).

A purposive sampling technique was implemented to select these managers, as they were involved and experienced in the recruitment and selection of food and beverage supervisory and management staff in Thai hotels. Data gathered from the interviews were tape recorded, and then analysed by transcribing the interviews and comparing and contrasting the differences between respondents by using the cross case analysis frame in order to seek common patterns.

5.2 PROFILES OF THE RESPONDENTS

The profiles of the respondents are reported in terms of age, gender, position held and educational level as shown in Table 5.1.

<table>
<thead>
<tr>
<th>Profiles</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>Female</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 - 39</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>40 - 49</td>
<td>20</td>
<td>66.7</td>
</tr>
<tr>
<td>50 - 59</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td><strong>Position Held</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Beverage Manager/ Director</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>Human Resources Manager</td>
<td>6</td>
<td>20</td>
</tr>
<tr>
<td><strong>Educational Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>Post-Secondary School or Vocational Diploma</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>Postgraduate Degree</td>
<td>5</td>
<td>16.7</td>
</tr>
</tbody>
</table>

N = 30

Regarding the respondents’ gender, there were clearly more males (n = 26) than females (n = 4) in the study. The majority of respondents (n = 24) were food and beverage managers/directors, while six respondents were human resources managers. The age of respondents was very similar within the group. Most respondents were in the age range of 40 to 49 years. More than half of the respondents (n = 21) reported
that they had obtained a university education, including undergraduate and postgraduate degrees. Seven respondents had only completed high school while two had finished post secondary school. The majority had received a university education.

5.3 KNOWING THE SKILLS REQUIRED BY THE INDUSTRY

The aim of the interviews was to investigate the skills required to work in food and beverage supervisory and management positions in order to assist hospitality teachers in knowing what skills hospitality students must learn to improve their employability when they graduate. During the course of the interviews some specific skills were identified by the majority of respondents. From the analysis of interview data, four main issues emerged regarding the necessary skills, characteristics and experience. These included educational characteristics, job related experience, functional job skills and characteristic traits.

5.3.1 Educational Characteristics

It is apparent that, for these respondents, educational characteristics did not play a significant role in recruiting people to work in hotel food and beverage supervisory and management positions in Thailand. Respondents commonly mentioned a high school qualification as an adequate educational level for working in these positions. However, while some respondents set the educational requirement for recruits at least at the bachelor degree level, they were still flexible enough to employ people without a degree. This was due to the fact that often they could not find any graduates who were qualified in terms of the necessary skills to fulfil the job requirements.

According to the participants’ comments, to work in any of these positions, they did not necessarily need to employ a person with a hospitality degree. There were several respondents who did not consider educational characteristics to be one of the criteria. One of these respondents noted that:
I don’t mind if they are graduates or not because I think we still need to teach these graduates all sorts of things that we expect they could have learnt at university, such as how to handle customers, interpersonal skill, how to serve, and many other skills. I do not limit my recruiting to hospitality graduates or any other graduates as long as the recruits have the desired skills. (Respondent 6)

That most respondents in this study did not expect particularly to employ hospitality graduates or other graduates to work in these positions was congruent with the findings in most previous studies (Emenheiser et al. 1998; Hsu & Gregory 1995; Ineson & Kempa 1996). In the Taiwanese hotel industry the most acceptable educational level for the entry-level manager was only the two-year college degree (Hsu & Gregory 1995).

5.3.2 Job-Related Experience

Job-related experience was mentioned by most participating managers. All respondents concurred, that in recruiting staff, they took the approach of using job-related experience as the main criterion. They expected to employ someone with from one to ten years of work experience. They claimed that previous experience showed how skilful the job applicants were, especially in food and beverage technical skills. Frequently, one to three years of job-related experience was mentioned as a minimum.

The hospitality industry was seldom willing to hire supervisory and management staff who had never held responsibility or a full time position in the field. The interviews confirmed the respondents’ viewpoint that many of the needed skills were ultimately developed through experience. In this connection, the following comments were made:

We need someone with experience because if they don’t have experience, I assume that they will lack leadership skills and food and beverage technical skills. So they can’t manage a team. (Respondent 8)
To some extent, we think that their experience is an indicator of their ability in food and beverage technical skills. These skills get better and better with lots of practice so experienced people will do well in these positions. (Respondent 10)

The above statements imply that in the respondents’ view, hospitality graduates needed to gain some work experience as well as skills in order to be able to work in these supervisory and management positions. One to three years of job-related work experience in candidates sought by respondents in this study was consistent with the findings of previous studies in the hospitality area (Gamble & Messenger 2001; Hsu & Gregory 1995). These studies also found that the main criterion cited, experience, was the quality managers sought in recruiting staff.

5.3.3 Functional Job Skills

As mentioned in the methodology chapter (Chapter Four) the interview questions were mainly developed from the study of Emenheiser et al. (1998). ‘Functional job skills’ in their study included five sub-themes. These five sub-themes were communication skills, psychomotor skills, management skills, organisational skills and marketing skills. For this study, the interview results yielded only four of the five main sub-themes, as none of the respondents mentioned organisational skills.

Among these functional job skills it was obvious that communication skills and food and beverage technical skills were frequently mentioned by most respondents as the significant skills required in their new recruits. Other main skills also mentioned included management skills and marketing skills. However the respondents did not consider these two skills as essential, but rather as an advantage.

**Communication Skills**

Communication skills involve the ability to interact successfully with others through careful listening and effective oral and written techniques (Emenheiser et al. 1998). Written, oral and listening communication skills were all evaluated as important by participating managers. Individuals who were qualified to work in food and beverage
supervisory and management positions were expected to communicate easily with people at all levels. The majority of respondents agreed on the significance of communication skills. Two respondents who stressed the importance of communication skills made these supporting statements:

Some people know everything but can't communicate with others effectively. So I consider communication as one of the most important skills for managers at all levels who work in the food and beverage department because they will need to effectively communicate with diverse groups of people, guests, colleagues and superiors. (Respondent 9)

You have to like people and like to communicate with them, especially effectively. Even the person with experience, if they don't have these skills, it is difficult to be successful in food and beverage work. (Respondent 17)

Additionally, the respondents referred to multilingual capabilities as another component of communication skills. As one respondent put it:

Of course, the ability to effectively communicate with customers is important. As most of our guests are foreigners, both spoken and listening skills in English are a must. (Respondent 7)

Hence, the communication skills identified by the respondents spanned a number of languages and the knowledge of how to interact with people.

**Technical Food and Beverage Skills**

The respondents reported that they definitely thought that technical food and beverage skills were important to enable individuals to work as hotel food and beverage supervisory and management staff. It appeared that most respondents linked food and beverage technical skills to job-related experience (see also section 5.3.2). In support of this viewpoint one respondent noted that these skills were gained from work experience.

...with their experience I believe they will have those important food and beverage technical skills to work on the site. (Respondent 16)
Consequently, although some respondents did not mention food and beverage technical skills per se, they did imply that these skills would be required, as work-related experience were claimed by the respondents as essential to work in these positions.

**Management Skills**

Emenheiser et al. (1998) defined management skills as the ability to maintain excellent fiduciary responsibility and control along with recruiting and developing good staff. In this study most managers emphasised that they looked for management skills in recruits, but, in relation to management skills, financial management, decision-making skills and time management were rarely mentioned by respondents. Problem solving skills were regularly mentioned as important, which may possibly be due to the high level of customer contact in the nature of food and beverage work. People working in these positions have to face many situations and problems, thus, they need to have good problem-solving skills. This is illustrated by the following respondent comments:

Problem solving skills and the ability to manage people are important to work in these positions. (Respondent 11)

with a bit of management skills... Also if you are in the management level, ‘manage’ means get things done by the others. So you don’t need to do that yourself. You need management skills... I think you need 50% of technical skills and 50% of management skills. (Respondent 8)

A large number of respondents put forward the view that new recruits needed a balance between operational skills and management skills. They expressed the view that having good management skills was important, although it was not essential. Rather, it was an advantage for the recruits.
**Marketing Skills**

The respondents also were of the view that marketing skills would be an advantage for work in food and beverage supervisory and management positions. Yet it was not a priority. Emenheiser et al. (1998) defined marketing skills as the ability to manage service skillfully and to enhance sales.

Marketing skills were viewed by several respondents as important because of the high level of competitiveness of the industry. The results showed that only basic knowledge in sales and marketing skills would be enough to perform the jobs. All respondents who mentioned marketing skills noted that they would consider other significant skills first, before marketing skills. Respondents were willing to provide training in marketing skills for the right candidates when they were on the job. In this connection the following comments were made:

- Marketing skills would be an advantage, but not the priority. (Respondent 12)

- For marketing skills, they are required but we think if they have other skills, we can train them in marketing skills on the job. (Respondent 7)

With regard to functional job skills, communication skills and food and beverage technical skills were consistently perceived as important by the majority of respondents. Management skills, especially in terms of problem solving skills, were also required for food and beverage supervisory and management staff. Although some other skills such as financial management, decision-making skills and marketing skills were mentioned, they only appeared to be an advantage for the recruits once they were employed, and were additional to the significant skills that the industry considered to be essential and for which they sought keenly.

### 5.3.4 Characteristic Traits

Characteristic traits include four sub-themes, which are personality, leadership ability, interpersonal skills and attitudes (Emenheiser et al. 1998). In addition to the
other criteria such as functional job skills, the results from the interviews showed that characteristic traits like leadership skills and attitude, particularly teamwork ability, were regularly mentioned. These traits were considered important when respondents were recruiting staff to work in food and beverage supervisory and management positions.

**Leadership Abilities**

One message that was clearly articulated in the interviews was that leadership ability was an extremely important criterion in employing hotel food and beverage supervisory and management staff. Leadership ability refers to the ability to exude competence, confidence and to mentor and lead others successfully (Emenheiser et al. 1998). The respondents agreed that, to work in supervisory and management levels, the recruits needed to work with their subordinate or team. Therefore, they wanted to employ someone who was able to lead people as a team leader. One respondent claimed that:

> We want someone who can be a leader also. These positions are in supervisory and management levels. Without leadership skills, I think it will be hard for someone to be successful in their job. (Respondent 10)

**Teamwork Abilities**

The common trend of comments made by most respondents was that they searched for the recruit's ability to work in a team. Teamwork ability is referred to by Emenheiser et al. (1998) as a part of 'attitude'. 'Attitude' is the ability to maintain an attitude that is a model for emulation, including high energy level, enthusiasm, ability to work as part of a team, sense of humour, honesty and integrity (Emenheiser et al. 1998). The majority of respondents explained that to lead a team as well as working in a team, and to coach a team effectively constituted an important characteristic trait that they sought in the recruits. One respondent said that:
Leadership skills are important. They need to be able to lead people as a team leader. (Respondent 19)

Work Attitude

About half of the respondents emphasised the significance of a positive work attitude when they recruited someone for these positions. Among these respondents, two of them strongly expressed their viewpoints:

Those food and beverage technical skills can be easily acquired through on the job training. But we can’t invest in improving people’s attitude. It is linked to many other qualities, for example, in order to be able to motivate a team, you need to have a good attitude. (Respondent 22)

We think the first thing to look at in the candidates is attitude. Although some people may have good job skills, if they lack ‘attitude’ in their work, we wouldn’t consider them. (Respondent 20)

Interpersonal Skills

Another characteristic trait that respondents mentioned was interpersonal skills which are the ability to interact positively with others and get jobs done (Emenheiser et al. 1998). The interviews confirmed that the recruits needed to have good interpersonal skills to work in food and beverage supervisory and management positions. In general, these skills are related to human relations skills. The respondents explained that interpersonal skills were important in approaching the guests effectively, and in interacting effectively with other people to achieve a goal. One respondent conveyed her view that interpersonal skills were very important as she highlighted that:

...I think working in the hotels, in whatever position, if you possess human relations and interpersonal skills and the right attitude, I consider recruiting you first. (Respondent 22)
This was also supported by another respondent who said that:

Another important skill is human relation skills. Human relation skills are the most important in every level and every position. Working in the hospitality industry, you work with people, you need to have good skills so you can work smoothly with your colleagues, customers and superiors. Handle yourself, use your brain. Handle others, use your heart. That’s why we need someone with good human relations skills. (Respondent 8)

**Personality and Appearance**

As the hospitality industry is a people-oriented business, respondents also noted that personality and appearance were other characteristic traits they looked for in the recruits. Although only about half of the respondents in this study mentioned personality as one of the criteria they considered in their recruits, for them, it appeared to be the main criterion. These respondents mentioned personality as their first choice as well as job-related experience regarding the requirements for food and beverage supervisory and management positions. Additionally, they claimed that personality, from their point of view, also included motivation and enthusiasm for work.

Other criteria, claimed by only a few respondents to be of importance and featuring in the evaluation of recruits, were patience, vision and creativity. In addition, some respondents concluded that, working in these positions, the person needed to be flexible and able to apply a range of skills to their work. In general, multi-skilled recruits were ultimately sought for these positions. One manager, who supported this point, stated that:

“I would have to say that they need to be multi-skilled. We want staff to be flexible. You know our hotel is small and people must be multi-skilled to take up another position when necessary.” (Respondent 3)

The results in this study were inconclusive about significant changes in skill requirements for food and beverage supervisory and management positions. While most respondents remarked that, in the next three to five years, there would not be
any significant changes in skill requirements for these positions, some respondents expressed different opinions. Possible significant changes in skill requirements mentioned by some respondents were related to the use of the technology in food and beverage work, such as in the use of computer software programs. Nevertheless, other respondents who perceived no changes in skill requirements gave the explanation that hospitality food and beverage jobs are about people and service. Consequently, the previously mentioned skills such as food and beverage technical skills and human relations skills, would still remain significant in the future.

5.4 OPINIONS ABOUT THAI HOSPITALITY HIGHER EDUCATION

The previous section presents insights into skill requirement to work in hotel food and beverage supervisory and management positions as expressed by the industry. To understand the relevance on how hospitality higher education can assist their students in developing these skill requirements, respondents’ opinions on the important role of hospitality education and the quality of current hospitality education in Thailand needs to be explored. This information is important in understanding the discrepancies between industry and educational institutions in order to improve student learning.

Despite the respondents’ sceptical evaluation of hospitality graduates’ skills compared to the skills required to work as food and beverage supervisory and management staff, they did consider that graduate performance was fair overall. Most respondents agreed that hospitality graduates’ performance was only fair in terms of their skills to work in these positions, while a few respondents perceived them as having good skills.

These evaluations of graduate performance reflected some difficulties that employers have experienced in employing them in these positions. High expectations and lack of experience were mostly claimed to be the difficulties encountered in recruitment. Also, lack of some essential skills like food and beverage technical skills, communication skills, leadership skills and problem-solving skills were perceived as
the main skill deficiencies. Nevertheless, there were still a few respondents who appreciated that hospitality graduates had some useful skills including their creativity, their ability to learn and understand things quickly and their wide vision, all of which were claimed to contribute to the success of the hotels.

5.4.1 Deficiencies in Skills of Hospitality Graduates

The interview results indicated that the respondents were surprised and disappointed by the skill deficiencies in hospitality graduates. The main criticism mentioned by the participating managers was that hospitality graduates lacked work experience, resulting in deficiencies in other essential skills, including food and beverage technical skills.

From the industry’s viewpoint, graduates tended to have high expectations and unrealistic ideas about their work. They were not prepared to do the operational jobs. Most respondents commented that their expectation of getting into the management level after graduation was impossible to fulfil as they lacked work experience. This was the main weakness of many hospitality graduates as perceived by most of the respondents. In this connection respondents noted that:

Graduates lack experience. Although they have been trained in the university and in the internship, it is not exactly the same situation like in the workplace. They don't know how to handle the pressure can't take full responsibilities and have no problem solving skills. (Respondent 5)

I think graduates without experience can't perform very effectively. They may have experience during the placement, but I don't think it is enough. (Respondent 12)

They still lack hands on experience and all the essential skills that come from working experience. (Respondent 29)

Clear shortcomings were still apparent in graduates’ skills, particularly with regard to food and beverage technical skills. A consensus of responses in this study showed that it was difficult to employ hospitality graduates to work in these positions even
when they had good theoretical food and beverage knowledge, as they lacked the necessary technical and practical skills. Food and beverage work was claimed by several respondents to be practical and hands-on work that cannot be satisfied by just having knowledge. One respondent said that:

We have so many hospitality graduates working with us in our food and beverage department. The problems in employing these graduates are that they lack practical skills. They may have some knowledge about food and beverage work, service and management but they just know things on the surface, not in depth. (Respondent 15)

A small number of respondents was also not very satisfied with graduates’ communication skills, in particular with their inefficient presentation skills as well as their lack of leadership skills. Some notable comments on the lack of these skills were that:

I feel like they don’t have good skills on how to interact with other people. And this is important, as you know we work in the hospitality or service industry, in which we need to deal with many people. If they can’t communicate or present themselves well, I don’t see any way they can work in these positions. (Respondent 30)

The graduates need to have good presentation skills in performing their jobs and presenting our products and services. We still don’t see these skills obviously in hospitality graduates. (Respondent 27)

They still lack leadership skills. (Respondent 5)

About one third of respondents in this study considered that graduates were also deficient in problem-solving skills. Although graduates were given a good grounding in this from their learning experience in hospitality education, the respondents in the current study recognised that problem-solving skills were ultimately developed through experience.

One respondent, reporting on the lack of problem solving skills in graduates, stated that:
They don’t know how to handle problems. Food and beverage is skilled work. Graduates have knowledge about the job but they don’t have skills, while people with experience, they may be in the opposite way. Graduates may have knowledge from textbooks on how to solve problems or handle guests’ complaints but in the real situation, they may not be able to do exactly as in the textbook. This is when you need experience. Experience will tell you what the effective way is. (Respondent 5)

Other graduate skills deficiencies that were mentioned by only a few respondents were that hospitality graduates lacked attitude, marketing skills, teamwork skills, management skills and confidence. Furthermore, the results in this study showed that contradictory opinions were expressed by respondents about graduates’ creativity. While some respondents mentioned graduates’ creativity as a useful skill (see section 5.4.2), on the other hand, other respondents stated that hospitality graduates lacked creativity to contribute to the job.

The respondents’ viewpoints on skill deficiencies in hospitality graduates appear to be discouraging for hospitality education, as most participating managers perceived many skill deficiencies in graduates. To some extent this implies a failure by hospitality teachers to develop the range of required skills in students during their learning at university.

5.4.2 Useful Skills for Hospitality Graduates

While the majority of respondents found it difficult to employ hospitality graduates to work in food and beverage supervisory and management positions, there was still a small number of respondents who recognised the useful skills that graduates offered. As reported in the previous section, opposing opinions were presented by the respondents on graduates’ creativity. Some perceived deficiencies in hospitality graduates’ skills, such as creativity, were perceived as useful skills by a few respondents in this study.
A small number of respondents focused on features that were best described as useful graduate qualities such as their creativity and their ability to learn and understand things quickly. This was supported by one respondent who said that:

However, their good points are that they have good learning skills, which make them learn quicker. (Respondent 10 and 12)

Interviews with managers in the current study suggested that the industry wanted to employ hospitality graduates because they understood the industry. A few respondents believed that hospitality graduates brought a wider vision, which was seen as useful to the hotels. One respondent stated that:

They have a good vision which can be applied and used to improve the job. In formal education, they learn so many theories, which people who are working in the industry can learn from them if the hotel employs them to work. (Respondent 17)

A few respondents included attitude, communication skills, critical thinking skills, interpersonal skills and ability to adapt as other useful characteristics of hospitality graduates. One respondent stated that:

I like hospitality graduates, as they are very adaptive to new jobs, new challenges or new experience. These young graduates, I see them as a quality product. (Respondent 9)

Thus, despite perceived deficiencies in some significant areas such as practical skills or problem solving skills as earlier discussed, there were still some positive perceptions of graduates’ skills.

5.4.3 Needs for the Improvement of Teaching and Learning Process in Thai Hospitality Higher Education

After investigating the educational qualifications of the respondents in this study (see also Table 5.1, page 108), it was established that seventy per cent (70%, n = 21) of the respondents had had learning experience in higher education. Nevertheless, all
respondents were asked about their opportunities to become involved with Thai hospitality higher education. The activities in hospitality education in which respondents had been involved included being a guest speaker, working with students during internship, completing research instruments as a respondent, discussing hospitality food and beverage curriculum with lecturers and designing or modifying the curriculum. Only a very small number of respondents mentioned that they were not involved in, or had not had any opportunities to find out about the quality of hospitality higher education in any way.

Respondents who were involved with hospitality education were in agreement that in order to improve hospitality graduate skills there was a strong need for change in terms of current instruction in Thai hospitality higher education. Most criticism was that higher education was overly academic and limited in its concern for developing practical skills. One of the key areas of criticism expressed in the interviews was that hospitality education did not provide the food and beverage skills that the industry required. Most respondents expressed the view that it was necessary to teach food and beverage theory in the hospitality courses, as it was the foundation of practice, but they thought that the emphasis given in hospitality education to practice-related skills was insufficient. Respondents acknowledged that the industry needed hospitality education to develop practitioners for the workplace, but those who had had a balance of theory and practice in their learning as reflective practitioners would be preferred.

One of these respondents indicated a need for hospitality graduates who could use their skills as well as think on their feet.

It doesn't matter what teaching methods the universities try to use on teaching food and beverage technical skills, it can't be taught in the university. It seems to take time to learn and better on the job...I understand that it is necessary for hospitality higher education to teach theory of food and beverage but they also need to produce graduates who can be practitioners as well. It is undesirable to know everything, but can't put anything into practice.

(Respondent 5)
From the above statement, it appeared that the respondents doubted whether needed skills could be taught effectively in the hospitality programs. For hospitality teachers, the results imply strongly that work experience needs to be an integral part of learning experience for students in hospitality programs in order to enhance some necessary skills, particularly practical skills. Some managers believed that hospitality teachers needed to improve their instruction so that they could produce students who were both theoretically and practically competent. One respondent claimed that:

What I think may cause the problems is about hospitality teachers. They are good theorists, but not practical. They need to improve their teaching... Lecturers know only theory and students learn from lecturers. Finally they are all theorist, not activist. (Respondent 23)

Respondents considered that hospitality teachers were another important factor in developing students to be reflective practitioners in the hospitality industry. They argued that hospitality teachers did not have enough practical skills or hands-on experience to teach their students. They suggested that practical skills were important not only for the students, but also for hospitality teachers. Hospitality teachers should acquire more practical skills in order to teach their students effectively. Teacher internship during the semester break may be one of the solutions for this concern, as it assists in making connections between classroom instruction and work situation.

Additionally, managers urged for more reflective learning in student learning, as they believed that most hospitality students just learnt in order to pass the examination or assessment requirements. In this connection, the comment was made that:

Education just teaches students in order to get the good marks and pass the examination. Teachers need to teach students in order that they have the skills as required by the objectives of the course, which of course, should be congruent with the requirements of the industry. (Respondent 28)

The respondents emphasised the importance of cooperation between hospitality education and the hospitality industry in order to develop the skills needed by hospitality graduates. The respondents suggested that the course should be designed
by including industry consultation to determine the industry’s needs. Having industry advisory panels for hospitality programs would benefit all three partners, including students, teachers and industry employers.

5.5 DISCUSSION

This exploratory study clearly identified what skills were deemed important by the respondents. Generally, the skills that respondents regarded as essential for employment were food and beverage technical skills, leadership skills, communication skills and a good work attitude, in preference to management skills. The industry was still looking for evidence of food and beverage technical skills by considering the work experience of recruits. The results of this exploratory study can be summarized and discussed as follows:

- Despite the cultural difference between the contexts of the current study in Thailand and previous studies, which were mostly undertaken in Western contexts, human relations skills were still identified as the skills most required for work in the hospitality industry (Baum 1991a; Chan & Coleman 2004; Hsu & Gregory 1995; Tas 1988).

- Communication skills were in the top five essential skills required by hospitality employers when recruiting new staff. Congruent findings on the importance of communication skills have also been reported by many researchers (Christou & Eaton 2000; Emenheiser et al. 1998; Fournier 2004; Ineson & Kempa 1996; Nelson & Dopson 2001; Okeiyi et al. 1994).

- The phenomenon that human relations skills were perceived as important was not surprising and could be explained by the fact that the hospitality industry mostly provides intangible and people-focused services to its customers. There is a high level of customer contact in the various jobs, which need good human relations skills to be effective. Furthermore, Thailand is a popular tourist destination and most of the tourists or customers are foreigners. Thus
communication skills, especially foreign languages as well as the ability to interact with people would be expected to be very important for workers in the industry as respondents in this study confirmed. Finally, to be qualified to work in supervisory and management levels it is not surprising that a recruit needs to have strong leadership skills as the person who must lead and manage others in their team.

- The strong emphasis on food and beverage technical skills shown by the respondents in this study was inconsistent with the findings of previous studies (Baum 1991a, 1991b; Christou & Eaton 2000; Emenheiser et al. 1998; Fournier 2004; Hsu & Gregory 1995; Nelson & Dopson 2001; Okeiyi et al. 1994; Tas 1988).

- The strong preference expressed by the Thai industry for food and beverage technical skills, compared to those in previous studies, may be because in Thailand, most hotels have less streamlined systems than the hotels studied by earlier researchers in other countries. Consequently, in Thailand employees in supervisory and management levels are possibly required to have more flexibility in using their skills when needed. The inconsistencies in the need for these skills identified by many researchers may also vary across the various types of hotels.

- Regarding management and marketing skills, the findings from this study did not support those of previous research (Emenheiser et al. 1998). While Thai hospitality employers considered these skills only as desirable, and hence an advantage for recruits, marketing and management skills were found to be in the top five of required skills by Emenheiser et al. (1998) in the US restaurant industry. While managers in the study of Emenheiser et al. (1998) mentioned that management skills were more important than food and beverage technical skills, which they claimed were taught easily on the job, the respondents in this study did not express similar views. On the contrary, one respondent referred to management skills as skills which could be acquired
on the job later. The only component of management skills that received high importance from the respondents in this study was problem-solving skills. It was consistent with the findings of most of the previous studies (Baum 1991; Christou & Eaton 2000; Hsu & Gregory 1995; Nelson & Dopson 2001; Tas 1988), which reported the industry’s requirement for recruits to have problem-solving skills.

- The most important findings from this study are consistent overall with those findings reported in the study in Thailand by Esichaikul and Baum (1998). They found that educational institutions in Thailand produced graduates who did not meet the requirements of the industry, as many graduates were deficient in the practical skills needed by hotels.

- The results of this exploratory study support the need for Thai hospitality higher education to reconsider the teaching and learning process. This is an urge to support student learning if they are to meet the requirement to work in the industry after graduation.

5.6 CONCLUSION

This chapter verifies the problems of teaching and learning in Thai higher education identified from the literature by presenting the results from the exploratory study with thirty hotel managers. The purpose of this exploratory study was to define the skill requirement of hospitality graduates to work in hotel food and beverage supervisory and management positions. One of the weaknesses pointed out by industry practitioners was the need to develop hospitality graduates’ skills by enhancing more effective student learning in hospitality higher education.

In particular, these results indicate that there may be some discrepancies between student learning, the hospitality industry’s expectations, and instructional practices in Thai hospitality higher education. Many of the challenges facing the hospitality programs discussed in this chapter require the deliberate design of teaching and
learning strategies to develop these required skills in order to successfully enhance student learning and skill development.

Based on the results from this exploratory study, the understanding about the ways Thai hospitality students learn and the attempt to maximize student learning need to be subsequently developed. For the present study, in order to consider the practicalities of implementation it is useful to take a specific institutional example as a case study. This is to provide insights and to assist in enhancing and developing needed skills and student learning.

The next chapter, Chapter Six, presents the results of the quantitative research on learning styles by examining the findings of the hypotheses testing. These quantitative data analyses provide answers to the four components of the first research question set out in section 1.4, Chapter One (page 5). A discussion of the quantitative research findings in relation to the literature regarding learning styles is provided in Chapter Seven.
CHAPTER SIX
LEARNING STYLES IN THAI HOSPITALITY CONTEXTS:
QUANTITATIVE STUDY

6.1 INTRODUCTION

According to the problems and discrepancies verified from the exploratory as reported in the previous chapter, this chapter presents an analysis of the quantitative data on learning styles collected by the questionnaire survey. As has been discussed the study applied two theoretically related but different learning style questionnaires to examine the different ways students and professionals learn, in hospitality education at the case study university and in the hospitality industry, respectively. The purpose of the data analysis was to identify the dominant learning styles of hospitality students at the case study university. It also investigated whether differences exist between hospitality students’ learning styles when students were grouped by individual variables, including age, gender and academic achievement. Learning styles were assessed by the short version of Approaches to Studying Inventory (s-ASI) of Entwistle and Ramsden (1983) and Honey and Mumford’s (1992) Learning Style Questionnaire.

While many previous studies have investigated the learning style differences amongst students as grouped by their individual variables, few studies have examined and compared learning styles between hospitality students and staff who work in the hospitality industry (Berger 1983; Wong et al. 2000). In order to assist in the design of appropriate learning experience for hospitality students the current study also investigated the learning styles of both hospitality students and staff who work in hotel food and beverage supervisory and management positions. Their learning styles were assessed and compared utilising Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ).

Analysis of the results was based on the procedures specified in the methodology chapter. The hypotheses were tested utilising an independent sample t-test and one
way Analysis of Variance (ANOVA). The Statistical Package for Social Science (SPSS for Windows Version 11.0) was used for quantitative data analysis. In this chapter the results of the data analysis are presented in four main sections. Section 6.2 provides information on the methodology used for this study and response rates. The preliminary analysis of data from both sample groups of hospitality students and of food and beverage supervisory and management staff, including their demographic profiles, is provided in section 6.3. In section 6.4 results of the survey on learning styles, as assessed by two learning style instruments, are presented. Subsequently, survey results are utilised to test the hypotheses in section 6.5.

6.2 METHODOLOGY FOR THIS STUDY

In this section the response rates of questionnaire surveys from undergraduate hospitality students at the case study university and from hotel food and beverage supervisory and management staff in Thailand are presented and discussed.

For the sample of hospitality undergraduate students 384 questionnaires were distributed in the classroom environment to students enrolled in two hospitality food and beverage-based subjects. The response rate for hospitality students was 84.38% (n = 324). The response rate for this sample was high compared with those reported in previous studies on learning style undertaken in hospitality education (Bagdan & Boger 2000; Barron & Arcodia 2002; Hsu 1997, 1999; Hsu et al. 1991; Hsu & Wolfe 2003; Wong et al. 2000). The higher response rate may be because the present study was conducted in the formal classroom environment. In addition, the fact that the researcher was a lecturer at the university where the study was conducted made it easier to give information about the present study to participating students. Consequently, there was more cooperation for, and understanding of, the study.

For the sample of hotel food and beverage supervisory and management staff a total of 461 questionnaires was distributed to sixty-four participating hotels in Thailand. There were 376 usable questionnaires returned, producing a response rate of 81.56% (n = 376). This response rate was considered to be satisfactory, considering the busy
nature of the hospitality business and when compared to similar studies conducted in the hospitality industry (Wong et al. 2000). The high level of response to the questionnaire may be because questionnaires were delivered personally, rather than through mail surveys as in other studies (Wong et al. 2000).

6.3 DEMOGRAPHIC PROFILES

This section presents descriptive statistical analyses of the quantitative findings. Demographic profiles of hospitality students and of hotel food and beverage supervisory and management staff are reported in section 6.3.1 and 6.3.2, respectively.

6.3.1 Demographic Profiles of Student Respondents

Descriptive statistics were derived from the data obtained from the students’ demographic forms, which asked them to provide their general background including age, gender and academic achievement as measured by grade point average (GPA). Table 6.1 summarises the demographic profiles of hospitality student respondents. The number of students surveyed was 324.

Table 6.1 Demographic Profiles of Hospitality Student Respondents

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>N</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>SD.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>16.7</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>83.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 - 20</td>
<td>133</td>
<td>41</td>
<td>20.77</td>
<td>0.968</td>
</tr>
<tr>
<td>21</td>
<td>124</td>
<td>38.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 - 24</td>
<td>67</td>
<td>20.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade Point Average (GPA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2.50</td>
<td>61</td>
<td>18.8</td>
<td>2.76</td>
<td>0.346</td>
</tr>
<tr>
<td>2.50 - 2.99</td>
<td>173</td>
<td>53.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.00 - 4.00</td>
<td>90</td>
<td>27.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>324</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N/A = Not applicable
Table 6.1, in terms of gender, indicates a higher proportion of female students (n = 270, 83.3%) than male students (n = 54, 16.7%) in this study. This statistic closely resembles the overall profile for the entire hospitality program at the case study university where the study was conducted. Of the 3,033 students in the hospitality program for the academic year of 2004, 73.5% (n = 2,230) were females and 26.5% (n = 803) were males.

A greater proportion of students (n = 133, 41%) was under the age of 21 years. The remaining respondents who represented 38.3% (n = 124), were 21 years old and 20.7% (n = 67) were in the age group of 22 to 24 years. The small age range of student respondents in the present study, between 19 and 24 years, would be expected for this group of individuals. It should be noted that this statistic is derived from undergraduate students who were predominantly 17 to 25 years of age at the case study university.

As shown in Table 6.1, on a four-point scale, a large proportion of students (n = 173, 53.4%) maintained a grade point average (GPA) between 2.50 to 2.99, followed by students who had a grade point average (GPA) between 3.00 to 4.00 (n = 90, 27.8%). The remaining students (n = 61, 18.8%) had a grade point average (GPA) of less than 2.50. These were students with the lowest academic achievement.

6.3.2 Demographic Profiles of Hotel Food and Beverage Supervisory and Management Staff

Descriptive statistics on the demographic profiles of hotel food and beverage supervisory and management staff in Thailand are summarised in Table 6.2. The demographic profile includes age, gender and highest educational qualification attained. From the sixty-four hotels participating in the survey the total number of staff surveyed was 376.
Table 6.2 Demographic Profiles of Hotel Food and Beverage Supervisory and Management Staff

<table>
<thead>
<tr>
<th>Demographic</th>
<th>N</th>
<th>Percentage (%)</th>
<th>Mean</th>
<th>SD.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>240</td>
<td>63.8</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Female</td>
<td>136</td>
<td>36.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>69</td>
<td>18.3</td>
<td>35.37</td>
<td>7.006</td>
</tr>
<tr>
<td>30-39</td>
<td>212</td>
<td>56.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-49</td>
<td>79</td>
<td>21.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-59</td>
<td>16</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>376</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Highest Educational Qualification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary School</td>
<td>97</td>
<td>25.8</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Academic Certificate</td>
<td>77</td>
<td>20.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vocational Certificate</td>
<td>43</td>
<td>11.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>123</td>
<td>32.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master Degree</td>
<td>7</td>
<td>1.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>29</td>
<td>7.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>376</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N/A = Not applicable

As shown in Table 6.2 the demographic data indicate that 63.8% (n = 240) of the hotel food and beverage supervisory and management staff were male while 36.2% (n = 136) were female. Comparing the gender profiles of the hospitality student sample and of the hotel food and beverage supervisory and management staff sample the proportions of males and females were obviously different. While most hospitality students were female (83.3%), hotel food and beverage supervisory and management staff in the industry were predominantly male (63.8%).

The issue arising from the demographic profiles of hotel food and beverage supervisory and management staff in the study was that there were more males than females among the hotel food and beverage supervisory and management staff, while most of the hospitality students were female. The representation of female staff in the hospitality business, which was disproportionately lower than that of males, has several possible explanations.

Firstly, considering their highest educational qualification, which tended to be a high school or vocational diploma, this may be explained by the fact that young male high school or college graduates were employed and trained by the company and worked
their way up to their current position (Hsu et al. 1991). Hsu et al. reported the same
findings on the gender distribution of the sample in their study on learning styles of
restaurant managers in the US. From the findings of Hsu et al. (1991), a higher
proportion of men working in hospitality food and beverage roles rather than being
enrolled in tertiary hospitality education may be explained by the assumption that
hospitality food and beverage work did not necessarily require a tertiary
qualification. Therefore, the same situation may possibly be occurred in Thailand
where men from secondary education entered the workplace and were trained and
promoted to their supervisory and management positions.

Secondly, it is possible that females tend to face more pressure and responsibility
from family and society than males do. Some women may leave work after they get
married and have children. The apparent lack of women in food and beverage
departments is an issue that needs to receive more attention from researchers. Further
research may need to be undertaken on the patterns of segregation or gendered
patterns of employment through recruitment and selection in Thai hotels to confirm
these assumptions.

In terms of their age 56.4% (n = 212) of hotel food and beverage supervisory and
management staff in this sample were in the age range of 30 to 39 years while 21%
(n = 79) were in the age range of 40 to 49 years. Within the range of 20 to 29 years,
the proportion was 18.3% (n = 69), with the remainder of 4.3% (n = 16) within the
age range of 50 to 57 years old. The average age of hotel food and beverage
supervisory and management staff in this study was 35.37 (SD = 7.006) years with a
minimum age of 20 and a maximum of 57 years.

Table 6.2 shows that the largest proportion of hotel food and beverage supervisory
and management staff (n = 219, 58.2%) held a high school diploma or less for their
highest educational level. The remainder of this sample (n = 120) held higher
qualifications; 31.9% held a baccalaureate degree while 2.1% (n = 8) held a
postgraduate degree. For 29 cases (7.7%) this information was unavailable. The data
on the highest educational qualification for this sample were similar to those reported
in an earlier learning style study by Hsu et al. (1991) in the US. In their study, the largest proportion (45%) of restaurant managers in the US held a high school diploma.

The high representation of staff in these positions with a high school qualification may be explained with reference to previous studies as follows. In their study on learning styles of restaurant managers in the US, Hsu et al. (1991) found the same gender distribution in the sample in their study as in the present study. They explained this by the fact that young male high school or college graduates were employed and trained by the company and worked their way up to their current position (Hsu et al. 1991). A higher proportion of men in hospitality food and beverage jobs than in tertiary hospitality enrolment may be due to Hsu et al.'s assumption that hospitality food and beverage work did not necessarily require tertiary qualifications.

6.4 RESULTS OF THE SURVEY ON LEARNING STYLES

The results from the data collection are provided in this section. As has been indicated, this information on learning styles was derived from two learning style instruments. Initially, the learning style preferences of hospitality students and hotel food and beverage supervisory and management staff are presented as assessed by the Learning Style Questionnaire (LSQ). Then, students' learning styles as assessed by the short version of Approaches to Studying Inventory (s-ASI) are presented.

6.4.1 Learning Styles According to Honey and Mumford (1992)

The mean scores of four learning styles according to Honey and Mumford (1986) (Activist, Reflector, Theorist and Pragmatist) for hospitality students and hotel food and beverage supervisory and management staff are presented in Table 6.3. Each style was characterised by a very low, low, moderate, strong or very strong preference using the norm references of Honey and Mumford (1992) as presented earlier in the methodology chapter (see Table 4.4, page 84). The possible range of
mean scores for each learning style is from a minimum of zero to a maximum of twenty.

Table 6.3 Descriptions of Learning Styles of Students and Hotel Food and Beverage Supervisory and Management Staff

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Mean</th>
<th>Very Low Preference</th>
<th>Low Preference</th>
<th>Moderate Preference</th>
<th>Strong Preference</th>
<th>Very Strong Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Activist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student (n = 324)</td>
<td>12.83</td>
<td>3</td>
<td>9</td>
<td>2.8</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Hotel (n = 376)</td>
<td>10.88</td>
<td>10.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student (n = 324)</td>
<td>16.69</td>
<td>2</td>
<td>9</td>
<td>2.8</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Hotel (n = 376)</td>
<td>16.42</td>
<td>2</td>
<td>9</td>
<td>2.8</td>
<td>6</td>
<td>1.6</td>
</tr>
<tr>
<td>Theorist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student (n = 324)</td>
<td>14.52</td>
<td>1</td>
<td>10</td>
<td>2.7</td>
<td>59</td>
<td>15.7</td>
</tr>
<tr>
<td>Hotel (n = 376)</td>
<td>15.75</td>
<td>3</td>
<td>10</td>
<td>2.7</td>
<td>59</td>
<td>15.7</td>
</tr>
<tr>
<td>Pragmatist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student (n = 324)</td>
<td>13.76</td>
<td>14</td>
<td>56</td>
<td>17.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hotel (n = 376)</td>
<td>14.39</td>
<td>16</td>
<td>41</td>
<td>10.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For the students’ learning styles, the mean score of ‘Reflector’ learning style was highest (16.69), followed by 14.52 for ‘Theorist’, 13.76 for ‘Pragmatist’ and 12.83 for ‘Activist’ as shown in Table 6.3. Nevertheless, as previously mentioned, in order to interpret the dominant learning styles of students, the mean scores were compared to the norm reference table (see Table 4.4, Chapter Four). Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference.

It was found that the dominant learning style of hospitality students in the present study, was ‘Activist’ (n = 176, 54.3%). Their mean scores (M = 12.83) showed a very strong preference for the ‘Activist’ learning styles while they showed only

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1 Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4, Chapter Four.
strong preferences for ‘Reflector’ and ‘Theorist’ styles. Students showed least preference for the ‘Pragmatist’ learning style as the mean score indicated only moderate preference. According to Honey and Mumford (1992), students with an ‘Activist’ learning style tend to involve themselves in immediate experience. They tended to act first and consider the consequences afterwards. Their days are filled with activity.

For the sample of hotel food and beverage supervisory and management staff the mean scores for the four learning styles, according to Honey and Mumford’s (1992) Learning Style Questionnaire, were 10.88 for ‘Activist’, 16.42 for ‘Reflector’, 15.75 for ‘Theorist’ and 14.39 for ‘Pragmatist’. When referring to the norm references (see Table 4.4, Chapter Four, page 84) it was found that hotel food and beverage supervisory and management staff in this study had the dominant learning style of ‘Theorist’ (n = 226, 60.1%). Their mean score (15.75) showed a very strong preference for the ‘Theorist’ style while they showed only strong preference for the ‘Reflector’ style. For the ‘Activist’ and ‘Pragmatist’ learning styles, the mean scores exhibited only moderate preference.

6.4.2 Learning Approach According to Entwistle and Ramsden (1983)

Another learning style instrument was implemented to understand the constructs related to student learning. Student learning styles were assessed by using the short version of Approaches to Studying Inventory (s-ASI) of Entwistle and Ramsden (1983). The s-ASI contained 32 items asking the respondents to rank their agreement or disagreement on a five-point Likert scale from 5 for ‘agree’ to 1 for ‘disagree’. The results from the s-ASI revealed two main orientations to studying exhibited by the hospitality students, which are the ‘Meaning’ and ‘Reproducing’ orientations.

The descriptive statistics on the s-ASI of the student sample are presented in Table 6.4, including mean, standard deviation, skewness and kurtosis. The mean score for each orientation to study was obtained by totalling the responses to its four associated subscales. The possible range of mean score was from the minimum of 16
to the maximum of 80. The mean scores were 61.87 (SD = 6.5417) for ‘Meaning’ orientation and 59.19 (SD = 6.7585) for ‘Reproducing’ orientation of the s-ASI. The total mean of ‘Meaning’ Orientation was slightly higher than ‘Reproducing’ orientation, with the highest mean score for the subscale of ‘Comprehensive Learning’ (M = 16.82, SD = 2.0692).

Table 6.4 Original Mean Scores of Orientations to Studying for Student Sample

<table>
<thead>
<tr>
<th>Scales/Subscales of Orientations to Studying</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relating Ideas (4 items)</td>
<td>61.87</td>
<td>6.5417</td>
<td>-.044</td>
<td>-.318</td>
</tr>
<tr>
<td>Deep Approach (4 items)</td>
<td>14.35</td>
<td>2.3812</td>
<td>-.097</td>
<td>-.392</td>
</tr>
<tr>
<td>Comprehensive Learning (4 items)</td>
<td>15.07</td>
<td>2.0363</td>
<td>-.101</td>
<td>-.160</td>
</tr>
<tr>
<td>Use of Evidence and Logic (4 items)</td>
<td>16.82</td>
<td>2.0692</td>
<td>-.615</td>
<td>-.350</td>
</tr>
<tr>
<td><strong>Reproducing Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllabus Soundness (3 items)</td>
<td>59.19</td>
<td>6.7585</td>
<td>.087</td>
<td>-.293</td>
</tr>
<tr>
<td>Fear of Failure (3 items)</td>
<td>11.48</td>
<td>2.0928</td>
<td>-.411</td>
<td>-.386</td>
</tr>
<tr>
<td>Improvidence (4 items)</td>
<td>11.29</td>
<td>1.9634</td>
<td>-.195</td>
<td>-.186</td>
</tr>
<tr>
<td>Surface Approach (6 items)</td>
<td>14.68</td>
<td>2.5147</td>
<td>-.222</td>
<td>-.481</td>
</tr>
</tbody>
</table>

N = 324

As the variables were continuous variables it was appropriate to use the parametric statistical technique of analysis of variance (ANOVA) to test the hypothesis. A check for the normal distribution of scores on the variables from the s-ASI was conducted prior to analysis of the data.

Information on skewness and kurtosis of scores was also examined. The distribution of scores as shown in Table 6.4 could be seen as normal as the skewness and kurtosis were within the range of ±1 with one exception for the score of ‘Use of Evidence and Logic’. The kurtosis distribution of ‘Use of Evidence and Logic’ (kurtosis = 1.267) deviated slightly from a normal distribution. However it was decided to keep the original values of this variable for the analysis, as it should be noted that the statistical technique used in this study, analysis of variance (ANOVA), is not heavily dependent on the normality assumption. As long as the data do not deviate extremely and the sample size is not too small (n > 30), normality assumptions can be made and the skewness will not make a substantive difference in the analysis (Hair et al. 1998).
In the original version of the s-ASI, the responses to the relevant items, presented in Table 6.4, were simply summed to obtain a score on each subscale as previously mentioned. However, it was decided in the present study to recalibrate and present the results of each scale and subscale in a way that would be more comprehensive. As the numbers of items representing each of the eight subscales are not equal (see Table 6.4), this may lead to misinterpretation. Some of the subscales contain three items (Syllabus Boundness and Fear of Failure), some contain four items (Relating Ideas, Deep Approach, Comprehensive Learning, Use of Evidence and Logic, and Improvidence) and some contain six items (Surface Approach). Consequently, the results were recalibrated and presented with the mean scores based on five point scales as originally used in the questionnaire in this study. The recalibrated mean scores of the short version of Approaches to Studying Inventory are presented in Table 6.5.

Table 6.5 Recalibrated Mean Scores of Orientations to Studying for Student Sample

<table>
<thead>
<tr>
<th>Scales/ Subscales of Orientations to Studying</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relating Ideas</td>
<td>3.87</td>
<td>0.4088</td>
<td>-.044</td>
<td>- .318</td>
</tr>
<tr>
<td>Deep Approach</td>
<td>3.59</td>
<td>0.5953</td>
<td>-.097</td>
<td>-.392</td>
</tr>
<tr>
<td>Comprehensive Learning</td>
<td>3.77</td>
<td>0.5509</td>
<td>-.101</td>
<td>-.160</td>
</tr>
<tr>
<td>Use of Evidence and Logic</td>
<td>4.21</td>
<td>0.5173</td>
<td>-.615</td>
<td>.350</td>
</tr>
<tr>
<td><strong>Reproducing Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Syllabus Boundness</td>
<td>3.91</td>
<td>0.6182</td>
<td>-.628</td>
<td>1.267</td>
</tr>
<tr>
<td>Fear of Failure</td>
<td>3.70</td>
<td>0.4224</td>
<td>.087</td>
<td>-.293</td>
</tr>
<tr>
<td>Improvidence</td>
<td>3.83</td>
<td>0.6976</td>
<td>-.411</td>
<td>-.386</td>
</tr>
<tr>
<td>Surface Approach</td>
<td>3.67</td>
<td>0.6544</td>
<td>-.195</td>
<td>-.186</td>
</tr>
<tr>
<td></td>
<td>3.62</td>
<td>0.6286</td>
<td>-.222</td>
<td>-.481</td>
</tr>
</tbody>
</table>

N = 324

Based on the scale used in this study the descriptions in Table 6.5 indicated that students in this sample scored slightly higher on ‘Meaning’ orientation (M = 3.87, SD = 0.4088) than on ‘Reproducing’ orientation (M = 3.70, SD = 0.4224) with the mean difference of only 0.17.

Overall scores on the ‘Meaning’ orientation were slightly higher than the ‘Reproducing’ orientation. Additionally, the subscales associated with ‘Meaning’ orientation had a smaller standard deviation, ranging from 0.5173 to 0.6182, indicating less individual variability in their response than those associated with
‘Reproducing’ orientation. The mean score of eight subscales ranged from a minimum of 3.59 to a maximum of 4.21. The subscale of ‘Comprehensive Learning’ (M = 4.21, SD = 0.5173) was the highest ranked (5 = agree) subscale, followed by ‘Use of Evidence and Logic’ (M = 3.91, SD = 0.6182). Both subscales represented the ‘Meaning’ orientation.

6.5 TESTING OF HYPOTHESES

In order to examine the effects of the individual variables of hospitality students on learning style differences, students were grouped by their age, gender and academic achievement as measured by grade point average (GPA). The hypotheses of this study were then tested. For testing the hypotheses were stated in the null form and were tested at a .05 alpha level of significance to determine whether they should be rejected or accepted. In this study, the alpha level of significance is set at .05, the p-value obtained in the study is evaluated against the criterion, alpha. Then a p-value of .05 or less is required to reject the null hypothesis and establish statistical significance. The results of the hypothesis testing are reported in this section.

Hypothesis 1: Students’ learning styles will not be significantly different to those of the hotel food beverage supervisory and management staff with respect to the four learning styles of Honey and Mumford (1992).

H₀: There is no significant difference between learning styles of hospitality students and of hotel food and beverage supervisory and management staff.

H₁: There is a significant difference between learning styles of hospitality students and of hotel food and beverage supervisory and management staff

To test hypothesis 1 the mean scores for the four learning styles, as shown earlier in Table 6.3 (see section 6.4.1, page 135), were analysed with the independent t-test. This was to identify whether there were any significant differences between hospitality students and hotel food and beverage supervisory and management staff. Students’ learning style mean scores were significantly different to those of hotel
food and beverage supervisory and management staff at the .05 alpha level for three of the four learning styles. These three learning styles comprised ‘Activist’ (p = 0.000), ‘Theorist’ (p = 0.005) and ‘Pragmatist’ (p = 0.000). There was one exception: the results of the independent sample t-test showed that the learning style of ‘Reflector’ (p = 0.110) was not statistically different between the two sample groups. Both groups showed a strong preference for the ‘Reflector’ learning style. The mean score of students (M = 16.69) for the ‘Reflector’ learning style was slightly higher than the mean score of hotel food and beverage supervisory and management staff (M = 16.42). Nevertheless, no statistically significant difference was found.

The t-test results are presented in Table 6.6 and the mean scores of learning styles for both samples are graphically compared and illustrated in Figure 6.1.

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Mean (M)</th>
<th>Mean Difference (MD)</th>
<th>SD</th>
<th>t-value</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activist</td>
<td>12.83 Student</td>
<td>1.94</td>
<td>2.999</td>
<td>-8.785</td>
<td>698</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>10.88 Hotel</td>
<td></td>
<td>2.824</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflecto</td>
<td>16.69 Student</td>
<td>0.26</td>
<td>2.223</td>
<td>-1.601</td>
<td>698</td>
<td>0.110</td>
</tr>
<tr>
<td></td>
<td>16.42 Hotel</td>
<td></td>
<td>2.138</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theorist</td>
<td>14.52 Student</td>
<td>-1.23</td>
<td>2.454</td>
<td>6.344</td>
<td>698</td>
<td>0.005*</td>
</tr>
<tr>
<td></td>
<td>15.75 Hotel</td>
<td></td>
<td>2.681</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pragmatist</td>
<td>13.76 Student</td>
<td>-0.63</td>
<td>3.039</td>
<td>2.840</td>
<td>698</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>14.39 Hotel</td>
<td></td>
<td>2.813</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significance at the p ≤ .05 level

Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4, Chapter Four.
As shown in Table 6.6 for the 'Activist' learning style the t-test indicated a significant difference between the mean scores of students and hotel food and beverage supervisory and management staff where the p value was 0.000. Of the four learning styles 'Activist' exhibited the highest mean difference (1.94) between these two groups. It indicated that students' mean scores (M = 12.83) were significantly higher than the mean scores of hotel food and beverage supervisory and management staff (M = 10.88). Thus, from these results it can be inferred that hospitality students would prefer to learn in a hands-on or concrete manner than hotel food and beverage supervisory and management staff would.

For other learning styles, the students' mean scores for the 'Theorist' and 'Pragmatist' learning styles were significantly lower than those of hotel food and beverage supervisory and management staff at the p value of 0.005 and 0.000, respectively. Hotel food and beverage supervisory and management staff showed a stronger preference for 'Theorist' (MD = 1.23) and 'Pragmatist' (MD = 0.63) learning styles than did hospitality students. Thus, from these results it can be inferred that hotel food and beverage supervisory and management staff showed a very strong preference for the 'Theorist' learning style. Thus, from these results it can be inferred that they would tend to think through the problems in a logical and structured manner and be analytical in solving a problem. They would tend to be
perfectionists who would not rest easily until things were tidy and fitted into a rational scheme.

As the learning style differences were found between hospitality students and hotel food and beverage supervisory and management staff, further investigation was undertaken to see whether these were the differences caused by staff’s level of educational qualifications. Further investigations were conducted for significant differences between the mean scores of learning styles, as measured by the Learning Style Questionnaire (LSQ), among the hospitality staff as sub grouped by their educational qualifications and hospitality students. In analysing the relationship between learning styles and educational qualifications, hotel food and beverage staff who hold a master degree were not included because the number was too small (n = 7). Therefore, there were four groups of hotel food and beverage supervisory and management staff according to their educational qualification as presented in Table 6.7.

An analysis of variance (ANOVA) was conducted to compare the learning style mean scores of hospitality students and those of four different hotel food and beverage staff groups according to their educational qualifications. A summary of learning style mean scores for each group is presented in Table 6.7 with the standard deviation in parenthesis. The comparison of learning style mean scores among different food and beverage supervisory and management staff groups and hospitality students is graphically presented in Figure 6.2.
Table 6.7 Learning Style Mean Scores of Hotel Food and Beverage Supervisory
and Management Staff as Grouped by Educational Qualifications
and Hospitality Students

<table>
<thead>
<tr>
<th>Educational Qualification Groups</th>
<th>N</th>
<th>Mean Scores (SD)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school (Year 9)</td>
<td>97</td>
<td>10.78 (3.100)</td>
<td>16.09 (2.314)</td>
<td>15.78 (2.251)</td>
<td>14.29 (3.227)</td>
</tr>
<tr>
<td>Secondary school (Year 12)</td>
<td>77</td>
<td>10.55 (2.770)</td>
<td>16.34 (2.186)</td>
<td>15.90 (2.382)</td>
<td>14.43 (2.881)</td>
</tr>
<tr>
<td>Vocational Diploma</td>
<td>43</td>
<td>10.79 (2.722)</td>
<td><strong>16.88 (1.499)</strong></td>
<td>16.60 (2.342)</td>
<td><strong>14.81 (2.584)</strong></td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>123</td>
<td>11.01 (3.202)</td>
<td>16.53 (2.417)</td>
<td>15.43 (2.627)</td>
<td>14.44 (2.889)</td>
</tr>
<tr>
<td>Hospitality Students</td>
<td>324</td>
<td><strong>11.80 (3.089)</strong></td>
<td>16.69 (2.138)</td>
<td>14.52 (2.681)</td>
<td>13.76 (2.813)</td>
</tr>
</tbody>
</table>

Overall, the actual difference in mean scores between the age groups was quite small. When comparing the mean scores in Table 6.7 with the norm references provided by Honey and Mumford (1992) (see Table 4.4, Chapter Four, page 84) and noting that score ranges for each preferences for the four learning styles was differently interpreted against the norm references, it appeared that amongst these five groups, hospitality students were inclined to perceive themselves very strongly as ‘Activist’. To test whether there were any significant differences of learning styles among the three age groups of students, an analysis of variance (ANOVA) was conducted. The results are presented in Table 6.8.

---

Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4, Chapter Four.
Table 6.8 ANOVA Results for Learning Style Mean Scores of Hospitality Students and Hotel Food and Beverage Supervisory and Management Staff as Grouped by Educational Qualifications

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>60.912</td>
<td>4</td>
<td>15.228</td>
<td>18.111</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>554.087</td>
<td>659</td>
<td>.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>614.998</td>
<td>663</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reflector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>3.777</td>
<td>4</td>
<td>.944</td>
<td>1.596</td>
<td>.174</td>
</tr>
<tr>
<td>Within Groups</td>
<td>389.897</td>
<td>659</td>
<td>.592</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393.673</td>
<td>663</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theorist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>34.746</td>
<td>4</td>
<td>8.687</td>
<td>9.857</td>
<td>.000*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>580.722</td>
<td>659</td>
<td>.881</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>615.468</td>
<td>663</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pragmatist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>12.385</td>
<td>4</td>
<td>3.096</td>
<td>2.540</td>
<td>.039*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>803.465</td>
<td>659</td>
<td>1.219</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>815.849</td>
<td>663</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significance at the p ≤ .05 level

At the significance level of .05, there were statistically significant differences between the five groups of educational qualifications on their mean scores for the four learning styles. The p values were as follows: for the 'Activist' (0.000), 'Theorist' (0.000) and Pragmatist (0.039). Post-hoc comparisons, using the Tukey
HSD test, were then conducted. Results of this test indicated that the mean scores for hospitality students in the learning styles of ‘Activist’ and ‘Theorist’ were significantly different from those of hotel food and beverage supervisory and management staff in all level of education. Hospitality students scored higher on the learning style of ‘Activist’ while all groups of hotel food and beverage supervisory and management staff scored higher for the ‘Theorist’ learning style. However, from the investigation, there was no significant difference between the mean scores of learning styles of hotel food and beverage supervisory and management staff with different educational backgrounds. The discussions on the learning style differences between hospitality students and hotel food and beverage supervisory and management staff in the following chapter (Chapter Seven).

There was, therefore, a significant learning style difference between hospitality students and hotel staff in food and beverage supervisory and management levels. Thus, the null hypothesis, that there is no significant difference of learning styles with respect to the four learning styles of Honey and Mumford (1992) between these two samples, was rejected.

**Hypothesis 2:** Learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the Learning Style Questionnaire (LSQ) vary based on differences in gender.

H$_0$: There is no significant difference between learning styles of male and female hospitality students in selected hospitality food and beverage-based subject at the case study university.

H$_1$: There is a significant difference between learning styles of male and female hospitality students in selected hospitality food and beverage-based subject at the case study university.

When the student sample was grouped according to gender an independent sample t-test was conducted to compare the learning style mean scores of males and females.
Table 6.9 presents the results of the t-test on mean scores of the four learning styles for male and for female hospitality students.

Table 6.9 t-test Results of Learning Style Mean Score Differences between Genders

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Mean</th>
<th>Mean Difference (MD)</th>
<th>SD</th>
<th>t-value</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12.72</td>
<td>-0.13</td>
<td>2.858</td>
<td>-.299</td>
<td>322</td>
<td>.765</td>
</tr>
<tr>
<td>Female</td>
<td>12.85</td>
<td></td>
<td>2.822</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflecto</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16.59</td>
<td>-0.11</td>
<td>2.327</td>
<td>-.348</td>
<td>322</td>
<td>.728</td>
</tr>
<tr>
<td>Female</td>
<td>16.70</td>
<td></td>
<td>2.102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theorist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14.65</td>
<td>0.16</td>
<td>2.863</td>
<td>.398</td>
<td>322</td>
<td>.691</td>
</tr>
<tr>
<td>Female</td>
<td>14.49</td>
<td></td>
<td>2.647</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pragmatist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14.69</td>
<td>1.11</td>
<td>2.561</td>
<td>2.684</td>
<td>322</td>
<td>.008*</td>
</tr>
<tr>
<td>Female</td>
<td>13.57</td>
<td></td>
<td>2.829</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significance at the p ≤ .05 level

As shown in Table 6.9, the p value of the independent sample t-test statistics for the ‘Activist’ (0.765), ‘Reflecto’ (0.728) and ‘Theorist’ (0.691) were more than .05, indicating that there were no statistical differences for these three learning styles between gender groups. However, the null hypothesis was rejected because the p value of ‘Pragmatist’ learning style was 0.008, which was less than the significance level (p ≤ .05). A comparison of mean scores between genders was graphically presented in Figure 6.3.

Although all learning styles' mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4, Chapter Four.
Both male and female students in this study showed the same preference for three learning styles by indicating their very strong preference for ‘Activist’ (M = 12.72 for male, M = 12.85 for female) and strong preference for ‘Reflector’ (M = 16.59 for male, M = 16.70 for female) and also for ‘Theorist’ (M = 14.65 for males, M = 14.49 for females). The mean difference for these three learning styles between gender groups was less than ±1. The t-test results revealed no statistically significant difference between males and females in terms of three of the four learning styles. For the ‘Pragmatist’ learning style male hospitality students’ mean scores (14.69) were significantly higher than those of females (13.57). The mean difference was 1.11 (p = 0.008). These two mean scores showed a different degree of learning style preference when referred to the norm references table provided by Honey and Mumford (1992) (see Table 4.4, Chapter Four, page 84). Male students indicated their strong preference for the ‘Pragmatist’ learning style while their female colleagues showed only a moderate preference.

There was, therefore, a significant relationship between gender and learning styles of hospitality students for the ‘Pragmatist’ learning style. The null hypothesis that there was no significant difference of learning styles between male and female students according to the Learning Style Questionnaire (LSQ) was rejected.
Hypothesis 3: Learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the Learning Style Questionnaire (LSQ) vary based on differences in age.

H₀: There is no significant difference in learning styles among hospitality students in selected food and beverage-based subject at the case study in different age groups.

H₁: There is a significant difference in learning styles among hospitality students in selected food and beverage-based subject at the case study in different age groups.

Tests were conducted for significant differences between the mean scores of learning styles, as measured by the Learning Style Questionnaire (LSQ), among the hospitality students grouped by age. There were three age groups of hospitality students in this study: 19 to 20 years old for group one, 21 years old for group two and 22 to 24 years old for group three. An analysis of variance (ANOVA) was conducted to compare the learning style mean scores of hospitality students for the three different age groups. A summary of learning style mean scores for each age group is presented in Table 6.10 with the standard deviation in parenthesis. The comparison of learning style mean scores among different age groups of students is graphically presented in Figure 6.4.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N</th>
<th>Activist</th>
<th>Reflect</th>
<th>Theorist</th>
<th>Pragmatist</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 – 20 years old</td>
<td>133</td>
<td>12.56 (2.723)</td>
<td>16.60 (2.202)</td>
<td>14.53 (2.373)</td>
<td>13.50 (2.625)</td>
</tr>
<tr>
<td>21 years old</td>
<td>124</td>
<td>12.99 (2.937)</td>
<td>16.81 (2.243)</td>
<td>14.76 (2.789)</td>
<td>14.03 (2.874)</td>
</tr>
<tr>
<td>22 – 24 years old</td>
<td>67</td>
<td>13.04 (2.809)</td>
<td>16.61 (1.800)</td>
<td>14.04 (3.012)</td>
<td>13.76 (3.046)</td>
</tr>
</tbody>
</table>

Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is important to note that the score ranges for the norm references were differently interpreted between the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4, Chapter Four.
Overall, the actual difference in mean scores between the age groups was quite small. When comparing the mean scores in Table 6.10 with the norm references provided by Honey and Mumford (1992) (see Table 4.4, Chapter Four, page 84) and noting that score ranges for each preferences for the four learning styles was differently interpreted against the norm references, it appeared that students in all three age groups of 19 to 20 years, 21 years and 22 to 24 years were inclined to perceive themselves very strongly as ‘Activist’ (M = 12.56, 12.99 and 13.04, respectively). They also showed strong preferences for ‘Reflector’ (M = 16.60, 16.81 and 16.61, respectively) and for also ‘Theorist’ (M = 14.53, 14.76 and 14.04, respectively). Only moderate preference was revealed for the learning style of ‘Pragmatist’, with a mean score of 13.50 for the age group of 19 to 20 years, mean score of 14.03 for the age group of 21 years and mean score of 13.76 for the age group of 21 to 24 years.

To test whether there were any significant differences of learning styles among the three age groups of students, an analysis of variance (ANOVA) was conducted. The results are presented in Table 6.11.
Table 6.11 ANOVA Results for Student Learning Style Mean Scores by Age Group

<table>
<thead>
<tr>
<th>Learning Styles</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>15.757</td>
<td>2</td>
<td>7.878</td>
<td>.988</td>
<td>.374</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2560.564</td>
<td>321</td>
<td>7.977</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2576.321</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reflector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>3.365</td>
<td>2</td>
<td>1.682</td>
<td>.367</td>
<td>.693</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1472.524</td>
<td>321</td>
<td>4.587</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1475.889</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Theorist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>22.157</td>
<td>2</td>
<td>11.079</td>
<td>1.547</td>
<td>.214</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2298.766</td>
<td>321</td>
<td>7.161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2320.923</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pragmatist</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>18.439</td>
<td>2</td>
<td>9.220</td>
<td>1.166</td>
<td>.313</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2537.298</td>
<td>321</td>
<td>7.904</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2555.738</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significance at the p ≤ .05 level

At the significance level of .05, there was no statistically significant difference between the three age groups on their mean scores for the four learning styles. The p values were as follows: for the ‘Activist’ (0.374), ‘Reflector’ (0.693), ‘Theorist’ (0.214) and Pragmatist (0.313). There was, therefore, no significant difference of learning style among hospitality students in different age groups as assessed by the Learning Style Questionnaire (LSQ). The null hypothesis that there is no significant difference of learning styles among hospitality students in different age groups could not be rejected.

**Hypothesis 4: There are significant differences in learning styles as measured by the Learning Style Questionnaire (LSQ) among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected food and beverage-based subjects at the case study university.**

H₀: There are no significant differences in learning styles among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-based subjects at the case study university.
H1: There are significant differences in learning styles among hospitality student
groups of different academic achievement as measured by grade point average
(GPA) in selected hospitality food and beverage-based subjects at the case study
university.

The hospitality students were grouped, according to their academic achievement as
measured by grade point average (GPA) into three groups as follows: Group 1:
<2.50, Group 2: 2.50 – 2.99, Group 3: 3.00 – 4.00. A summary of mean scores for
each learning style with the standard deviations in parenthesis is presented in Table
6.12.

<table>
<thead>
<tr>
<th>GPA Groups</th>
<th>N</th>
<th>Activist (SD)</th>
<th>Reflector (SD)</th>
<th>Theorist (SD)</th>
<th>Pragmatist (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1: &lt;2.50</td>
<td>61</td>
<td>13.57 (2.148)</td>
<td>16.56 (2.262)</td>
<td>14.33 (2.767)</td>
<td>13.67 (2.495)</td>
</tr>
<tr>
<td>Group 2: 2.50 – 2.99</td>
<td>173</td>
<td>12.93 (2.978)</td>
<td>16.54 (2.064)</td>
<td>14.61 (2.582)</td>
<td>13.73 (2.975)</td>
</tr>
<tr>
<td>Group 3: 3.00 – 4.00</td>
<td>90</td>
<td>12.12 (2.792)</td>
<td>17.04 (2.172)</td>
<td>14.46 (2.825)</td>
<td>13.87 (2.720)</td>
</tr>
</tbody>
</table>

The actual difference in mean scores for each learning style between the three groups
of students was relatively small. All students in the three different grade point
average (GPA) groups in this sample displayed the same strong preference for
‘Reflector’ (group 1: M = 16.56, group 2: M = 16.54, group 3: M = 17.04) and
‘Theorist’ (group 1: M = 14.33, group 2: M = 14.61, group 3: M = 14.46) learning
styles, while they agreed on their moderate preference for ‘Pragmatist’ (group 1: M =
13.67, group 2: M = 13.73, group 3: M = 13.87). For the ‘Activist’ learning style
students’ mean scores revealed different preferences, with the mean scores of 13.57
(SD = 2.148) for the GPA group of <2.50 and 12.93 (SD = 2.978) for the GPA group
of 2.50 – 2.99 which indicated a very strong preference while the mean score of
12.12 (SD = 2.792) for the GPA group of 3.00 – 4.00, indicating only strong

1 Although all learning styles’ mean scores ranged from a minimum of 0 to a maximum of 20, it is
important to note that the score ranges for the norm references were differently interpreted between
the four learning styles for each preference. To interpret the degree of preference, refer to Table 4.4,
Chapter Four.
preference. The comparison of learning style mean scores amongst the five groups of students, in terms of their grade point average (GPA), is presented in graphical form in Figure 6.5.

Figure 6.5 Comparison of Learning Style Mean Scores of Hospitality Students by Grade Point Average (GPA)

A one-way analysis of variance (ANOVA) was conducted to test the differences in learning styles as measured by the LSQ among three groups of hospitality students with different levels of academic achievement as measured by grade point average (GPA). The results of the analysis of variance (ANOVA) are presented in Table 6.13.
Table 6.13 ANOVA Results for Student Learning Style Mean Scores and Academic Achievement as Measured by Grade Point Average (GPA)

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>80.580</td>
<td>2</td>
<td>40.290</td>
<td>5.182</td>
<td>.006*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2495.741</td>
<td>321</td>
<td>7.775</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2576.321</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>16.093</td>
<td>2</td>
<td>8.046</td>
<td>1.769</td>
<td>.172</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1459.796</td>
<td>321</td>
<td>4.548</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1475.889</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Theorist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>4.106</td>
<td>2</td>
<td>2.053</td>
<td>.284</td>
<td>.753</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2316.817</td>
<td>321</td>
<td>7.217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2320.923</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pragmatist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.664</td>
<td>2</td>
<td>.832</td>
<td>.105</td>
<td>.901</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2554.074</td>
<td>321</td>
<td>7.957</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>255.738</td>
<td>323</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the p ≤ .05 level

The results shown in Table 6.13 reveal that there was a statistically significant difference at the p<.05 level in the learning style score of ‘Activist’ among the three student groups of different grade point average. The p value was 0.006 on the ‘Activist’ style, showing a significant relationship between academic achievements and learning style. Post-hoc comparisons, using the Tukey HSD test, were then conducted. Results of this test indicated that the mean score for students in Group one with GPA of <2.50 (M = 13.57, SD = 2.148) was statistically significantly different from that of the students with GPA of 3.00 – 4.00 in Group two (M = 12.12, SD = 2.792) for the scale of ‘Activist’ learning style (p = 0.050). Students with a lower grade point average (GPA) scored higher for ‘Activist’, with the mean difference of 1.45.

There was therefore a significant difference in learning styles, as measured by the LSQ, between groups of hospitality students of different academic achievement as measured by grade point average (GPA). The null hypothesis that there is no significant difference in learning styles among hospitality students who have different levels of academic achievement as measured by grade point average (GPA) was rejected.
Hypothesis 5: Orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI), adopted by students in selected hospitality food and beverage-based subjects at the case study university vary based on difference in gender.

H₀: There is no significant difference between orientations to studying male and female hospitality students in selected hospitality food and beverage-based subject at the case study university.

H₁: There is a significant difference between orientations to studying of male and female hospitality students in selected hospitality food and beverage-based subject at the case study university.

In order to test the hypothesis that there would be a relationship between hospitality students’ learning styles as measured by the s-ASI and their gender the student sample was first grouped according to gender. The independent sample t-test was then conducted to compare the orientations to studying mean scores of male and female hospitality students. The t-test results revealed the mean differences for the two scales and the eight subscales on orientations to studying between male and female students. Table 6.14 presents the t-test results of mean scores from the scales of the s-ASI between male and female students.
Table 6.14 t-test Result – Orientations to Studying Mean Score Differences between Gender

<table>
<thead>
<tr>
<th>Orientations to Studying</th>
<th>N</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>SD</th>
<th>t-value</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Meaning Orientation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>3.831</td>
<td>-0.0431</td>
<td>0.406</td>
<td>-0.706</td>
<td>322</td>
<td>0.481</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>3.874</td>
<td></td>
<td>0.410</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reproducing Orientation</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>3.690</td>
<td>-0.0116</td>
<td>0.463</td>
<td>-0.184</td>
<td>322</td>
<td>0.854</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>3.701</td>
<td></td>
<td>0.415</td>
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<td></td>
<td></td>
</tr>
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<td><strong>Relating Ideas</strong></td>
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<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Male</td>
<td>54</td>
<td>3.597</td>
<td>0.0120</td>
<td>0.552</td>
<td>0.135</td>
<td>322</td>
<td>0.892</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>3.585</td>
<td></td>
<td>0.604</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Deep Approach</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>3.617</td>
<td>-0.1148</td>
<td>0.504</td>
<td>-1.400</td>
<td>322</td>
<td>0.162</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>3.786</td>
<td></td>
<td>0.559</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comprehensive Learning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>4.083</td>
<td>-0.1472</td>
<td>0.591</td>
<td>-1.713</td>
<td>322</td>
<td>0.091</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>4.231</td>
<td></td>
<td>0.499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Use of Evidence and Logic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>3.972</td>
<td>0.0778</td>
<td>0.527</td>
<td>0.843</td>
<td>322</td>
<td>0.400</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>3.894</td>
<td></td>
<td>0.635</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Syllabus Boundness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>3.840</td>
<td>0.0173</td>
<td>0.726</td>
<td>0.166</td>
<td>322</td>
<td>0.868</td>
</tr>
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<td><strong>Fear of Failure</strong></td>
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<td>0.637</td>
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<tr>
<td><strong>Surface Approach</strong></td>
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<td>0.551</td>
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</tr>
</tbody>
</table>

* Significant at the p ≤ .05 level

As shown in Table 6.14 it was found that female students in this study scored slightly higher than male students on both of the scales for ‘Meaning’ and ‘Reproducing’ orientations. The difference in mean score for ‘Reproducing’ orientation (MD = -0.116) was found to be less than that for ‘Meaning’ orientation (MD = -0.0431).

Results of the independent sample t-test statistics produced significance levels for the ‘Meaning’ orientation of p = 0.481 and for the ‘Reproducing’ orientation of p = 0.854. The p-values of their eight associated subscales were also reported as more than the stated significance level (p ≤.05), indicating no statistical differences in the orientations to studying adopted by male and female students. Interestingly, the highest mean difference was reported on the subscale of ‘Comprehensive Learning’.
(MD = -0.1472), indicating that some of the female students tended to adopt more ‘Comprehensive Learning’ than their male counterparts. The comparison of mean scores between gender groups is graphically presented in Figure 6.6.

![Figure 6.6 Comparison of Orientations to Studying Mean Scores of Hospitality Students by Gender](image)

Therefore, there was no significant difference in learning styles as measured by the s-ASI among hospitality students as grouped by gender. Hence, the null hypothesis that there is no significant difference between learning styles of male and female hospitality students was accepted.
Hypothesis 6: Orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI) adopted by students in selected hospitality food and beverage-based subjects at the case study university vary based on difference in age.

H⁰: There is no significant difference in orientations to studying among hospitality students in selected food and beverage-based subject at the case study in different age groups.

H¹: There is a significant difference in orientations to studying among hospitality students in selected food and beverage-based subject at the case study in different age groups.

The student sample was divided into three age groups as for testing of Hypothesis 6. The three age groups were Group 1 with the ages of 19 to 20 years; Group 2 with the age of 21 years; and Group 3 with the ages of 22 to 24 years. The mean scores for two orientations to studying and their eight associated subscales with the standard deviations in parenthesis are presented in Table 6.15 and graphically shown in Figure 6.7.

Table 6.15 Student Orientations to Studying Mean Scores by Age Group

<table>
<thead>
<tr>
<th>Orientations to Studying</th>
<th>Group 1: 19 – 20 years old (n = 133)</th>
<th>Group 2: 21 years old (n = 124)</th>
<th>Group 3: 21 – 24 years old (n = 67)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningful Orientation</td>
<td>3.873 (0.413)</td>
<td>3.888 (0.376)</td>
<td>3.816 (0.458)</td>
</tr>
<tr>
<td>Reproducing Orientation</td>
<td>3.673 (0.422)</td>
<td>3.722 (0.421)</td>
<td>3.711 (0.429)</td>
</tr>
<tr>
<td>Relating Ideas</td>
<td>3.598 (0.605)</td>
<td>3.629 (0.564)</td>
<td>3.489 (0.630)</td>
</tr>
<tr>
<td>Deep Approach</td>
<td>3.801 (0.558)</td>
<td>3.752 (0.519)</td>
<td>3.728 (0.596)</td>
</tr>
<tr>
<td>Comprehensive Learning</td>
<td>4.226 (0.513)</td>
<td>4.230 (0.507)</td>
<td>4.123 (0.544)</td>
</tr>
<tr>
<td>Use of Evidence and Logic</td>
<td>3.867 (0.644)</td>
<td>3.942 (0.586)</td>
<td>3.925 (0.628)</td>
</tr>
<tr>
<td>Syllabus Boundness</td>
<td>3.749 (0.710)</td>
<td>3.860 (0.672)</td>
<td>3.910 (0.714)</td>
</tr>
<tr>
<td>Fear of Failure</td>
<td>3.747 (0.701)</td>
<td>3.774 (0.624)</td>
<td>3.781 (0.621)</td>
</tr>
<tr>
<td>Improvidence</td>
<td>3.577 (0.639)</td>
<td>3.772 (0.607)</td>
<td>3.664 (0.627)</td>
</tr>
<tr>
<td>Surface Approach</td>
<td>3.662 (0.476)</td>
<td>3.593 (0.610)</td>
<td>3.607 (0.559)</td>
</tr>
</tbody>
</table>
To test the hypothesis, a one-way analysis of variance (ANOVA) by age was undertaken on the mean scores for each scale and subscale of the s-ASI orientations between three different age groups of students. The p-value obtained in the study is evaluated against the level of significance at .05. The results are presented in Table 6.16, indicating only one significant difference between orientations to studying adopted by students in different age groups on the subscale of 'Improvidence' (p = 0.045).
The ANOVA results shown in Table 6.16 revealed that there was only one statistically significant difference on the subscale of ‘Improvidence’ at the p <.05 level in the orientations to studying adopted by students in different age groups. A significant relationship was found between age and performance in the subscale of ‘Improvidence’ (p = 0.045). Post-hoc comparisons using the Tukey HSD test were then conducted. Results of this test indicated that there was a statistically significant difference between the mean score for the 19 to 20 years old students in Group 1 (M = 3.577, SD = 0.639) and the higher mean score of the 21 years old students in Group 2 (M = 3.772, SD = 0.607). The p value was 0.034 with the mean difference of -0.1951, indicating that older students exhibited more ‘Improvidence’ in their learning than the younger students. However, with the main scales of ‘Meaning’

### Table 6.16 ANOVA Results for Student Orientations to Studying Mean Scores and Age Group

<table>
<thead>
<tr>
<th>Orientations to Studying</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td><strong>Relating Ideas</strong></td>
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<tr>
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<tr>
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<tr>
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<td><strong>Surface Approach</strong></td>
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<td>.165</td>
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</tbody>
</table>

* Significance at the p ≤ .05 level
orientation (p = 0.501) and ‘Reproducing’ orientation (p = 0.633), no statistically significant differences were reported.

These results were not consistent with the findings in previous research, and thus will be discussed in the next chapter (Chapter Seven).

**Hypothesis 7:** There is a significant difference of orientations to studying, as measured by the short version of Approaches to Studying Inventory (s-ASI), adopted by student of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-based subjects at the case study university groups.

H₀: There are no significant differences in orientations to studying among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-based subjects at the case study university.

H₁: There are significant differences in orientations to studying among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-based subjects at the case study university.

The hospitality students were grouped according to their academic achievement as measured by grade point average (GPA). Students were divided into three groups; Group 1 with GPA <2.50 Group 2 with GPA 2.50 – 2.99; and Group 3 with GPA 3.00 – 4.00. A summary of mean scores for each learning style with the standard deviations in parentheses is presented in Table 6.17. The comparison of learning style mean scores among three groups of students by their grade point average (GPA) is presented in a graphic form in Figure 6.8.
Table 6.17 Description of Student Orientations to Studying Mean Scores By Academic Achievement Groups

| Orientations to Studying | Mean Scores (SD) | | | | | |
|--------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                          | Group 1:  | Group 2:  | Group 3:  | | | | |
|                          | <2.50 (n = 61) | 2.50 - 2.99 (n = 173) | 3.00 - 4.00 (n = 90) | | | | |
| Meaning Orientation      | 3.893 (0.333) | 3.860 (0.457) | 3.863 (0.357) | | | | |
| Reproducing Orientation  | 3.783 (0.396) | 3.720 (0.428) | 3.604 (0.416) | | | | |
| Relating Ideas           | 3.635 (0.493) | 3.611 (0.636) | 3.508 (0.576) | | | | |
| Deep Approach            | 3.906 (0.517) | 3.724 (0.573) | 3.756 (0.522) | | | | |
| Comprehensive Learning   | 4.135 (0.518) | 4.181 (0.528) | 4.303 (0.488) | | | | |
| Use of Evidence and Logic| 3.896 (0.432) | 3.923 (0.686) | 3.883 (0.593) | | | | |
| Syllabus Boundness       | 3.902 (0.749) | 3.854 (0.663) | 3.719 (0.722) | | | | |
| Fear of Failure          | 3.842 (0.622) | 3.796 (0.634) | 3.652 (0.705) | | | | |
| Improvidence             | 3.787 (0.573) | 3.671 (0.626) | 3.589 (0.662) | | | | |
| Surface Approach         | 3.691 (0.545) | 3.647 (0.542) | 3.533 (0.553) | | | | |

Figure 6.8 Comparison of Orientations to Studying Mean Scores of Hospitality Students by GPA Group

As shown in Table 6.17 all students in the three different grade point average groups tended to adopt a ‘Meaning’ orientation more than a ‘Reproducing’ orientation as they all scored slightly higher on ‘Meaning’ orientation. Students in the GPA Group 1 scores on ‘Meaning’ orientation and ‘Reproducing’ orientation were 3.893 (0.333) and 3.783 (0.396) while for the GPA Group 2 mean scores were 3.860 (0.457) and
3.720 (0.428) and the GPA Group 3 mean scores were 3.863 (0.357) and 3.604 (0.416), respectively. In Table 6.18, there was a statistically significant difference between groups on the main scale of ‘Reproducing’ orientation (p = 0.025). However, the p values for ‘Meaning’ orientation (p = 0.853) and for the other eight subscales were reported as more than the stated significance level (p ≤ .05).

Table 6.18 ANOVA Results for Student Orientations to Studying Mean Scores and Academic Achievement as Measured by Grade Point Average (GPA)

<table>
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<tr>
<th>Orientations to Studying</th>
<th>Sum of Squares</th>
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<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tr>
<td><strong>Fear of Failure</strong></td>
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<tr>
<td>Between Groups</td>
<td>136.676</td>
<td>321</td>
<td>.426</td>
<td>1.965</td>
<td>.142</td>
</tr>
<tr>
<td>Within Groups</td>
<td>138.349</td>
<td>323</td>
<td></td>
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<tr>
<td>Total</td>
<td>275.025</td>
<td>324</td>
<td>.837</td>
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<tr>
<td>Between Groups</td>
<td>126.238</td>
<td>321</td>
<td>.393</td>
<td>1.812</td>
<td>.165</td>
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<tr>
<td>Within Groups</td>
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<td>323</td>
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<tr>
<td>Total</td>
<td>253.892</td>
<td>324</td>
<td>.713</td>
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<td><strong>Surface Approach</strong></td>
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<tr>
<td>Between Groups</td>
<td>95.493</td>
<td>321</td>
<td>.297</td>
<td>1.866</td>
<td>.156</td>
</tr>
<tr>
<td>Within Groups</td>
<td>96.604</td>
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<tr>
<td>Total</td>
<td>192.097</td>
<td>324</td>
<td>.555</td>
<td></td>
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</tbody>
</table>

* Significance at the p ≤ .05 level
To find the significant differences between groups for the ‘Reproducing’ orientation, post-hoc comparisons with the Tukey HSD test were conducted. The results indicated that there was a significant difference between the mean scores of students in the GPA group of <2.50 (M = 3.783, SD = 0.396) and those of students in the GPA group of 3.00 – 4.00 (M = 3.604, SD = 0.416) for the ‘Reproducing’ orientation (p = 0.028). The mean difference between groups for the ‘Reproducing’ orientation was 0.1786, indicating that the students with a low grade point average were characterised by more use of ‘Reproducing’ orientation in their learning than were students with high academic achievement.

There was, therefore, a significant difference in learning styles as measured by the s-ASI among hospitality student groups of different academic achievement as measured by grade point average (GPA). The null hypothesis that there is no significant difference of learning styles among hospitality students who have different levels of academic achievement as measured by grade point average (GPA) was rejected.

6.6 CONCLUSION

This chapter has provided a detailed analysis of the quantitative data collected from the questionnaire surveys with hospitality students and hospitality professionals. The quantitative data analysed in this chapter assisted in determining the learning styles in hospitality contexts and individual variables that affected them. Some statistical differences highlighted areas needing attention in terms of the instructional design and delivery of hospitality courses. These findings are discussed in the next chapter, making reference to the literature review as presented in Chapter Two.
CHAPTER SEVEN
DIFFERENCES IN STYLES OF LEARNING:
ASSOCIATED FACTORS

7.1 INTRODUCTION

In this chapter the findings from the quantitative analysis which were reported in the preceding chapter (Chapter Six) are discussed. The findings were derived from the questionnaire surveys conducted with 324 undergraduate hospitality students who enrolled in food and beverage courses at the case study university, and 376 hotel food and beverage supervisory and management staff employed at the sixty-four participating hotels in Thailand.

As has been demonstrated in the introduction to this study and reinforced in the research design chapter, the first aim of the study was to investigate the dominant learning styles of hospitality students in food and beverage-based subjects in hospitality higher education in Thailand (see section 1.3, Chapter One, page 4). The main instruments used to explore this aim were the Thai version of Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ) and Entwistle and Ramsden (1983)’s short version of the Approaches to Studying Inventory (s-ASI). These two instruments were used to determine the ways in which students learn and their relationships to individual learner variables. Students’ learning styles were also compared with those of hotel food and beverage supervisory and management staff in Thailand. Such a comparison has allowed explanation of underlying assumptions as to the disparity of learning experience in Thai hospitality higher education and the Thai hospitality industry.

The discussions in this chapter are organised in terms of the main themes which emerged. Each theme addresses a specific research question. The findings on learning style and data relevant to individual learner variables included age, gender and academic achievement as measured by grade point average (GPA) addresses the
first research question and its associated questions (see section 1.4, Chapter One, page 5).

Based on these variables, comparisons have been made between each student group as categorised by these variables. These comparisons have enabled discussion exploring the differences and similarities in learning styles and orientations to studying adopted by students in the different groups. However, the discussion and analysis point to several limitations of the study, mainly concerning the relative homogeneity of the sample in terms of its demographics. The sample was homogenous because of the limited age range of the students, which may be important as it may have limited the finding of any maturational differences in learning styles. Furthermore, learning styles and orientations to studying adopted by students within different levels of academic achievement, as measured by grade point average (GPA), are examined and compared. Some associations are found between particular learning styles, orientations to studying and academic achievement. The relationships between students' learning styles and their academic achievements are considered as important findings for Thai hospitality teachers at this case study university.

Another discussion in this chapter specifically addresses the research question relating to the comparison of learning styles between hospitality students and hotel food and beverage supervisory and management staff. The different learning styles of these two samples are considered. Hospitality students at the case study university showed their strong preference for the 'Activist' learning style while a strong preference for the 'Theorist' learning style was exhibited by hotel food and beverage supervisory and management staff. The possible explanations and rationales behind this learning style disparity are presented and discussed.
7.2 STUDENTS’ CHARACTERISTICS AND THEIR RELATIONSHIP TO STUDENT LEARNING STYLES

In Western countries previous studies on student learning show that students in higher education are increasingly diverse in terms of age, gender and nationality, and that this diversity among students can lead to differences in the way that they learn (Marriott 2002). Consequently, in order to understand the different ways that students learn it is necessary to consider their characteristics, which may be related to how they demonstrate their preferred learning styles. There is strong empirical evidence in the literature pointing to the importance of considering these individual variables of students together with their learning styles. The following sections discuss two variables, age and gender. They appear to be the most significant factors that have received most attention in previous studies conducted in higher education (Bagdan & Boger 2000; Berger 1983; Heffler 2001; Hsu 1997; Hsu & Wolfe 2003; Jones et al. 2003; Philbin et al. 1995; Pimparyon et al. 2000; Richardson 1993; Sadler-Smith 1996; Spoon & Schell 1995).

7.2.1 Relationship with Age

The rationale behind previous studies of the relationship between age and student learning styles may be the increasing numbers of mature students entering tertiary education. In this study the findings revealed consistently that age had a significant relationship with the different ways that students learnt. From the literature, the direction of the relationships between age and student learning appeared to have two aspects.

Firstly, although learning styles are considered to be stable, they tend to change and become more reflective and theoretical when the learners grow older (Kolb 1984). This may occur because, as people age, they have more experience and may process information more reflectively and less actively. Secondly, previous research indicates that older or mature students tend to adopt more of a ‘Meaning’ orientation to studying than younger or non-mature students. Previous studies have consistently
established the pattern that older students tend to achieve higher scores for the ‘Meaning’ orientation (Duff 2003; Harper & Kember 1986; Richardson 1994, 1995; Richardson et al. 1999; Sadler-Smith 1996; Sadler-Smith & Tsang 1998). Richardson (1994) speculated that such differences may occur for three reasons:

i) That older students are more motivated by intrinsic goals;

ii) That younger students acquire a surface approach to learning in the final years of secondary education; and

iii) That prior life experience of mature students promotes a deep approach.

An aim of this study was to understand whether there are any significant learning style differences among these students according to their age (see section 1.4, Chapter One, page 5). Two hypotheses were that the learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the LSQ vary based on differences in age (Hypothesis 3) and that orientations to studying, as measured by the s-ASI adopted by students in selected hospitality food and beverage-based subjects at the case study university vary based on difference in age (Hypothesis 6).

As reported earlier in section 6.5 (Chapter Six) the findings from the quantitative surveys as assessed by the LSQ in this study indicated that there were no learning style differences between Thai hospitality students in different age groups, while the findings from the s-ASI indicated a significant difference among students in different age groups on the subscale of ‘Improvidence’ (p = 0.045).

The results from the s-ASI indicated that, when compared with their younger counterparts, (19 to 20 years old), these older hospitality students (21 years old) were not prepared to look for relationships between ideas, lacked the confidence to use their own ideas and overemphasised in detail what they learnt. The result that older students scored higher on the ‘Improvidence’ subscale of the ‘Reproducing’ orientation than their younger counterparts in this study was at variance with the literature (Duff 2003; Harper & Kember 1986; Richardson 1994, 1995; Richardson et al. 1999; Sadler-Smith 1996; Sadler-Smith & Tsang 1998). Previous studies have
consistently found that older or mature students tended to adopt a less ‘Reproducing’ orientation than their younger or non-mature counterparts. The inconsistent findings on the relationship between age and student learning can be explained in several possible ways.

Firstly, although the literature did not provide a clear and consistent definition of ‘mature’ and ‘non-mature’ students or ‘older’ and ‘younger’ students when investigating the relationship of age and orientations to studying, most previous studies which found a relationship between age and student learning have been conducted with students in a wider age range (from approximately 18 years up to more than 60 years). This was particularly the case with those studies implementing the ASI (Duff 2003; Richardson 1994, 1995; Richardson et al. 1999; Sadler-Smith 1996). In the present study these students were directly recruited from secondary education. They were predominantly within the small age range of 19 to 24 years old. The designation of ‘mature’ and ‘non-mature’ age or ‘older’ and ‘younger’ students may not be appropriate. Hence, it seems inappropriate to compare or discuss the results with those of previous studies.

Secondly, the higher score for the ‘Improvidence’ subscale associated with the ‘Reproducing’ orientation for older hospitality students in this study did not converge with most findings from previous studies. The incongruence of the relationship of age and orientations to studying in this study may possibly be explained by the assumption that the older students in this study may not have initially passed the examination to study at the university immediately after completing their high school studies. They may have gone to other universities, or have waited to gain a place in the following year. This delay may indicate that they tended to be less academically competent. Therefore, they scored higher on the ‘Improvidence’ subscale compared to their younger counterparts.

Finally, Kolb (1984) suggested that although there was a particular tendency to become more analytic and reflective with age, the individual ranking on learning styles remains highly stable from early childhood to adulthood. The finding in the
present study derived from student sample with an age range of only 19 to 24 years was not well situated to test the relationship between age and learning styles. The small range between these two age groups in the present study may limit the finding of any maturational differences. Previous learning style studies conducted in hospitality contexts (Bagdan & Boger 2000; Hsu 1997) had the same limitation concerning restricted age range of students as the present study.

To summarise, age may not be particularly relevant to hospitality education in this study due to the homogeneity in age of the student sample. Further study is needed of a sample with a wider age range to verify whether age has any relationship to the ways hospitality students learn in Thai hospitality tertiary education.

7.2.2 Relationship with Gender

The second theme discussed in this study was the relationship between students’ gender and their learning styles. This section aims to answer the research question regarding whether there are any significant learning style differences among these students according to their gender (see section 1.4, Chapter One, page 5). The distinction between the ways males and females learnt was unclear from previous studies. Consequently, gender was included in the present study for its relationship to student learning styles in order to extend knowledge in this area.

In the present study hospitality students at the case study university were predominantly females (83.3%). Historically, this institution has been a women’s university. Although its philosophy has changed and it now recruits both male and female students, it still attracts more females than males, especially for the hospitality program (in a proportion of 2:1). Nevertheless, the nature of the hospitality program in this study also resembled other hospitality programs at other universities in Thailand (Ministry of University Affairs 2001). Hence, it can be concluded that the fact that female students outnumbered males in this study was not indicative of a sampling bias. However, it is interesting to note that the preponderance of females found in hospitality higher education in the present study
did not reflect the same proportion of females in the hospitality industry, as it might be expected. Explanations for this inconsistency in gender proportion are discussed in section 7.4 of this chapter.

**Learning Styles and Gender**

The quantitative findings of this study supported the hypothesis that learning styles of students in selected hospitality food and beverage-based subjects at the case study university as measured by the LSQ vary based on differences in gender (Hypothesis 2). The findings of the present study, previously presented in section 6.5 (Chapter Six), showed that male students exhibited a stronger preference for the ‘Pragmatist’ learning style than female students. The results showed that males in this sample tended to learn by applying techniques into practice. In addition, according to Honey and Mumford (1992) male hospitality students like to have the opportunity to learn from a demonstration, and to be given immediate opportunities to implement what they have learned to see how things work in practice. Honey and Mumford’s explanation for these results is that people who are insensitive to the feelings of others tend to apparently demonstrate some strength in terms of the ‘Pragmatist’ learning style. The general consensus that women are considered to be more sensitive than men may be reflected in the lower scores achieved by female hospitality students for the ‘Pragmatist’ learning style in this study.

From the findings it can be inferred that a learning environment in which the hospitality teachers demonstrate how to use relevant ideas from their courses in real life, and allow students to experiment with the application of ideas, theories or techniques would match the learning style of male hospitality students at this case study university. On the other hand, they may learn least in a learning environment where teachers implement reflective and open-ended discussions.

The limited amount of relevant research in the literature has failed to show any consistent and conclusive pattern of learning style differences between male and female students. Some previous studies in various academic disciplines suggested
that males tended to prefer more abstract and reflective learning while females tended to learn better in ‘hands-on’ and practical settings (Berger 1983; Heffler 2001; Hsu & Wolfe 2003; Logan & Thomas 2002; Philbin et al. 1995). Nevertheless, most learning style studies in hospitality education (Bagdan & Boger 2000; Hsu 1997, 1999) have shown different findings, indicating no gender differences in learning styles.

Learning style differences between gender found in this study were inconsistent with the findings in the study of Logan and Thomas (2002). Logan and Thomas utilised Honey and Mumford’s (1992) LSQ with female UK engineering students in distance learning education. The students in their study exhibited a significantly stronger preference for the ‘Pragmatist’ learning style than did males. As well, females showed a stronger preference for the ‘Theorist’ learning style than males who showed only a moderate preference. Although both that study and the present study found gender differences in learning styles, the results appear to be contradictory. These differing findings may result from the discipline-specific aspect of learning styles (Jones et al. 2003). Engineering education tend to be a male-dominated discipline while, in contrast hospitality education in this study was a predominantly female environment.

In hospitality education differences in learning styles between males and females have been extensively assessed by Kolb’s Learning Style Inventory (LSI). Berger (1983) and Hsu and Wolfe (2003) also reported that males were more likely to prefer abstract conceptualisations and active experimentation while females preferred to learn by concrete experience. However, the findings in the present study were inconsistent with those reported by most previous studies conducted in hospitality education in the US (Bagdan & Boger 2000; Hsu 1997, 1999), which did not find any gender differences in learning styles.

One explanation for these inconsistent findings among previous studies and the current study is that it may be possible that different cultures may have an influence on how students learn. The studies mentioned above were conducted across various
cultures. The difference in learning styles between male and female students in the present study and in previous studies may vary because of the different contexts. As mentioned previously, learning styles may be considered to be stable, but they are also situation dependent (Biggs 1999b; Entwistle & Ramsden 1983; Kolb 1984; Prosser & Trigwell 1999). It is therefore possible that students’ learning styles may interact with their learning environments. Different cultures and contexts of study may give males and females different gender identity and experience, and may result in apparently different behaviours in learning.

From the present study the relationship found between gender and learning styles suggested the necessity to investigate further the instructional methods implemented by hospitality teachers in the teaching and learning process. It is important for teachers to ensure that there is no disadvantage in learning experienced by men or women because of their different learning styles, particularly when males are a minority group within a female-dominated discipline like hospitality education. The learning style differences between males and females found in the present study may specifically imply a possible disadvantage to male learning, depends on instructional methods used.

**Orientations to Studying and Gender**

The quantitative findings from the s-ASI did not support the hypothesis that orientations to studying, as measured by the s-ASI, adopted by students in selected hospitality food and beverage-based subjects at the case study university vary based on difference in gender (Hypothesis 5). As reported in section 6.5 (Chapter Six) no statistically significant difference was identified in the orientations to studying as measured by the s-ASI adopted by male and female hospitality students in this study. Both male and female students scored higher for the ‘Meaning’ orientation. There was only one significant finding, which was that female students yielded slightly higher scores on both scales of ‘Meaning’ and ‘Reproducing’ orientations than their male counterparts.
A previous study was conducted by Pimparyon et al. (2000) in a similar cultural context employing the s-ASI. The research assessed the orientations to studying adopted by Thai nursing students. The nature of nursing education in that study may be considered to be similar to hospitality education in the present study in that both disciplines are female-dominated and they both emphasise practical and hands-on learning. Nevertheless, it was impossible to compare the results of gender differences in orientations to studying as the sample in the study of Pimparyon et al. comprised only female nursing students.

There exists a substantial literature concerned with individual differences in student learning in higher education as previously reported in the literature, yet there is a remarkable paucity of available investigations employing the ASI to explore possible gender differences in learning. The quantitative findings of this study were consistent with previous studies where no significant statistical evidence of gender differences was reported (Duff 2003; Richardson 1991, 1993; Richardson et al. 1999; Sadler-Smith & Tsang 1998).

Although the findings in this study were generally consistent with most previous studies, there were still some inconsistent findings relative to previous studies in terms of gender differences and orientations to studying (Harper & Kember 1986; Richardson 1997; Sadler-Smith 1996). The differences in these studies seemed to arise from the way that females tended to adopt a ‘Reproducing’ orientation in their learning to a greater extent than males. For instance, in the UK, Richardson (1997) assessed the orientations to studying of ninety-nine undergraduate students by the s-ASI and revealed findings from discriminant analysis indicating that males were regarded as having a ‘Meaning’ orientation while females were regarded as having a ‘Reproducing’ orientation.

To sum up, most previous studies in the literature suggested that there were no overall differences in orientations to studying between men and women. This was consistent with the findings in the current study. Although it would seem that
differences may arise in some studies, a probable cause of the discrepancy and heterogeneity of gender differences across studies may be explained as follows.

The different contexts in which these studies were performed may result in different findings on students’ orientations to studying. Orientations to studying are contextual interaction which means that orientations to studying depend on the content, context and demands of learning tasks (Ramsden 1984). As argued by Richardson et al. (1999), orientations to studying may vary according to the academic context. Richardson et al. hypothesised that gender differences in orientations to studying could arise within particular educational contexts, especially in overtly-gendered academic environments. The inconsistent results on gender differences in orientations to studying could possibly be specific to the institution involved in the research. Furthermore, the apparent gender differences may actually be due to differences in gender identity given to both men and women by different cultures and environments. It may be interesting to conduct further study to seek more evidence on this question.

Nevertheless, if relationships do exist between demographics and student learning it would be useful for teachers to implement instructional strategies to meet the needs of all learning styles. There is a need to induce all students to adopt a ‘Meaning’ (deep) approach to learning, whether they are younger, older, male or female, as this approach is claimed to be the most desirable in higher education.

7.3 RELATIONSHIP WITH ACADEMIC ACHIEVEMENT

Understanding the different ways in which students learn is important because it assists teachers to develop desirable outcomes in terms of academic achievement and effective student learning. The investigations of relationships between learning styles and academic achievement may contribute significantly to the aim of producing desirable learning outcomes. Previous studies consistently revealed that different ways of learning were related to learning outcomes, especially in terms of academic achievement as measured by grade point average (GPA).
This section aims to answer the research question regarding whether there are any significant learning style differences among these students according to their academic achievements (see section 1.4, Chapter One, page 5). Among the three individual student variables researched in this study (age, gender and academic achievement) it can be stated that previous studies revealed the most consistent patterns and findings in the relationship of learning style and orientations to study with student academic achievement. As reported in the previous chapter, the findings in the present study were congruent with those of previous studies. The findings from the LSQ showed that students who preferred the ‘Activist’ learning style and students who adopted a ‘Reproducing’ orientation as assessed by the s-ASI displayed significantly lower academic achievement than their counterparts with other different learning styles and orientations to studying.

**Learning Styles and Academic Achievement**

The quantitative results supported the hypothesis that there were significant differences in learning styles as measured by the LSQ among hospitality student groups of different academic achievement as measured by grade point average (GPA) in selected food and beverage-based subjects at the case study university (Hypothesis 4). In this study there was a significant relationship between learning styles and academic achievement of hospitality students in Thailand for the learning style of ‘Activist’ ($p = 0.050$). Hospitality students who had lower grade point averages (GPA) showed a stronger preference for the ‘Activist’ learning style than those with higher grade point averages (GPA). It appeared that students with the other three learning styles tended to outperform students with the ‘Activist’ learning style. Students with the ‘Activist’ learning style tended to prefer ‘hands-on’ experience and involving themselves in immediate experience (Honey & Mumford 1992). These students could be classified as high-risk or low achiever students in hospitality education at the case study university.

Similar results concerning the relationship between learning styles and academic achievement have been found in other academic disciplines (Van Zwanenberg et al.
Van Zwanenberg et al. reported that UK engineering and business students who preferred the 'Activist' learning style tended to fail the most in their learning.

Interestingly, based on a similar theoretical framework, the study of Hsu (1997), using Kolb's LSI, revealed the implications for hospitality higher education in terms of how to improve teaching methods to help improve student learning. In her study with US hospitality students Hsu (1997) found that most students preferred the 'Converger' learning style, which is opposite to the 'Diverger' learning style according to the LSI. This group of students performed better as they had a higher grade point average (GPA) than students who preferred other learning styles. Likewise, using the LSI, other hospitality learning style studies (Bagdan & Boger 2000; Berger 1983; Hsu 1997) found that students who preferred the 'Diverger' learning style, associated with concrete experience learning, had lower grade point averages (GPA) than students preferring other learning styles.

In summary, the relationship between a learning style emphasising learning from concrete experience and lower academic achievement has been confirmed consistently by many previous studies utilising the LSI and the LSQ (Bagdan & Boger 2000; Berger 1983; Hsu 1997, 1999; Jones et al. 2003; Van Zwanenberg et al. 2000). The relationships between learning styles and academic achievement were linked with the learning environment in the context of the study. Hsu (1997) conducted her study in the US hospitality educational context, and noted that teaching methods that were normally implemented in hospitality classrooms included mainly lectures and supplemented with cases studies, laboratories and projects. Hsu claimed that instructional methods in hospitality programs suited students who had a preference for the 'Converger' learning style.

The results showed the poor academic achievement of hospitality students with the 'Activist' learning style lead to a serious concern, given most hospitality students at this case study university showed their strongest preference for this learning style. In this regard, a general point was raised that it may be possible that hospitality students usually have lower university entry scores than any other faculty. This may effect
how they learnt. In order to clarify this issue there was an attempt to get the access to the data on hospitality students' university entry scores. However this was impossible as the case study university denied to provide the information due to the issue of confidentiality of data. This issue may be worthwhile for further research to study and analyse this possible concern.

The results in the present study, as well as in other earlier studies conducted in the hospitality educational context, were surprising given the nature of hospitality education. The results suggested that, although hospitality education was a professional discipline which traditionally emphasised hands-on learning experience, the ‘Activist’ who learnt best with concrete experience was not favoured or rewarded by academics in an academic environment. It seems likely that the inferior academic achievement of ‘Activist’ students may be at least partially associated with the learning environment. In the Thai higher educational system traditional education is primarily abstract and reflective, so it would not support the ‘Activist’ learning style of most hospitality students in the study. The negative relationship between this learning style and academic achievement may result in undesirable learning outcomes, both in terms of academic achievement and of the skills that hospitality students require when they graduate and enter the workplace.

Given this assumption, qualitative research was conducted to investigate current instructional methods in hospitality education, to see whether the implementation of current instructional methods might disadvantage most hospitality students at the case study university, given that their dominant learning style was ‘Activist’ (see Chapter Eight).

**Orientations to Studying and Academic Achievement**

The hypothesis that there was a significant difference of orientations to studying, as measured by the s-ASI, adopted by student of different academic achievement as measured by grade point average (GPA) in selected hospitality food and beverage-
based subjects at the case study university groups (Hypothesis 7) was supported by the quantitative findings in this study.

As reported in section 6.5, Chapter Six, the present investigation produced evidence concerning a relationship between the orientations to studying adopted by hospitality students and their different academic achievements. Students who adopted a ‘Reproducing’ orientation in the present study had a lower grade point average (GPA) than students who adopted a ‘Meaning’ orientation (p = 0.025). Whereas the ‘Reproducing’ orientation scale was related to low academic achievement the score for ‘Meaning’ orientation did not show any significant relationship with academic achievement. According to Entwistle (1988) the students who adopted a ‘Reproducing’ orientation tended to learn by memorising, sticking to what was prescribed in syllabi, and had a fear of failure.

A finding of this study, that students who adopted a ‘Reproducing’ orientation were the low achievers was consistent with the findings reported by other researchers (Pimparyon et al. 2000; Richardson et al. 1999). The findings in the present study were entirely consistent with the earlier study of nursing students conducted in Thailand by Pimparyon et al. (2000). In their study, Thai nursing students in the lower academic achievement group had higher scores for the ‘Reproducing’ orientation and lower scores for the ‘Meaning’ orientation than the higher academic achievement group.

Although the quantitative results in this study showed a significant difference for the ‘Reproducing’ orientation among students with different GPA, the results of the ‘Meaning’ and ‘Reproducing’ orientations were not distinct for these hospitality students. Most students were still in the ‘grey’ area, where they were unsure about their adopted orientations to studying as they scored similarly for all approaches. It may be assumed that they adopted the different orientations to studying according to the requirements of each learning task. Again, this issue requires further research to investigate aspects of the learning context, such as instructional methods, that may have an influence on students’ orientations to studying.
To sum up, a general consensus exists in higher education that the encouragement of a ‘Reproducing’ (deep) orientation is more desirable than a ‘Reproducing’ (surface) orientation (Duff 1999; Kolb 1984). The results on relationships between student learning styles and academic achievement in the present study supported this view. The results challenge hospitality teachers to enhance student learning outcomes and academic achievement by encouraging students to adopt a less ‘Reproducing’ orientation in their study.

7.4 DISPARITY OF LEARNING STYLES BETWEEN HOSPITALITY STUDENTS AND PROFESSIONALS

Few previous studies have compared the learning styles of hospitality students with those of professionals who work in the hospitality industry (Berger 1983; Wong et al. 2000). For the present study it was hypothesised that students’ learning styles would not be significantly different from those of the hotel food and beverage supervisory and management staff with respect to the four learning styles of Honey and Mumford (1992) (Hypothesis 1). The quantitative findings, reported in section 6.5, Chapter Six, showed that hospitality students and hotel food and beverage supervisory and management staff differed with regard to three of the four learning styles.

7.4.1 Activist Versus Theorist

While both hospitality students and hotel food and beverage supervisory and management staff showed a strong preference for the ‘Reflector’ learning style, there was a distinction in the choice of the other three learning styles (Activist, Theorist and Pragmatist). Students exhibited a stronger preference for the ‘Activist’ style. In contrast, hotel food and beverage supervisory and management staff exhibited a stronger preference for the ‘Theorist’ and the ‘Pragmatist’ learning styles. For the ‘Pragmatist’ learning style, hotel food and beverage supervisory and management staff demonstrated a slightly stronger preference for it compared to hospitality students.
Other hospitality researchers have reported the same patterns with respect to the different learning styles between students and managers in the Asian hospitality industry (Wong et al. 2000). Two patterns of findings in Wong et al.'s study were confirmed by the findings of the current study.

Firstly, Wong et al. reported significant differences for ‘Theorist’ and ‘Pragmatist’ learning styles between these two groups. In their study, hospitality managers scored significantly higher than did students for both learning styles. These patterns were congruent with the findings in the current study, where hotel food and beverage supervisory and management staff also scored higher than students for those two learning styles.

Secondly, the findings in the present study and the study of Wong et al. (2000) confirmed that hospitality professionals tended to give the lowest preference to the ‘Activist’ learning style. The lowest preference given to the ‘Activist’ learning style implied that food and beverage supervisory and management staff in the present study might not be keen to learn through new challenges or experience, or in new environments. Typical risk-taking behaviour and an ability to work and solve the problem as part of a team may not to be expected from these hospitality professionals.

The finding of a strong preference for the ‘Theorist’ learning style by hotel food and beverage supervisory and management staff in this study are similar to those of the learning styles of hospitality managers studied by Wong et al. (2000) in Asian contexts. They reported that Asian managers of restaurant businesses in Hong Kong, Singapore and Taiwan were inclined towards ‘Theorist’ and ‘Reflector’ learning styles. In the present study, based on the learning style theory postulated by Honey and Mumford (1986), hotel food and beverage supervisory and management staff tended to prefer methods of learning involving a more conceptual and structured approach compared to methods preferred by the hospitality students.
That hotel food and beverage supervisory and management staff preferred to learn in the ‘Theorist’ style may be due to their work experience. As they may have gained business experience from their work after graduation these experience in their past may have been enough to reflect and theorise upon. Thus, they tended to apply or to experiment with their new ideas immediately in their work to see how things work in practice as described for the ‘Pragmatist’ learning style by Honey and Mumford (1986).

Despite the different preferences for learning styles of ‘Activist’, ‘Theorist’ and ‘Pragmatist’ between the samples of hospitality students and hotel food and beverage supervisory and management staff, both groups could be considered all-round learners as they did not show any low preference for any of the four learning styles. A moderate to very strong preference for all four learning styles indicated that they should be able to learn from a variety of learning experience, although they may learn best in particular situations that are matched to their preferred learning styles.

7.4.2 Cross-Cultural Learning Style Preferences of Hospitality Students

Considering the way that hospitality students in the present study showed a distinct learning style preference for ‘Activist’, it seems likely that some of the hospitality education characteristics were associated with learning by doing and with the professional discipline. This finding was therefore not surprising, given the ‘hands-on’ nature of hospitality and the perceived utility of hospitality education as the application of skills in practice after graduation.

The results were supportive of similar studies conducted by Lashley (1999) and Barron and Arcodia (2000), which highlighted that the ‘Activist’ learning style was adopted by both UK hospitality students and offshore Confucian hospitality students. As well, the results in the present study are similar to the study conducted in the Asian context by Wong et al. (2000). Their results also indicated that four out of eleven groups of hospitality students surveyed strongly preferred the ‘Activist’ learning style. It is especially interesting to note that the studies of Barron and
Arcodia (2002) and Lashley (1999) were conducted in Western countries. The learning styles of hospitality students appear to be similar across cultures.

7.4.3 Modifications of Learning Styles in Thai Hospitality Workplace

In previous chapter, Chapter Six, further investigation has been undertaken on learning style differences between hospitality students and professionals. Since the initial findings showed the differences in learning styles between these two groups, it was assumed that the differences in learning styles may exist amongst hotel food and beverage supervisory and management staff with different levels of education as well.

However the results showed no differences in learning styles amongst hotel food and beverage supervisory and management staff when classified by their educational qualifications. Professionals with secondary school level, vocational diploma and bachelor degree altogether showed the same preferences for their learning styles as reported in the previous chapter. Initially, it was assumed that hotel food and beverage supervisory and management staff with bachelor degree may show similar preferred learning styles as hospitality students as they have also experienced learning in higher education. Nevertheless, compared to learning styles of hospitality students, these staff showed their stronger preference for learning styles of ‘Reflector’, ‘Theorist’ and ‘Pragmatist’ while showing less preference for learning style of ‘Activist’. In this regard, it may appear that their learning styles may have been changed after they entered into the workplace. These staff may modify or develop their learning styles due to different learning environments at their workplace or other factors such as age and job requirements. The matter on the modifications of learning styles needs further investigation to confirm this assumption.

To summarise, from an educational perspective it appears that hospitality education attracts more students with an ‘Activist’, than any other learning style (Barron & Arcodia 2002; Lashley 1999). While hospitality students prefer the ‘Activist’
learning style they may see, and have an expectation, that many aspects of the hospitality workplace match their style of learning. The 'Activist' learning style could therefore be seen as compatible with hospitality management programs which prepare graduates for specific occupations. However, as hotel food and beverage supervisory and management staff preferred a different way of learning, the 'Theorist' learning style, this may reflect incongruence between how hospitality students are learning and the way that hospitality work requires them to learn. Importantly, it is argued that the different learning style preferences will largely determine the effectiveness of any learning process to which hospitality graduates are exposed in learning to become managers in the hospitality industry (Wong et al. 2000).

7.5 CONCLUSION

The quantitative findings on learning styles in hospitality education in Thailand provide some support for the hypotheses of this study. The survey research findings showed that two individual learner variables (age and gender) were the factors that influenced how Thai hospitality students learnt differently. The findings of this study of hospitality students in Thailand are mostly consistent with the issues documented in the literature on student learning, and the influence of personal factors in both Western and Asian countries. Owing to the sample limitation of this study, the narrow age range of hospitality students has led to findings that are inconsistent with some previous studies on the relationship between student age and their adopted orientations to studying (Richardson 1995; Richardson et al. 1999; Sadler-Smith 1996).

The findings and discussions on learning styles reported in this chapter provide insights into the different ways in which Thai hospitality students at the case study university learnt. The identification of consistent and substantive differences in the study would imply the need to develop differential instructional methods for groups of students with different learning styles.
The literature demonstrates that students’ learning styles and their orientations to studying are only parts of the learning process. In order to draw conclusions regarding student learning in the learning process of hospitality education in Thailand as a whole, it is necessary to support the quantitative findings with qualitative research on the learning context, including instructional methods in Thai hospitality higher education. The qualitative findings on these constructs are reported in the next chapter.
CHAPTER EIGHT
CURRENT INSTRUCTIONAL METHODS
IN HOSPITALITY EDUCATION

8.1 INTRODUCTION

This chapter is based on the in-depth interviews with hospitality teachers conducted at the case study university in Thailand as previously described in the methodology chapter (see section 4.9.3, Chapter Four). The aims were to investigate the current instructional methods implemented in the selected food and beverage-based subjects at the university. The data gathered from the qualitative research in this chapter provide an understanding of learning environments in hospitality education.

The organisation of this chapter is as follows. The chapter commences with profiles of the university setting and of teacher respondents. Then, the outlines of two food and beverage-based subjects are briefly described before presenting the findings from the interviews. The findings on each theme emerging from the interviews are then reported. The themes relate mainly to current instructional methods and to teachers’ perceptions of the effectiveness of current instructional methods implemented in their subjects. Some constraints were revealed by these two teachers in the interviews regarding the implementation and improvement of instruction in the case study university.

8.2 METHODOLOGY FOR THIS STUDY

As outlined in the methodology chapter (Chapter Four) the central focus of this qualitative study was on the instructional methods of hospitality teachers at the case study hospitality program in Thailand. While the in-depth interviews were conducted with two hospitality teachers at the university, the identities of the university and of the two teachers remain confidential.
The in-depth interviews aimed to gather information about current instructional methods implemented in hospitality subjects at the case study university. Data gathered from the interviews were tape recorded, and then analysed by transcribing the tapes of the interviews and comparing and contrasting the differences between respondents by using a cross case analysis frame in order to seek common patterns.

8.3 OVERVIEW OF THE FOOD AND BEVERAGE-BASED SUBJECTS

As previously described, the in-depth interviews were conducted with two teachers who taught two different hospitality food and beverage-based subjects. These two subjects were compulsory elective subjects, and were part of the group of management specialisation subjects. Students may choose to specialise and to study one area in greater detail.

For the interviews Teacher A and Teacher B were asked to provide information on subject outlines, specifying course components, instructional methods and expected learning outcomes. Both teachers provided their subject outlines that had been proposed and developed by themselves. In their subject outlines both teachers gave detailed descriptions of the subjects, the expected learning outcomes and the methods of instruction for each course component. This section presents general information about these two subjects, which will be useful for analysis of the themes regarding instructional methods in the following sections.

Food and Beverage Subject A

In Subject A there was a total of 231 hospitality students was enrolled. This subject was offered in four groups, with approximately fifty-five to sixty students in each group. All students enrolled in this compulsory elective subject were in their third year of the four-year hospitality degree. In Subject A, it took three hours face to face instruction for each group per week over fifteen weeks.
In the outline of Subject A, instructional methods were selected to match each subject component or item of content as well as to complement each learning objective. Expected learning outcomes of Subject A were clearly identified, using cognitive verbs, such as to ‘know’ and to ‘understand’. These outcomes were mainly incorporated in subject-specific skills. Briefly, the expected outcomes of student learning for Subject A were identified as being for the students to:

i) Have knowledge and understanding of the components of a catering section and its function in the hospitality industry;

ii) Have knowledge and understanding of the qualifications and responsibilities of caterers;

iii) Have knowledge and understanding of various classifications of catering; and

iv) Develop knowledge of managerial and problem-solving skills in relation to catered events.

Being the only teacher who taught this subject at the time of data collection, Teacher A identified the explicit learning objectives in written form as stated in the subject outlines. Subsequently, students were again informed of what they were expected to know, understand and be able to perform from studying this subject according to the stated subject outline.

*Food and Beverage Subject B*

In Subject B, a total of 152 hospitality students was enrolled. This subject was offered in three groups, with approximately fifty to fifty-five students in each group. All students enrolled in this compulsory elective subject were in their third or fourth year of the four-year hospitality degree. This particular subject took three hours of face to face instruction for each group per week over fifteen weeks.

In the outline of Subject B, Teacher B clearly stated the expected learning outcomes, which aimed to develop some subject-specific skills in relation to the hospitality food
and beverage area. Briefly, the expected learning outcomes of Subject B were identified as being for the students to:

i) Have knowledge of the basic types of alcoholic beverages and the utensils used in beverage operations;

ii) Demonstrate a basic understanding of the production methods of various types of beverages as well as the planning and operational processes; and

iii) Demonstrate a basic knowledge and theory of beverages utilised in restaurants, hotels and outside catering settings.

Although Teacher B was a visiting teacher at the university at the time of data collection the university let her manage her own subject in terms of course components and the selection of instructional methods. Being the only teacher who taught this subject at the time of data collection Teacher B identified the explicit course component and learning objectives in written form as stated in the subject outline. However the selection of instructional methods was not identified in the subject outline of Subject B.

To conclude, these two food and beverage-based subjects in this study aimed to develop students’ subject-specific skills in the area of food and beverage. In the following sections the interview results with these two hospitality teachers are reported, and the main emerging themes identified. These themes include current instructional methods to enhance student learning and skill development, critical self-evaluation on the effectiveness of their current instructional practices and the constraints in the implementation of instructional methods as perceived by these interviewees.

8.4 CURRENT IMPLEMENTATION OF INSTRUCTIONAL METHODS

The main issue that arose from the analysis of the comments of the hospitality teachers interviewed was current instructional methods implemented in these two food and beverage-based subjects at the case study university. Teacher A and
Teacher B provided insights regarding the instructional methods currently used in their subjects. They revealed that the hospitality program at this university did not have developed policies on instructional methods. Most teachers were themselves left to decide what modes of instruction would be effective in each class.

With Teacher A, at the beginning of the semester students were informed of the instructional methods which would be used as identified in the subject outlines. Teacher B also explained to her students in the first class of that semester how she would conduct her teaching for Subject B. Generally, both Teacher A and Teacher B implemented similar instructional methods in their classes.

In Subject A, there were four methods of instruction implemented, whereas in Subject B three methods were implemented. Lectures, demonstrations and discussions were general modes of delivery implemented in both subjects. Laboratory work was the supplementary instructional method implemented in Subject A, but was not found in Subject B. The instructional methods implemented in these two subjects are summarised in Table 8.1.

<table>
<thead>
<tr>
<th>Instructional Methods</th>
<th>Percentage of Use (%) of Total Instructional Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subject A</td>
</tr>
<tr>
<td>Lecture</td>
<td>40%</td>
</tr>
<tr>
<td>Demonstration</td>
<td>20%</td>
</tr>
<tr>
<td>Discussion</td>
<td>10%</td>
</tr>
<tr>
<td>Laboratory Work</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
</tr>
</tbody>
</table>

From the interview results, it was obvious that the use of lectures was predominant in both subjects. Lectures comprised forty per cent (40%) of the total instructional methods implemented by Teacher A and seventy per cent (70%) in Subject B. As presented in Table 8.1, although the lecture mode comprised the highest percentage of the total instructional modes implemented in both subjects, the interview results showed that Teacher B tended to heavily rely on this mode of instruction. Teacher A tended to utilise fewer lectures in his teaching, and his instructional methods
included more varied forms compared to Teacher B. Other methods such as demonstrations, discussions and laboratory work were also utilised by Teacher A.

In the following sections each instructional method is discussed in detail, together with the rationale behind the implementation of these instructional methods in regard to the enhancement of student learning.

8.4.1 Lectures: The Dominant Method of Instruction

The interview results showed that the lecture was the main mode of instruction implemented across these two subjects. Both teachers revealed that the lecture was a common staple in their teaching, with the aim of conveying the content of the subjects to their students. They also stated that instructional methods in their subjects were implemented in relation to different course content or components. Both teachers selected lectures as a means of introducing a topic, explaining the relevance of a topic and providing an overview of subject content and knowledge to their students. For both subjects, lectures were used for teaching subject content that was primarily theory-driven, and were focused on developing conceptual understanding of the subject domain.

According to the teachers interviewed, the lecture slots used in their instruction varied from approximately sixty minutes to three-hour sessions. In the latter case, both teachers varied the classroom session with breaks and changes of instructional format. For instance, in teaching Subject A, Teacher A revealed that formal lectures were used primarily to provide a systematic framework for later discussions and practical exercises. Occasionally, their lectures included the use of visual aids in the form of slides, an overhead projector and, rarely, PowerPoint presentations or other visual aids.

These teachers were in agreement on the use of lectures. Both argued independently that lectures were the most effective and appropriate method of instruction to cater for a large number of students in their classroom. Given the increasing number of
students enrolled, the following statement was made by Teacher A to support this viewpoint.

I have more than two hundreds students studying this subject and there are about fifty to sixty students in each session. Lecture, therefore, is the only way to deal with these students. I think a lecture from the front of the class is still the norm in my large classes. I am very much using this in teaching this subject because of the large number of students enrolled. (Teacher A)

As previously shown in Table 8.1, in Subject A lectures dominated Teacher A’s teaching, making up approximately forty per cent (40%) of the total instructional methods implemented. In Subject B, lectures dominated more than seventy per cent (70%) of the total instructional methods of Teacher B.

Despite their heavy use of lectures, particularly in Subject B, the teachers interviewed referred to the limitations of the lecture mode in relation to the hands-on nature of the hospitality curriculum. They stated that they were aware that, because of the unique nature of hospitality food and beverage-based subjects, it would be more beneficial to be able to offer students more ‘hands-on’ experience. Some practical skills in food and beverage areas may not be transferred by the lecture method. In this connection Teacher B pointed out that:

In my subject, the balance between the practical parts and theoretical part is equal. Using lectures to teach this subject is okay in terms of theoretical part. Although I realise that I mainly use the lectures to teach my students but I think to learn the practical skills, there is a need for some teaching and learning methods that emphasise more hands on or practical parts, rather than loading of lectures. (Teacher B)

The above statement showed that these teachers were aware of the ineffectiveness of the lecture mode in teaching some food and beverage skills or knowledge in their subjects. Nevertheless, lectures were still the main approach used in their teaching.
8.4.2 Demonstrations: Learning by Watching

Another instructional method reported by both teachers was the use of the demonstration technique. In these two subjects some practical aspects of food and beverage topics were initially taught by lectures, followed by demonstration by these teachers.

Teacher A revealed that the application of the body of knowledge in these two food and beverage-based subjects was taught through demonstration. For instance, the topic of menu knowledge and basic styles of service in Subject A was taught by lectures, and then Teacher A demonstrated to students how to set up tables or how to serve food in various styles. Teacher A explained that:

At one point in the lectures, I do the demonstrations to show how some food and beverage skills and knowledge can be done in practices. The equipment and demonstration facilities had been prepared and were large and visible throughout the classroom. My students are allowed to ask questions at the end. I think the way I do the demonstrations could engage more of the students’ attention in what was happening in the demonstration. (Teacher A)

In both subjects, demonstrations made up only twenty per cent (20%) of the total instructional methods. Both teachers expressed their belief that using demonstrations could assist their students to understand more of the practical parts of the subjects.

The findings from the interviews showed that although both teachers utilised demonstrations to teach their students, they did not actively involve students in the demonstrations. To explain this, they mentioned that it was impossible for all students to have the opportunity to repeat the demonstrations in order to acquire some technical or practical skills. This was due to time constraints and to the large number of students enrolled in these two food and beverage-based subjects. Nevertheless, they found that the use of a demonstration in teaching could gain more of the students’ attention, and encouraged students to think and to ask any questions they might have about that topic.
8.4.3 Discussion: Getting Students to Learn Actively

In both subjects the teachers utilised discussions, which made up approximately ten per cent (10%) of the total instructional methods. Teachers expressed their belief that the discussion of ideas and concepts presented first in lectures was an effective means of enhancing learning.

As previously mentioned in section 8.4.1 the hospitality teachers revealed that they usually allowed discussion after their lectures in each session. For the implementation of discussion in their subjects, Teacher A and Teacher B usually divided students into small groups of six to eight students so that activities-based teaching such as discussions could be adopted in the large class. These two teachers believed that using discussion in their teaching helped to encourage students to take an active role in their learning. The interviews showed the teachers’ belief that discussions allowed their students to apply abstract concepts, think critically and formulate ideas or arguments. This instructional method was claimed by these teachers to be a way to encourage some generic skills in their students, such as communication and thinking abilities.

The interview results showed careful planning of discussions in the teaching of both teachers. According to Teacher A and Teacher B, their method was to inform their students of the purposes of discussions. The students were then encouraged to participate in the discussions.

Teacher respondents at this case study university acknowledged the advantage of utilising discussion as their instructional method to effectively enhance student learning of food and beverage knowledge. In support of this instructional method, Teacher B stated that:

It may be hard to have participation of all students. You know the discussion sometimes becomes unfocussed or dominated by a small group of students, especially in the class of more than fifty students like what we have now. However, it is good to use this method of teaching, I think we have more active learning where students are asked to share, think and
communicate their ideas. It is a way of summarising what I just taught them in the lecture. Teaching by discussion is an effective means of helping my students apply abstract ideas about food and beverage theory taught in the lectures and think critically about what they are learning. (Teacher B)

The results indicated that these teachers clearly acknowledged the advantages of discussion to help students develop higher-order reasoning skills such as analysis, synthesis, and evaluation on the assigned topics or issues. Yet, both teachers reported that they rarely implemented discussions in their teaching. Some concerns that hindered the use of discussions in their instruction were discussed. They both agreed that discussions slowed the pace of a class and could only be used effectively in small classes. Furthermore, they claimed that this mode of instruction required students’ analysis, opinions and participation. However, in their classes they found that discussions were intimidating for some students.

8.4.4 Laboratory: Learning by Doing

With regard to their current instructional methods both teachers referred to the importance of implementing laboratory work in teaching hospitality food and beverage-based subjects. Nevertheless, from the interview results the implementation of laboratory work was found only in Subject A.

In Subject A, laboratory work made up approximately thirty per cent (30%) of Teacher A’s total instructional method. Teacher A claimed that laboratory work was an effective method to provide opportunities for hospitality students to engage actively in hands-on or experiential learning. In his opinion work in laboratory settings could provide the students’ in-depth understanding of the subject knowledge, as well as enable them to gain more practical skills. Students were asked to move out of a passive role. Teacher A indicated that he tried to use laboratory work to create an environment where students could develop both general and technical food and beverage skills as required in Subject A.
Teacher A indicated that students in his subject were asked to work at the food and beverage department of the university's laboratory setting. Hospitality laboratory facilities at this university were established with the main objective of adding first-hand experience to instruction. The laboratory setting exists in the form of an on-campus training hotel with full operational systems to supplement the teaching and learning process of the hospitality program. In Subject A, time for practice in the university laboratory commenced at the beginning of the semester and went on until the end. Teacher A indicated that in Subject A, students were obliged to practice in at least four catering functions held in the on-campus laboratory setting.

In this connection, Teacher A noted that since my class meets for three hours, variety in presentation and hands-on involvement helps to keep students alert and involved in their learning. I use the lectures or demonstration methods to introduce the students to the theory, followed by a hands-on exercise at the laboratory. Laboratory work that I assigned to my students allows them to work through what they have learnt in the classroom. Due to the time constraint, I know that I cannot afford to send our students to work in the real workplace, like in the internship. But laboratory work is also helpful to encourage the practical application and integration of knowledge to a similar context. And I would say that is my first objective to implement the laboratory work in my teaching. (Teacher A)

In contrast to Subject A, in Subject B, the interview results revealed that Teacher B did not use laboratory work as one of her instructional methods. From her teaching experience she had found that the laboratory setting of the university was insufficient and ineffective in providing student hands-on learning experience. She further noted that the capacity of the laboratory could not accommodate the large number of students enrolled in her subject, which was approximately fifty to sixty students per class. To support her opinions Teacher B stated that:

As you know in my subject, there is a balanced mix between the theoretical and practical parts. It is important to teach students those practical and hands-on skills in this subject and I know that they can't just learn in the classroom with lectures. But I wish the facilities provided by the university were more supportive than what we have now. If possible, it would be more beneficial for student learning, or if we can opt to send our students to local
hotels or companies where they can learn from experiencing the real practical things. It seems to be difficult when there is a need for resources to be invested. In my subject, what I can do now is to use the demonstration as a method to teach my students some essential practical and hands on skills. (Teacher B)

The above statement indicates the lack of some specialised equipment and facilities required in order to effectively teach the students some food and beverage skills. Therefore, in her subject, Teacher B did not require her students to undertake laboratory work. Although laboratory work was only implemented in Subject A, the results of this study indicated that, in Subject B, Teacher B clearly acknowledged the usefulness of laboratory work.

8.5 TEACHERS’ PERCEPTIONS OF THE EFFECTIVENESS OF CURRENT INSTRUCTIONAL METHODS

The results from the in-depth interviews indicated the perceptions of participating teachers of the effectiveness of current instructional methods utilised in their subjects. These interviewed teachers reflected critically on their instructional methods in terms of their effectiveness in response to students’ needs, and in enhancing student learning.

Regarding the effectiveness of the instructional methods that they implemented in their food and beverage-based subjects, both teachers generally self-evaluated their current instructional methods as effective overall. They were positive in their evaluations of the extent to which the instructional methods they had utilised had suited the subject content studied. They further claimed that the actual modes of instruction, as reported in the preceding sections, had assisted their students to understand subject material, develop practical skills and achieve the subject requirements.

Nevertheless, these teachers mentioned some barriers affecting and discouraging the implementation of some alternative instructional methods in their teaching, such as high workload, large class sizes, and lack of resources and support.
Teachers in this study perceived themselves as being currently overworked. Despite their main work of teaching, they stated that they were expected to undertake counselling, consulting, and administrative work at the case study university. They expressed their viewpoint that the design and development of innovative instructional methods would be seen as an extra burden for them. From the teachers’ perspective revealed in the interviews, the amount of time was one constraint that militated against them designing and implementing good instructional methods. Although they wished to diversify teaching practices in order to generate effectiveness in student learning, this would need the easing of their workloads.

Furthermore, they indicated that the large number of students enrolled in both subjects appeared to be one barrier to implementing alternative instructional methods. The teachers interviewed claimed that it would be more beneficial for student learning if the class size was smaller, as the actual class size in both subjects was approximately fifty to sixty students per class. The teachers argued that it was difficult to interact with each individual student. Some forms of learning activities could not be tailored or diversified for their students to ensure their learning. They both wished that hospitality class sizes could be reduced, and limited to be a manageable size.

Availability of resources and support was another concern that Teacher B mentioned. The interview results indicated that only Teacher B noted the lack of some supportive resources from the university. Teacher B claimed that she was not able to adopt some methods of instruction due to the limitations in resources. To clarify this concern Teacher B illustrated her opinion by commenting that:

I think some methods of teaching such as fieldwork, would be one of the distinctive features for my subject which perhaps could give the students more, and clearer, idea of the processes of producing wines, beverage business and operation. It is necessary since unlike other fields of study, hospitality food and beverage is concerned less about theoretical approaches, but more about real-world practical experience. Nevertheless, this type of teaching method was not extensively implemented at the time due to the inevitable constraints on the financial burdens, especially for the visiting teachers like me. It is quite difficult to convince how important it is to invest in this type of teaching. (Teacher B)
The above statement showed that Teacher B considered better equipment and financial support were needed in order to be able to better integrate some instructional methods, such as the industrial visits, into her teaching. She argued that it was discouraging for student learning, as her instructional methods for this subject would remain limited until there were enough resources and support provided by the university. Nevertheless, in regard to this concern, Teacher A expressed a contrasting opinion. He expressed the view that enough support and facilities existed from the university for his instruction. Consequently, Teacher A revealed that the laboratory setting at the university was considered the main resource for students in his subject to learn, and take the opportunity to gather hands-on experience.

8.6 DISCUSSION

The preceding sections in this chapter presented the instructional methods implemented by these interviewed teachers. The interview results showed a limited range of instructional methods implemented by the interviewed teachers in these two food and beverage-based subjects. In this section, the interview results are discussed in relation to previous studies on the instructional practices in higher education, specifically in hospitality education and in relation to learning style theories.

8.6.1 Current Instructional Methods and Students’ Learning Styles

Lectures, demonstrations, discussions and laboratory work implemented by these hospitality teachers were among those dominant instructional methods in higher education suggested in the higher educational literature (Anderson 1997; Ball 1995; Bourner 1997; Casado 2000; Hsu et al. 1991; O’Bannon 2002; O’Halloran & O’Halloran 2000; Poon 2000; Sivan et al. 1991; Sutliff & Baldwin 2001; Terry 2001; Trowbridge 1997). Nevertheless, some other common modes of delivery in higher education, as suggested by previous studies, were also missing from these two subjects (Anderson 1997; Ball 1995; Bourner 1997; Casado 2000; Hsu et al. 1991; O’Bannon 2002; O’Halloran & O’Halloran 2000; Poon 2000; Sivan et al. 1991;
These methods included case study, industrial visit, self-study, internship and role-playing.

When considering the instructional methods implemented by these two hospitality teachers in relation to the learning style theory of Honey and Mumford (1986), modes of instruction such as lectures appeared to match with students with learning styles related to reflective observation and abstract conceptualisation, namely the 'Reflector' and 'Theorist' learning styles, respectively (Kolb 1984; Sutliff & Baldwin 2001). Their instructional practices clearly showed the predominance of the lecture mode. Particularly in Subject B, the heavy reliance on lectures was consistent with findings reported in the literature of higher education (Biggs 1999b; O'Halloran & Deale 2003). These results also confirmed the instructional practice found in US hospitality education by Hsu (1997). The lecture format was reported as the most frequently used method of teaching (Hsu 1997). This phenomenon may possibly be explained by the nature of higher education, where the theoretical dimensions are emphasised.

The use of discussions in these subjects tended to supplement the learning of students with the 'Reflector' learning style as identified by Honey and Mumford (1986). In discussion, students could reflect on the content, ask questions and discuss the content, findings consistent with those suggested by previous studies (Sutliff & Baldwin 2001). The use of discussions in these two subjects was also consistent with the way of promoting active learning and encouraging deep approaches to studying as suggested by Biggs (1999b).

The interview results showed a considerable amount of laboratory work was implemented by Teacher A. This method of instruction appeared to enhance the learning of students with the 'Pragmatist' learning style (Honey & Mumford 1986). The use of laboratory work in Subject A was also consistent with its use found in previous hospitality research (Hsu 1999; Hsu & Wolfe 2003). The effective design of laboratory work would enable students to try new ideas, and then to reflect upon their actions by writing a journal or participating in class discussion later. Conversely, the
lack of laboratory work in Subject B might result in a lack of learning facilitation for students who preferred to learn in a pragmatic way.

However, both Teacher A and Teacher B implemented another method of instruction which facilitated learning by students with the ‘Pragmatist’ learning style (Honey & Mumford 1992; Sutliff & Baldwin 2001). This instructional method was demonstrations. The use of demonstrations also supported students with the ‘Reflector’ learning style (Kolb 1984; Sutliff & Baldwin 2001), as these students could learn better by observing what teachers did and reflecting on what they had learnt from the demonstrations. The interviewed teachers used demonstrations to show students how to apply their food and beverage knowledge to practice, for instance, those topics related to practical skills such as how to set up function rooms or how to mix cocktails.

The rationale behind the implementation of the demonstration method, as revealed by both teachers (see section 8.4.2) was consistent with what has been suggested by previous studies (Biggs 1999b; Ramsden 1992). In relation to the orientation to study theory, demonstrations in these two subjects could have assisted students to undertake a ‘Meaning’ (deep) orientation and to improve their academic performance, as well as developing the required skill effectively as suggested in previous studies (Biggs 1999b; Ramsden 1992). Nevertheless, demonstrations implemented by these two teachers may not be effective enough to encourage a ‘Meaning’ (deep) orientation to study as students were not actively engaged in the teaching and learning process.

8.6.2 No Facilitation of Student Learning For Every Learning Style

In spite of the diversity of students in these two hospitality classes the teachers interviewed did not mention students’ different ways of learning as a factor that they considered in their design of instructional modes despite suggestion in previous studies (Barron & Arcodia 2002; Biggs 1999b; Entwistle & Ramsden 1983; Honey
& Mumford 1986; Kolb 1984; Lashley 1999; Ramsden 1992). This clearly has implications for the training needed for teachers at this university.

The results confirmed that, although both teachers expressed their awareness of the fact that using the right instructional method is important to the quality of student learning, consideration of the diversity of students was not mentioned as a factor they considered in their design or implementation of instructional methods. From the analysis of interview results it can be concluded that there were students with some learning styles who were disadvantaged in their learning. Current instructional methods implemented by these two teachers would assist students with some learning styles but would not assist the learning of other students, particularly students who preferred learning by concrete experience. Students with an ‘Activist’ learning style may have difficulties in learning from traditional learning environments, especially in Subject B.

To some extent the instructional methods reported in these two subjects supported three learning styles, including ‘Reflector’, ‘Theorist’ and ‘Pragmatist’. Specifically, in both subjects students who preferred learning by reflective approaches would have advantage in their learning as three of the modes of instruction used (lectures, discussions and demonstrations) supported the ways that they learnt. Students with the ‘Activist’ learning style would face difficulties in their learning in both subjects as no existing mode of instruction matched their concrete ways of learning. To sum up, hospitality teachers in the present study did not appear to take into consideration their students’ learning style when they implemented the instructional methods in their teaching. The learning needs of all students should be taken in consideration if these teachers are to support students’ learning and skill development.

8.6.3 Lack of Strategies to Improve the Effectiveness of Instruction

In regard to constraints mentioned by these teachers, the difficulties in implementing various instructional methods were identified from the interview results. These constraints were consistent with those mentioned by McLoughlin (1999). A large
class size and scarcity of resources usually limit the ability of teachers in accommodating and facilitating all learning styles of students (McLoughlin 1999).

Yet, the teachers interviewed did not appear to implement any remedy in their instruction in order to improve large-class teaching. Strategies suggested in the higher educational literature (Biggs 1999b; Herbert & Hannam 2002) were not found in the instruction in these two subjects. It would be possible to overcome these constraints in teaching if the teachers interviewed considered some strategies to cope with large class teaching, as suggested in the literature. These strategies include careful planning and preparation of the lecture, small or focus group discussions in lectures and tutorials, web-based course materials, discussion boards and on-line resources (Biggs 1999b; Herbert & Hannam 2002).

8.7 CONCLUSION

In this chapter the results from the in-depth interviews with two hospitality teachers at the case study university were presented. This chapter has attempted to identify the instructional methods being implemented in the two hospitality food and beverage-based subjects at the case study university. The interview results showed that hospitality teachers at the case study university implemented limited methods of instruction. Obstacles to implementing some methods of instruction in their classes were clarified, but no strategies were utilised to overcome these obstacles. The discussion in this chapter has highlighted the relationship between current instructional practices and students’ learning styles to identify the discrepancies between these two constructs within the teaching and learning process in hospitality education at the case study university.

Having outlined the current instructional practices in these two hospitality food and beverage-based subjects, these results assist in providing an understanding of whether any discrepancies exist between the ways students learnt and how teachers taught in hospitality learning environments at this case study university. The results in this chapter are further discussed in the next chapter, together with the findings from other stakeholders. In order to assist hospitality teachers to improve the
instructional process and consequently, the quality of student learning, the alignment between students' learning styles, instructional methods and the learning outcomes expected by the industry needs to be encouraged. Hence, in the next chapter (Chapter Nine) all constructs studied within the teaching and learning process in the present study are discussed together. The results of learning styles, needed skills and current instructional practices gathered from both qualitative and quantitative research as previously reported in Chapters Five to Eight, are discussed together in relation to each research question.
CHAPTER NINE
CONCLUSIONS AND IMPLICATIONS

9.1 INTRODUCTION

The mixed method research design employed in this study yielded quantitative and qualitative data that were distinct but complementary about the teaching and learning processes at the case study university. In the preceding chapters (Chapters Five to Eight), the research findings derived from the questionnaire surveys and in-depth interviews were presented. The findings relating to the constructs studied within the teaching and learning process were examined in order to understand how to enhance student learning and skill development by designing effective and appropriate instructional methods at the case study university.

This chapter begins with a brief overview of the study. It then summarises the results of the findings on learning styles, required skills and current instructional practices gathered from both qualitative and quantitative research. Some limitations of the study are noted. In particular, the limitations with respect to research methodology are identified in order to suggest areas that require and deserve further study. Consequently, the implications of these results are presented, making suggestions for future research. This chapter concludes with recommendations, mainly for hospitality faculties and students at the case study university. The recommendations are based on the findings from this study, and are intended to enhance student learning and skill development in hospitality education at the case study university.

9.2 CONCLUSIONS

The findings and discussion for both the qualitative and quantitative research have been presented in the four preceding chapters (see Chapter Five to Eight) and will be brought together for final discussion in this section. The aim is to form the basis of implications and recommendations derived from the knowledge of students’ learning
styles for the teaching and learning process for hospitality education at the case study university.

9.2.1 Discrepancies between Learning Styles and Current Instructional Methods

Hospitality students at the case study university tended to be practical and ‘hands-on’ learners and wanted to learn by doing. On the other hand, the main mode of instruction used by teachers at this university was of an abstract nature. The heavy use of lectures emphasising the theoretical foundations of planning and managing food and beverage operations and service, supplemented by only two or three other modes of instruction, may not accommodate the learning styles of all students in the classroom. These two sets of data clearly show the discrepancies between the ways in which teaching and learning have been conducted at this university.

On the basis of the quantitative findings it can be said that hospitality students at this university were effective and versatile learners as they did not show low preferences for any learning style (Honey & Mumford 1992) and they further adopted the ‘Meaning’ (deep) orientation to studying (Entwistle & Ramsden 1983). Nevertheless, not all styles of learning presented by hospitality students at this university were supported by the instructional methods used, whereas the literature suggests that they should be (Barron & Arcodia 2002; Sarasin 1999; Sutliff & Baldwin 2001).

With regard to the group norms of these hospitality students’ learning styles it would be expected that some modes of delivery such as role-playing, case studies, simulations or practical exercises would have been implemented by these teachers to support student learning. Additionally, meaningful learning experience that encourages students to engage actively in their learning (Biggs 1999; Ramsden 1992) would also have been expected. Contrary to the expectation of pedagogical practices as suggested in the literature, the results showed that these instructional methods were missing from the teaching of these two hospitality food and beverage-based subjects at this university.
Based on the findings of this study and the acknowledgement by previous researchers that the learning style of hospitality students tends to fall into the concrete experience dimension (Barron & Arcodia 2002; Lashley 1999), it can be concluded that current instructional methods implemented in these two food and beverage-based subjects were not effective enough to enhance and felicitate student learning. This was supported by the fact that hospitality students with ‘Activist’ learning style at this university were the low achievers in their courses.

9.2.2 The Importance of the Relationship between Learning Styles and Academic Achievement

In the current study a relationship exists between the learning style of ‘Activist’ and ‘Reproducing’ orientation to studying and low academic achievement in hospitality education at the case study university. The result showing that ‘Activists’ were low achievers has significant implications for hospitality teachers as it shows that specific learning styles may not be favoured by hospitality education at this university (Bagdan & Boger 2000; Berger 1983; Hsu 1997, 1999; Jones et al. 2003; Van Zwanenberg et al. 2000). The low academic achievement of students with an ‘Activist’ learning style was considered surprising, given the vocational nature of hospitality education. Given the significant relationships between the ‘Activist’ learning style and low academic achievement, and the fact that no current instructional methods supported student learning in a concrete manner in these two subjects, students with the ‘Activist’ learning style may be wrongly attributed to be of low ability because of the inappropriate teaching.

Meanwhile, the relationship between low academic achievement and a ‘Reproducing’ orientation was understandable (Pimparyon et al. 2000; Richardson et al. 1999). These students’ learning behaviours were that they learnt by memorising, limited their learning only to what was prescribed in syllabi, and showed fear of failure. Considering the sophisticated nature of higher education the ‘Reproducing’ approach students adopted to their learning in these food and beverage-based subjects would not be compatible with the university learning environment.

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Such a relationship is important, as similar results were also demonstrated strongly in the literature on learning styles (Bagdan & Boger 2000; Berger 1983; Biggs 1999b; Entwistle & Ramsden 1983; Fry et al, 1999; Hsu 1997, 1999; Jones et al. 2003; Pimparyon et al. 2000; Ramsden 1992; Richardson et al. 1999; Van Zwanenberg et al. 2000). From the result, it can be concluded that the present study has demonstrated the importance of expanding the teaching repertoire to support student learning in these two hospitality subjects at the case study university, specifically the learning of those who were low achievers. In order to improve large-class teaching and support students who were low achievers in these subjects, strategies suggested in the higher educational literature (Biggs 1999b; Herbert & Hannam 2002) should be implemented. These strategies include careful planning and preparation of the lecture, small or focus group discussions in lectures and tutorials, providing web-based course materials, discussion boards and on-line resources (Biggs 1999b; Herbert & Hannam 2002).

9.2.3 Incongruence in the Ways that Hospitality Students and Professionals Learnt

Within this study part of the learning style investigation involved the possible identification of the learning styles preferred by hospitality students and professionals. The different styles of learning shown by hospitality students and professionals were evident in preferences for the ‘Activist’, ‘Theorist’ and ‘Pragmatist’ styles as described by Honey and Mumford (1992). In particular, students in this study showed their strongest preference for learning by concrete experience while hotel food and beverage supervisory and management staff strongly preferred to learn in an abstract manner.

The disparity in learning styles of these two groups confirmed previous research (Wong et al. 1999). Thus, the lack of congruence in the ways that hospitality students and professionals learn has significant implications for the pedagogical practices of hospitality teachers at this case study university. The use of such learning styles by hotel food and beverage supervisory and management staff may possibly suggest that
they have consciously considered the context in which their learning was to take place. The styles of learning exhibited by these hotel staff may fit their perception of learning requirements for the workplace.

Hospitality food and beverage staff may modify or develop their learning styles due to different learning environments at their workplace or other factors such as job requirements. The different learning style preferences between hospitality professionals and students have a significant implication that these differences may largely determine the effectiveness of any learning process to which hospitality graduates are going to be later exposed in learning in the hospitality industry. From the findings of learning style differences reported in the present study, the conclusion can be made that the aim of understanding these differences is not to develop hospitality students’ learning styles to be the same as those of hospitality professionals. It would not be appropriate to reinforce only stereotypical learning styles in hospitality profession and discourage other learning styles. On the other hand, hospitality higher education at this case study university need to develop their students to be successful learners who can effectively learn in different environments by adopting required learning styles.

Hospitality teachers at this university may need to develop in students or prospective graduates the ability to develop other learning styles that they may not naturally prefer, if they are to work and learn successfully in their future workplace. In that way they will be able to cope with the various learning environments that they may face in their prospective careers.

9.2.4 Failure of Hospitality Education to Provide Teaching and Learning Experience to Meet the Employers’ Expectations

The mission of a higher educational institution is not only to provide students with a meaningful learning experience but also to prepare them to be able to function effectively in the workplace. Hospitality teachers in this study recognised the need to enhance student learning to carry out this mission. Nevertheless, the results from the
present study showed that from an industry viewpoint, hospitality education was not the priority criterion for recruitment or success in the workplace (Baum 1988; Chan & Coleman 2004; Emenheiser et al. 1998; Goodman & Sprague 1991; Ineson & Kempa 1996; Nebel et al. 1994). The essential skills expected from hospitality education by the industry in this study were in the area of technical food and beverage and human relations skills, (Baum 1991a; Christou & Eaton 2000; Hsu & Gregory 1995; Emenheiser et al. 1998; Fournier 2004; Ineson & Kempa 1996; Nelson & Dopson 2001; Okeiyi et al. 1994; Tas 1988) and in the development of the ‘reflective practitioner’ (Lashley 1999) in the workplace.

The results from exploratory study identified the expectations of hospitality industry for the skill development which should take place in higher educational institutions. The fit between hospitality industry’s expectations and the programmes provided within hospitality education is a complex issue. This issue has a relatively little evidence to suggest the industry needs are represented by a single perspective (Baum 2002). However, hospitality higher education generally maintains a clear commitment to the development of skills. It is possible that industry dissatisfaction with graduate skills may result partly from a lack of congruence between the way instruction was carried out by teachers and required by the Thai hospitality industry. Whilst the industry strongly emphasised experiential learning to acquire some required skills in a vocational field like hospitality (Beaty 1999), this was not the case for hospitality teachers at this case study university as they did not place much emphasis on experiential learning as a method of instruction.

The heavy emphasis on lectures and the limited methods of instruction seems a concern, as it is doubtful whether these are effective ways to assist students to learn and to develop skills. Given the way that teachers in the current study conducted their instruction, it is unlikely that the university will successfully produce hospitality graduates who will be reflective practitioners (Lashley 1999). In order for hospitality graduates to be reflective practitioners, they are required to be practical and pragmatic in their actions, but also capable of analytical and theoretical thought (Lashley 1999). Therefore, hospitality teachers at this university need to encourage

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both ‘reflection’ and ‘action’ in student learning. Instructional strategies are required to develop students’ dominant learning styles to be more comfortable with versatile learners. However, most methods of instruction implemented in these hospitality food and beverage-based subjects, such as discussion, demonstration and lectures, mainly facilitated learning in only reflective ways, with less facilitation of other styles of learning. If developing reflective practitioners is considered as one of the quality learning outcomes, the instructional modes used by these teachers may need to be revised and supplemented.

9.2.5 Summary

The synergistic combination of qualitative and quantitative methods employed in the present study helped elucidate the importance of considering students’ learning styles when designing instructional methods and enhancing student learning in hospitality education at the case study university. The results also identify potential problems, mainly associated with the reliance on instructional methods using an abstract perspective, and limited modes of instruction. The results also point to the disadvantages for most hospitality students at this case study university in their learning and skill development. The gaps between the ways students learnt, teachers taught and industry’s expectations have important implications for hospitality education at this university.

9.3 CONTRIBUTION TO KNOWLEDGE

Although the present study had several limitations, as identified in the following section (section 9.4), these limitations did not detract from its overall contribution. The study has made several significant practical, theoretical and methodological contributions to knowledge. It contributes to the field of hospitality education in Thailand, in particular to the case study university, in several ways.

Firstly, after thorough investigation, the author found no evidence that learning style research had been conducted previously in a Thai hospitality higher educational
context. The present research is, therefore, the first learning style study in Thai hospitality higher education, attempting to empirically investigate the different ways that students learnt in their hospitality courses. Furthermore, the present study has provided an investigation of individual learner variables and learning styles, as well as a comparison between the learning styles of hospitality students and professionals. This information has significant implications for Thai hospitality teachers in order to improve their instructional practices.

Secondly, with regard to its theoretical framework, this study has made theoretical and methodological contributions to knowledge of learning style. The present study utilised both Honey and Mumford’s (1992) Learning Style Questionnaire (LSQ) and the short version of Approaches to Studying Inventory (s-ASI) of Entwistle and Ramsden (1983) to develop an understanding of how hospitality students learnt in their courses at the case study university. The use of these two learning style instruments in Thai versions has demonstrated the reliability, validity and applicability of these instruments with Thai hospitality samples at this case study university. It also confirms that their application in a previous study in a Thai educational context conducted by Pimparyon et al. (1999) was valid.

Thirdly, this study has provided valuable insights for hospitality teachers in terms of skills expected by the industry. Much of the research on this issue has emanated from the Western context while empirical research in the Thai context has been limited. The identification of required skills by the present study contributes to a greater understanding of industry expectations and of how hospitality teachers should design teaching and learning experience to match the nature of hospitality works. The knowledge of learning styles, instructional methods and expected learning outcomes derived from the present study should assist the development of the pedagogical practices of hospitality teachers at the case study university as discussed later in section 9.6. The knowledge and understanding of these constructs provides evidence about and describes how they can be used as pedagogical tools to enhance student learning and teaching development.
9.4 LIMITATIONS OF THE STUDY

The present study attempted to identify constructs within the teaching and learning process in Thai hospitality higher education, using a case study approach. These constructs were identified under the theoretical foundations of learning styles and pedagogical practices in higher education. As in all research, the present study was subject to three limitations, notably in relation to the methodology, timing of the research and the sampling frame.

Methodology

It should be noted that the nature of case study research is to gain an in-depth, contextual understanding of one case (Yin 1994). While this was considered a particular strength of the present study it also limits the application of the findings and their generalisability. Thus, since the present study was based on one hospitality program at one Thai university, the results cannot be generalised to other hospitality programs at other Thai universities. However, as the present study was the first learning style research in the Thai hospitality higher educational context, the insights into hospitality students’ learning styles at the case study university should be useful for the planning of future studies into learning styles for other hospitality programs in Thailand.

Because this study only conducted with hospitality students at one Thai university during a specific time, the study’s findings may be limited because the sample is not representative of hospitality students across Thailand. This study only examined the students from two classes which was only taught by two teachers. Students’ learning styles as well as teachers’ instructional methods may differ based on their individual background, age, experiences, training and resources. Therefore, caution should be exercised in interpreting the results. Furthermore, the relatively small sample size and the qualitative research with hospitality teachers, nature of the study may bias the results. Future studies should use larger samples from various subjects and different institutions to validate these results.
Time of the Research

A further limitation arose through the timing of the research. The constraints in time for a PhD study made it impossible for a longitudinal study to be performed. While the present study investigated learning styles and current instructional methods at the case study university, discussions on these issues were based on previous studies reported in the literature. The efficacy of various instructional methods to accommodate different learning styles could not be examined empirically in the present study. Without the time constraints imposed on this study, an empirical study should be conducted to test the implementation of various instructional methods in relation to students’ learning styles. Furthermore, longitudinal research is needed to confirm the implications and practicality of the present study as discussed later in section 9.5.

Sample

With regard to the limitations in relation to the sample in this study, the most obvious was the homogeneity of the population. The first limitation was in terms of the age of the student sample. Although there was no sampling bias in terms of sample age (see section 6.2.1, Chapter Six), hospitality students at the case study university did not represent a wide enough age range to study learning style differences among age groups and, hence, to make comparisons with the findings of previous studies. The student sample in this study was dominated by students who entered the university straight after graduating from high school. These students were within an age range of only nineteen to twenty-four years. Thus, as discussed earlier in Chapter Six, any conclusions in terms of relationship between age and student learning could not be made appropriately in the present study.

Another limitation of the sample in relation to homogeneity was the engendered nature of hospitality education at the case study university, in which females dominated. Although the fact that female students outnumbered male students in this study did not result from a sampling bias (see section 6.2.2, Chapter Six), it should
be kept in mind that the disproportion of female to male hospitality students in the sample may have affected any differences in learning styles found, as measured by the Learning Style Questionnaire (LSQ) or the short version of Approaches to Studying Inventory (s-ASI). Notably, the differential representation of male and female students in certain academic disciplines has been shown to have an influence on the results of other studies (Richardson et al. 1999; Van Zwanenberg et al. 2000).

9.5 RECOMMENDATIONS FOR FURTHER RESEARCH

Although all the research questions of the present study, as stated in Chapter One, have been answered and presented in the previous chapters (Chapter Five to Eight), a few relevant issues remain, and need to be studied in the future. The main issue is whether the results of this study can be generalised, due to it being conducted by case study research. This section presents how further studies need to be undertaken to validate the results and findings of the current study, especially, studies of the dominant learning styles of hospitality students in Thailand. The results of such studies could potentially assist hospitality teachers to revise and modify their instructional methods in order to facilitate student learning and skill development. Consequently, the following recommendations for further research are suggested:

- **Further studies should be carried out for other hospitality programs at other higher educational institutions in Thailand.**

Despite the limitations imposed by the case study method of the present study, its findings in relation to hospitality students’ learning styles at this case study university do support those of previous studies (Barron & Arcodia 2000; Lashley 1999). Further research is needed to confirm the findings of this study and of the previous hospitality studies mentioned above that hospitality students preferred learning by concrete experience. Given the limited number of studies utilising the short version of Approaches to Studying Inventory (s-ASI) in a hospitality higher educational context, more research is also needed to confirm the findings of the present study. It is suggested that further research is needed to replicate this study.
and similar previous studies across a variety of hospitality courses to establish patterns of student learning styles and effective instructional methods in hospitality higher education.

- **Further empirical and longitudinal studies are needed to examine the effectiveness of various instructional methods to accommodate all learning styles of Thai hospitality students.**

In response to the time limitation of the present study, and based on the findings of related studies (Lashley 1999), empirical and longitudinal studies need to be conducted to observe the same sample of hospitality students in their learning throughout their courses in Thai hospitality higher education, as has been done in some previous Western research (Lashley 1999).

Empirical and longitudinal research on the effectiveness of various instructional methods, undertaken within the context of Thai hospitality programs, is certainly worthwhile pursuing because it may lead to enhancement of student success in learning. The empirical and longitudinal research can assist hospitality teachers to effectively identify and implement the appropriate instructional methods to suit all students' learning styles. A useful methodology would be to follow one cohort of students throughout their entire hospitality undergraduate degree, assessing their learning styles at the commencement and at the end of each semester to map any shifts in their learning styles. Further research should also investigate learning outcomes when various instructional methods are designed and implemented to facilitate and accommodate student learning styles.

Some other issues related to instructional methods that arose from the qualitative interviews with hotel personnel may be of interest for further research. For instance, further research may be worthwhile to investigate the most suitable time and structure for a placement. Hospitality students are required to undertake a placement as a part of their learning experience in Thai hospitality higher education which aims to provide them with relevant work experience before graduation. An investigation...
into a suitable time and structure for a placement may assist in enhancing effective student learning and in improving current teaching and learning practices in Thai hospitality higher education as suggested by some of the hotel managers interviewed in this study (see Chapter Six).

- **Further research should be considered to confirm the applicability of Thai versions of learning style instruments in Thai hospitality higher education.**

Most learning style inventories have been developed in Western countries. In the present study the results of reliability tests of the Thai versions of these two instruments were acceptable, as previously clarified in the methodology chapter (see Chapter Four). Nevertheless, there is a need for further research to be conducted in similar cultures and contexts to confirm the applicability of these instruments.

Further research similar to that conducted in this study is needed to determine the psychometric properties of the Thai version of the Learning Style Questionnaire (LSQ) and of the short version of Approaches to Studying Inventory (s-ASI), as well as their ability to categorise learning styles relevant to academic specialisations such as hospitality education. Despite the confirmation of reliability, validity and applicability of the s-ASI as studied in the present research and in the study of Pimparyon et al.’s (1999), the different contexts of the studies may produce different findings for its psychometric properties. Further research is needed to confirm this issue.

- **Unclear direction of learning style differences among students grouped by individual variables including age and gender requires further research to be conducted with the sample from other hospitality programs in Thailand.**

At the case study university, while there was a difference in the adoption of the ‘Pragmatist’ learning style between male and female hospitality students, no gender differences were tracked between the adoption of ‘Meaning’ (deep) and ‘Reproducing’ (surface) orientations to studying. This study supports a call for
further confirmation of the results using the Learning Style Questionnaire (LSQ) and the short version of Approaches to Studying Inventory (s-ASI), given the imbalance in gender among the student sample in this study. Further study would assist in clarifying the direction of gender differences in learning styles found in the present study and existing literature. Additionally, the present study found that women made up the majority of student enrolments in hospitality program at the case study university, but were the minority of hospitality professionals in food and beverage supervisory and management positions. Given these results, the researcher recommends continued research into learning styles and academic achievement of women in Thai hospitality higher education.

Furthermore, the results of Entwistle and Ramsden’s (1983) s-ASI in the present study, in contrast to previous studies, found that older students tended to adopt the ‘Improvidence’, which was the subscale of the ‘Reproducing’ orientation to studying, than did their younger counterparts. Because of the previously-mentioned limitation in the age range of the sample in the present study, further research is needed to re-examine this aspect, using different samples of hospitality students at other Thai universities. This is to ascertain whether this is just an anomaly of the sample in this study, or whether this result is more generalisable. The effect of age on learning styles needs to be further considered and cannot be removed from examination until it is better understood.

9.6 RECOMMENDATIONS FOR PEDAGOGICAL PRACTICES

This research study aims to shed light on the importance of learning styles and appropriately related instructional methods in Thai hospitality higher education. The study has generated an understanding of student learning styles which has strong implications for pedagogical practice. These recommendations for pedagogical practices in hospitality higher education are fundamentally directed at the context in which the study took place. Five implications for practice are noteworthy in this section.
9.6.1 More Awareness of Learning Styles for Hospitality Teachers and Students

After considering the results of the present study it is recommended that hospitality teachers and students at this case study university need to be made aware of learning styles. It is recommended that students’ learning styles should be assessed at the beginning of courses using valid and reliable instruments in order to understand the diversity in the classroom among the students.

For Hospitality Teachers

For hospitality teachers at this university, the assessment of students’ learning styles can assist them in identifying the variety of learning styles among the students present in their classes. They can then plan and modify their instructional approaches to accommodate the differences. Learning style theory should be added to the repertoire of hospitality teachers as a means of reflecting on, and informing, their instruction.

It is advisable that hospitality teachers at the case study university should assess their students’ learning styles by using valid and reliable instruments such as Honey and Mumford’s Learning Style Questionnaire (1992) or Entwistle and Ramsden’s short version of Approaches to Studying Inventory (1983). Additionally, the case study university should offer a professional development project program for the teachers with the particular topic of learning styles included. This would be one way to provide an opportunity for its hospitality teachers to participate in ongoing teacher development in order to enhance their learning style knowledge.

Hospitality teachers at this university, after implementing the chosen learning style questionnaires, should also provide basic knowledge of learning styles to their students by discussing the results of these assessments of individual students’ learning styles with them. Such an orientation program, introducing learning style knowledge at the beginning of the hospitality course would be beneficial for both teachers and students. Likewise, in order to increase awareness of learning styles
among their students, hospitality teachers at this university could include study skills as part of the programs for all students. Then learning styles could be used as a basis for the support of student learning. Establishing a learning skills unit in the university is suggested in order to make hospitality students aware of the available range of instructional methods that may be new to them in studying in the hospitality program. By establishing a learning skills unit this university could assist students to develop their study skills, which subsequently would improve their academic achievement and the quality learning outcomes.

Furthermore, this university should encourage teachers to do research in the area of learning styles and instructional methods. Hospitality teachers at the case study university may need to have a better understanding of students' learning styles and their importance for teaching practice and the design of instructional methods. By undertaking research on learning styles, such as the present study, the information on students' learning styles would be available when designing teaching and learning processes and choosing the instructional strategies to implement them. In this way, it is more likely that effective instructional methods will be employed to facilitate student learning.

For Hospitality Students

Hospitality students at the case study university need to take responsibility for their learning by understanding their own learning styles. Students' awareness of learning styles would assist them to understand how their own learning styles help or hinder their learning ability (Poon 2000). Although the literature suggests the implementation of various methods of instruction to facilitate student learning, it may be hard for students to achieve deep and meaningful learning if they are not aware of their strengths and weaknesses in learning. Hence, students' knowledge of their own learning styles is important, as they can understand more about their own strengths and weaknesses as learners. To sum up, students are advised to acquire knowledge about individual differences in learning, that is, that everyone learns
differently, so that they can try out different methods of learning and see what works for them.

9.6.2 More Instructional Repertoires to Accommodate Most Students’ Learning Styles

As the findings in this study highlighted that the dominant learning style of hospitality students at this case study university was the ‘Activist’ style, another pedagogical recommendation can be made, favouring the majority of hospitality students. It is suggested that hospitality teachers in these hospitality food and beverage-based subjects should develop more alternative instructional methods to respond to most students’ needs. Instruction methods used in the hospitality program at this case study university needs to place more emphasis on the implementation of active, ‘hands-on’ and concrete learning experience. Recognising that the teachers interviewed implemented limited modes of instruction, experiential learning should be complemented in hospitality teaching. Experiential learning can facilitate the learning of most hospitality students, and can possibly improve their academic achievement as well as their skill development.

In these hospitality food and beverage-based subjects, designing and introducing a considerable amount of practical work by integrating a mixture of theory and practical hands-on experience into the teaching and learning process is recommended. These are the common ways that hospitality teachers should use to cater to the students’ perceived learning styles, as well as, in response to the skill demand of the industry. These strategies may include, but are not limited to, activities such as laboratory work, role-playing and internships (Beaty 1999).

9.6.3 Enhancement of Meaningful and Effective Learning through All Stages of the Learning Cycle

Although the preceding section suggested that teachers’ instructional practices at the case study university need to help facilitate better learning outcomes for the majority
of hospitality students who preferred the ‘Activist’ learning style, it is also important to include more diverse learning styles in the hospitality teaching and learning process.

The inclusion and development of other learning styles may develop students’ ability to learn in various situations which do not ideally suit their personal learning styles. Varying the instructional methods implemented in their subjects would broaden the factor of compatibility and enhance student learning. There would be occasions where the instructional approaches match students’ learning styles. Various modes of instruction in hospitality education may include field trips, group projects, problem-based learning, laboratory work, internships, demonstrations, role-plays, guest speakers, study visits, lectures, study time alone and small group discussions.

Hospitality teachers at this case study university should design their instruction to assist their students to develop learning strategies that enable them to engage with instructional techniques that are not matched to their styles. It is advisable for hospitality teachers at this university to diagnose the learning style norm of students. They should then adapt their teaching to the group norm while taking individual students’ learning style differences into account. It is critical that the instruction should be reinforced through all four learning styles, allowing the possibility of more effective learners and reflective practitioners. This would ultimately contribute to students’ success in their learning and skill development. Meanwhile, adopting the ‘Meaning’ (deep) approach in learning is also important, according to the learning style theory of Entwistle and Ramsden (1983).

It is also advisable for these hospitality teachers to use project work as one method to allow the adoption of a deep approach to learning. In project work, students would be required to take different roles within a project group. That means they need to engage with different problems and different ways of finding out things. Hence, they will have opportunities to work collaboratively on project work or in teams, which assists those who like learning through discussion and social interaction. These instructional methods can also assist hospitality students in developing essential skills such as teamwork and communication skills, which are strongly
required by Thai hotel industry. For hospitality teachers, well-designed project work would assist them to accommodate all student learning styles and facilitate ‘Meaning’ (deep) approaches to learning, while not increasing their own teaching tasks.

In this regard, developing a repertoire of learning styles would assist hospitality students to acquire those other styles which they do not yet possess. Subsequently, with the acquisition of more learning styles the student would stand a better chance of acquiring a learning style which helps him or her to learn effectively to acquire the essential skills as well as be more confident in meeting any learning experience in the ‘real world’ outside hospitality programs.

9.6.4 Link Students’ Learning Styles with Other Data on Students to Enhance Their Learning

Considering the relationships between some individual learner variables and the different ways that students learnt, as found in these hospitality food and beverage-based subjects at the case study university, some recommendations could be made with regard to instructional practices. The enhancement of student learning at this university by using the link between hospitality students’ learning styles and other factors studied can be made in several ways.

Despite the inconclusive direction found in the present study as well as in the literature, age and gender differences in learning styles did exist. At the hospitality program at this case study university, a minority group of hospitality students, for instance male students, may require some additional instructional strategies to facilitate and accommodate their learning styles. Given their stronger preference for the ‘Pragmatist’ learning style compared to their female counterparts the implementation of instructional methods such as demonstrations, case studies and laboratory work would assist male hospitality students to understand more concepts and applications of food and beverage knowledge taught in these two subjects.
Male or female, older or younger, all students are different from each other in their learning. Although it might be difficult to teach each student group exclusively, hospitality teachers can address each side of each learning style dimension at least some of the time. It is recommended that hospitality teachers at this university implement more active learning activities to encourage their students to involve themselves actively in the teaching and learning process and assist them to learn in meaningful ways.

9.6.5 Understanding How to Teach and Learn in Harmony with the Nature of Hospitality Work and Education

The findings of the present study provide an understanding of the nature of hospitality work and necessary skills identified by Thai hospitality employers from learning experience in hospitality education. It is suggested that some action needs to be undertaken in order to close the gap between hospitality learning experience at this university and those experience expected and required by the hospitality work. Additionally, the different ways of learning of hospitality students and of hotel food and beverage supervisory and management staff found in this study require further investigation so that educational providers can teach effectively in ways that will enable students to learn, as well as to provide them with the required skills to work in the industry.

At the case study university, a better understanding of both students’ learning styles and the needs of hospitality workplaces would assist hospitality teachers in designing instructional methods that combine both theoretical and practical parts to achieve a well-balanced program. This is necessary because when implementing instructional methods in hospitality food and beverage-based subjects, both the facilitation of student learning and the development of desirable learning outcomes in terms of skills required for the students’ prospective careers need to be successfully achieved.
9.7 CONCLUDING REMARKS

The impetus for the present study was derived from the researcher’s concerns about the quality of hospitality students’ learning in Thai higher education. There is a need for a well-balanced education that combines theory with practice to both facilitate students’ different learning styles and to develop essential skills. The present study provides evidence of the importance of student learning styles to the enhancement of student learning and skill development in hospitality education at the case study university in Thailand.

Despite the substantial importance of the learning style concept, learning style theories or models have predominantly been implemented in Western contexts. Their application to higher educational research and practice has not been undertaken in the Thai hospitality higher educational context. The applicability of learning style concepts within the teaching and learning process in Thai hospitality higher education motivated the researcher to develop a better understanding of these constructs. The outcomes of this study have been considered from both theoretical and practical perspectives. The researcher believes that the findings of the present study provide the necessary impetus for establishing a desirable learning environment in Thai hospitality higher education in order to provide meaningful individualised learning. Meaningful individualised learning environments do not only include strategies to accommodate each student’s learning styles, but assist them to be versatile learners who can learn through the four stages of the learning cycle and who can adopt a ‘Meaning’ (deep) approach in their learning. If this is implemented better quality learning outcomes, in terms of academic achievement and skill development, may be achievable in Thai hospitality higher education.

As this is the first learning style research study undertaken in Thai hospitality higher education it is expected that the study will attract interest and the findings will be used by hospitality teachers in Thailand. It is for the reader to consider the transferability of particular findings to other comparable contexts. As stated earlier in this chapter this study can be used as a starting point for further hospitality learning.
style research in Thailand in order to understand the different ways in which students learn. The researcher hopes strongly that verification of learning style concepts and their application in this study will arouse interest among Thai hospitality scholars to extend their knowledge further.

Gaining knowledge about how people learn and the process of learning seems fundamental to teaching. It can be an effective tool for both students and teachers. This first learning style research in Thai hospitality higher education incorporates constructs in teaching and learning processes and identifies the relationship of these constructs in Thai hospitality higher education using a case study approach. It emphasises the importance of understanding how learning style knowledge can be used by both teachers and students in order to enhance student learning. If higher education is to enhance and develop effective learners it will necessitate some changes in teaching and learning. Change may be difficult for teachers and students, but resistance to change can be stultifying. This is a tremendous challenge for both Thai hospitality teachers and students. At the very least, this learning style research is considered as a starting point for working towards meeting this challenge.
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APPENDIX A
INTERVIEW SCHEDULE WITH HOTEL PERSONNEL INVOLVED IN THE RECRUITMENT OF FOOD AND BEVERAGE SUPERVisory AND MANAGEMENT STAFF (ENGLISH VERSION)

Research Title: Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University

Body of questions:
1. What does your hotel look for in hospitality graduates employed as management trainees or in food and beverage supervisory and management positions?
   1.1 Would it be possible for me to have copies of the job descriptions please?
   1.2 What do the job descriptions in your hotel include in relation to:
      • Educational characteristics
      • Job-related experience
      • Functional Job skills
      • Physical Appearance
      • Personal Characteristics

2. Do you think that hotel management trainees or staff in food and beverage supervisory and management positions needs any specialised skills or competencies?
   2.1 If yes, what are those skills and competencies?
   2.2 If not, why not?

3. Regarding the job description, do you find any difficulties in employing hospitality graduates for these positions? If yes, what are they?

4. On a five-point scale, how do the hospitality graduates generally perform in their jobs (management trainees/ food and beverage supervisory and management staff)?
   Excellent Very good Fair Poor Not good at all
   (5) (4) (3) (2) (1)

5. Do you think higher hospitality education is an important factor for advancement in these positions (management trainees/ food and beverage supervisory and management positions)?
   5.1 If yes, how do graduates contribute more to the hotel food and beverage service as the result of their higher education?
   5.2 If no, why not?

6. Have you ever had any opportunities to find out about the quality of undergraduate hospitality food and beverage curriculum?
   6.1 If yes, in what circumstances?
   6.2 If no, the interviewer asks question 9.

7. What do you think about the teaching methods used in hospitality food and beverage curriculum taught in the university?
8. Do you think that there is a need for changes in the undergraduate hospitality food and beverage program to produce the skilled graduates who meet the requirements of these positions?
   8.1 If yes, what needs to be changed and how should it be changed?
   8.2 If no, why not?

9. Do you see a significant change in the skills requirements of hotel employees in these positions (management trainees/ food and beverage supervisory and management positions) over the next three to five years?
   9.1 If yes, what will they be?
   9.2 If no, why not?

10. Please comment on any points not covered that you feel are important for this study to consider about the skill requirements of hospitality graduates.
APPENDIX B
INTERVIEW SCHEDULE WITH HOTEL PERSONNEL INVOLVED IN THE RECRUITMENT OF FOOD AND BEVERAGE SUPERVISORY AND MANAGEMENT STAFF (THAI VERSION)

1. ในการจ้างบุคคลที่จะระดับปริญญาตรีเข้าร่วมในการวางแผนการต่อสู้หรือผลสำหรับบริการเข้าร่วมงานในตำแหน่ง food and beverage supervisor and management ผ่านมีการกำหนดแบบ บรรยายหลักสูตรงานวิชาชีพ ถ้าหากมีผลการ จะขอสำเนาได้หรือไม่ ทันทีหากกลับไปแล้วจะตามที่เข้าต่อไปนี้
    การศึกษา
    ประสบการณ์การทำงาน
    ทักษะในการปฏิบัติงาน
    สิทธิและข้อกำหนด
    คุณลักษณะ

2. นอกจากนี้จะรู้ค้าช่วยในการวางแผนคุณสมบัติต่างๆ ไว้ในเอกสารแบบรายละเอียดงานแล้ว จาก ประสบการณ์หรือความคิดเห็นของผู้รับ ผ่านคิดว่าในการทำงานตำแหน่ง food and beverage supervisor and management levels ผ่านคิดว่าที่มีทักษะหรือคุณสมบัติอื่นๆ อีกหรือไม่ที่สำคัญต่ ตำแหน่งนี้
   2.1 หากผ่านคิดว่า มีทักษะหรือคุณสมบัติต่อเพิ่มเติมบาง ผ่านในที่ไม่ได้ติดต่อלים
   2.2 หากผ่านคิดว่านี้ เพาะเหตุใดจึงติดต่อ

3. จากการที่กำหนดแบบรายละเอียดงานของตำแหน่ง food and beverage supervisor and management levels ไว้ หากพบว่ามีปัญหาในการจ้างบุคคลที่จะระดับปริญญาตรีทางการวางแผนหรือ อุสสาหกรรมบริการงานในตำแหน่งเหล่านี้ ถ้ามี มีประโยชน์บุคคลที่มีทักษะในการทำงาน การติดต่อยังสามารถกลับมานี้ ได้ติดต่อ

4. ผ่านคิดว่าบุคคลระดับปริญญาตรีต้านการวางแผนและผลสำหรับบริการมีความสามารถในการทำงานในตำแหน่งได้มาก่อนเพียงใด ตามระดับต่ำต่ำไปนี้
   
<table>
<thead>
<tr>
<th>ตัดด้องปรับปรุง</th>
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<td>(5)</td>
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5. ในการทำงานตำแหน่ง food and beverage supervisor and management levels ผ่านคิดว่าการ ได้รับการศึกษาจากมหาวิทยาลัยหรือองค์กรที่มีปริญญาตรีเป็นปัจจุบันสำคัญที่ทำให้บุคคลมีการสามารถ ส่วนเรื่อง มีประสบการณ์หรือมีความสามารถในการปฏิบัติงานมากกว่าคนที่ไม่ได้รับระดับปริญญาตรี หรือไม่
   5.1 หากใช้ บุคคลต้องการนายรัฐมนตรีหรืออุสสาหกรรมบริการมีความสามารถที่จะสามารถในการทำงาน ได้มาประสบการณ์อย่างไรบางที่ผ่านคิดว่าเป็นผลมากจากการเรียนในระดับมหาวิทยาลัย
   5.2 หากผ่านคิดว่านี้ เพาะเหตุใดจึงติดต่อ

6. ผ่านคิดมีโอกาสเข้าไปสู่ช่องการสนับสนุนการศึกษาที่เป็นการเรียนการสอนต้านการวางแผนหรือ อุสสาหกรรมบริการบางหรือไม่ มีโอกาสเข้าไปสู่ช่องแก้ปัญหาหลักสูตรต้านอาหารและเครื่องดื่มที่ เปิดสอนในระดับปริญญาตรีหรือไม่
   6.1 หากเคย ผ่านคิดมีประสบการณ์การโต้ปัญหา โปรดระบุ
   6.2 หากไม่เคย ผู้มีคุณสมบัติเข้าไปค้ำหน้าที่ 9

7. เท่าที่ผ่านมีโอกาสเข้าไปจ่ายขอ ผ่านมีความคิดเห็นอย่างไรกับหลักสูตรต้านอาหารและ เครื่องดื่มที่เปิดสอนอยู่ในระดับปริญญาตรี

8. ผ่านคิดว่าหลักสูตรการเรียนการสอนต้านอาหารและเครื่องดื่มของโปรแกรมในมหาวิทยาลัย มีอะไรที่ ต้องปรับปรุงเปลี่ยนแปลงให้สามารถผลิตบุคคลที่มีทักษะความสามารถตามที่โปรแกรม หรือภาค อุสสาหกรรมต้องการหรือไม่
9. ไม่นอก 3 – 5 มีข้างหน้า ท่านคิดว่าพนักงานที่จะทำงานในตำแหน่ง food and beverage supervisory and management levels จะต้องมีการปรับเปลี่ยนคุณสมบัติที่กำหนดไว้บางหรือไม่ ท่านคิดว่าโดยทั่วไปบัณฑิตระดับปริญญาตรีที่จบการเรียนมาหรือจบสตาทธรรมบริการมีประสิทธิภาพในการปฏิบัติงานในตำแหน่ง food and beverage supervisor and management levels มากน้อยเพียงใด

10. ท่านมีความคิดเห็นเพิ่มเติมหรือคำแนะนำอื่นๆ ใดหรือไม่เกี่ยวกับความต้องการของภาคคลอดสำหรับบริการที่มีคำตอบชี้ตอนระดับปริญญาตรีที่จะเข้าทำงานในตำแหน่งนี้ หรือมีคำแนะนำเกี่ยวกับการศึกษาไทยในระดับปริญญาตรีอย่างไรบาง
APPENDIX C
INFORMATION SHEET FOR PARTICIPANTS IN
THE RESEARCH (ENGLISH VERSION)

This research is being carried out by Sirirat Chaunkamnerdkarn, a PhD candidate at Victoria
University, Melbourne, Australia.

Purpose of Research
You are being asked to participate in a research study to understand the learning styles of students in
the Thai hospitality educational context. The findings from this study will be used to make
recommendations on instructional methods in hospitality education. The goal of this study is to assist
teachers in fostering the development of successful hospitality graduates who possess the skills
required to work in food and beverage supervisory and management positions in the Thai hotel
industry.

Procedure
Your information is important and vital to help us find out what could be changed or improved in the
learning process of hospitality food and beverage-based subjects in terms of instructional methods.

If you decide to participate in a research study, you will be asked to take part in this study as follows:

Questionsnaire survey on learning styles with hospitality students
OR
Questionsnaire survey on learning styles with hotel food and beverage supervisory and
management staff
OR
For in-depth interview with managers
- The skills required for hospitality graduates to work as hotel food and beverage
supervisory and management staff.
- The quality of hospitality graduates to meet the requirements of the hotel industry.
- The effectiveness of teaching and learning process of hospitality education in terms of
instructional methods.

OR
For in-depth interview with hospitality teachers
- Current instructional methods implemented in hospitality education and their effectiveness
in terms of the achievement of student learning outcomes.

Confidentiality
The results of this project will be strictly confidential. The findings will be used only for this study to
help develop an understanding of learning styles in the Thai hospitality educational context.

Participation
Your participation is voluntary and you are free to withdraw from the research study at anytime, or
refuse to participate with no penalty. Just inform the researcher that you wish to stop or are feeling
uncomfortable with the questions. All information will be kept confidential and retained by Victoria
University for five years. If you have any questions concerning the research project, please contact me
on Tel. 61 3 9248 1170 or my supervisor, Associate Professor Linda Roberts on Tel. 61 3 9248 1320.
If you have any queries or complaints about the way you have been treated, you may contact the
Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box
14428 MCMC, Melbourne, 8001 (telephone no: 61-3-9688 4710).
APPENDIX D
INFORMATION SHEET FOR PARTICIPANTS IN
THE RESEARCH (THAI VERSION)

คำชี้แจงสำหรับผู้ร่วมงานวิจัย

ผู้วิจัย: นางสาวสิริรัตน์ ชานภัทรผลชัย นักศึกษาปริญญาเอก มหาวิทยาลัยวิศวะเรียน

วัตถุประสงค์ของงานวิจัย

การศึกษาวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาและเข้าใจเกี่ยวกับรูปแบบการเรียน
ของนักศึกษาโปรแกรมวิทยาลูกค้าการบริการ (Hospitality) ระดับอุดมศึกษา ข้อมูลที่ได้จากการวิจัย
นี้จะนำไปใช้ประโยชน์ในการพัฒนาวิทยาการเรียนการสอนในระดับอุดมศึกษาและ
เครื่องมือในโปรแกรมวิทยา

อุตสาหกรรมบริการ โดยมีเป้าหมายหลักเพื่อพัฒนานักศึกษาทักษะที่เป็นที่ต้องการของภาค
อุตสาหกรรม

ข้อควรระวัง: ข้อมูลที่ได้จากกรอบแบบสอบถามกันเป็นประโยชน์และสำคัญในการช่วยให้วิจัย
ค้นหาได้รับประโยชน์และเป็นประโยชน์ในการมีการเรียนรู้วิชาชีพทั้งระดับที่ต้องการ
จากกระบวนการ โดยเฉพาะอย่างยิ่งเกี่ยวกับวิธีการสอน ข้อมูลเหล่านี้จะได้รับการเก็บรักษาไว้เป็นความ
ลับและใช้ในการทำวิจัยนั้นๆ ต่อไป

การตอบคำถามในงานวิจัยนี้มีผลต่อผลิตภัณฑ์ทางวิจัย

สำหรับนักศึกษาและพนักงานโรงแรมในด้านหนึ่ง food and beverage supervisory and
management levels

- ตอบแบบสอบถามเกี่ยวกับรูปแบบการเรียนรู้ของวิชา

สำหรับผู้ให้บริการจากภาคอุตสาหกรรมบริการ (โรงแรม)

- ทักษะและคุณสมบัติในการทำงานด้านหนึ่ง food and beverage supervisory and
management staff

- คุณภาพและความสามารถของบุคคลที่ต้องปรับปรุงในด้านการโรงแรม หรืออุตสาหกรรม
บริการในการทำงานด้านนี้

- ความคิดเห็นเกี่ยวกับการเรียนการสอนของโปรแกรมด้านการโรงแรมโดยเฉพาะด้านวิธีการ
สอนในระดับมหาวิทยาลัย

สำหรับผู้ให้บริการที่เป็นอาจารย์พี่สอน

- รูปแบบและวิธีการสอนที่ใช้ในการสอนวิชานักศึกษาด้านการโรงแรม หรืออุตสาหกรรมบริการที่ใช้
ในปัจจุบัน รวมถึงการประเมินประสิทธิภาพของวิธีการสอนดังกล่าวต่อการปรับปรุงที่จะ
อย่างรวดเร็วโดยเฉพาะในเรื่องของการพัฒนาการเรียนรู้และทักษะต่างๆของนักศึกษา

กรุณาตอบคำถามทุกข้อความเป็นจริงการตอบแบบสอบถามนี้เป็นไปตามความสมัครใจของแต่
วิชานักศึกษาที่จะตอบหรือไม่ตอบแบบสอบถาม หากตอบสั้นเกิดขึ้นตลอดคำถาม หากสามารถแจ้งผู้
วิจัยและหน่วยงานได้ที่พื้นที่ต่อถัดไป

หากมีข้อสงสัยหรือต้องการข้อมูลเพิ่มเติมเกี่ยวกับงานวิจัย ให้ติดต่อ โทรศัพท์ 61 3 9248 1306 หรืออีเมล์ที่บริษัทของผู้วิจัย รองศาสตราจารย์ ดร.สัตยา โทบิย์ โทรศัพท์ 61 3 9248 1320

สำหรับผู้ให้บริการที่เป็นอาจารย์พี่สอน หรืออาจารย์พี่สอนการเรียนการสอนในระดับวิจัย สามารถติดต่อ
University Human Research Ethics Committee, Victoria University of Technology, PO Box
14428 MCMC, Melbourne, 8001 โทรศัพท์ 61-3-9688 4710.
APPENDIX E
CONSENT FORM FOR PARTICIPANTS IN IN-DEPTH INTERVIEWS
(HOTEL PERSONNEL INVOLVED IN THE RECRUITMENT OF FOOD
AND BEVERAGE SUPERVISORY AND MANAGEMENT STAFF)

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a PhD study into

*Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University*

You are being asked to participate in a research study to understand the learning styles of students in the Thai hospitality higher educational context. The findings from this study will be used to make recommendations on instructional methods in hospitality food and beverage education. The goal of this study is to extend knowledge of learning styles of Thai hospitality higher education students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. Your information is important and vital to help us find out what could be changed or improved in the learning process of hospitality food and beverage-based subjects in terms of instructional methods.

If you decide to participate in a research study, you will be asked to take part in an interview with the researcher. The issues are as follows:
- The skills required to work in food and beverage supervisory and management positions in the Thai hospitality industry.
- The industry’s perception of the actual skills of hospitality graduates, for their useful and deficient skills.
- Opinions and recommendations about instructional practices and the learning process in hospitality education.

CERTIFICATION BY PARTICIPANT

I, ____________________________________________________________________________
of ____________________________________________________________________________
certify that I am at least 18 years old and that I am voluntarily giving my consent to participate in the in-depth interview for the above project being conducted at ____________________________________________________________________________
by Sirirat Chaunkamnerdkarn.

I certify that the objectives of the study, together with any risks to me associated with the procedures listed hereunder to be carried out in the study, have been fully explained to me by a member of research team and that I freely consent to participation involving the use on me of these procedures.

**Procedures:**
- The depth interview will be conducted by Sirirat Chaunkamnerdkarn and the proceedings will be taped and notes taken as a means of recording data accurately.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this interview at any time and that this withdrawal will not jeopardize me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: ____________________________________________________________________________ Date: _________________
Witness other than the researcher: ____________________________________________________________________________ Date: _________________

Any queries about your participation in this project may be directed to the researchers (PhD student name: Sirirat Chaunkamnerdkarn Ph 61 3 9248 1170 or Principal supervisor: Assoc.Prof.Linda Roberts Ph 61 3 9248 1320). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MC, Melbourne, 8001 (Telephone no: 03-9688 4710).
Dear Sirirat,

Thank you for getting back to me. That is absolutely fine. I am therefore pleased to attach with this email the pdf file from which you may print your required copies of the questionnaire. Please do keep note of the conditions for the licence that we have agreed and remember that the use of the questionnaire and the translated version if you do translate it into Thai must only be used for the purpose of this project.

I wish you all the best for your project and I hope you obtain the qualification you are hoping for.

Lucy

Lucy Gaughan
Peter Honey Publications
10 Linden Avenue
Maidenhead
Berks SL6 6HB
Tel 44 (0)1628 633946
Fax 44 (0)1628 633262
http://www.peterhoney.com

******************************************************************************
The famous, widely used Honey & Mumford Learning Styles Questionnaire celebrates its 21st birthday this October! EVERYONE should know their learning style preferences in order to become a more effective learner from a wide range of experience. There is no excuse - the LSQ is available on the web AND in our best selling booklet AND as a Licence to Print. Please visit our website www.peterhoney.com or give us a call on 01628 63946.
APPENDIX G
LEARNING STYLE QUESTIONNAIRE (LSQ) (ENGLISH VERSION)

Learning Styles Questionnaires
There is no right or wrong answer. If you agree more than you disagree with a statement, put a tick ✓ in the box. If you disagree more than you agree with a statement, put a cross × in the box. Be sure to mark all items.

1. I have strong beliefs about what is right and wrong, good and bad.
2. I often act without considering the possible consequences.
4. I believe that formal procedures and policies restrict people.
5. I have a reputation for saying what I think, simply and directly.
6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
7. I like the sort of work where I have time for thorough preparation and implementation.
8. I regularly question people about their basic assumptions.
9. What matters most is whether something works in practice.
10. I actively seek out new experience.
11. When I hear about a new idea or approach I immediately start working out how to apply it in practice.
12. I am keen on self discipline such as watching my diet, taking regular exercise, sticking to a fixed routine, etc.
13. I take pride in doing a thorough job.
14. I get on best with logical, analytical people and less well with spontaneous, irrational people.
15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
16. I like to reach a decision carefully after weighing up many alternatives.
17. I am attracted more to novel, unusual ideas than to practical ones.
18. I don't like disorganised things and prefer to fit things into a coherent pattern.
19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
20. I like to relate my actions to a general principle.
21. In discussion I like to get straight to the point.
22. I tend to have distant, rather formal relationships with people at work.

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23. I thrive on the challenge of tackling something new and different.
25. I pay meticulous attention to detail before coming to a conclusion.
26. I find it difficult to produce ideas on impulse.
27. I believe in coming to the point immediately.
28. I am careful not to jump to conclusions too quickly.
29. I prefer to have as many sources of information as possible – the more data to think over the better.
30. Flippant people who don’t take things seriously enough usually irritate me.
31. I listen to other people’s point of view before putting my own forward.
32. I tend to be open about how I am feeling.
33. In discussion I enjoy watching the maneuverings of the other participants.
34. I prefer to respond to events on a spontaneous, flexible basis rather than plan things out in advance.
35. I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning, etc.
36. It worries me if I have to rush out a piece of work to meet a tight deadline.
37. I tend to judge people’s ideas on their practical merits.
38. Quiet, thoughtful people tend to make me feel uneasy.
39. I often get irritated by people who want to rush things.
40. It is more important to enjoy the present moment than to think about the past or future.
41. I think that decisions based on a thorough analysis of all the information are sounder than those based on intuition.
42. I tend to be perfectionist.
43. In discussions I usually produce lots of spontaneous ideas.
44. In meetings I put forward practical, realistic ideas.
45. More often than not, rules are there to be broken.
46. I prefer to stand back from a situation and consider all the perspectives.
47. I can often see inconsistencies and weaknesses in other people’s arguments.
48. On balance I talk more than I listen.
49. I can often see better, more practical ways to get things done.
50. I think written reports should be short and to the point.
51. I believe that rational, logical thinking should win the day.
52. I tend to discuss specific things with people rather than engaging in social discussion.
53. I like people who approach thing realistically rather than theoretically.
54. In discussion I get impatient with irrelevancies and digressions.
55. If I have a report to write I tend to produce lots of drafts before settling on the final version.
56. I am keen to try things out to see if they work in practice.
57. I am keen to reach answers via a logical approach.
58. I enjoy being the one that talks a lot.
59. In discussions I often find I am the realist, keeping people to the point and avoiding wild speculations.
60. I like to ponder many alternatives before making up my mind.
61. In discussions with people I often find I am the most dispassionate and objective.
62. In discussions I am more likely to adopt a low profile than to take the lead and do most of the talking.
63. I like to be able to relate current actions to a longer term bigger picture.
64. When things go wrong I am happy to shrug it off and put it down to experience.
65. I tend to reject wild, spontaneous ideas as being impractical.
66. It is best to think carefully before taking action.
67. On balance I do the listening rather than the talking.
68. I tend to be tough on people who find it difficult to adopt a logical approach.
69. Most times I believe the end justifies the means.
70. I don’t mind hurting people’s feelings so long as the job gets done.
71. I find the formality of having specific objectives and plans stifling.
72. I am usually one of the people who put life into a party.
73. I do whatever is expedient to get the job done.
74. I quickly get bored with methodical, detailed work.
75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
76. I am always interested to find out what people think.
77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
78. I steer clear of subjective or ambiguous topics.
79. I am keen to reach answers via a logical approach. I enjoy the drama and excitement of a crisis situation.
80. People often find me insensitive to their feelings.
APPENDIX H
LEARNING STYLE QUESTIONNAIRE (LSQ) (THAI VERSION)

รูปแบบการเรียนรู้ของคุณ (Learning styles)
(ดัดพิมพ์โดยได้รับอนุญาตจากบริษัท Peter Honey Publication Ltd 10 Linden Avenue Maidenhead Berks SL6 6HB Tel: 01628 633 946 Fax: 01628 633262 Email: info@peterhoney.com Website:www.peterhoney.com)

สำหรับ กรุณาทำเครื่องหมายข้อมูลต่อไปนี้ไว้ข้างต้น

เพื่อแสดงว่าคุณทำในที่ใดอย่างไร

พิมพ์กอบกู้ในความคิดของคุณ และสิ่งที่คุณชอบทำ

1. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
2. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
3. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
4. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
5. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
6. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
7. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
8. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
9. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
10. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
11. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
12. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
13. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
14. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
15. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
16. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
17. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
18. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
19. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
20. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ
21. ทำเนื่องในความคิดของคุณ และสิ่งที่คุณชอบทำ

ขอบเขตความอบอุ่นของคุณ โดยได้รับอนุญาตจากบริษัท Peter Honey Publication จัดเก็บ
(สงวนสิทธิ์ การพิมพ์หรือการส่งสัญญา ณ ครั้งที่นี้และก่อนของ) © Honey and Mumford

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22. ทำมิได้ความสัมพันธ์ที่เป็นทางการกับเพื่อนร่วมงาน
23. ทำมิได้ความทายทายในการกระท่อมต่าง ๆ ที่ทำทายและแปลกใจ
24. ทำมิได้ความทายนักทั้งหมด และกระท่อมต่าง ๆ โดยไม่ต้องพิจารณาวางแผนล่วงหน้า
25. ทำให้ความสนใจอย่างมากกับรายละเอียดของที่จะตัดสินใจ
26. มั่นใจเรื่องหลากหลายสำหรับทำสำหรับต้องตัดสินใจเร็วทัน
27. ในกรณีการปรึกษาหรือสนทนาก่อนจะต้องยอมรับปัญหาโดยทันที
28. ทำให้การตัดสินใจอย่างรวดเร็วเกินไป
29. ทำให้บริบทข้อมูลจากแหล่งต่าง ๆ เท่าที่จะเป็นไปได้เนื่องจากยังมีข้อมูลให้พิจารณามาก
30. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
31. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
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35. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
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37. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
38. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
39. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
40. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
41. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
42. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
43. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
44. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
45. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
46. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
47. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
48. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
49. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง
50. ทำให้รู้สึกว่าคนคนที่สื่อสารได้เร็วแคละและไม่ทำสิ่งต่าง ๆ อย่างจริงจัง

(แบบสอบถามฉบับเรียนที่จัดพิมพ์โดยเว็บไซต์มาจากรายการ Peter Honey Publication จำกัด สร้างสรรค์ขั้นอย่างมือครัวทำหน้าที่) © Honey and Mumford
APPENDIX I
COPYRIGHT PERMISSION FOR THE SHORT VERSION OF APPROACHES TO STUDYING INVENTORY (S-ASI)

From: "Noel Entwistle" <noel_entwistle@education.ed.ac.uk>
Date: Wednesday, September 29, 2004 7:10 pm
To: "Sirirat Chaunkamnerdkarn" <sirirat.chaunkamnerdkarn@research.vu.edu.au>
Subject: Re: s-ASI copyright permission

Dear Sirirat,

I'm happy to give you permission (sic) the shortened version of the ASI in your research.

Noel Entwistle
Professor Emeritus
School of Education,
University of Edinburgh, Moray House, Tel: 0131-651-6658
Holyrood Road, Edinburgh EH8 8AQ Fax: 0131-651-6664
APPENDIX J
THE SHORT VERSION OF APPROACHES TO STUDYING INVENTORY
(S-ASI) (ENGLISH VERSION)

The Short Version of Approaches to Studying Inventory
deciding your answers, think in terms of this particular course. It is also very important that you answer all the questions. Please circle the number as showing your degree of agreement.

5 = agree  4 = agree somewhat  3 = unsure  2 = disagree somewhat  1 = disagree

Try not to use 3 = unsure, unless you really have to, or if it cannot apply to you or your course.

1. I try to relate ideas in one subject to those in others, wherever possible.
2. I usually set out to understand thoroughly the meaning of what I am asked to read.
3. Ideas in books often set me off on long chains of thought of my own, only tenuously related to what I was reading.
4. I like to be told precisely what to do in essays or other assignments.
5. I often find myself questioning things that I hear in lectures or read in books.
6. The continual pressure of work, assignment, deadlines and competition often makes me tense and depressed.
7. I find it difficult to ‘switch tracks’ when working on a problem: I prefer to follow each line of thought as far as it will go.
8. Lecturers seem to delight in making the simple truth unnecessarily complicated.
9. I usually don’t have time to think about the implications of what I have read.
10. In trying to understand a puzzling idea, I let my imagination wander freely to begin with, even if I don’t seem to be much nearer a solution.
11. I generally put a lot of effort into trying to understand things which initially seem difficult.
12. I prefer courses to be clearly structured and highly organised.
13. A poor first answer in an exam makes me panic.
14. In trying to understand new ideas, I often try to relate them to real life situations to which they might apply.
15. When I’m reading I try to memorise important facts which may come in useful later.  
A B C D
5 4 3 2 1

16. I like to play around with ideas of my own even if they don’t get me very far.  
A B C D
5 4 3 2 1

17. I am usually cautious in drawing conclusions unless they are well supported by evidence.  
A B C D
5 4 3 2 1

18. When I’m tackling a new topic, I often ask myself questions about it which the new information should answer.  
A B C D
5 4 3 2 1

19. Often I find I have to read things without having a chance to really understand them.  
A B C D
5 4 3 2 1

20. In reporting practical work, I like to try to work out several alternative ways of interpreting the findings.  
A B C D
5 4 3 2 1

21. I find I have to concentrate on memorising a good deal of what we have to learn.  
A B C D
5 4 3 2 1

22. Often when I’m reading books, the ideas produce vivid images which sometimes take on a life of their own.  
A B C D
5 4 3 2 1

23. The best way for me to understand what technical terms mean is to remember the textbook definitions.  
A B C D
5 4 3 2 1

24. I need to read around a subject pretty widely before I’m ready to put my ideas down on paper.  
A B C D
5 4 3 2 1

25. Although I generally remember facts and details, I find it difficult to fit them together into an overall picture.  
A B C D
5 4 3 2 1

26. I tend to read very little beyond what’s required for completing assignments.  
A B C D
5 4 3 2 1

27. Having to speak in tutorials is quite an ordeal for me.  
A B C D
5 4 3 2 1

28. Puzzles or problems fascinate me, particularly when you have to work through the material to reach a logical conclusion.  
A B C D
5 4 3 2 1

29. I find it helpful to map out a new topic for myself by seeing how the ideas fit together.  
A B C D
5 4 3 2 1

30. I find I tend to remember things best if I concentrate on the order in which the lecturer presented them.  
A B C D
5 4 3 2 1

31. When I’m reading an article or research report, I generally examine the evidence carefully to decide whether the conclusion is justified.  
A B C D
5 4 3 2 1

32. Tutors seem to want me to be more adventurous in making use of my own ideas.  
A B C D
5 4 3 2 1
APPENDIX K
THE SHORT VERSION OF APPROACHES TO STUDYING INVENTORY (S-ASI) (THAI VERSION)

วิธีการเรียนของผู้ตอบ (approaches to study)

คำชี้แจง  กรุณาแสดงความเห็นของท่านต่อวิธีการเรียนรู้ที่ท่านใช้ต่อไปนี้ โดยวิเคราะห์ค่านวิเคราะห์ ในแต่ละของการตอบคำถาม

5= เห็นด้วย  4= ค่อนข้างเห็นตัวอย่าง  3= ไม่แน่ใจ  2= ไม่ค่อยเห็นตัวอย่าง  1= ไม่เห็นด้วย

หากเป็นไปได้ กรุณาหลังเลขอารบิคตอบ  3= ไม่แน่ใจ  ยกเว้นกรณีจำเป็นจริงๆ หรือกรณีที่ท่านไม่ได้ใช้วิธีนี้ๆ กับวิชาที่  

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<th>เลขค่า</th>
<th>ด้านที่ดีที่สุด</th>
<th>ไม่แน่ใจ</th>
<th>ไม่ค่อยเห็นตัวอย่าง</th>
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</table>
14. เมื่อท่านอ่านหนังสือ ท่านจะพบปัญหาตามข้อที่จะชี้แจงที่สำคัญที่อาจเป็นประโยชน์ในการต่อไป
ที่ท่านมีความสนใจ
15. โดยทั่วไปว่าการเรียนรู้ที่จะช่วยในการใช้พื้นที่บวกกว่าวิชาที่ท่านมีความสนใจ
16. โดยปกติท่านจะระบายข้อมูลในการสรุปสิ่งใด เว้นแต่จะมีข้อมูล
สนับสนุนที่เด่นชัด
17. เมื่อท่านกำลังเรียนรู้ทรัพยากรใหม่ ๆ ท่านอาจต้องการคุณค่าด้วยที่ภูมิพื้นที่จะได้ข้อมูลจากทรัพยากร
18. ท่านควรที่จะสังเกตุฟังก์ชัน หรือวิธีการที่จะได้รับมากกว่าสิ่งที่จะได้จาก
19. วิชาที่กำลังเรียนอยู่
20. ในการรายงานการสืบค้นผลที่ท่านจะพบปัญหาทางเทคนิคหลาย ๆ
แนวข้อในการติดความหมาย ผลที่ได้จากการปฏิบัติ
21. เหตุผลหลักที่ท่านสามารถเรียนรู้มากขึ้นในบันดาลที่ท่านสนใจ ๆ
22. ท่านพบว่าท่านจะใช้สมัยอย่างมากในการจดจำสิ่งที่ได้เรียนมา
23. ท่านพบว่าการเรียนทรัพยากรหนังสือการเรียนจะเป็นสิ่งที่มีความหมายและนำคิดตาม
24. แนวทางที่สำคัญต่อสิ่งสำหรับท่านที่จะเข้าใจความหมายของคำานวณทางคือ
การคำานวณจากตารางเรียน
25. ท่านต้องอ่านเรื่องที่เกี่ยวข้องกับเรื่องที่ท่านพบปัญหาอย่างกว้างขวาง หลายรอบ
ก่อนที่จะมีรวบรวมความคิดและเรียนเขียน
26. ท่านอาจอ่านเรื่องที่จะเข้าไปในที่ที่ในการที่การบ้านและระดับ
27. การสอบทราบหน้าข้อมูลสิ่งที่ท่านต้องการสำหรับท่าน
28. เจอกับปัญหาบาง ๆ เป็นสิ่งที่ท่านจะส่งมอบทางเพียงเมื่อจะต้องค้นหา
เอกสารต่าง ๆ ที่ร่านั้นจะทำให้หน้าข้อมูลได้อย่างมีเหตุผล
29. ท่านใช้เวลาในการทุกเรื่องมากในการคำนวณเพิ่มเติมเกี่ยวกับทรัพยาที่
สนใจใช้ได้เรียนรู้แล้วไม่เห็น
30. ท่านพบว่าความเป็นประโยชน์ที่จะแจ้งรายละเอียดของทรัพยากรใหม่ ๆ
ออกมาพิจารณาว่ามีเหตุผลต่าง ๆ จะประสานเข้ากันได้อย่างไร
31. เมื่อท่านอ่านบทความหรือรายงานการวิจัย ท่านจะพิจารณาข้อมูลต่าง ๆ อย่าง
ละเอียดเพื่อที่จะตัดสินใจข้อมูลจากบทความหรือรายงานนั้นสมเหตุผล
32. ท่านพบว่าหน้าข้อมูลทางวิชาการนำเสนอไม่มาก ท่านจะศึกษาต่อไปฝ่ายจาก
เรียนจะที่นี้แล้ว
Research Title: Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University

Body of questions:
1. Tell me about yourself, your education and your experience.
2. What does your course outline include in relation to the following aspects?
   2.1 Course component
   2.2 Teaching methods
   2.3 Learning outcomes
   If you already have these in any written form, would it be possible for me to have copies of them please?
3. What types of teaching methods do you employ in the classroom of the food and beverage-based subject? And for what course components (in terms of content), do you use the teaching methods identified?

<table>
<thead>
<tr>
<th>Teaching methods</th>
<th>Use</th>
<th>% of use</th>
<th>Course components</th>
<th>Effectiveness</th>
<th>Reason</th>
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<tr>
<td>1. Lectures</td>
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<td>2. Case studies</td>
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<td>3. Simulation</td>
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<td>4. Group discussion</td>
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<td>5. Guest speakers</td>
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<td>6. Seminars</td>
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<td>7. Industrial visits</td>
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<td>8. Demonstration</td>
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<td>9. Self study</td>
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<tr>
<td>10. Laboratories</td>
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<td>11. Others (please specify)</td>
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<td>Total</td>
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4. Regarding the teaching methods used in your class, do you consider them to be effective methods for teaching each of the course components? Why?
   *Using the table in question 3 for the answers to this question.
5. By the end of the course, what will the broad outcomes for the students be (in terms of skills and knowledge)?
   If you already have these identified in any written form, would it be possible for me to have copies of them please?
6. In your opinion, do you think that there is a need for change of teaching methods in undergraduate hospitality food and beverage-based subjects?
   6.1 If yes, what needs to be changed and how should it be changed?
   6.2 If no, why not?
7. Please comment on any points not covered that you feel are important for this study to consider about the instructional methods used in your hospitality food and beverage-based subjects.
APENDIX M
INTERVIEW SCHEDULE WITH HOSPITALITY TEACHERS
(THAI VERSION)

1. กรุณาอภิปรายด้านต่างๆ ของงานด้านการศึกษาและการทำงาน

2. ในด้านการทำงานที่ทำในสอน มีข้อมูลใดเกี่ยวกับด้านต่อไปนี้บ้าง
   - เนื้อหาวิชา
   - วิธีการสอนการสอน
   - ผลสัมฤทธิ์หรือวัตถุประสงค์ของวิชา
   หากท่านมีข้อมูลเหล่านี้เป็นเอกสารอยู่แล้ว เป็นไปได้หรือไม่ที่จะขออนุญาตส่งมา

3. ในกรณีมีรายวิชาที่ท่านรับผิดชอบนั้น ท่านใช้วิธีการสอนโดยวิธีใด และวิธีดังกล่าวใช้กับเนื้อหา
   รายวิชานี้อย่าง โปรดระบุ ตามตารางข้างล่างนี้

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<th>% การ</th>
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4. จากวิธีการสอนที่ท่านใช้อยู่ปัจจุบันนี้ ท่านคิดว่ามีวิธีการสอนเหล่านี้มีประสิทธิภาพ
   สำหรับการสอนนี้หรือไม่ โปรดระบุด้วย
   * ใช้ตารางในคำถามข้อ 3 ในการตอบ

5. เมื่อท่านทำการประเมินรายวิชาเหล่านี้แล้ว ท่านคิดว่าจะต้องปรับปรุงอย่างไรในการสอนบ้างในด้านทัชช์
   ความสามารถ ท่านมีข้อมูลเหล่านี้เป็นเอกสารอยู่แล้วเป็นไปได้หรือไม่ที่จะขออนุญาตส่งมา

6. ในความคิดเห็นของท่าน ท่านคิดว่ารูปแบบการสอนรวมมีมีการปรับปรุงเปลี่ยนแปลงหรือไม่
   สำหรับวิชาที่
   6.1 หากใช่ ท่านคิดว่าจะปรับเปลี่ยนแปลงอย่างไร
   6.2 หากไม่ เผยวิเคราะห์

7. ท่านมีความคิดเห็นเพิ่มเติมในประเด็นอื่นๆ ที่เกี่ยวกับหลักหรือไม่ที่ท่านเห็นว่าสำคัญต่อการเรียนการ
   สอนวิชาที่
APPENDIX N
CONSENT FORM FOR PARTICIPANTS IN IN-DEPTH INTERVIEWS
(HOSPITALITY TEACHERS)

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a PhD study into

Using Learning Style Knowledge to Enhance Student Learning and Skill Development: A Case Study of Hospitality Education at a Thai University

You are being asked to participate in a research study to understand the learning styles of students in the Thai hospitality higher educational context. The findings from this study will be used to make recommendations on instructional methods in hospitality food and beverage education. The goal of this study is to extend knowledge of learning styles of Thai hospitality higher education students in order to assist hospitality teachers in effectively designing the learning environment, including instructional methods, to enhance student learning and skill development. Your information is important and vital to help us find out what could be changed or improved in the learning process of hospitality food and beverage-based subjects in terms of instructional methods.

If you decide to participate in a research study, you will be asked to take part in an interview with the researcher. The issues are as follows:

- The current instructional methods used in your food and beverage-based subjects.
- The effectiveness of instructional methods implemented in your hospitality food and beverage-based subjects.
- The suggestions on improvement of instructional methods to enhance the quality of hospitality students learning and skill development to meet the requirements of the hotel industry.

CERTIFICATION BY PARTICIPANT

I, ____________________________________________
of ____________________________________________
certify that I am at least 18 years old and that I am voluntarily giving my consent to participate in the in-depth interview for the above project being conducted at ____________________________________________ by Sirirat Chaunkamnerdkarn.

I certify that the objectives of the study, together with any risks to me associated with the procedures listed hereunder to be carried out in the study, have been fully explained to me by a member of research team and that I freely consent to participation involving the use on me of these procedures.

Procedures:
- The depth interview will be conducted by Sirirat Chaunkamnerdkarn and the proceedings will be taped and notes taken as a means of recording data accurately.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this interview at any time and that this withdrawal will not jeopardize me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: ________________________________ Date: ________________
Witness other than the researcher: ________________________________ Date: ________________

Any queries about your participation in this project may be directed to the researchers (PhD student name: Sirirat Chaunkamnerdkarn Ph 61 3 9248 1170 or Principal supervisor: Assoc.Prof.Linda Roberts Ph 61 3 9248 1320). If you have any queries or complaints about the way you have been treated, you may contact the Secretary, University Human Research Ethics Committee, Victoria University of Technology, PO Box 14428 MC, Melbourne, 8001 (Telephone no: 03-9688 4710).