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The Effectiveness of a Case Study Method as Compared to a Traditional Learning Method in One Business School in Taiwan

Chuan-Chun Kuo
Lynn University

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LYNN UNIVERSITY
Boca Raton, Florida

THE EFFECTIVENESS OF A CASE STUDY METHOD AS COMPARED TO A TRADITIONAL LEARNING METHOD IN ONE BUSINESS SCHOOL IN TAIWAN

CHUAN-CHUN, KUO

A DISSERTATION
Submitted to the Faculty of the Ross College of Education, Health and Human Services of Lynn University in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Educational Leadership with a Global Perspective

May 2004
The Effectiveness of a Case Study Method as Compared to a Traditional Learning Method in one Business School in Taiwan

by Kuo, Chuan-Chun, Ph. D.

Lynn University
2004

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ABSTRACT

The Effectiveness of a Case Study Method as Compared to a Traditional Learning Method in one Business School in Taiwan by Chuan-Chun Kuo

The experiential learning approach that involves active, in-depth and collaborative learning is a powerful pedagogical idea and technique to establish students’ critical skills for the diverse workplace and the severe competitive global marketplace of the future. The experiential learning approach also builds a bridge across school (theory) and the real-world (experience). There is a large amount of empirical evidence that has shown the experiential learning approach worked well and successfully in business colleges and universities in many Western nations since the 1960s. However, there are only a few researchers who have looked at implementing the experiential learning approach in business colleges and universities in East Asian nations. Given the positive results of a variety of experiential learning methods, activities, and techniques adopted by many business colleges and universities in Western nations, the researcher, in order to determine the results of a similar program in an East Asian nation, has initiated an experimental study among students who are enrolled in a business college in one East Asian nation – Taiwan, Republic of China. This study would discover how effectively and efficiently the team-based case-study method of the experiential learning approach functions in a business college in Taiwan.
DEDICATION

This work is dedicated to my dearest father, Mr. Kuo Chung-Ming and my dearest mother, Mrs. Kuo Chuang Shu-Chen. Without their unfailing support and encouragement, it would have been impossible to complete this dissertation for me.

In Chinese society, traditionally, almost all families have the gender preference—they prefer boys rather than girls; almost all families save everything for boys but not for girls. From my parents' perspective, gender makes no difference; my parents treat their three daughters and one son with equal love and nurturing.

My parents deeply believe in the value of education. They also deeply believe that education is the best gift they can give to their children. Therefore, they always encourage all of their four children to acquire all the knowledge and skills possible and necessary for our entire lives. As long as we want to pursue our further educational aspiration, they would never hold back their support and encouragement. My achievement in pursuing this degree is due to their unconditional selfless love and nurturing, and unending support.
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| Figure 1: Kolb’s Four-Phase Experiential Learning Cycle | 29 |
LIST OF TABLES

Table 1: Characteristics of the Sample ..............................................................56

Table 2: Correlation Coefficients (Age vs. Performance on Examinations) ..........81

Table 3: Correlation Coefficients (Levels of English Proficiency vs. Performance on English-Design Examinations) ......................................................... 84

Table 4: Summary Table of Independent-Samples T Test for Gender vs. Quiz 1 .......................................................... 87

Table 5: Summary Table of Independent-Samples T Test for Gender vs. the Midterm Examination ................................................................. 88

Table 6: Summary Table of Independent-Samples T Test for Gender vs. Quiz 2 .......................................................... 89

Table 7: Summary Table of Independent-Samples T Test for Gender vs. the Final Examination ................................................................. 89

Table 8: Summary Table of Independent-Samples T Test for College Entrance Channel vs. Quiz 1 .......................................................... 91

Table 9: Summary Table of Independent-Samples T Test for College Entrance Channel vs. the Midterm Examination ........................................ 92

Table 10: Summary Table of Independent-Samples T Test for College Entrance Channel vs. Quiz 2 .......................................................... 93

Table 11: Summary Table of Independent-Samples T Test for College Entrance Channel vs. the Final Examination ........................................ 94

Table 12: Summary Table of Independent-Samples T Test for Quiz 1 .................. 96
LIST OF TABLES
Continued

Table 13: Summary Table of Independent-Samples T Test for the Midterm Examination ................................................................. 97
Table 14: Summary Table of Independent-Samples T Test for Quiz 2 ........................................................ 98
Table 15: Summary Table of Independent-Samples T Test for the Final Examination ................................................................. 99
Table 16: Summary Table of Independent-Samples T Test for Overall Performance On Four Given Examinations ........................................................ 100
Table 17: The Treatment-Group Participant Attitudes toward Q1 ........................................................ 102
Table 18: Frequency Table for Q1 ........................................................................................................................................ 103
Table 19: The Treatment-Group Participant Attitudes toward Q2 .......................................................................................... 103
Table 20: Frequency Table for Q2 ........................................................................................................................................ 104
Table 21: The Treatment-Group Participant Attitudes toward Q3 .......................................................................................... 104
Table 22: Frequency Table for Q3 ........................................................................................................................................ 105
Table 23: The Treatment-Group Participant Attitudes toward Q4 .......................................................................................... 105
Table 24: Frequency Table for Q4 ........................................................................................................................................ 106
Table 25: The Treatment-Group Participant Attitudes toward Q5 .......................................................................................... 106
Table 26: Frequency Table for Q5 ........................................................................................................................................ 107
Table 27: The Treatment-Group Participant Attitudes toward Q6 .......................................................................................... 107
Table 28: Frequency Table for Q6 ........................................................................................................................................ 108
Table 29: The Treatment-Group Participant Attitudes toward Q7 .......................................................................................... 108
LIST OF TABLES
Continued

Table 30: Frequency Table for Q7 ........................................................ 109
Table 31: The Treatment-Group Participant Attitudes toward Q8 .................. 109
Table 32: Frequency Table for Q8 .......................................................... 110
Table 33: The Treatment-Group Participant Attitudes toward Q9 .................. 110
Table 34: Frequency Table for Q9 .......................................................... 111
Table 35: The Treatment-Group Participant Attitudes toward Q10 ................. 111
Table 36: Frequency Table for Q10 ....................................................... 112
Table 37: The Treatment-Group Participant Attitudes toward Q11 ................. 112
Table 38: Frequency Table for Q11 ....................................................... 113
Table 39: Frequencies Table for Q13 .................................................... 115
Table 40: Summary Table of Observations of Class Process of the
Team-Based Case Studies ................................................................. 117
# LIST OF GRAPHS

<table>
<thead>
<tr>
<th>Graph</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scattergram Graph for Age vs. Quiz 1</td>
<td>81</td>
</tr>
<tr>
<td>2</td>
<td>Scattergram Graph for Age vs. the Midterm Examination</td>
<td>82</td>
</tr>
<tr>
<td>3</td>
<td>Scattergram Graph for Age vs. Quiz 2</td>
<td>82</td>
</tr>
<tr>
<td>4</td>
<td>Scattergram Graph for Age vs. the Final Examination</td>
<td>83</td>
</tr>
<tr>
<td>5</td>
<td>Scattergram Graph for Levels of English Proficiency vs. the Midterm Examination</td>
<td>85</td>
</tr>
<tr>
<td>6</td>
<td>Scattergram Graph for Levels of English Proficiency vs. the Final Examination</td>
<td>86</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>iv</td>
</tr>
<tr>
<td>Dedication</td>
<td>v</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>vi</td>
</tr>
<tr>
<td>List of Figure</td>
<td>viii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>ix</td>
</tr>
<tr>
<td>List of Graphs</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER I: Introduction

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the Problem</td>
<td>3</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>5</td>
</tr>
<tr>
<td>Definitions of Key Terms</td>
<td>6</td>
</tr>
<tr>
<td>Research Questions</td>
<td>6</td>
</tr>
<tr>
<td>Significance of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>12</td>
</tr>
</tbody>
</table>

## CHAPTER II: Literature Review

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of the Experiential Learning Approach in the West</td>
<td>17</td>
</tr>
<tr>
<td>Why the Experiential Learning Approach?</td>
<td>17</td>
</tr>
<tr>
<td>Definitions of the Experiential Learning Approach</td>
<td>18</td>
</tr>
<tr>
<td>Benefits of the Experiential Learning Approach</td>
<td>21</td>
</tr>
<tr>
<td>Role of Instructors/Professors of the Experiential Learning Approach</td>
<td>26</td>
</tr>
<tr>
<td>Kolb’s Experiential Learning Model</td>
<td>26</td>
</tr>
<tr>
<td>Activities, Methods, and Techniques of the Experiential Learning Approach</td>
<td>30</td>
</tr>
<tr>
<td>Appropriate Experiential Learning Activities, Methods, and Technique for East Asia</td>
<td>32</td>
</tr>
<tr>
<td>The Hofstede’s National/Cultural Dimension Model</td>
<td>32</td>
</tr>
<tr>
<td>Confucianism</td>
<td>35</td>
</tr>
<tr>
<td>A Team-Based Case-Study Method of the Experiential Learning Approach</td>
<td>36</td>
</tr>
</tbody>
</table>

## CHAPTER III: Methodology

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical Framework</td>
<td>43</td>
</tr>
<tr>
<td>Research Questions</td>
<td>46</td>
</tr>
<tr>
<td>Research Study Design</td>
<td>47</td>
</tr>
<tr>
<td>Variables</td>
<td>50</td>
</tr>
<tr>
<td>Independent Variables</td>
<td>50</td>
</tr>
<tr>
<td>Dependent Variables</td>
<td>51</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

## CHPATER III: Methodology

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria for Inclusion of Samples/Participants</td>
<td>51</td>
</tr>
<tr>
<td>The Selected Business University/College</td>
<td>51</td>
</tr>
<tr>
<td>Samples/Participants</td>
<td>53</td>
</tr>
<tr>
<td>Procedures and Implementation of Study</td>
<td>56</td>
</tr>
<tr>
<td>Materials and Instruments</td>
<td>64</td>
</tr>
<tr>
<td>Quizzes and Examinations</td>
<td>64</td>
</tr>
<tr>
<td>Case Studies</td>
<td>69</td>
</tr>
<tr>
<td>Attitudinal Survey Questionnaire</td>
<td>72</td>
</tr>
<tr>
<td>Methods of Data Analysis</td>
<td>73</td>
</tr>
</tbody>
</table>

## CHAPTER IV: Results

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>77</td>
</tr>
<tr>
<td>Analyses of Examinations</td>
<td>79</td>
</tr>
<tr>
<td>Demographic Information of the Recruited Participants</td>
<td>79</td>
</tr>
<tr>
<td>Independent-Samples T Test Results</td>
<td>95</td>
</tr>
<tr>
<td>Analyses of Attitudinal Survey Questionnaire</td>
<td>101</td>
</tr>
<tr>
<td>Evaluations of the Research Questions</td>
<td>115</td>
</tr>
</tbody>
</table>

## CHAPTER V: Conclusions, Limitations and Recommendations

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>120</td>
</tr>
<tr>
<td>Conclusions and Implications</td>
<td>120</td>
</tr>
<tr>
<td>Explanations and Limitations</td>
<td>123</td>
</tr>
<tr>
<td>Recommendations for Future Activity and Research</td>
<td>131</td>
</tr>
</tbody>
</table>

## REFERENCES

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>134</td>
</tr>
</tbody>
</table>

## APPENDIXES

<p>| Appendix A: Require Letter of Permission                               | 150  |
| Appendix B: Permission Letter                                          | 153  |
| Appendix C: Syllabus (Class A) (Chinese Version)                       | 154  |
| Appendix D: Syllabus (Class A) (English Version)                       | 157  |
| Appendix E: Syllabus (Class B) (Chinese Version)                       | 161  |
| Appendix F: Syllabus (Class B) (English Version)                       | 163  |
| Appendix G: Instrument I: Case Studies (Class A) (Chinese Version)     | 165  |
| Appendix H: Instrument I: Case Studies (Class A) (English Version)     | 167  |</p>
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Instrument I: Quiz#1 (Chinese Version)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix J: Instrument II: Quiz#1 (English Version)</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Appendix K: Instrument II: Midterm Examination (Chinese Version)</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>Appendix L: Instrument II: Midterm Examination (English Version)</td>
<td>173</td>
<td></td>
</tr>
<tr>
<td>Appendix M: Instrument II: Quiz#2 (Chinese Version)</td>
<td>176</td>
<td></td>
</tr>
<tr>
<td>Appendix N: Instrument II: Quiz#2 (English Version)</td>
<td>179</td>
<td></td>
</tr>
<tr>
<td>Appendix O: Instrument II: Final Examination (Chinese Version)</td>
<td>181</td>
<td></td>
</tr>
<tr>
<td>Appendix P: Instrument II: Final Examination (English Version)</td>
<td>183</td>
<td></td>
</tr>
<tr>
<td>Appendix Q: Instrument III: Attitude Survey Questionnaire (Chinese Version)</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>Appendix R: Instrument III: Attitude Survey Questionnaire (English Version)</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Appendix S: Instrument III: Final Examination (Chinese Version)</td>
<td>193</td>
<td></td>
</tr>
</tbody>
</table>
In the West (Western Anglophile nationalities such as North American nations, European nations, and Australia), critics of undergraduate and graduate business and management education point to the narrowness of the programs and curricula, along with the heavy emphasis on technical skill training. Some graduates complain about the lack of adequate critical skills for the diverse workplace of the future. The skills that graduates refer to may include interpersonal skills, communication skills, critical thinking skills, problem-solving skills, decision-making skills, analytical and synthetic skills, and others (Cantor, 1995, 1997; Carolin, 2001; Cheney, 2001; Chang, 2003; DeLozier, Lewison, & Woodside, 1977; Duke, 2000; Flynn & Klein, 2001; Hakeem, 2001; Hamer, 2000; Harrison, 1988; Hicks, 1996; Hofstede, 1980, 1994; Hogan, 1992; Holman, 2001; Kerschner & Kegley, 1994; Kolb, 1984; Lau, 2003; Leat, 1993; Lohman, 2002; Macy & Neal, 2002; McGee & Festervand, 2002; Miettinen, 2000; Pearson, 1999; Phillips & Jones, 1996; Saunders, 1997; Sgroi & Ryniker, 2002; Speece, 2002; Truscott, 2000; Wu & Rubin, 2000). In addition, many business practitioners and educators convey business concepts, principles, and theories in their classes by means of the traditional learning approach such as giving lectures while students merely listen and take notes. Because of this, some colleges and universities which are engaged in higher education, produce many students who have narrow, non-critical thinking and often frustrated minds. These students understand that business programs and curricula do not connect with the real world, and only produce graduates without critical thinking skills and who often act as
memorization machines (Bobbitt, Inks, Kemp, & Mayo, 2000; Gadotti, 1996; Kolb, 1984; Pearson, 1999; Phillips & Jones, 1996). Many business colleges and universities in Western countries realize that this major problem exists among almost all business schools. Therefore, Western business scholars, educators, practitioners, and researchers began searching for ways to broaden the educational experience, promote students effective learning, and develop and improve the vital skills needed by graduates. They began to develop and design programs and curricula to produce active and in-depth learning, promote effective teamwork, and instill a global perspective for students in order to help them cope with the coming challenges of the global society.

The Western business colleges and universities reconsidered and redesigned programs and curricula, incorporating various kinds of experiential learning methods, activities, and techniques from the 1970s. These experiential methods, activities, and techniques are strongly endorsed by many Western scholars, researchers, practitioners, and educators because of their effectiveness and efficiency in promoting student learning actively, profoundly, and fully. Experiential learning methods, activities, and techniques are adopted by business practitioners and educators in order to better develop and improve students’ critical skills for the diverse workplace and the severe competitive global marketplace and to accommodate themselves to the workplace quickly, after they leave schools (Barr & Tagg, 1995; Bell & Margolis, 1978; Erskine, Leenders, & Mauffette-Leenders, 1981; Flynn & Klein, 2001; Kolb, 1984; Lovelock, 1986; Miettinen, 2003).
Statement of the Problem

Researchers, Langhton and Ottewill point out (2000), “A major challenge for educators in the business studies area is the development of an appropriate pedagogy to prepare students for the dynamics of their future vocational world” (p. 378). M. Speece mentions the other challenge facing the business educators, “the key challenge in business education is to provide both a strong conceptual base and a practical application of concepts” (2002, p. 106). Furthermore, he finds that it is a much more critical challenge in East Asian countries (such as Singapore, Taiwan, Mainland China, Hong Kong, Japan, and Korea) because of national and cultural differences between the West (Western Anglophile nationalities such as North American nations, the United States and Canada, European nations, the United Kingdom, and Australia) and East Asia (Chang, 2003; Hofstede, 1980, 1994; Speece, 2002; Wu & Rubin, 2000). In Speece’s recent study (2002), he makes several general conclusions about East Asian business education, business practitioners and educators, and students after working and teaching students in some East Asian business colleges and universities for 15 years. First, he finds that East Asian practitioners and educators teach courses by means of the traditional learning approach only – they give lectures in whole class sections, and students just listen and take notes, with little or without any interaction between practitioners and educators. Second, East Asian practitioners and educators would rather focus on teaching business principles and theories (conceptual bases) than practices (the practical application of concepts). Third, he concludes that for East Asian students, education is perceived as their full-time job and responsibility. Fourth, from East Asian students, practitioners and educators’ points of view, education consists of memorizing a large amount of facts,
figures, formulas, charts, principles, concepts, and theories. For East Asian students, “theory” is confined to the classroom (and examinations) and has no place in the practical world. Thus, they see “theory” and “practice” as two totally separate subjects, and find it difficult to see any relationship and connection between the two. For East Asian students, it is not necessary to apply any theory to real-life situations and events (Kolenko, Porter, Wheatley, & Colby, 1996; Sgroi & Ryniker, 2002; Speece, 2002). However, due to rapid changes in worldwide economy, East Asian business colleges and universities have found that their graduates have difficulty in coping with new challenges in the workplace. Graduates find that after they leave schools, they do not possess such crucial skills like higher-order thinking, problem solving, decision-making, communicative skills, or innovative and creative thinking skills. The East Asian students have to relearn almost everything in order to cope with multifarious issues confronting them in the diverse workplace and in the highly competitive international marketplace for which they have not been trained. In general, much of East Asian business college and university education is perceived as unconnected to the real-life business world.

Taiwan is one of the East Asian countries categorized as “collectivism (groupism),” “larger power-distance,” “feminine orientated,” “stronger uncertainty avoidance orientated,” and “Confucianism” societies (Amant, 2000; Beamer, 2000; Chang, 2003; Cheney, 2001; Durlabhji & Marks, 1993; Hofstede, 1980, 1994; Joynt, Tung, & Warner, 1996; Lu & Kao, 2003; Niehoff, Turnley, Yen, & Sheu, 2001; Speece, 2002; Wu & Rubin, 2000; Zaidman, 2001). Taiwan, therefore, finds it difficult to change.
Purpose of the Study

There is a large amount of empirical evidence that shows the experiential learning approach works well in business colleges and universities in many Western countries. Experiential learning methods, activities and techniques incorporated into classrooms are adopted in order to motivate student learning actively, deeply and fully, and to better prepare students to accommodate themselves to the highly competitive diverse workplace of the future soon after leaving schools. Due to the given positive results of the experiential learning approach, the researcher will review and examine how one of the experiential learning methods, activities and techniques will work in business and/or management colleges and/or universities in countries in East Asia. This research study will be an initial effort to discover how effectively and efficiently the experiential learning approach will function in a business and management college in one country in East Asia – Taiwan, Republic of China.

The collected data and results of this experimental study could provide valuable and beneficial information for administrators, staff and faculty of business and management colleges and/or universities, not only in Taiwan, but also in other East Asian countries. Business and management colleges and/or universities in Taiwan, and business and management colleges and/or universities in other East Asian countries may want to reconsider and redesign their business programs and curricula. They may want to incorporate a variety of experiential learning methods, activities and techniques to their programs and curricula in order to better develop and improve their students’ critical skills for the assorted workplace; prepare them to cope with new situations and
challenges encountering them in a global society; and to rapidly accommodate themselves to the workplace of the future.

**Definitions of Key Terms**

*Effectiveness and Efficiency* is the degree of concepts, principles, and theories gained by participating students as determined by post-testing.

*The Team-Based Case-Study Method of the Experiential Learning Approach* is a learning approach that requires students to engage in active learning (i.e. self-directed or self-managed learning). Students will be divided into several small groups. Each group has to review some sections in textbooks relative to given case studies in order to complete the given assignments, and each group has to conduct some research and interviews and complete writing a group-based written paper. Interactive group discussions will be held outside and inside the classroom, and brief oral presentations will be given in class.

*The Unidirectional Lecturing Method of the Traditional Learning Approach* is a method in which an instructor or a professor lectures students in classes, and students simply listen and take notes. It is a method which involved one-way information-dispensing only.

**Research Questions**

The following are the research questions that this study will review:

1. Do the treatment-group participants who are receiving the business course, Economics, through the proposed treatment – *a traditionally unidirectional*
lecturing method incorporating the team-based case-study method of the 
experiential learning approach, have higher scores and performances on the 
given tests than the control-group participants who are receiving the same 
business course utilizing only a unidirectional lecturing method of the 
traditional learning approach?

2. Do the treatment-group participants have positive attitudes, preferences and 
perceptions toward the team-based case-study method of the experiential 
learning approach?

Significance of the Study

The major purpose of this experimental study was to compare the effectiveness and 
efficiency of a traditionally unidirectional lecturing method, incorporating a team-based 
case-study method of experiential learning, with that of a unidirectional lecturing method 
of traditional learning with reference to how well Taiwanese business students learn. 
However, due to the national and cultural differences in several major dimensions (this 
will be explained in detail later in this paper) between the West and the East Asia as 
proposed by G. Hofstede (1980, 1994), the experiential learning approach which has 
worked well and successfully in the West, may not be as successful in East Asian 
education systems (Hofstede, 1980, 1994; Lu & Kao, 2002; Speece, 2002). Because of 
that, a researcher, Speece (2002) reminds and suggests that if a practitioner or an educator 
desires to initiate, to adopt and to implement the experiential learning approach in East 
Asian college and university classrooms, they have to take national and cultural factors 
(as Hofstede’s proposed theory) into account. On the other hand, it is not necessarily
each kind of experiential learning methods, techniques and activities that will be well accepted by East Asian business students because of traditionally cultural inheritance and influence. A practitioner and an educator will have to choose appropriate experiential learning methods, activities and techniques, which are compatible with national and cultural characteristics of East Asian nations.

There are a few researchers who have looked at the benefits of using a variety of experiential learning activities, methods and techniques in East Asian business and management colleges and/or universities. There also are a few research documents about the experiential learning approach being implemented in business and management colleges and/or universities in East Asia (Lu & Kao, 2002; Speece, 2002); therefore, the researcher’s proposed experimental study is with one Business and Management College in Taiwan, a society which is perceived as one of “Confucianism,” “collectivistic orientated,” “feminine orientated,” “stronger uncertainty avoidance orientated,” and “large power-distance” societies in terms of Hofstede’s National/Cultural Dimension Theory (Hofstede, 1980, 1994).

Hofstede (1980, 1994) finds that national culture in the West (such as the United States, Canada, Britain, Australia) and the East Asia (Japan, Singapore, Hong Kong, Korea, Mainland China, Taiwan, etc.) varied based on four major dimensions including: (1) individualism versus collectivism; (2) power distance with large versus small distance; (3) masculine versus feminine ways; and (4) uncertainty avoidance with strong versus weak. Hofstede concludes that the West values “individualism,” in which personal achievement and competition among individuals are accepted and reinforced. Hofstede also finds that the East Asian value of “collectivism” is one in which personal
achievement and competition are suppressed, and cooperation and agreement between people are emphasized. Another researcher, Waterman defines:

Individualism as embodied in four psychological qualities: a sense of personal identity, self-actualization, internal locus of control and post-conventional principled moral reasoning. The guiding principle of individualism is the interest of the individual. In contrast, people from collective societies are more concerned with effects of their actions on others, sharing benefits and loss of face. People in collectivist cultures often give priority to their ingroup goals, whereas people in individualist cultures give priority to their personal goals. Moreover, in collectivist cultures, behavior is regulated largely by ingroup norms; in individual cultures people’s behavior is regulated largely by personal preferences and cost-benefit analysis (1984, p. 150-151).

Speece echoes Hofstede’s terminology and furthermore explains, “In collectivist societies, people are much more integrated into groups compared to individualistic societies. They show strong loyalty to and seek support from their social groups” (2002, p. 107). Summarily, generally speaking, people from collectivist societies prefer team work, and they feel more comfortable and confident to work with a group rather than work alone. According to Hofstede’s empirical study (1980), Hofstede ranks Taiwan 44th of 53 worldwide regions on his measure of individualism and, thus, depicts it as a highly collectivist society.

The second dimension, “power distance,” refers to the distance between people who have “power” and “authority,” and those who do not. According to Chang’s extended explanation of “power distance,” it states that “the acceptance of differences in power,
authorization, and wealth among people which is often reflected in limited interaction between social classes and restricted movement from one social class to another” (2003, p. 567). If the cultures have small power-distance, it means that everyone is viewed as equal, and there is less hierarchical structure between higher and lower positions. On the contrary, if the cultures have large power-distance, it means that everyone is not equal, and there is more leading hierarchical structure between higher and lower positions. Hofstede concludes that East Asian countries have much larger power distances than Western countries. He also points out that East Asian countries value respect for elders, people who have expertise, and people who have higher social status. In Speece’s study (2002), he explains, “People in high power distance societies defer to others who have higher status in the social hierarchy, unlike low power distance cultures where people are more likely to believe that everyone’s contribution is equally important. In cultures such as Singapore’s, saving face and maintaining harmony are high priorities” (p. 107). In such cultural traits like this, people who do not have “power,” or “authorization,” or “wealth” seldom question, debate, and disobey people who have “power,” “authorization,” and “wealth.” Because of this cultural inherence, East Asian students are accustomed to the traditionally unidirectional lecturing format in classroom where practitioners and educators lecture, and students listen and take notes without any interaction with practitioners and educators. Once students speak up and offer opinions in class, they will be considered as impolite and of a show-off manner, which is suppressed in “larger power distance” societies. Therefore, East Asian students almost always simply obey their practitioners and educators in classrooms (Amant, 2000; Chang,
In another dimension, "masculine" and "feminine," Hofstede defines "masculine" as assertiveness, aggressiveness, performance, competition behavior, and success as strengths. Conversely, "feminine" is defined as cooperation, service, warm and harmonious relationships, and care for the weak as strengths. East Asian cultures regard everything in a more "feminine" way, emphasizing peace and harmony with and adaptation to its known patterns, whereas Western cultures appear to look at situations in a "masculine" way (Cheney, 2001; Durlabhji & Marks, 1993; Hofstede, 1980, 1994; Niehoff, Turnley, Yen, & Sheu, 2001; Speece, 2002; Waterman, 1984; Wu & Rubin, 2000).

Reviewing the fourth dimension of "uncertainty avoidance," according to Hotstede's definition, some cultures are more tolerant of uncertainty than others. In cultures which are more tolerant of uncertainty, individual risk-taking tends to be valued and conflict is accepted; however, in cultures which are less tolerant of uncertainty, norms tend to be more conservative and take a negative view of risk and conflict. Hofstede makes a conclusion that Western cultures are more tolerant of uncertainty than East Asian cultures, but the difference between them is relatively small. Chang and other researchers make a general conclusion using Hofstede's terminology that East Asian people have strong uncertainty avoidance orientation; therefore, East Asian students prefer not talking or providing any opinion and answer in class because once they give an inappropriate opinion or a wrong answer, they will embarrass themselves in front of instructors and professors, and classmates (losing face). East Asian students do not want to take that risk
Limitations of the Study

National/Cultural and time-consuming factors are two primary limitations in this research study. Most Taiwanese students are undergraduates who have entered colleges and/or universities directly from senior high schools either through a channel of “University Joint Entrance Examination Program” or through a channel of “Recommendation Screening Examination Program,” and as a result, have had no experience or little experience with self-directed learning, self-managed, and active learning because of the prevalence and domain of the traditional learning approach – a unidirectional lecturing method. This method has been used and adopted by most of Taiwanese teachers, instructors, practitioners and educators in classrooms for a very long time. It means that Taiwanese students are taught by school teachers, instructors, practitioners and educators only in the traditionally unidirectional lecturing method since they have started attending elementary schools all the way to senior high schools (nine-year statutory education and three-year senior high school; total 12 year of average). One result of the traditionally unidirectional lecturing method is that Taiwanese students have no idea how to learn actively. Making an effective and efficient transition from traditionally passive learning to self-directed, self-managed and active learning requires extensive preparation and support.

According to Patterson’s observation (1999) about implementation of different kinds of experiential learning methods, activities and techniques inside and/or outside
classrooms, practitioners and educators need spend a great deal of time to prepare that. Also, students need to have time to learn and get used to those learning methods, activities and techniques adopted and implemented by practitioners and educators. Patterson takes as an example, the case-study method of the experiential learning approach. He mentions the difficulty faced by students in attempting, “even a small case study, which usually requires extensive research and preparation time by instructors and professors, not to mention the time it takes students to read and process the content of the case” (p. 538). Because of these reasons, the researcher expects the recruited Taiwanese participating students, who are business majors in one national or private college and university in the experimental group, might face difficulties accepting it. The recruited participating students in the experimental group might need time to adjust to the program, and furthermore, will have to adjust to the new pedagogical idea and method. However, the researcher’s proposed experimental period of time is limited to 20 weeks. Because of this, the researcher may find out that there is no statistically significant difference in academic performances of each given test between the experimental group and the control group. The proposed experimental time period might not be sufficient for the participating students in the experimental group to adjust to their learning new style.

In addition to the time and cultural limitations, it is possible that the results of this research study may not be generalized to other business and/or management colleges and/or universities in Taiwan. In terms of the researcher’s proposed experimental study, 107 participating students, who will be one business major from one national or private business and/or management college/university in Taiwan, will be recruited for experimental study samples. The recruited 107 samples from only one national or private
business and/or management college/university may not be representative of the entire college and university student population in Taiwan. It is possible that the findings of this research study may not be generalized to other colleges and/or universities and students populations in Taiwan.
CHAPTER II

Literature Review

Many college and university educators and practitioners are aware that the teacher-centered pedagogical method—a unidirectional lecturing method—is not the most effective and efficient way of promoting student learning, and developing and producing quality graduates. Hakeem indicates, “The traditional format used by college and university educators promotes passive learning. Students are required to merely listen to and take notes on a lecture without participating in the lecture material” (2001, p. 95). However, the traditionally unidirectional lecturing method remains the dominant format of university and college teaching viewed as higher education. Because of the teacher-centered pedagogical method, the traditionally unidirectional lecturing method prevalent in most universities and colleges, higher education has produced many graduates who have close-minded, non-critical thinking, and often frustrated minds (Gadotti, 1996; Pearson, 1999). In Gutierrez’s study (2002), he cites Freire’s (1970) characterization of today’s college/university classrooms as follows:

The teacher teaches and the students are taught; the teacher knows everything and the students know nothing; the teacher thinks and the students are thought about; the teacher talks and the students listen-meekly; the teacher disciplines and the students are disciplined; the teacher chooses and enforces his choice and the students comply; the teacher chooses the program content and the students adapt to it; and the teacher is the subject of the learning process while the students are mere objects (p.53).

Nevertheless, that is not the ultimate goal of higher education. Gadotti (1996) agrees
with the proclamation of higher education planning in the International Year of Education held in 1970. He also concurs that planning of education should be integrated with social, political and economic planning, especially at the higher education level. Another researcher, Hang (1997) asserts that, “for college and university students, it is essential that they be equipped with higher-order thinking and creative abilities, which include analytical, innovative, and systems thinking” (p. 2).

Cantor (1995, 1997), another researcher, contends that higher education institutes should provide and foster an effective and efficient learning environment to students. Therefore, Cantor strongly advocates that there are six features of an effective and efficient learning environment: it should be the learner-centered and learner-directed (i.e. learning paradigm); it is the place where emphasis is on problem-solving, discovery and inquiry; it emphasizes the practical applications of course content; it focuses on holistic understanding; it focuses on perception-based; and it emphasizes the process – learning about learning. On the other hand, college and university education as higher education should find more effective and efficient ways of promoting and fostering student learning and stop producing graduates who act as memorization and drill machines (Cantor, 1995, 1997; Gadotti, 1996). In order to achieve the ultimate goal of higher education, many scholars, researchers, educators and practitioners devote much time and energy to searching for, developing and devising more effective and efficient ways to help student learning. One of the effective and efficient teaching/learning approaches that Kolb, Cantor, and other researchers proposed is the experiential learning approach that involves active learning techniques requiring students to process knowledge and information actively, deeply, and fully. Furthermore, the experiential learning approach sets up a

History of the Experiential Learning Approach in the West

What is the Experiential Learning Approach?

The experiential learning approach is not a new pedagogical idea, method or technique in the educational field. The experiential learning approach has been used and implemented successfully for several decades in colleges of education and behavioral sciences in many Western nations since the 1960s. From the 1970s, scholars, researchers, instructors and professors of colleges of business and management in the West have shown an increasing interest in a variety of experiential learning methods, activities and techniques for classroom use. Various kinds of experiential learning methods, activities and techniques have also been used and implemented successfully in education of management and business. A large amount of empirical evidence has accumulated through research since the 1970’s.

There are several reasons why many scholars, researchers, practitioners and educators have adopted the experiential learning approach to conduct classes with students. One of the major reasons for growing interest in adopting experiential learning methods, activities and techniques inside and/or outside classrooms by many Western instructors and professors is that practitioners and educators are constantly searching for ways to make their classes more interesting, simulating and motivating, and realistic.
They also want to make their students’ learning more effective and efficient (Godatti, 1996; Kolb, 1984; Pearson, 1999). Other reasons for the growing interest in the experiential learning approach are organized and summarized by Cantor in his studies (1995, 1997):

A need for educated workers and citizens who can meet the challenges of rapid change in our global economy; an increased understanding of learning theories and cognitive development; a need for more nontraditional learners with multitudes of learning styles; a changing school campus and workplace which requires people to effectively interface with each other and understand their roles as team players; an economic necessity for higher education to more closely interface with business and community; and administrative and faculty concerns about their roles in selection, control and evaluation of the learning process (p. 5-17).

Definitions of the Experiential Learning Approach

“Learning is not a sedentary activity. Learning, by definition, is about a person thinking and doing and growing and changing; it is not about an instructor’s ability to present content,” defines Patterson (1999, p. 53). Many great ancient educators and philosophers have known that. “Confucius knew it. Socrates knew it”, said (Kolb, 1984; Patterson, 1999).

Generally, there are two different viewpoints regarding what the experiential learning approach is and what the activities, methods and techniques encompass. Simply stated, experiential learning is about experiencing and doing. A Chinese ancient educator and philosopher, Confucius said, “If I am told, I forget; if I am shown, I remember; if I do,
I understand” (Bell & Margolis, 1978; Feinstein, Mann, & Corsun, 2002; Hicks, 1996; Kolb, 1984; Patterson, 1999). In addition, “learning-by-doing” is one of the oldest values and educational techniques known to men of the Western cultures (Cohen, 1974; Kicks, 1996; Kolb, 1984).

According to Stephen Brookfield’s organization and categorization of the definitions of experiential learning given by many scholars, researchers, practitioners and educators, Smith cites it in his recent study (2002) as follows: The first definition of experiential learning is “education that occurs as a direct participation in the events of life” (Houle, 1980, p. 221). This means that learning is achieved through reflection upon everyday experience and is the way most of us learn.

The second categorized definition of experiential learning is used to describe the sort of learning undertaken by those who are given an opportunity to acquire and apply knowledge, skills and feelings in an immediate and relevant setting. As Delozier and his colleagues define it, “experiential learning in marketing education is placing the student in a created or actual environment in which the student can engage directly in the activity under study. This approach is contrasted to the traditional learning processes of reading the materials, listening to a lecture, or participating in a discussion” (1977, p. 1). Sgroi and Ryniker’s definition of experiential learning is “experiential learning refers to learning activities that engage the learner directly in the phenomena being studied” (2002, p. 188).

Brandon (2002) explains, “Experiential learning is a process during which a person experiences an event, acquires competencies, and then compares the knowledge gained with knowledge gained in similar situation” (p. 63). Cheney describes what experiential
learning is in a recent cross-cultural communication study: “Experiential learning is by drawing upon students’ life experiences and helping them to see connections between knowledge gained in the classroom and its application in real life” (2001, p. 91). Hence, experiential learning involves a direct encounter with phenomena being studied rather than merely thinking about the encounter or only considering the possibility of doing something about it.

Other studies point out, “Experiential learning is a participator method of learning that involves a variety of a person’s mental capabilities. It exists when a learner processes information in an active and immersive learning environment,” as defined and explained by Feinstein and his colleagues (2002, p. 733). Kolb (1984) explains that participants involved in experiential learning activities “must be able to involve themselves fully, openly, and without bias in new experiences; they must be able to observe and reflect on these experiences from many perspectives; they must be able to create concepts that integrate their observations into logically sound theories; and they must be able to used these theories to make decisions and solve problems” (p. 236).

Much of the literature on the experiential learning approach is focused on the second category explanation. “Experiential learning approach, which emphasizes the full involvement of the learner’s intellects, feelings, and behaviors,” was defined by Hoover and Whitehead in 1975. “Experiential learning exists when a personally responsible participant cognitively, affectively, and behaviorally processes knowledge, skills, and/or attitudes in a learning situation characterized by a high level of active involvement,” as defined by Saunders (1997, p. 98). Cantor cites Stevens and Richards’ (1992) definition of the experiential learning approach: “Experiential education can be defined as
immersing students in an actively (ideally, closely related to course material) and then asking for their reflection on the experience” (1995, p. 116). Hence, at the heart of all experiential learning approach theories lies the fundamental belief that learning occurs when an individual is actively involved with concrete experience.

**Benefits of the Experiential Learning Approach**

The traditionally unidirectional lecturing method used by some college and university practitioners and educators promotes passive learning. Learners are required to only listen to and take notes with a few or without any interaction with instructors and/or professors (Hakeen, 2001; Hamer, 2000; Lau, 2003). In Ruben’s study (1999), he critiques that the conventional lecture format is one-way information-dispensing method; this kind of *one-dimensional* teaching and training does not equip students for a *three-dimensional world* in the future. In Bobbitt, Inks, Kemp and Mayo’s recent study (2000), they cite Barr and Tagg (1995), and Sunders’ (1997) suggestion that a paradigm in higher education should shift from “*instruction paradigm*” to a “*learning paradigm*.”

The traditional one-way information-disseminating lecture format is a typical instruction paradigm; the instruction paradigm views instructors as deliverers and experts of knowledge and learners as passive recipients of knowledge. For today’s classroom, the instructor paradigm causes passive learning; it is not an effective and efficient way to foster students’ learning and to develop higher order thinking skills which they need for their future career lives and personal growth development. A researcher, Hamer (2000) points out that the most fallacious assumption of the traditionally unidirectional lecture format is that it assumes “*lecturing*” is equal to “*learning*.” In Shakarian’s studies
(1995), it is suggested that humans are limited in their ability to pay attention and concentrate on activities. According to this finding, it is furthermore established that learners' attention to lectures dropped sharply after instructors and professors gave lectures of ten to fifteen minutes. This means that learners may only listen to instructors' and professors' lectures from ten to fifteen minutes and learn only during that time period. During the rest of the class, they barely learn anything. Shakarian also critiques the traditional teaching format, lecturing, which involves "passive learning" techniques and are limited to the educators' abilities and responsibilities to facilitate student learning effectively, efficiently and deeply. In Morse and Basin's study, they concur, "Students do not learn much by sitting in classroom listening to teachers, memorizing prepackaged assignments, and spitting out answers. They must talk and write about what they are learning" (1998, p. 96). Thus, a traditional lecturing method does not encourage learners to process information actively and profoundly. "Most faculty members rely upon a didactic approach to instruction. Students are often viewed as 'empty vessels' with professors having the responsibility of pouring in knowledge from the disciplines," stated Sgroi and Ryniker (2002, p. 189). A summary of those scholars', researchers' and educators' explanations about "passive learning" refers to any learning activity that does not require the learners to collect data and information actively, to process data and information actively, or to implement decisions in a physical sense and deal with the consequences.

Many scholars, educators, and researchers contend that an effective and efficient learning environment is one that allows learners to explore and learn independently, and the experiential learning approach is one which could offer an effective and efficient
learning environment for students. The experiential learning approach, which involves "active learning," requires students to apply theories to real-world situations in a dynamic manner and engage students in higher-order thinking, as they personalize the subject matter. A researcher, Ruben (1999) asserts:

> Experience-based or experiential, instructional methods had the potential to address many of the limitations of the traditional paradigm. They accommodated more complex and diverse approaches to learning processes and outcomes; allowed for interactivity; promoted collaboration and peer learning; allowed for addressing cognitive as well as affective learning issue; and perhaps most important, fostered active learning (p. 503).

In short, experiential learning activities, methods and techniques could make courses more relevant for all students because it is deeply believed that the experiential learning approach focuses on "doing" in addition to "hearing" and "seeing," which occurs in the traditional lecture classroom setting (Feinstein, Mann, & Corsun, 2002; Hakeen, 2001; Ruben, 1999; Sgroi & Ryniker, 2002).

In Wah’s recent study (2002), it is stated, "passive learning is not the answer to the 21st century’s demand on human resource" (p.1). It further affirms, “This learning initiative – which I have passionately called R.E.A.L. (results enhancing and active learning) education – is an experiential learning concept that focuses on the processes that facilitate the development of dynamic interpersonal skills, individual creativity, problem-solving skills and leadership qualities” (p. 2).

What is “active learning”? Thomas (2002) explains “active learning” can be contrasted from “passive learning” in the traditional classroom setting when instructors
and professors do most of the work, and students do nothing. In contrast, "active learning" means that instructors and professors and students exchange their responsibilities in classroom settings. It means that students should take more responsibility for their own studying, and instructors and professors should release those responsibilities to students in classroom. Active learning promotes students learning through created-setting activities that actively engage students in inquiring, applying, analyzing and synthesizing course contents. A researcher, Dale encourages, "learned concept can be established more efficiently in students' memory if more levels of experience are included in the learning process" (1969, p. 95); it implies that students should be more actively and enthusiastically involved in an entire learning process. "Experiential learning is by its very nature a form of active learning, in which the student takes significant responsibility in the learning process," further explained Sgroi and Ryniker (2002, p. 188). The experiential learning approach can provide a valuable opportunity to students to apply what they learned in classrooms or from textbooks to real-world practices. A concept of experiential learning focuses on the processes that facilitate the development of dynamic skills and qualities of graduates needed for the competitive and diverse workplace and marketplace of the future.

Furthermore, proponents contend that the experiential learning approach is not intended to replace the traditional learning approach. The experiential learning approach should be perceived as a supplemental learning approach in the classroom; it is an alternative learning approach and can be chosen and implemented by the instructors and professors inside and/or outside classrooms in order to help student learning more effectively and efficiently. Bell and Margolis posit that "without experiential, the
learning becomes temporary, shallow and narrow; without didactic, the learning becomes less transferable, pointless and without substance” (1978, p.17). Researchers, Bobbitt and colleagues (2000) also agree that lectures can be useful in offering the necessary conceptual knowledge and information needed for the experiential learning exercises when students engage in those. In addition, researcher, Kolb says that he does not want to develop an alternative theory of learning, “but rather to suggest through experiential learning theory a holistic integrative perspective on learning that combines experience, perception, cognition, and behavior” (1984, p. 21). Among many researchers’, practitioners’ and educators’ earlier studies about the experiential learning approach, they agree that there are many advantages and benefits to the experiential learning approach for students.

The experiential learning approach breaks up the boredom for students of sitting and taking notes during every class period. The experiential learning approach needs students to play roles in the classroom and thus have more control of their learning. The experiential learning approach also promotes students’ deeper understanding and learning in a holistic manner of course subjects and materials. The students retain information and knowledge for long-time periods, and also have capacities to translate retained information and knowledge to practical real-life events and situations. Summarily, the benefits of the experiential learning approach include: motivating student learning intrinsically (Harrison, 1988; Lumsden, 1994), and arousing and inspiring students to self-directed, self-managed and an active learning experience in ‘real-world’ events in classroom settings.
Role of Instructors/Professors of the Experiential Learning Approach

In the traditional learning activity setting, instructors and professors are perceived as experts. Consequently, instructors and professors play dominant roles in the classroom setting. With the experiential learning activity setting, instructors and professors are no longer playing the dominant role in the instructional process and classroom process. Instructors and professors no longer act as the authoritarian figures and fountainheads of all knowledge. Nevertheless, it does not mean that instructors and professors are not necessary role players inside and/or outside the classroom. In fact, instructors and professors should assume the role of "facilitator," "mentor," "coordinator," "tour-guide," "tutor," and "counselor," who guide students in how to learn subject and content (Cohen, 1974; Flynn & Klein, 2001; Pearson, 1999; Sgroi & Ryniker, 2002; Speece, 2002; Washbour, 1996). The role of the instructor and professor will shift from the imparter of information and knowledge to mentors, who stand behind students to give support, direction and guidelines. Washbour (1996) calls it providing a "holding environment." "The role of instructor as one who stands in front, leading the students as a guide; as one who stands face-to-face as listener, questioner and connector; and finally, as one who stands shoulder-to-shoulder as companion, ally, and fellow learner" (1996, p.15).

Instructors and professors should create and promote a positive learning atmosphere in classrooms – leading students to be self-directed, self-managed, and active in learning situations.

Kolb’s Experiential Learning Model

presentation of the experiential learning approach in the past two decades. Kolb’s experiential learning model was generated and modified mainly from three former researchers’ models: John Dewey’s experiential learning model (1938), Kurt Lewin’s experiential learning model (1951), and Piaget’s experiential learning model (1970). In his book, Kolb compliments that three of them are the founders and pioneers of the experiential learning approach. Brief summaries of three experiential learning models respectively by Kolb said that Dewey’s model of experiential learning model emphasizes, “Learning is as a dialectic process integrating experience and concepts, observations, and action” (Kolb, 1984, p. 22-23). It involves: observation of surrounding conditions; knowledge of what has happened in similar situations in the past; a knowledge obtained partially by recollection and partially from information, advice, and warnings of those who have wider experiences; and judgment that puts together what is observed and what is recalled to see what they signify.

Kolb summarizes the Lewinian experiential learning model, as one that contains two noteworthy elements. It emphasizes concrete experience to validate and test concepts, principles, and theories, and it emphasizes the feedback mechanism to describe the learning and problem-solving process that provides information to assess deviations from desired goals.

Piaget’s experiential learning model, according to Kolb, emphasizes that, “Learning lies in the mutual interaction of the process of accommodation of concepts or schemas to experience in the world and the process of assimilation of events and experiences from the world into existing concepts and schemas” (1984, p.23). Also, Kolb says that Piaget stated, “The process of cognitive growth (of learning) from concrete to abstract and from
active to reflective is based on this continual transaction between *assimilation* and *accommodation*, occurring in successive stages, each of which incorporates what has gone before into a new, higher level of cognitive functioning” (1984, p. 23).

Kolb (1984) deifies and asserts that learning is a dialectic and cyclical process consisting of four action and reflection phases, including: (1) concrete experience (CE), (2) reflective observation (RO), (3) abstract conceptualization (AC), and (4) active experimentation (AE). Kolb’s model of experiential learning focuses on the structure of the learning process by looking at the holistic structure, the transformation process, and the process of self-regulation. The model is outlined below:

*Concrete experience* (CE) refers to the learners involving themselves fully and openly in a new experience. This phase is perceived as the affective development.

*Reflective observation* (RO) means that the learners reflect on and observe the experience. This phase is perceived as the perceptual development.

*Abstract conceptualization* (AC) means the learners create concepts that integrate the observations into contextually relevant models and situations. This phase is perceived as the symbolic development.

*Active experimentation* (AE) refers to the learner’s use of those models for decision-making and problem-solving in unfamiliar situations.

A combination of all four phases of Kolb’s experiential learning model results in higher-order thinking. This concept is perceived as behavioral development. The four-phase process model begins with *concrete experiences* (CE), resulting in *reflective observations* (RO), whereby *abstract conceptualizations* (AC) are developed to make sense of the newly experienced world. These processes then lead to *active*
experimentation (AE) (i.e. concept testing) before the individual repeats this learning cycle. In summary of Kolb’s experiential learning model, the learning cyclic process of setting goals is followed by thinking, planning, experimenting and decision making. This is followed by action, by observing, reflecting and reviewing, decision making, and sometimes adjusting goals, succeeded by more action in a continuous process. It is a constant repetitive process (Kolb, 1984). Kolb’s four-phase cycle experiential learning model is shown in Figure. 1.

FIGURE 1. Kolb’s Four-Phase Experiential Learning Cycle:

In practice, the cycle of the experiential learning model does not flow in a linear and sequential fashion. It is far more fluid and dynamic. It is a repetitive process; the learners move back and forth among four phases of Kolb’s experiential learning model.
It should be noted that this model has been criticized by some researchers (Curtis, 2003; Miettinen, 2000; Yoong, 1998). In Miettinene’s study (2000), he critiques the model: Kolb’s does not present any concept that would connect the phases to each other (four phases of Kolb’s experiential learning model). Kolb continuously speaks about ‘dialectical tension’ between experiential and conceptual. However, he resolves the tension simply by taking both as a separate phase to his model. There is surely no dialectics in this (Kolb’s four-phase experiential learning model (p. 7). However, Kolb’s experiential learning model still offers a useful guide and positive contribution to learning and progress through the process.

Activities, Methods and Techniques of the Experiential Learning Approach

Activities, methods and techniques of the experiential learning approach, include, for example: practicum, internship/externship, case-study, project-study, treasure-hunt, guest-lectures, filed-trips (including local field-trips and study abroad), company-visits, simulation and gaming, and role-play (Bell & Margolis, 1978; Cantor, 1995; Carolin, 2001; Cheney, 2001; Cohen, 1974; Duke, 2000; Faria, 2001; Flynn & Klein, 2001; Hamer, 2000; Kolb, 1984; Lewis & Williams, 1994; Saunders, 1997; Toncar & Cudmore, 2000).

Experiential learning activities, methods and techniques can be divided into two major categories: Field-based activities, methods and techniques versus classroom-based activities, methods and techniques in terms of Lewis and Williams’ categorization of experiential learning activities, methods and techniques (1994).
Another researcher, Hamer (2000), explains the other categorization of experiential learning activities, methods and techniques in his studies. According to Hamer’s categorization, all experiential learning activities, methods and techniques can be divided into two major categories: *Semi-structured activities, methods and techniques* versus *loosely structured experiential learning activities, methods and techniques*. According to Hamer’s explanation of *semi-structured experiential learning activities* which are “dramatically different from the traditional lecture format because they do not present students with new information in a structured format. Rather, these activities assume a minimal level of students knowledge and encourage students to elaborate on that knowledge while completing a semi-structured task as part of a group” (p28). Semi-structured experiential learning activities, methods and techniques may include case-studies, treasure hunts, company-visits and guest-lectures.

About *loosely structured experiential learning activities*, Hamer (2000) explains:

They differ from semi-structured experiential learning activities by being of broader scope, longer completion time, and less controlled. These complex activities share the following characteristics: students are faced with unstructured, ambiguous situations; a great deal of student learning may take place outside of class and away from the instructor; students must deeply process course materials and creatively apply those materials to the situation; and students have a great deal of control over what they learn from the activities and the process through which they learn (p. 28-29).

Loosely structured experiential learning activities, methods and techniques may include: simulations and gaming, role-playing, project-study, internship/externship, practicum,
and field-trips (including local study and study abroad). Hamer concludes generally that semi-structured (with the least ambiguous) and loosely structured experiential learning activities (with the most ambiguous) differ in the amount of ambiguity with which students are presented.

Experiential learning activities, methods, and techniques such as case studies, simulations and gaming, and role-play and the other experiential learning activities, methods, and techniques are utilized to assure that practitioners and educators foster student learning that matches the ultimate goal of higher education mentioned by Gadotti (1996), Cantor (1995) and Saunders (1997).

**Appropriate Experiential Learning Activities, Methods, and Techniques for the East-Asian**

*The Hofstede’s National/Cultural Dimension Model*

Hofstede (1980, 1994) finds and defines that national culture in the West and in East Asia varied along four major dimensions including: (1) individualism versus collectivism cultures; (2) large power distance versus small power distance; (3) masculine way versus feminine way; and (4) strong uncertainty avoidance versus weak uncertainty avoidance.

Why are East Asian countries perceived as “collectivistic,” “larger power-distance,” “feminine-orientation,” and “stronger uncertainty avoidance orientation” societies? In Hofstede’s studies (1980, 1994), he has demonstrated that East Asian cultures such as “collectivism,” “large power-distance,” and the other cultural traits can be attributed to several historically traditional culture factors. Other researchers, Durlabhji and Marks (1993), and Joynt, Tung, and Warner (1996) appeal to historically traditional cultural
factors in their research studies. All of them say East-Asian countries are influenced deeply by “wet rice-paddy culture,” “close-knit community structure,” and “Confucianism,” and those rooted cultural factors resulting in “collectivistic orientation,” “larger power-distance,” and “feminine-orientation” and the other characteristics different from Western cultures (Chang, 2003; Hofstede, 1980, 1994).

Because of the monsoon factor, East Asian cultures developed “wet rice-paddy cultures” and further developed the “close-knit community structures” in their societies. The monsoon factor is that the wind brings much rain from the months of April to October every year (rainy season) in Eastern and Southern Asian nations. During rainy season, it is the season for growing crops, especially rice, which is the major food and nutrition source for Eastern and Southern Asian people.

There were many families in those close-knit communities. The word “family” did not mean the nuclear family consisting of husband and wife and children, but the patriarchal extended family banded together to pursue wet-paddy rice farming in the traditional manner. A village of such families was a natural unit, unlike the artificial administrative units of modern times. Like the village families, the village itself was engaged mainly in growing rice in irrigated paddies. Given the demands of this work, the village’s individuals and families had to cooperate to perform this work as efficiently as possible, and their cooperation readily extended to their other daily activities that they undertook to ensure the entire village’s continuity and prosperity. To the people who lived in them, these families and villages were close-knit communities sharing a common fate. Each community of people was bound by kinship, land, or other natural ties, living together permanently in one place as a self-sufficient group in the true spirit of
cooperation and harmony. People who became members of the close-knit community had to disregard their self-role and accomplishments, and had to focus on the total well-being and fortune of an entire community (Durlabhji & Mark, 1993; Lu & Kao, 2002).

Summarily, the “wet rice-paddy” and “close-knit community structures” were operated by several norms: (1) total and lifelong membership; (2) the duty of selfless contribution and devotion to the community, and concern for each member’s total welfare of the entire close-knit community; (3) discipline and seniority-based rank; (4) harmony and concerted efforts; and (5) authoritarian management and participative management (Chang, 2003; Durlabhji & Marks, 1993; Joynt, Tung, & Warner, 1996).

Reviewing a norm of “authoritarian and participative management,” the highest social status among the members of a “wet rice paddy” and “close-knit” community usually belonged to the headman of village, the heads of households, the elders and the persons who have significant expertise and knowledge. Those people represented an entire community and spoke on the behalf of an entire community’s interests, needs, and welfares by means of a community council. Those who were running the community’s affairs did not use the arbitrary, one-sided decision-making process. In principle, each single important decision concerning the ruling and running of the community were made in councils, with all members participating. The elders’ duty was to pass final judgment on the results reached by the council (Durlabhji & Marks, 1993; Joynt, Tung, & Warner, 1996).
Confucianism

“East-Asian countries have all been influenced by the teachings of Confucius and hence are commonly referred to as Confucian or neo-Confucian societies” (Joynt, Tung, & Warner, 1996, p.233). What is the central thought of Confucianism? Confucius strongly emphasized “moderation.” He preached that each individual occupies a position in a hierarchical ordering of social relationships, with its adequate obligations and rights, and benefits. In this way, peace and harmony of the society and the whole country can be attained and maintained under the societies of the wet rice-paddy and close-knit communities. According to Confucius’ thoughts, social relationships mainly were based on the family consisting of ruler and subject (emperor and minister), father and son, older brother and younger brother, husband and wife, and elder friend and younger friend (five so-called basic social relationships). Confucius ascribes different powers, duties, obligations and rights to those parties in those five dyad relationships. The superior party (ruler, father, older brother, husband, and older friend) has greater power than the inferior party (subject, son, younger brother, wife, and younger friend). Because of this, the superior party has more control over everything. Even the two relationships that appeared to fall outside the family could be viewed within a familial context (for East Asian people, think of ‘family’ from a broad view) (Chow, Harrison, McKinnon, & Wu, 1998; Yang, 1981).

In summary, the characteristics shared by Confucian societies are hard work, frugality, perseverance, harmony co-operation, polite manner, respect, and hierarchical ordering of relationships and scholarship. Actually, both a “wet rice-paddy culture” or “close-knit community culture” feature “Confucianism” influence. Some researchers
have found that there are so many common and similar characteristics among “wet rice-paddy culture,” “close-knit community culture” and “Confucianism” culture and society because they mutually interact with each other. Hence, Hofstede and other researchers have concluded that East Asian nations and people can be categorized as “group orientation (groupism),” “collectivism,” “hierarchical pattern orientation (i.e. higher power-distance),” “feminine orientation,” and “stronger uncertainty avoidance orientation” cultures. East Asian people value characteristics such as modesty, self-control, face saving, teamwork oriented, respect for harmony and peace, and a seniority-based hierarchy (Chang, 2003; Cheney, 2001; Durlabhji & Marks, 1993; Hofstede, 1980, 1994; Nichoff, Turnley, Yen, & Sheu, 2001; Speece, 2002).

A Team-Based Case Study Method of the Experiential Learning Approach

The case study method of teaching/learning has dominated many management and/or business classrooms for decades. This teaching/learning approach can trace its roots to the early 1900s when it was popularized by Harvard Law School and Harvard Business School. A researcher, C. C. Langdell first utilized the case study method at the Harvard Law School (1870), which developed later (1909) at the Harvard Business School. In Saunders’ study (1997), it is pointed out a researcher, Chiesl, traces back the implementation of the case-study technique in higher education, and mentions that the first successful attempt to bring realistic business situations into a classroom took place in the year 1909 when the Harvard Business School introduced the case-study method (Barnes, Christensen, & Hansen, 1994; Christeusen, Garvin, & Sweet, 1991; Dean & Fornaciari, 2002; Saunders, 1997).
A case-study method of the experiential learning approach can be defined as one that involves many detailed accounts of specific situations with core issues that offer dilemmas, problems to solve, and decisions to be made. For example, Hamer’s categorization (2000) of a case-study method can be categorized into semi-structured experiential learning activities, methods and techniques, which direct students to perform activities based on course content. Case-study activities provide students with experience in the application of course materials that build on theoretical understanding. A case-study method of the experiential learning approach requires students to gather data and information and to elaborate on that data and information while completing it. Therefore, the case-study method is designed to enhance learning and provoke better and deeper understanding of core issues, subjects and matters.

Some researchers have argued that case-study activities produce short-term benefits for students in terms of knowledge acquisition, problem-solving abilities, and attitudes toward the topics (Cliff & Wright, 1996; Tillman, 1995). In Kolb’s (1984) experiential learning, he rates “the case-study method as weak to moderate for delivering concrete experience, only supporting reflective observation, moderate to weak in supporting abstract conceptualization, and moderate in permitting active experimentation and risk-taking” (p.103). Other researchers do not rate the case-study method of experiential learning as the most effective and efficient way to promote learning (Cliff & Wright, 1996; Feinstein, Mann, & Corsun, 2002). Nevertheless, the case-study method of the experiential learning approach has been widely adopted and implemented in a variety of colleges, including colleges of education, colleges of law, colleges of medicine, and colleges of management and business since the 1960s. The case-study method of the
experiential learning approach has become a popular pedagogical method and idea among many scholars, researchers, instructors, professors, and students because the case-study method serves to connect theories to applications. Besides, in Barr and Tagg’s study, they figure:

Their uses (case studies) may also reflect a fundamental paradigm (instruction paradigm) shift in (American) higher education, one that is replacing an older view of education as a place where students go to receive instructions, with a newer one as a place responsible for producing learning. Under the new ‘learning paradigm,’ learning is student-centered and controlled, and essentially experienced, replacing the old ‘instruction paradigm’ where learning is instructor-and content-centered (1995, p.16–17).

Many scholars, researchers, educators and practitioners point out that the power of the case-study method of the experiential learning approach captures some of the rhetorical realism of communication as it occurs in the workplace (Carolin, 2003; Cheney, 2001; Duke, 2000; Flynn & Klein, 2001; Hamer, 2000; Kolb, 1984; Macy & Neal, 2002; McGee & Festervand, 2002; Saunders, 1997). Kolb sees the potential for the case-study method to develop learning styles by emphasizing learning from particular domains. Saunders (1997), echoing Kolb’s terminology, sees the case-study method as “teaching inductive learning with conceptual frameworks and strategic guidelines being developed from the varied mental and physical activities required by the case-study tasks” (1984, p.100). The other researcher, Lovelock sees “case-study activities as teaching inductive learning with conceptual frameworks and strategic guidelines being
developed from the varied mental and physical activities required by the case tasks” (1986, p.25). Another researcher, Knoblauch (1989) asserts that “case studies, if used correctly, can construct the complex realities of specific business cultures and contexts; thus, giving students a sense of competing values, intentions, and rhetorical possibilities and an opportunity to practice adaptation skills” (p.262). “Today business education is heavily dependent on the case study method. In general, case studies are written to help illustrate some aspect of managerial information gathering and decision making,” O’Rourke said in the interview with McCall (2003).

Proponents of case-based activities of the experiential learning approach argue that case studies make learning relevant and meaningful to the students by virtue of active participation in analyzing, synthesizing, discussing and solving real problems in a specific field of inquiry. In addition, the case-study activity of the experiential learning approach shifts the focus of learning away from memorization of facts to the application of concepts, principles and theories in classrooms. It also steers learning away from textbooks to practical, real-life, real-world problems, situations and events. Proponents conclude that the effective and efficient use of case-study activities requires students to develop and use critical thinking skills and apply them to a problem-solving approach for analyzing and synthesizing situations, and recommending realistic solutions by virtue of a better and deeper understanding of concepts, principles, and theories. Using case studies as a vehicle to engage the students in the study of business subjects (such as finance, accounting, marketing, etc.) from a conceptual perspective (Flynn & Klein, 2001). A researcher, Carolin strongly advocates, “the case study approach to teaching in higher education has the potential to involve students in all four experiential learning phases
(Kolb's Experiential Learning Model) and more important, to foster skills necessary for self-directed learning” (2001, p. 2). In summary, in order to solve a case study, students have to use their logical reasoning skills in some phases, and their intuitive and creative skills in others. Furthermore, they have to transform their experience by means of both internal reflection in some phases and active experimentation in others. Researchers, Malouf (1993), and Merseth (1991) organize and yield the advantages of the case study as follows: help students develop skills of critical analysis and problem solving; encourage reflective practice and deliberate action; bring reality into the arena of theory; involving students in their own learning; and promoting the creation of a community of learners. Therefore, “the case study method is an effective way to engage students in all phases of Kolb’s experiential learning cycle” (Carolin, 2001, p. 6). In Saunders' studies (1997), it is pointed out that the case-study method results in “improved writing engagement, social cognition, and student motivation” (p. 102).

Moreover, a large amount of empirical evidences has shown that group-based, case-study activities developed and implemented successfully in the classroom, can motivate and foster students learning through group interaction, cooperation and collaboration (Flynn & Klein, 2001; Hamer, 2000). Why is a team-based case-study method of the experiential learning approach strongly recommended and promoted by many Western researchers and educators? The researchers, Macy and Neal, who support using team-based case-study activities of the experiential learning approach in classes, cite Peter Senge’s argument in their study:

The importance of team learning and openness in building a learning organization, and the discipline of team learning includes systems thinking and the practices of
dialog and discussion. Dialog assists participants develop a fuller understanding of other’s viewpoints. Effective discussion, presuming an understanding of other viewpoints, works toward uncovering the assumptions and viewpoints around which the group can come together. All of these elements are critical elements of the ‘generative conversation’ that is characteristic of learning organizations. Also, the use of ‘microworlds’ to assist managers in ‘learning by doing’ or ‘learning experientially’ is important (Macy & Neal, 2002, p. 31-32).

Macy and Neal further explain:

Dialog is especially important to organizational learning in that it allows organizational participants to move beyond their own limited understandings and personal mental models. Dialog requires collaboration, corporation and communication with others in order to reveal the subtleties of different mental models (2002, p. 32).

According to Erskine, Leevchers and Mauffette-Leenders’ advocate the use of a team-based case-study in classroom:

Many case teachers believe that small group discussions form a vital part of the students’ preparation task. These views are based on the assumption that a group may cover a variety of points faster than individual, thus, cutting down on total preparation time and that collective effort will surpass individual preparation (1981, p.72).
Proponents contend that through the team-based case-study activities, students are required to work in groups that allow them to learn from each other as group members, and interact to discuss and elaborate on course materials. Also, adopting and implementing the dialogic group-based case-study method as a means to build a microworld inside classrooms is very helpful to foster student learning actively in a holistic manner (Astin, 1992; Kolb, 1984; Macy & Neal, 2002).

Benefits of the team-based, case-study activities in classrooms offer students opportunities, which involve the whole learning processes. This approach offers students direct encounters with phenomena being studied rather than just ideas about the encounters. This builds a bridge across classroom theory and real-world practice and application. It helps students develop and improve various critical skills for meeting the challenges of the diverse workplace and marketplace of the future, rather than dealing only with possibilities. Interpersonal skills, higher-order thinking, innovative and creative capacity development, problem-solving skills, decision-making skills, leadership skills development from interaction, cooperation, and collaboration with group members are a few of the positive benefits of the team-based, case-study activities of the experiential learning approach.
CHAPTER III

Methodology

Chapter III presents a description of the methodology for this research study. This chapter consists of theoretical frame, the research questions, and a description of the research study design, a description of variables (including independent and dependent variables), a description of the sample, a description of procedures and implementation of the study, a description of materials and instruments, and a description of data analysis methods.

Theoretical Framework

Experiential learning activities, methods and techniques have been proven by many Western scholars, researchers, practitioners and educators during the past several decades to be well suited to shortening the gap between classroom and real-world practice (Brandon, 2002; Cantor, 1995, 1997; Cohen, 1974, 1977; Cohen & Bradley, 1977, 1978; Kolb, 1984; Pearson, 1999; Speece, 2002). Experiential learning activities, methods and techniques help students apply what they have learned in classrooms and from textbooks to real-world practices. Modern business education, (such as financial, accounting, marketing, international business, economics), is becoming increasingly oriented toward various kinds of experiential learning activities, methods and techniques. Case study, business project, simulation and gaming, role-play, internship/externship, practicum and other experiential learning activities, methods and techniques are being adopted for teaching business courses to students (Becker & Watts, 2001; Cantor, 1995, 1997;

One of the experiential learning activities, methods and techniques, in-class case discussion activities is what Hamer (2000) called semi-structured classroom activities. The team-based case-study method is the other semi-structured design activity of experiential learning methods. In this method, the learning takes place inside and/or outside the classroom (DeLozier, Lewison, & Woodside, 1977; Chip & Fredric, 1978; Kolb, 1984; Hamer, 2000; Carolin, 2001; Driver, 2001; Speece, 2002; Eckstein, Marquardt, Manns, & Wallingford, 2003). The team-based case studies incorporated into in-class discussions develop and improve vital skills may include interpersonal skills, problem-solving skills, analytical and synthetic skills, decision-making, power point, and other technology-oriented activities which can be utilized by students in coping with the coming increasingly competitive economic global marketplace (Bobbitt, Inks, Kemp, & Mayo, 2000; Hamer, 2000; Wilkinson & Dubrow, 1991). Many research documents have stated that the team-based case-study method and other activities, methods and techniques of experiential learning have worked well in Western business and management universities/colleges. Nevertheless, there are a few documents about implementing various kinds of experiential learning activities, methods and techniques into business and management universities/colleges in East Asian nations (Speece, 2002).

In order to know how effective and efficient the experiential learning activities, methods and techniques might be in business and management universities/colleges in Eastern nations in Asia, a research project is needed that compares the team-based case-
study method of the experiential learning approach to the unidirectional lecture method of the traditional learning approach now used in business universities and colleges in Taiwan. Taiwan, Republic of China is representative of the "Confucianism," "collectivistic orientation," "large power-distance," "feminine orientation," and "stronger uncertainty avoidance orientation" preference societies in East Asia (Durlabhji & Marks, 1993; Hofstede, 1980, 1994; Niehoff, Turnley, Yen, & Sheu, 2001; Speece, 2002).

One researcher’s study, Speece (2002), asserts that East Asian students living in a relatively conservative society and quite traditional educational system can benefit from experiential learning activities, methods and techniques. The experiential learning activities, methods and techniques must be adapted somewhat to work well in an East Asian context, but the adaptations should not be very radical; it should be gradual. Speece suggests that small group work is already an element in many experiential learning activities, methods and techniques, and such a format is very consistent with East Asian cultural norms like "Confucianism," "collectivism," and "larger power-distance" after his 15-year tryout of implementing different experiential learning methods, activities and techniques in some East Asian universities and colleges. Speece suggests that East Asian instructors and professors might start to adopt experiential learning activities, methods and techniques like "group-based case-studies" to teach East Asian students. This researcher will replicate and modify the framework of an experimental study designed and implemented by the researcher, M. Speece, in one of Singapore’s university several years ago. Speece conducted the experimental study with 25 students who were in their second year of college and were enrolled in an elective
BBA program of advertising management. He taught these students in a class through the team-based case studies at the Singapore university. He published the results of the experimental study and concluded that group-based case-study method of the experiential learning approach worked well with those 25 Singaporean participant students and was well accepted by them, even though Singapore is perceived as a "Confucianism," "collectivistic orientated," "large power-distance," "stronger uncertainty avoidance," and "feminine orientated" society in East Asia (Hofstede, 1980, 1994; Speece, 2002). Lu and Kao's study (2002) states, "In Taiwan, the foregoing five cardinal social relationship have remained largely intact with the relation between ruler and subject replaced by that between authority (such as teacher) and subordinator (such as student)" (p. 10); in modern Taiwan, it is still a "Confucianism," "collectivistic orientated," "large power-distance," "stronger uncertainty avoidance," and "feminine orientated" society like Singapore and other East Asian nations.

**Research Questions**

The following are the research questions that were addressed by this study:

1. Do the treatment-group participants who are receiving the business course, Economics, through the proposed treatment – a traditionally unidirectional lecturing method incorporating the team-based case-study method of the experiential learning approach, have higher scores and performance on the given tests than the control group participants who are receiving the same business course utilizing only a unidirectional lecturing method of the traditional learning
approach? (In order to answer the first research question, this researcher generated five sub-questions 1.1 to 1.5 stated as below).

1.1. Do the treatment-group participants have higher scores and performance on Quiz 1 than the control-group participants?

1.2. Do the treatment-group participants have higher scores and performance on Midterm examination than the control-group participants?

1.3. Do the treatment-group participants have higher scores and performance on Quiz 2 than the control-group participants?

1.4. Do the treatment-group participants have higher scores and performance on Final examination than the control-group participants?

1.5. Do the treatment-group participants have higher overall scores and performance on four given examinations than the control-group participants?

2. Do the treatment-group participants have positive attitudes, preferences, and perceptions toward the team-based case-study activity of the experiential learning approach?

Research Study Design

The researcher initiated, devised, and conducted a research study through quantitative methods to collect the data and information. The researcher also conducted an experimental study, the "posttest-only control-group design," in one business university/college in Taiwan, Republic of China. According to the definition of the "posttest-only control-group design," this experimental study will involve three major steps: (1) an investigator and/or experimenter will randomly assign research participants
to the experimental/treatment group and the control group; (2) an investigator and/or experimenter will administer the treatment to the experimental/treatment group. No treatment or an alternative treatment to the control group will be administered; (3) an investigator and/or experimenter will administer the posttest to the experimental/treatment group and the control group (Gall, Borg & Gall, 1996).

One hundred and seven participating students were recruited (recruitment process would be explained in detail later in this paper) for this experimental study. The participants who were majoring in the international trade at one large private College of Management, Shih Chien University located in northern Taiwan, Taipei City. This would increase the reliability and validity of the study (Borg, Gall & Borg, 1996). One researcher, E. Babbie (2001), has suggested that a desirable sample size for the experimental study design is 15 per group. Recruited participating students were number 107 and were divided into two groups (Class A and B) randomly assigned by the school when they enrolled the university at the first year. Since it was not possible to randomly assign each student to a treatment condition, two classes were randomly selected as one experimental/treatment group and one control group by this researcher as a position of investigator of this research. There were 50 business students as the researcher’s experimental group, and 57 business students in the control group. Participating business students in the experimental group received business concepts, principles and theories in class through a traditionally unidirectional lecturing method, incorporating the team-based case-study method of the experiential learning approach during one academic session. The participating business students in the control group received the same business course content through a unidirectional lecturing method of the traditional
The researcher conducted the proposed experimental study with all recruited participating business students from the chosen academic term – Fall-semester 2003 (20 weeks), according to the 2003 annual academic schedule of the educational system in Taiwan (The Ministry of Education [MOE], 2003).

After the chosen academic term, two major tasks were performed to collect quantitative data and information from 107 recruited participating students in both groups. First, all selected participating students in both groups were given several tests periodically during the chosen term including: two quizzes (Quiz 1 and Quiz 2) and two examinations (the Midterm and the Final). The two quizzes and two examinations used in this posttest-only control-group design experimental study, were designed, developed, and modified by the business instructor (as a position of an experimenter in the proposed experimental study), who taught selected business course, Economics, to all recruited participants in both groups. This was done to determine whether there is any statistically significant difference between the results of the tests for the experimental group and the control group.

Secondly, an attitudinal survey was conducted with the recruited participating students in the experimental/treatment group only to determine attitudes, preferences, perception, reflections and opinions toward the team-based case-study method of the experiential learning approach. It was compared with a unidirectional lecturing method of the traditional learning approach after a traditionally unidirectional lecturing method, incorporated into the team-based case-study activities of the experiential learning approach has been experienced in the economics instructor’s classes during the past one
academic term. In summary, the researcher did not teach either of the groups, but only made observations, collected data and information (all participants' data and information were collected and provided by the experimenter to the researcher), organized, analyzed, synthesized and interpreted collected data and information in order to answer the research questions.

**Variables**

*Independent Variables*

The independent variable of this proposed posttest-only control-group design experimental study was the instructional format (i.e. learning/teaching approach) used in one of the business courses on the recruited participating students' curriculum. Two kinds of the instructional methods were chosen in this posttest-only control-group design experimental study. One was a conventionally unidirectional lecturing method, incorporating the team-based case-study method (semi-structured design) of the experiential learning approach (Hakeem, 2001; Hamer, 2000; Flynn & Klein, 2001; Speece, 2002); and the other was a unidirectional lecturing method of the traditional learning approach. The selected business course, Economics, was delivered and taught by the chosen business instructor (as a position of an experimenter in this experimental study). The business instructor administered the proposed pedagogical teaching/learning method – a traditionally unidirectional lecturing method, incorporating the team-based case-study of the experiential learning approach in Class A as the researcher's experimental group, while the selected business course was delivered and taught by the
same business instructor using only a unidirectional lecturing method of the traditional learning approach in Class B as the researcher’s control group.

*Dependent Variables*

The experiment’s dependent variable, student learning, were made operational through all recruited participating students’ performances (i.e. scores) on two quizzes (Quiz 1 and Quiz 2) and two examinations (Midterm and Final examinations) during the chosen academic session as the proposed experimental period.

*Criteria for Inclusion of Samples/Participants*

The criteria included the following:

1. National or private universities and colleges in Taiwan, Republic of China.
2. One hundred to one hundred twenty Taiwanese students, 18 years of age or older, females and males.
3. They must be full-time students who are business majors and enrolled in the chosen national or private university/college in Taiwan.

*The Selected Business University/College*

The International Trade Department, College of Management of Shih Chien University located in the City of Taipei, Taiwan has been selected by this researcher for several reasons. At present, the International Trade Department has enrolled 1,500 students (800 at the Taipei campus and 700 at the Kaohsiung campus); the student population of the entire university was approximately 10,000 (Academic Affairs Office of
the Administration, University of Shih Chien, 2002, 2003).

Secondly, the rank of the Department of International Trade of College of Management of Shih Chien University is ranked in the middle-rank level of the nationwide universities and colleges in Taiwan, according to the list of 2002-Nationwide Universities and Colleges Ranks, posted by the Statistics Bureau of College Entrance Examination Center (College Entrance Examination Center [CEEC], 2002).

Third, the statistics instructor, H. Y. Lu, Dean of the Graduate Institute of Internet Trade Management, Shih Chien University in Taipei, Taiwan, and the economics instructor, P. J. Tsai, Chairman of the International Trade Department, College of Management, Shih Chien University in Taipei, Taiwan, facilitated the researcher’s entry to the site, and gave the researcher necessary assistance. The permission letter was signed and given by the Chairman of the International Trade Department, College of Management, Shih Chien University (see Appendix A and Appendix B). All participants in the study were registered in one of required business courses, Economics that the economics instructor taught in the chosen academic term of Shih Chien University (see Appendix C, Appendix D, Appendix E, and Appendix F).

"Investigators" will be the people who design the experiments, analyze, synthesize, and interpret the data, while "experimenters" will be those who administer the proposed experimental treatments and collect the data (Gall, Borg & Gall, 1996). "Experiment bias" refers to researchers’ expectations about the outcomes of proposed experimental studies that are unintentionally or unconsciously transmitted to participating subjects so that those participating subjects’ subsequent behaviors are affected and influenced. When investigators and experimenters are the same, experimenter bias appears to be a major
threat to the internal validity of experimental studies. Therefore, in order to avoid "experimenter bias" and increase the validity of the experimental study, investigators and experimenters should not be the same persons, if possible, according to Gall and colleagues (Gall, Borg & Gall, 1996). Because of the researcher’s position as an "investigator" in this research study, the economics instructor was in the position as an "experimenter" to administer the proposed treatments to the experimental/treatment group and the control group. The economics instructor taught Economics courses to all recruited participating students in the experimental and the control groups. This should alleviate "experimenter bias."

Samples/Participants

Most of the Taiwanese students are undergraduates who have entered colleges and universities directly from senior high schools, and as a result, have little or no work experiences. Also, those students have little or no experiences in active learning, self-directed and self-managed learning. The average age of the undergraduate in colleges and/or universities in Taiwan is 18 years old or order. According to the educational system in Taiwan, students who want to attend colleges/universities, have two major entrance channels in order to be accepted by national universities/colleges or private universities/colleges since 1994. One entrance channel has been through the "Recommendation Screening Examination Program", and the other has been through the "University Joint Entrance Examination Program." Nevertheless, only students with good academic performance rate in the top thirty-percentile after three years in their senior high schools are allowed to choose the entrance channel, the "Recommendation
Screening Examination Program.” This allows those students to decide their own majors at national or private universities and/or colleges suitable for their aptitudes and talents.

The rest of the senior high school graduates (70 percent of them) have to take the annual “University Joint Entrance Examination Program” held at the beginning of July every year by the College Entrance Examination Center (CEEC) of the Ministry of Education (MOE) of Taiwan. It is notable, that 70 percent of university and college students get into national or private universities and/or colleges through the “University Joint Entrance Examination Program” (MOE, 2002, 2003; CEEC, 2002, 2003). Until the year 2002, 142 universities and colleges in total including 35 of the national universities and colleges and 107 of the private universities and colleges, have joined the “University Joint Entrance Examination Program” held by the CEEC of the MOE in July of every year to recruit senior high school graduates (The Statistics Bureau of CEEC, 2002, 2003).

The recruited 107 participating students were the persons who have passed either the annual “University Joint Entrance Examination Program” held by the CEEC of the MOE of Taiwan in July 2003 or the annual “Recommendation Screening Examination program” held by College of Management, Shih Chien University. Seventy percent of participating students who entered and enrolled in the Department of International Trade of College of Management of Shih Chien University in Taipei, Taiwan by virtue of their score ranks in comparison with the total attending examinants ranked in the “2003 University Joint Entrance Examination Program” (MOE, 2002, 2003; CEEC, 2002, 2003) and 30 percent of participating students who entered and enrolled in the school via the “2003 Recommendation Screening Examination Program.”
Those 107 students who were distributed to the Department of International Trade of College of Management of Shih Chien University by the 2003 CEEC of the MOE will be divided into two classes randomly – Class A and Class B, according to the last digital number of their given test identification numbers either in the “2003 University Joint Entrance Examination Program” or in the “2003 Recommendation Screening Examination Program.” The students with an odd number in their last digital of the given test identification numbers were assigned into Class A, whereas the students with an even number in their last digital of the given test identification numbers were assigned into Class B as decided by the Academic Affairs Office of the Administration, University of Shih Chien. All of the recruited participating students in this proposed posttest-only control-group design experimental study were all freshmen enrolled in the Department of International Trade of College of Management of Shih Chien University in Fall-semester, 2003 (Academic Affairs Office of the Administration, University of Shih Chien, 2003). In addition, all participating students were required to register in several required courses according to the curricula for freshman in the Department of International Trade, College of Management, University of Shih Chien in 2003.

All of the participating students in the proposed posttest-only control-group design experimental study were freshmen including, both male students and female students. One of those required courses, Economics, will be conveyed and taught by the researcher’s facilitator and experimenter, the economics instructor. Furthermore, the researcher randomly selected Class A and Class B as an experimental/treatment group and a control group. Table 1 below presents the demographic characteristics of the samples. The table provides information on the size of the sample, and it delineates the
number of students by gender. The students’ age, the students’ college entrance channels to the college and the students’ levels of English proficiency are also provided.

Table 1: Characteristics of the Samples

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total N = 107</th>
<th>Treatment Group (Class A) N = 50</th>
<th>Control Group (Class B) N = 57</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>N=25 23.4</td>
<td>N=13 26.0</td>
<td>N=12 21.1</td>
</tr>
<tr>
<td>Female</td>
<td>N=82 76.6</td>
<td>N=37 74.0</td>
<td>N=45 78.9</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>N=50 46.7</td>
<td>N=24 48.0</td>
<td>N=26 45.6</td>
</tr>
<tr>
<td>18</td>
<td>N=50 46.7</td>
<td>N=25 50.0</td>
<td>N=26 45.6</td>
</tr>
<tr>
<td>19</td>
<td>N=51 47.7</td>
<td>N=1 2.0</td>
<td>N=3 5.2</td>
</tr>
<tr>
<td>20</td>
<td>N=4 3.7</td>
<td>N=1 0.0</td>
<td>N=1 1.8</td>
</tr>
<tr>
<td>21</td>
<td>N=1 19.0</td>
<td>N=0 0.0</td>
<td>N=1 1.8</td>
</tr>
<tr>
<td>25</td>
<td>N=1 0.9</td>
<td>Mean = 18.64</td>
<td>Mean = 18.74</td>
</tr>
<tr>
<td><strong>Channels for entering the university</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through 2003 University Joint Exam Program</td>
<td>N=77 72.0</td>
<td>N=36 72.0</td>
<td>N=41 71.9</td>
</tr>
<tr>
<td>Through 2003 University Recommendation Screening Exam Program</td>
<td>N=30 28.0</td>
<td>N=14 28.0</td>
<td>N=16 28.1</td>
</tr>
<tr>
<td><strong>Levels of English Proficiency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>N=1 .9</td>
<td>N=0 0.0</td>
<td>N=1 1.8</td>
</tr>
<tr>
<td>Level 2</td>
<td>N=16 15.0</td>
<td>N=8 16.0</td>
<td>N=8 14.0</td>
</tr>
<tr>
<td>Level 3</td>
<td>N=20 18.7</td>
<td>N=8 16.0</td>
<td>N=12 21.1</td>
</tr>
<tr>
<td>Level 4</td>
<td>N=26 24.3</td>
<td>N=11 22.0</td>
<td>N=15 26.3</td>
</tr>
<tr>
<td>Level 5</td>
<td>N=38 35.5</td>
<td>N=19 38.0</td>
<td>N=19 33.3</td>
</tr>
<tr>
<td>Level 6</td>
<td>N=6 5.6</td>
<td>N=4 8.0</td>
<td>N=2 3.5</td>
</tr>
<tr>
<td><strong>Mean</strong></td>
<td>Mean = 3.95</td>
<td>Mean = 4.06</td>
<td>Mean = 3.86</td>
</tr>
</tbody>
</table>

Procedures and Implementations of Study

One of the researcher’s facilitators, the business instructor, also a Dean of the Graduate Institute of Internet Trade Management, Shih Chien University in Taipei,
Taiwan, has adopted and implemented a semester-long business project method of the experiential learning approach in classroom about ten years, since he has conducted statistics and calculus courses in Shih Chien University, and other colleges and universities in Taiwan during the past ten years. According to Hamer’s (2000) and Hakeem’s categorization of the experiential learning activities, methods and techniques, “a semester-long business project activity” is perceived as one of loosely structured experiential learning exercises. Because of this, the business instructor, Lu, is an experienced Taiwanese professor, who is familiar with implementation of experiential learning methods, activities and techniques inside and/or outside the classroom; therefore, he presumed and played the role of “facilitator,” “supervisor,” and “colleague” to train and assist the economics instructor (as the researcher’s experimenter in this experimental study), to implement the researcher’s proposed treatment, a traditionally unidirectional lecturing method, incorporating a team-base case-study method of the experiential learning approach to the treatment-group appropriately.

The classroom processes and procedures of the control group (Class B) and the experimental group (Class A) were designed and developed collaboratively by this researcher and the business instructor (as the position of “experimenter” in this study), who taught Economics to all of the participating students. The participating students in the control group (Class B) were taught the economics concepts, principles, and theories utilizing the traditionally unidirectional lecturing method for three hours per week during the academic term, Fall-semester 2003, as the experimental period. The participating students in the experimental group (Class A) were taught the economics concepts, principles, and theories utilizing a traditionally unidirectional lecturing method,
incorporating three team-based case-study activities of the experiential learning approach during the same academic term. The classroom processes and procedures of the control group (Class B) and the experimental group (Class A) were stated as follows:

The classroom procedures and processes for the control group (Class B) were the following:

1. The researcher’s experimenter, the economics instructor gave lectures only to the control-group participating students in classes three hours every week during the chosen academic term.
2. The control-group participating students asked to attend economics classes three hours per week regularly.
3. The researcher’s experimenter gave control-group participating students quizzes and examinations periodically during the chosen academic term. The time schedule for quizzes and examinations were as follows: The control-group participating students were asked to take Quiz 1 in the tenth week; to take the Midterm examination in the eleventh week; to take Quiz 2 in the eighteenth week; and take the Final examination in the nineteenth week.

The classroom procedures and processes for the experimental group (Class A) were the following:

1. The researcher’s experimenter, the economics instructor gave lectures, incorporating three team-based case-study activities of the experiential learning approach to the experimental-group participating students in class three hours per week during the chosen academic term.
2. The researcher’s experimenter assigned the experimental-group participating students to complete three team-based case studies after he gave lectures in classes during the academic term. Therefore, all experimental-group participating students experienced the instructional and pedagogical methods not only by a unidirectional lecturing method of the traditional learning approach, but also by the team-based case-study method of the experiential learning approach.

All the experimental-group participating students were randomly divided into several small groups by the economics instructor, according to their student identification numbers given by the Academic Affairs Office of the Administration, University of Shih Chien. There were eight to ten students in each group. Each group students were asked to complete three assigned team-based case studies during the academic term. The first team-based case study was assigned and given to the experimental-group participating students in the sixth week; the second one was assigned and given to the experimental-group participating students in the thirteenth week; and the third one was assigned and given to the experimental-group participating students in the fifteenth week. It was required that three team-based case studies would be completed and turned in one week after they were assigned.

The guidelines, requirements and criteria of three team-based case studies include the following: (a) Each group must run the interactive group discussions inside and outside the classroom in order to complete group assignments required; (b) Each group must prepare one group written paper per case to be
turned in after they finished brief oral presentations in class; and (c) Each group must give brief oral presentations of five to ten minutes in class. All members of each group have to accomplish the assigned team-based case studies collaboratively.

In order to complete the three given team-based case studies, the experimental-group participating students must do the following: (a) Review the sections of the textbooks that are related to the three team-based case studies, (b) Conduct research, (c) Conduct interviews, (d) Gather the necessary data and information related to the topics of the team-based case studies; and (e) Organize, analyze and synthesize, and interpret collected data and information in order to prepare group written papers, and give brief oral presentations in class. Interactive group discussions must be held inside and outside classroom. Also, interactive group discussions must be held after presentations in class (Hakeem, 2001; Hamer, 2000; Flynn, & Klein, 2001; Speece, 2002). The major purpose of the case study activity is that trying to create the positive and enjoyable learning atmosphere of classrooms includes the following: (a) increasing the students’ learning interests; (b) encouraging them to be more responsible for their own learning (active learning); and (c) providing students opportunity to translate what they learned in textbooks to realistic events and situations.

Each group must present the results of their research and interviews of assigned case studies in front of the instructor and classmates. The groups’ public oral presentations inside classroom consisted of several steps: (a) The instructor would assign the presented team to give five to ten minutes presentation and the
rest of the teams listened to the presented team; (b) afterward, the rest of the
teams were given several minutes for questioning, debating and commenting to
the represented team; (c) after the students’ questioning, debating and
commenting, the instructor led class for several minutes, asked students
questions and clarified students’ misunderstandings and misinterpretations about
course subject matters. The same steps would repeat again and again until every
team had its oral presentation done. At the end of the class session, the
instructor would give supplementary lectures, which were not covered by all
teams.

3. The experimental-group participating students also were asked to attend
economics classes three hours per week regularly.

4. The researcher’s experimenter gave the experimental-group participating
students quizzes and examinations periodically during the chosen academic
term. The time schedule was as follows: The experimental-group participating
students were required to take Quiz 1 in the tenth week; to take the Midterm
examination in the eleventh week; to take Quiz 2 in the eighteenth week; and to
take the Final examination in the nineteenth week (quizzes and examinations and
time schedule for four tests were the exactly same as the control-group
participating students).

5. At the end of the academic term, the experimental-group participating students
were asked to fill out the attitudinal survey questionnaires administered by
someone other than the economics instructor or the researcher. The main
purpose of this attitude survey was to monitor reflections, reactions, feelings,
and opinions of the experimental-group participating students, and their attitudes toward the team-based case study activities of the experiential learning approach they have experienced during the experimental period. The researcher assured students that the data and information of the attitude surveys provided did not affect any final academic grades in the courses. Furthermore, it will be assured that the obtained data and information were used solely for the purpose of the researcher's dissertation and all remained confidential.

A summary of the procedures and processes in classrooms for both groups were as follows: (a) The control-group participating students (Class B) was given lectures three hours per week, and required to complete four given tests during the chosen academic period only; (b) The experimental-group participating students (Class A) was given lectures incorporating the team-based case-study activities in class three hours per week, and required to complete not only four given tests, but also three team-based case studies during the same session; (c) The content and format of the lectures were the same for the experimental group (Class A) and the control group (Class B).

It was noticed that two groups (Class A as the experimental/treatment group and Class B as the control group) were taught by the same economics instructor. The economics instructor was the independent rater to correct all participants' examination answering sheets. Since the economics instructor is the only one rater, the "blindgrading (or called blindscoring)" method was adopted to rate all participants' answering sheets of four given examinations. All participants' answering sheets in both groups were name sealed and were mixed up together when the economics instructor rated them. Namely, the economics instructor would not know which examination answering sheet belongs to
a certain student in a certain group/class. The major purpose of the blindgrading method is to reduce rater's bias (Flynn & Klein, 2001). Since the assignments for both groups/classes varied, the final academic grades for two groups/classes were graded separately and independently by using a relative scale in each group by the economics instructor as an experimenter in this study. The researcher only collected the entire participating students’ demographic information and scores on four given tests in both groups and compared, analyzed, and synthesized those data for the research study. The researcher also collected data of the attitudinal survey questionnaires given to the 50 experimental-group participants.

The researcher and the experimenter explained and provided necessary information fully to all participants in both groups the purpose of the study at the beginning of the chosen academic term. However, all participating students did not know whether they were in the experimental group or the control group as advised by Gall, Borg, and Gall (1996). Furthermore, all of the participating students were given the “Syllabus” form to sign in order to reveal their understanding and willingness to participate in the proposed posttest-only control-group design experimental study. The researcher assured that all of the information and data provided were used solely for dissertation research and for no other purpose, without permission. All of the results of the experimental study were tabulated and reported as statistical reports, free of all personal identities and will not be traceable to anyone of them as an individual. All of the participating students in the experimental study were Taiwanese. The researcher translated the “Syllabus” form in Chinese, which is the first and native language of all participating students in the Taiwan study (see Appendix C, Appendix D, Appendix E, and Appendix F).
In addition, the other facilitator of this researcher and the researcher assumed the role of “supervisor” and “reminder” to ensure that the experimenter (the economics instructor) delivers Economics classes three hours every week to the control-group participating students through a teaching/learning approach other than a unidirectional lecturing method of the traditional learning approach during the chosen academic session because the researcher has arranged the same instructor to teach Economics courses to both groups.

**Materials and Instruments**

Several kinds of instruments and various materials were used and adopted for the collection of quantitative data and information by this researcher. They included as follows: (1) two quizzes (Quiz 1 and Quiz 2), given both to the experimental group and the control group, (2) two examinations (the Midterm and the Final), given both to the experimental group and the control group, (3) three team-based case studies, given to the experimental group, and (4) an attitudinal survey questionnaire, given to the experimental group. *All materials and instruments used in the proposed experimental study were translated into the Chinese language, except for the Midterm and the Final examinations.*

**Quizzes and Examinations**

All participating students in both groups were required to finish given quizzes and examinations periodically by the economics instructor during the chosen academic period. All quizzes and examinations were designed, developed and modified by the economics instructor. These were based on the test-bank databases of several text
materials including: “Economics (6th ed.)” written by M. Parkin in 2003, “Economics I: Theories and practices (2nd ed.)” and “Economics II: Theories and practices (2nd ed.)” both written by Chang and his colleagues in 1991 (Chang, Xing, Lui, & Wu, 1991; Parkin, 2003). The content of quizzes and examinations were developed in several test-question types including the following: (1) multi-choice questions, (2) short-answer questions, (3) definitional questions, and (4) essay-questions.

Multi-choice question and definitional question types are assumed and designed to measure lower-order thinking, such as recall of text materials only. Short-answer and essay-question types are assumed and designed to assess higher-order critical thinking (McPeck, 1981; Marttunen, 1992; Tynjala, 1998; Hamer, 2000). The researcher, Hamer (2000) asserts that non-definitional questions such as short-answer and essay-question type tests are able to test the student’s ability to apply course concepts, principles, and theories to new situations and/or understand how those concepts, principles, and theories relate to each other.

The contents of Quiz 1, Quiz 2, the Midterm examination, and the Final examination were as follows: Quiz 1 included five multiple-choice questions, ten short-answer questions, three essay questions, and five definition of terms. It was developed, designed and modified by the economics instructor, according to the test-bank databases of “Economics I: Theories and practices (2nd ed.)” and “Economics II: Theories and practices (2nd ed.)” both written by Chang and his colleagues in 1991. Quiz 1 was designed in Chinese, which is the participating students’ native and first language; it meant that all participating students were responsible for taking this quiz in the Chinese version only (see Appendix I and Appendix J).
Quiz 2 consisted of five multiple-choice questions, five short-answer questions, three essay questions, and three definition of terms. It was developed, designed and modified by the economics instructor, according to the test-bank databases of “Economics I: Theories and practices (2nd ed.)” and “Economics II: Theories and practices (2nd ed.)” both written by Chang and his colleagues. Quiz 2 was also designed in Chinese, which is the participating students’ native and first language; on the other hand, all participating students were responsible for taking this quiz in the Chinese version only (see Appendix M and Appendix N).

The Midterm examination contained 20 multiple-choice questions, five essay questions, and five definition of terms. It was developed, designed and modified by the economics instructor, according to the test-bank databases of “Economics (6th ed.)” written by M. Parkin (Parkin, 2003). A major difference occurred here. The Midterm examination was designed in the English language. The purpose of English-design in the Midterm examination was to train and enforce all participating students in both groups to study the textbook, “Economics (6th ed.)” published in the English language. First, the English language is an international language in the global society and market today. For this reason, it is very important to learn English in order to communicate with others from different nations worldwide. Secondly, according to the annual statistics reports posted by the Bureau of Foreign Trade, the Ministry of Finance, Taiwan, Republic of China, it was demonstrated to the students that the main trade partner nations of Taiwan include the following: the United States, Japan, Hong Kong, Singapore, Korea, Mainland China, South Asia nations (such as Thailand, Indonesia, Malaysia, Philippines), Canada, New
Zealand, Australia, and European nations (such as Germany, United Kingdom, French, Netherlands) (The Bureau of Foreign Trade, the Ministry of Finance [MOF], 2003, 2004).

Regarding the data of import trade of Taiwan, from the year of 1997 to 2003, the total annual importing amount is (114,425), (104,665), (110,690), (140,011), (107,237), (112,530), and (127,246) (unit: million in US dollars) respectively. The total annual importing amount from the United States, Canada, Britain, New Zealand and Australia, where the English language is the official and the first language of nations, are (30,420), (25,780), (25,850), (32,230), (24,100), (23,570), and (22,430) (unit: million in US dollars) respectively. Data show that the total annual importing amount from English-speaking nations range from one-forth to one-third of the total annual importing amount of Taiwan [(26.66%), (24.63%), (23.35%), (23.02%), (22.47%), (20.95%), and (17.615%) from 1997 to 2003].

About the data of export trade of Taiwan, from the year of 1997 to 2003, the total annual exporting amount is (122,081), (110,582), (121,591), (148,321), (122,866), (130,597), and (144,174) (unit: million in US dollars) respectively. The total annual exporting amount from the United States, Canada, Britain, New Zealand and Australia, where the English language is the official and the first language of nations, are (36,550), (36,060), (38,540), (43,260), (34,090), (33,000), and (32,460) (unit: million in US dollars) respectively. Data show that the total annual exporting amount from English-speaking nations also range from one-forth or one-third of the total annual importing amount of Taiwan [(29.94%), (32.26%), (31.70%), (29.17%), (27.74%), (25.27%), and (22.525) from 1997 to 2003].
About the data of total trade amount (importing plus exporting amounts) of Taiwan, from the year of 1997 to 2003, the total annual trade amount is (236,500), (215,241), (232,273), (288,321), (230,098), (243,116), and (271,420) (unit: million in US dollars) respectively. The total annual trade amount from the United States, Canada, Britain, New Zealand and Australia, where the English language is the official and the first language of nations, are (66,964), (61,841), (64,386), (75,481), (58,201), (56,568), and (54,888) (unit: million in US dollars) respectively. Data show that the total annual trade amount from English-speaking nations also range from one-fourth or one-third of the total annual trade amount of Taiwan [(28.32%), (28.73%), (27.72%), (26.18%), (25.29%), (23.27%), and (20.22)] from 1997 to 2003.] In summary, for Taiwanese business students, the English speakers are their major potential business partners after they leave school and engage in the workplace and the global marketplace of the future. Consequently, for Taiwanese business students developing and improving their English ability is one of the crucial skills and abilities they should learn in school. The English-design in the Midterm examination provided all participating students in both groups (the treatment group and the control group) a good opportunity to practice the English language. It meant that all participating students had to take the Midterm examination in English, not in their first and native language, Chinese (see Appendix K and Appendix L).

The Final examination comprised of 15 multiple-choice questions, four essay questions, and five definition of terms. It was developed, designed, and modified by the economics instructor, according to the test-bank database of “Economics (6th ed.)”
written by M. Parkin (Parkin, 2003). The Final examination was also designed only in the English language. This means that all participating students had to take the Final examination in English, not in their first and native language, Chinese (see Appendix O and Appendix P).

**Case Studies**

All participating students in both groups were given exactly the same course content by the same economics instructor. The lecture formats were similar in each class in both groups; both groups were given the same lecturing handouts prepared by the economics instructor at the end of each class section. However, only the treatment-group participating students were required to complete three given team-based case studies developed and designed by the economics instructor during the academic term. The requirements and criteria for the team-based case studies include: (1) Preparing group written papers, (2) Running interactive group discussions inside and outside the classroom, and (3) Giving brief (five to ten minutes) oral presentation in classes. The primary purpose of the team-based case-study activity of the experiential learning approach is to try to create a positive and enjoyable learning atmosphere in classrooms including the following: (1) Increasing the students’ interests of learning; (2) Encouraging active learning, self-managed learning, and self-directed learning; (3) Providing students the opportunity to apply what they learned in classes to the real-world economic events and situations (Kolb, 1984, Carton, 1995, 1997; Hakeem, 2001; Hamer, 2000; Speece, 2002). In writing the team-based case studies, the treatment-group participating students were required to (1) review some content of the textbooks related
to topics of given case studies in advance, (2) do research, (3) conduct interviews, and (4) merge the ideas with the principles, concepts, and theories in textbooks (applying what they had learned in classes and/or from textbooks to real-world situations and events) (Kolb, 1984; Flynn & Klein, 2001; Speece, 2002).

The three team-based case studies are described and stated briefly below:

The first case study required the treatment-group participating students to learn about the economic indicators used and adopted by governments, economic, and fiscal institutions of nations worldwide currently. The students were required not only to discover the economic indicators used and adopted by governments, economic and fiscal institutions worldwide, but also to interpret the purpose of those economic indicators. Also, for a nation, employment and unemployment issue are one of the biggest concerns for a government; therefore, this case study required the students to figure out the main structure of the labor force of one nation. For example, how many kinds of unemployment are there? What causes results in these kinds of unemployment situations (finding out the definitions of various kinds of unemployment)? How is the unemployment rate being calculated? Finding out unemployment rates in the Taiwan society in the past 50 years, and discussing causes and reasons resulting in such kinds of unemployment. Moreover, probing into and discussing the causes of the high unemployment in the Taiwan society during the past four years (since the year 2000). Students were required to demonstrate how these indicators can be used to analyze, synthesize, and interpret current economic situations and events in Taiwan and the global society.
The second case study required the treatment-group participating students to search for and organize the main concepts, principles and theories devised and supported by the Classical economists and the Keynesian economists respectively. In addition, students were required to discern the major differences between those two views. Furthermore, students were required to issue personal reflections and opinions about those two views.

The third case study required the treatment-group participating students to ascertain the frameworks, business categories, and operations of banking and financial systems in Taiwan. The students were required to discern the current financial and banking systems in Taiwan. Furthermore, the students were asked to explore the organizational structure, the products and services (operations), and functions of Proprietary Companies/Holdings since the Taiwanese government announced the legitimacy of setting up these kinds of financial institutes in year 2002. The students were required to relate personal experiences in dealing with those financial and banking institutions.

Summarily, the three team-based case studies were chosen and used because of their fit with the content of classes to be taken in curricula of the academic term, Fall-semester 2003. In addition, those three case studies delivered and covered basic concepts of Accounting, Finance, and other business course subjects to all participating students, in terms of the coming sophomore, junior, and senior curricula in the Department of International Trade at the College of Management of Shih Chien University. Thirdly, three case studies were providing treatment-group participating students the opportunities to involve their own learning actively and enthusiastically, to apply theories into practice, and enforce them to pay more attention to current events and situations that happened in Taiwan society and in the global society (see Appendix G and Appendix H).
Attitudinal Survey Questionnaire

Only experimental-group participating students were required to fill out the attitudinal survey questionnaire at the end of the chosen academic term. The attitudinal survey questionnaire, a 13-item survey was developed, designed and modified by this researcher using the framework of an attitude survey of the researcher Pearson, in his longitudinal experimental study with business students enrolled in two different courses, Organization and Management Development (OMD) and Organizational Theory and Behavior (OTB) of the Commerce Programme at Murdoch University from 1991 to 1998. After an eight-year study, Pearson published the results of the experimental study in 1999 (Pearson, 1999). The attitude survey that Pearson designed and developed to measure his participant students' attitudes toward the selected treatment, and the workshops of experiential learning activities which were implemented, concluded that all of his participant students had positive attitudes and preferences toward the workshop activities inside and outside classrooms. The attitudinal survey questionnaire was developed according to Pearson's (1999) attitude survey design. However, the chosen pedagogical idea and method in the experimental group of this posttest-only control-group design experimental study was a traditionally unidirectional lecturing method incorporating the team-based case-study method of the experiential learning approach.

This researcher adopted the Likert scaling method to design the attitudinal survey questionnaire. The Likert scaling method can be approached in two ways: the checklist format and the Likert-type format. The advantage of the checklist format is the ease with which respondents can respond to the items; they can easily indicate which listed
option they perceived and agreed. The Likert-type format is designed to allow respondents to respond in varying degrees to each item that describes and reflects their perceptions.

In responding to this attitude survey, respondents were required to use a seven-point Likert Scales (1 = strongly disagree to 7 = strongly agree) on the item 1 to item 11 of Part II to rate their attitudes, preferences and perceptions toward working in the team-based case-study activity of experiential learning, to probe their views on the case processes itself. Item 12 was designed by an open-ended question format that asked, “During the team-based case study activities, papers preparation and writing processes, did you change any of your thinking about the cases? If yes, what change(s) occurred?” Item 13 was designed by the multiple-choice and open-ended format that asked, “What other experiential learning methods/activities would you suggest that your business professors/instructors might adopt and implement in future business courses?” If the students marked the column ‘others,’ they were required to write down their suggested in-class or out-class methods/activities/techniques to the researcher (see Appendix Q and Appendix R).

Methods of Data Analysis

This study employed quantitative research to generate numerical data and information, and adopted and used statistical methods to analyze the collected data and information.

All participating students’ demographic data and four given examinations were examined by the statistical techniques. The correlational statistics investigates the
relationships between demographic attributes/variables and performances of the participating students. The main purpose of correlational statistical analyses was to ensure that all the participants' demographic attributes/variables would not affect their performance (i.e. scores) on the tests. All the participating students’ scores (107 students) who were given quizzes and examinations both in the experimental group (50 students) and the control group (57 students) were analyzed via the statistical technique, the Independent-Samples T-Test. The treatment-group participating students’ attitudes toward the team-based case-study activities of the experiential learning approach was operated and analyzed by the statistical technique, Frequency/Descriptive Statistics Analysis. All statistical techniques will be operated by the means of the SPSS 10.0 version software.

The correlational statistics is used for describing the relationship between two or more variables and it is highly useful for studying problems in education and in other social science studies (Gall, Borg, & Gall, 1996). “The bivariate correlation coefficient is a statistic that enables us to describe in mathematical terms the strength of the relationship between two variables; it enables researchers to study how those variables (factors) affect outcome variables such as academic achievement” (Gall, Borg, & Gall, 1996, p 180). One of the major advantages of the correlational method is that it provides information concerning the degree of the relationship between the variables being studied. (Gall, Borg, & Gall, 1996; George & Mallery, 2001; Lin & Lui, 2001).

In terms of the definitions of the “Independent-Samples T-Test,” the researchers will compare the means of two different sample groups. The two samples in two different groups share some variables of interest in common, but there is no overlap between
memberships of those two sample groups (Gall, Borg, & Gall, 1996; George & Mallery, 2001). This researcher adopted the level of significance, \( p \leq .05 \) with two-tailed test. The definition of "level of significance" is that, "a measure of the rarity of a particular statistical outcome given that there is actually no effect. A significance of \( p \leq .05 \) is the most widely accepted value by which researchers accept certain results as statistically significant. It means that there is less than a 5% chance that the given outcome could have occurred by chance" (George & Mallery, 2001, p. 360). The definition of "two-tailed test" is that, "whether the mean of one distribution differs significantly from the mean of the other distribution, regardless of the direction (positive or negative) of the difference" (George & Mallery, 2001, p. 123).

In this research study, all participating students' grades/scores on given quizzes and examinations include the following: Quiz 1, Midterm examination, Quiz 2, Final examination, and overall scores of four given examinations in the experimental group and in the control group were collected and compared respectively by the Independent-Sample T-Test statistical technique with the chosen level of significance \( p \leq .05 \), two-tailed test by means of the SPSS 10.0 version software to see if there is any statistically significant difference between the treatment group (Class A) and the control group (Class B) on each quiz, each examination, and overall performance (George & Mallery, 2001; Lin & Lui, 2001).

The means, standard deviations, the modes and other statistics figures of scores of attitudes and preferences for the treatment-group participating students response on each of the attitudinal survey items (seven-point Likert Scales; 1 = strongly disagree to 7 =
strongly agree; 4 is a neutral point) were calculated and operated through the function of Frequency/Descriptive Statistics Analysis of the SPSS 10.0 version software. The results of this statistical analysis were to see how significant the treatment-group participating students' perceptions of the team-based case-study activities of the experiential learning approach are (Gall, Borg, & Gall, 1996; George & Mallery, 2001; Lin & Lui, 2001).

The results and findings in this research study are presented in next section, Chapter IV.
CHAPTER IV

Results

Overview

Two main purposes of this research study were to investigate whether the treatment-group participants who received the business course through the proposed pedagogical method, a traditionally unidirectional lecturing method incorporating the team-based case-study method of the experiential learning approach, had a better performance (i.e. higher scores) on the given tests than the control-group participants who received the same business course utilizing only a unidirectional lecturing method of the traditional learning approach. The other was to see whether the treatment-group participants have positive feedback toward the team-base case-study activities of the experiential learning approach as compared to a unidirectional lecturing method of the traditional learning approach.

In the experimental study, 107 recruited participants were all the same business-major freshmen studying at College of Management, Shih Chien University in Taipei campus, Taiwan with a student population of approximately 10,000 (Academic Affairs Office of the Administration, University of Shih Chien, 2002, 2003). This posttest-only control-group design experimental study was incorporated into one of the regular 3-credit business courses, Economics, which took place at that school. The entire experimental study implementation and data collection process lasted 20 weeks, one academic semester (from September 2003 to January 2004).
There were slightly more female students (females: 82 persons; 76.6%) than male students (males: 25 persons; 23.4%) in the sample population. The average age of those participating students was 18.64 years of age with a standard deviation of .871 and a variance of .759. The treatment-group class consisted of 13 males and 37 females (50 students in total), while the control-group class was comprised of 12 males and 45 females (57 students in total); the ratio of male students and female students in total, in the treatment group and in the control group were similar, about one to three (see Table 1).

The data (learning outcomes) were examined and analyzed using Independent-Samples T-Test with the participants’ scores of four given examinations as the dependent variable and class format (a unidirectional lecturing method of the traditional learning approach vs. a traditionally unidirectional lecturing method incorporating the team-based case-study method of the experiential learning approach) as the independent variable, to test the first research question. The attitudinal survey questionnaire was completed by 50 treatment-group students only to monitor, to investigate and to determine their attitudes, preferences and perceptions toward the team-based case-study activities of the experiential learning approach as compared to a unidirectional lecturing method of the traditional learning approach after they experienced it during the experimental period; the attitudinal survey was a supplementary instrument of this study to evaluate the second research question.
Analyses of Examinations

Demographic Information of the Recruited Participants

One hundred and seven participating students are all Taiwanese; therefore, it was not necessary to examine the ethnic background of the participants. However, several demographic attributes/variables of the participants, such as gender, participants' entrance channel to college, age, and the degree of English proficiency of participants must be examined (see Table 1). The researcher examined those demographic attributes/variables with scores of given tests via the correlational statistics analysis and Independent-Samples T Test analysis to make sure that those variables/factors would not affect the outcomes (i.e. the participants' scores/performance on given examinations).

In this study, it was noticed that the demographic attribute/variable of age and the level of English proficiency were continuous variables; the demographic attribute/variable of gender and participants' entrance channel to college were discrete variables. The Pearson $r$ of Correlational statistics analysis is predicated on the assumption that the two continuous variables involved are approximately normally distributed according to George & Mallery, and other researchers (Babbie, 2001; Gall, Brog, & Gall, 1999; George & Mallery, 2001; Lin & Lui, 2001). Therefore, it was appropriate to examine the demographic attribute/variable of gender and the students' entrance channel to college with scores of given examinations by the Independent-Samples T Test analysis rather than the correlational statistics analysis.

The ages of 107 recruited participants ranged from 18 to 25 years of age. The breakdown was 46.7% 18 years of age (50 students), 47.7% 19 years of age (51 students), 3.7% 20 years of age (4 students), .9% 21 years of age (1 student), and .9% 25 years of
age (1 student). The Pearson $r$ correlation coefficients were .115, .116, .031, and .071, respectively; all of the correlation coefficients were smaller than $|±.2|$. "The closer the correlation value is to 1, the stronger is that tendency; and the closer the correlation value is to 0, the weaker is that tendency" (George & Mallery, 2001, p. 112). If correlation value is larger or equal to $|±.8|$, the relationship between those two variables are strong; if correlation value is between $|±.8|$ and $|±.2|$, the relationship between those two variables are moderate; and if correlation value is smaller than $|±.2|$, the relationship between those two variables are very weak or are a lack of relationship, according to George & Mallery, and other researchers (Babbie, 2001; Gall, Brog, & Gall, 1999; George & Mallery, 2001; Lin & Lui, 2001). Those results were shown below in Table 2, and Graph 1 to Graph 4.

**Finding#1:** The Pearson $r$ correlation coefficients, .115, .116, .031, and .071, revealed that there was a lack of relationship between the variable/attribute of age and the participants' scores on four given examinations in this study; it means that the variable/factor of age would not affect the outcomes of students' performance on the examinations.
Table 2: Correlation Coefficients (Age vs. Performance on Examinations)

<table>
<thead>
<tr>
<th></th>
<th>AGE</th>
<th>QUIZ1</th>
<th>MIDTERM</th>
<th>QUIZ2</th>
<th>FINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGE</td>
<td>Pearson Correlation</td>
<td>.115</td>
<td>.116</td>
<td>.031</td>
<td>.071</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.238</td>
<td>.234</td>
<td>.748</td>
<td>.470</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>QUIZ1</td>
<td>Pearson Correlation</td>
<td>.336**</td>
<td>1</td>
<td>.458**</td>
<td>.344**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>MIDTERM</td>
<td>Pearson Correlation</td>
<td>.116</td>
<td>.336**</td>
<td>.272**</td>
<td>.451**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.234</td>
<td>.000</td>
<td>.005</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>QUIZ2</td>
<td>Pearson Correlation</td>
<td>.458**</td>
<td>.272**</td>
<td>1</td>
<td>.424**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.748</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>FINAL</td>
<td>Pearson Correlation</td>
<td>.451**</td>
<td>.424**</td>
<td>1</td>
<td>.424**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.470</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Graph 1: Scattergram Graph for Age vs. Quiz 1 (r = .115)
Graph 2: Scattergram Graph for Age vs. the Midterm Examination ($r = .116$)

Graph 3: Scattergram Graph for Age vs. Quiz 2 ($r = .031$)
The levels of English proficiency of 107 participant freshmen were tested and divided by the college when enrolling in the school. There were six levels (level six was the highest level to level one, the lowest level) of English proficiency according to the selected participating college; the breakdown was one student in Level 1 (.9%), 16 students in Level 2 (15.0%), 20 students in Level 3 (18.7%), 26 students in Level 4 (24.3%), 38 students in Level 5 (35.5%), and six students in Level 6 (5.6%). Table 3 and Graph 5 to Graph 6 below display the results of the Pearson $r$ correlations of relationship between the attribute/variable of levels of English proficiency and the participants’ scores on the Midterm and the Final examinations, which were designed in the English language only. On the other hand, 107 participating students had to take both examinations in the English language only, not in their first language, Chinese. The Pearson $r$ correlation
coefficient were .025, and (-.109) respectively. Both of Pearson $r$ correlation coefficients were smaller than $|\pm .2|$. Those results were presented below in Table 3 and in Graph 5 to Graph 6.

**Finding#2:** The Pearson $r$ correlation coefficients, .025, and (-.109) revealed that there was a lack of relationship between the attribute/variable of the levels of English proficiency and the participants' scores on the English design tests (including: the Midterm and the Final examinations); it means that the variable/factor of the levels of English proficiency of the students would not affect the outcomes of their performance on the English-design examinations.

<table>
<thead>
<tr>
<th>ENGLEVEL Pearson Correlation</th>
<th>MIDTERM</th>
<th>FINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGLEVEL</td>
<td>1</td>
<td>.025</td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>MIDTERM Pearson Correlation</td>
<td>.025</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.798</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>FINAL Pearson Correlation</td>
<td>-.109</td>
<td>.451**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.264</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**
Graph 5: Scattergram Graph for Levels of English Proficiency vs. the Midterm Examination ($r = .025$)

LEVELS of ENGLISH (1 = lowest level to 6 = highest level)
Graph 6: Scattergram Graph for Levels of English Proficiency vs. the Final Examination ($r = -.109$)

LEVELS of ENGLISH (1 = lowest level to 6 = highest level)
Gender between the participants was split with 82 females (76.6%) and 25 males (23.4%). In this study, using the Independent-Samples T Test statistical technique tested and analyzed the variable of gender and the students’ scores on four given tests. Those results were displayed below in Table 4 to Table 7.

**Table 4: Summary Table of Independent-Samples T Test for Gender vs. Quiz 1**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25</td>
<td>60.48</td>
<td>14.621</td>
<td>2.924</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
<td>61.83</td>
<td>14.596</td>
<td>1.612</td>
</tr>
</tbody>
</table>

Levene’s test for equality of variances:

<table>
<thead>
<tr>
<th>Variance</th>
<th>F</th>
<th>Sig.</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>.001</td>
<td>.971</td>
<td>-.404</td>
<td>105</td>
<td>.687</td>
<td>-1.35</td>
<td>3.336</td>
<td>-7.964 -5.265</td>
</tr>
<tr>
<td>Unequal</td>
<td></td>
<td></td>
<td>-.404</td>
<td>39.714</td>
<td>.688</td>
<td>-1.35</td>
<td>3.339</td>
<td>-8.099 5.400</td>
</tr>
</tbody>
</table>

Note: p =< .05

Table 4 represents that the Independent-Samples T Test analysis indicates that the 25 male students had a mean score of 60.48 and a standard deviation of 14.62 on Quiz 1, the 82 female students had a mean score of 61.83 and a standard deviation of 14.60 on Quiz 1, and the means did not differ statistically significant at the p = .05 (note: p = .687), because Levene’s test for Equality of Variances indicates that the male and the female students did not differ significantly from each other (note: p = .971). “If variances do not differ significantly, then the equal-variance estimate may be used instead of the unequal-variance estimate. If Levene’s test did show significant differences, then it would be necessary to use the unequal-variance test” (George & Mallery, 2001, p. 128-129). The results showed that there was no statistically significant difference on Quiz 1 between the
males and the females \( (p\text{-value} = .687 > .05) \) at the adopted level of significance, \( p \leq .05 \) with two-tailed test.

Table 5: Summary Table of Independent-Samples T Test for Gender vs. the Midterm Examination

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25</td>
<td>60.52</td>
<td>18.212</td>
<td>3.642</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
<td>59.72</td>
<td>12.912</td>
<td>1.426</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>F</td>
<td>.026</td>
<td></td>
<td>.245</td>
<td>.807</td>
<td>3.267</td>
<td>-5.676 7.277</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td></td>
<td></td>
<td>.205</td>
<td>.839</td>
<td>3.912</td>
<td>-7.170 8.771</td>
</tr>
<tr>
<td>Unequal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p =< .05 \)

Table 5 represents that the Independent-Samples T Test analysis indicates that the 25 male students had a mean score of 60.52 and a standard deviation of 18.21 on the Midterm, the 82 female students had a mean score of 59.72 and a standard deviation of 12.91 on the Midterm, and the means did not differ statistically significant at the \( p \leq .05 \) (note: \( p = .839 \)), because Levene’s test for Equality of Variances indicates that the male and the female students did differ significantly from each other (note: \( p = .026 \)). “If variances do not differ significantly, then the equal-variance estimate may be used instead of the unequal-variance estimate. If Levene’s test did show significant differences, then it would be necessary to use the unequal-variance test” (George & Mallery, 2001, p. 128-129). The results showed that there was no statistically significant difference on the Midterm between the males and the females \( (p\text{-value} = .839 > .05) \) at the adopted level of significance, \( p \leq .05 \) with two-tailed test.
Table 6: Summary Table of Independent-Samples T Test for Gender vs. Quiz 2

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25</td>
<td>44.72</td>
<td>18.807</td>
<td>3.761</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
<td>47.91</td>
<td>17.903</td>
<td>1.977</td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unequal</td>
<td>-.752</td>
<td>38.228</td>
<td>.457</td>
<td>-3.19</td>
</tr>
</tbody>
</table>

Note: p < .05

Table 6 represents that the Independent-Samples T Test analysis indicates that the 25 male students had a mean score of 44.72 and a standard deviation of 18.81 on Quiz 2, the 82 female students had a mean score of 47.91 and a standard deviation of 17.90 on Quiz 2, and the means did not differ statistically significant at the $p \leq .05$ (note: $p = .442$), because Levene’s test for Equality of Variances indicates that the male and the female students did not differ significantly from each other (note: $p = .341$). The results showed that there was no statistically significant difference on Quiz 2 between the males and the females ($p-value$ was $.442 > .05$) at the adopted level of significance, $p \leq .05$ with two-tailed test.

Table 7: Summary Table of Independent-Samples T Test for Gender vs. the Final Examination

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>25</td>
<td>60.40</td>
<td>17.849</td>
<td>3.570</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
<td>64.32</td>
<td>17.006</td>
<td>1.878</td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td>.000</td>
<td>.987</td>
<td>-.997</td>
<td>105</td>
</tr>
<tr>
<td>Unequal</td>
<td>-.971</td>
<td>38.225</td>
<td>.338</td>
<td>-3.92</td>
</tr>
</tbody>
</table>

Note: p <= .05
Table 7 represents that the Independent-Samples T Test analysis indicates that the 25 male students had a mean score of 60.40 and a standard deviation of 17.85 on the Final, the 82 female students had a mean score of 64.32 and a standard deviation of 17.01 on the Final, and the means did not differ statistically significant at the $p \leq .05$ (note: $p = .321$), because Levene’s test for Equality of Variances indicates that the male and the female students did not differ significantly from each other (note: $p = .987$). The results showed that there was no statistically significant difference on the Final examination between the male and the female students ($p$-value was $.321 > .05$) at the adopted level of significance, $p \leq .05$ with two-tailed test.

**Finding#3:** The results of the Independent-Samples T Test analysis, $p$-values, .687, .839, .442, and .321, revealed that there were no significantly differences between male students and female students on four given examinations in this study. It means that the variable/factor of gender would not affect the outcomes of students’ performance on the tests.

Taiwanese students who are accepted by national or private colleges and/or universities have passed one of the college entrance channels, according to the Educational System of Taiwan. There were two kinds of channels: one was “University Joint Entrance Examination Program,” and the other was “Recommendation Screening Examination Program.” Of the 107 participating students, the breakdown was 77 participants (72.0%) entering the school through “2003 University Joint Entrance Examination Program” and 30 participants (28.0%) entering the school through “2003
Recommendation Screening Examination Program.” Those results were presented below in Table 8 to Table 11.

Table 8: Summary Table of Independent-Samples T Test for College Entrance Channel vs. Quiz 1

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Exam Channel</td>
<td>77</td>
<td>61.32</td>
<td>14.851</td>
<td>1.692</td>
</tr>
<tr>
<td>Recommendation Channel</td>
<td>30</td>
<td>62.00</td>
<td>13.958</td>
<td>2.548</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>.056</td>
<td>-.215</td>
<td>105</td>
<td>.830</td>
<td>-.68</td>
<td>3.144</td>
<td>-6.910 - 5.559</td>
</tr>
<tr>
<td>Unequal</td>
<td>.813</td>
<td>-.221</td>
<td>56.059</td>
<td>.826</td>
<td>-.68</td>
<td>3.059</td>
<td>-6.803 - 5.453</td>
</tr>
</tbody>
</table>

Note: p <= .05

Table 8 represents that the Independent-Samples T Test analysis indicates that the 77 students (who were accepted by the school through the channel of “2003 University Joint Entrance Examination Program”) had a mean score of 61.32 and a standard deviation of 14.85 on Quiz 1, the 30 students (who were accepted by the school through the channel of “2003 Recommendation Screening Examination Program”) had a mean score of 62.00 and a standard deviation of 13.96 on Quiz 1, and the means did not differ statistically significant at the p <= .05 (note: p = .830), because Levene’s test for Equality of Variances indicates that the 77 students entering the college via the college entrance examination channel and the 30 students entering the college via the recommendation program channel did not differ significantly from each other (note: p = .813). The results showed that there was no statistically significant difference on Quiz 1 between those two groups (p-value was .830 > .05) at the adopted level of significance, p <= .05 with two-tailed test.
Table 9: Summary Table of Independent-Samples T Test for College Entrance Channel vs. the Midterm Examination

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Exam Channel</td>
<td>77</td>
<td>59.97</td>
<td>14.502</td>
<td>1.653</td>
</tr>
<tr>
<td>Recommendation Channel</td>
<td>30</td>
<td>59.73</td>
<td>13.761</td>
<td>2.512</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene's test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>F</td>
<td>.148</td>
<td>.078</td>
<td>.080</td>
<td>.938</td>
<td>.24</td>
<td>3.078</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>.701</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-5.862 6.344</td>
</tr>
<tr>
<td>Unequal</td>
<td>F</td>
<td>.077</td>
<td>105</td>
<td>.936</td>
<td></td>
<td></td>
<td>-5.785 6.266</td>
</tr>
</tbody>
</table>

Note: p = .05

Table 9 represents that the *Independent-Samples T Test* analysis indicates the 77 students (who were accepted by the school through the channel of "2003 University Joint Entrance Examination Program") had a mean score of 59.97 and a standard deviation of 14.50 on the Midterm, the 30 students (who were accepted by the school through the channel of "2003 Recommendation Screening Examination Program") had a mean score of 59.73 and a standard deviation of 13.76 on the Midterm, and the means did not differ statistically significant at the \( p \leq .05 \) (note: \( p = .938 \)), because Levene’s test for Equality of Variances indicates that the 77 students entering the college through the college entrance examination channel and the 30 students entering the college through the recommendation program channel did not differ significantly from each other (note: \( p = .701 \)). The results showed that there was no statistically significant difference on the Midterm examination between those two groups (\( p\text{-value} \) was \( .938 > .05 \)) at the adopted level of significance, \( p \leq .05 \) with two-tailed test.
Table 10: Summary Table of Independent-Samples T Test for College Entrance Channel vs. Quiz 2

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Exam Channel</td>
<td>77</td>
<td>46.95</td>
<td>18.416</td>
<td>2.099</td>
</tr>
<tr>
<td>Recommendation Channel</td>
<td>30</td>
<td>47.73</td>
<td>17.477</td>
<td>3.191</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance s</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>.021</td>
<td>.886</td>
<td>-201</td>
<td>-79</td>
<td>-8.536 6.965</td>
</tr>
<tr>
<td>Unequal</td>
<td></td>
<td>-206</td>
<td>55.552</td>
<td>-79</td>
<td>-8.437 6.867</td>
</tr>
</tbody>
</table>

Note: p <= .05

Table 10 represents that the Independent-Samples T Test analysis indicates the 77 students (who were accepted by the school through the channel of “2003 University Joint Entrance Examination Program”) had a mean score of 46.95 and a standard deviation of 18.42 on Quiz 2, the 30 students (who were accepted by the school through the channel of “2003 Recommendation Screening Examination Program”) had a mean score of 47.73 and a standard deviation of 17.48 on Quiz 2, and the means did not differ statistically significant at the p <= .05 (note: p = .841), because Levene’s test for Equality of Variances indicates that the 77 students entering the college via the college entrance examination channel and the 30 students entering the college via the recommendation program channel did not differ significantly from each other (note: p = .886). The results showed that there was no statistically significant difference on Quiz 2 between those two groups (p-value was .841 > .05) at the adopted level of significance, p <= .05 with two-tailed test.
Table 11: Summary Table of Independent-Samples T Test for College Entrance Channel vs. the Final Examination

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance Exam Channel</td>
<td>77</td>
<td>64.05</td>
<td>17.079</td>
<td>1.946</td>
</tr>
<tr>
<td>Recommendation Channel</td>
<td>30</td>
<td>61.73</td>
<td>17.695</td>
<td>3.231</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>St. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>.320</td>
<td>.624</td>
<td>105</td>
<td>.534</td>
<td>2.32</td>
<td>3.713</td>
<td>-5.043 to 9.681</td>
</tr>
<tr>
<td>Unequal</td>
<td>.320</td>
<td>.615</td>
<td>51.296</td>
<td>.541</td>
<td>2.32</td>
<td>3.772</td>
<td>-5.252 to 9.889</td>
</tr>
</tbody>
</table>

Note: p < .05

Table 11 represents that the Independent-Samples T Test analysis indicates the 77 students (who were accepted by the school through the channel of “2003 University Joint Entrance Examination Program”) had a mean score of 64.05 and a standard deviation of 17.08 on the Final, the 30 students (who were accepted by the school through the channel of “2003 Recommendation Screening Examination Program”) had a mean score of 61.73 and a standard deviation of 17.70 on the Final, and the means did not differ statistically significant at the p ≤ .05 (note: p = .534), because Levene’s test for Equality of Variances indicates that the 77 students entering the college through the college entrance examination channel and the 30 students entering the college through the recommendation program channel did not differ significantly from each other (note: p = .573). The results showed that there was no statistically significant difference on the Final examination between those two groups (p-value was .534 > .05) at the adopted level of significance, p ≤ .05 with two-tailed test.
Finding#4: The results of the Independent-Samples T Test analysis, \( p \)-values, .830, .938, .841, and .534 (all larger than .05), revealed that there were no significantly differences between the 77 students entering the college via the college entrance examination channel and the 30 students entering the college via the recommendation screen program channel on four given examinations in this study. It means that the variable/factor of the college entrance channel would not affect the outcomes of students’ performance on the given tests.

In summary, from the correlation statistics analyses and the Independent-Samples T Test analyses, none of the demographic factors/variables, such as gender, age, college entrance channel and levels of English proficiency was statistically significant related to the test scores. Namely, the participants’ demographic attributes would not affect performance (i.e. scores) on the examinations in this study.

**Independent-Samples T Test Results**

The results of the Independent-Samples T Test statistical analyses were represented and reported below for the treatment-group and the control-group students’ performance on four given examinations respectively (including: Quiz 1, Midterm examination, Quiz 2, and Final examination).

**Quiz 1**: Table 12 represents that the Independent-Samples T Test analysis indicates that the 50 treatment-group students had a mean score of 57.50 and a standard deviation of 13.78 on Quiz 1, the 57 control-group students had a mean score of 65.04 and a standard deviation of 14.39 on Quiz 1, and the means did differ statistically significant at the \( p \leq .05 \) (note: \( p = .007 \)), because Levene’s test for Equality of Variances indicates for
the treatment-group and the control-group did not differ significantly from each other (note: p = .790). "If variances do not differ significantly, then the equal-variance estimate may be used instead of the unequal-variance estimate. If Levene’s test did show significant differences, then it would be necessary to use the unequal-variance test" (George & Mallery, 2001, p. 128-129). The results showed that there was statistically significant differences on Quiz 1 between the treatment group and the control group (p-value was .007 < .05) at the adopted level of significance, p ≤ .05 with two-tailed test.

Table 12: Summary Table of Independent-Samples T Test for Quiz 1

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>57.50</td>
<td>13.781</td>
<td>1.949</td>
</tr>
<tr>
<td>Control</td>
<td>57</td>
<td>65.04</td>
<td>14.394</td>
<td>1.906</td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Levene's</td>
<td>F</td>
<td>105</td>
<td>-7.54</td>
<td>-12.957</td>
</tr>
<tr>
<td>test for</td>
<td>Sig.</td>
<td>104.176</td>
<td>.007</td>
<td>-12.942</td>
</tr>
<tr>
<td>equality</td>
<td></td>
<td></td>
<td></td>
<td>-2.114</td>
</tr>
<tr>
<td>of variances</td>
<td></td>
<td></td>
<td></td>
<td>-2.129</td>
</tr>
</tbody>
</table>

Finding#5: The results showed that the control-group participating students did have statistically significant higher scores on Quiz 1 than the treatment-group participating students did at the adopted level of significance, p ≤ .05 with two-tailed test.

Midterm Examination: Table 13 reports that the Independent-Samples T Test analysis indicates that the 50 treatment-group students had a mean score of 63.44 and a standard deviation of 11.57 on the Midterm, the 57 control-group students had a mean score of 56.81 and a standard deviation of 15.67 on the Midterm, and the means did differ statistically significant at the p ≤ .05 (note: p = .014). Levene’s test for Equality of
Variances indicates for the treatment-group and the control-group did differ significantly from each other (note: \( p = .041 \)); the unequal-variance test, \( p = .014 \) was used. "If variances do not differ significantly, then the equal-variance estimate may be used instead of the unequal-variance estimate. If Levene's test did show significant differences, then it would be necessary to use the unequal-variance test" (George & Mallery, 2001, p. 128-129). The results showed that there was statistically significant differences on the Midterm between the treatment group and the control group (\( p \)-value was \( .014 < .05 \)) at the adopted level of significance, \( p \leq .05 \) with two-tailed test.

**Table 13: Summary table of Independent-Samples T Test for the Midterm Examination**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>63.44</td>
<td>11.573</td>
<td>1.637</td>
</tr>
<tr>
<td>Control</td>
<td>57</td>
<td>56.81</td>
<td>15.666</td>
<td>2.075</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance s</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>F</td>
<td>.041</td>
<td>2.462</td>
<td>105</td>
<td>.015</td>
<td>6.63</td>
<td>2.695</td>
</tr>
<tr>
<td></td>
<td>Sig.</td>
<td>2.510</td>
<td>102.163</td>
<td>.014</td>
<td>6.63</td>
<td>2.643</td>
<td>1.391</td>
</tr>
</tbody>
</table>

Note: \( p = < .05 \)

**Finding#6:** The results showed that the treatment-group participating students did have statistically significant higher scores on the Midterm than the control-group participating students did at the adopted level of significance, \( p \leq .05 \) with two-tailed test.

**Quiz 2:** Table 14 represents that the Independent-Samples T Test analysis indicates that the 50 treatment-group students had a mean score of 43.24 and a standard deviation of 18.64 on Quiz 2, the 57 control-group students had a mean score of 50.61 and a
standard deviation of 16.99 on Quiz 2, and the means did differ statistically significant at the $p \leq .05$ (note: $p = .035$), because Levene’s test for Equality of Variances indicates for the treatment-group and the control-group did not differ significantly from each other (note: $p = .450$). The results revealed that there was statistically significant differences on Quiz 2 between the treatment group and the control group ($p$-value was $0.035 < .05$) at the adopted level of significance, $p \leq .05$ with two-tailed test.

**Table 14: Summary Table of Independent-Samples T Test for Quiz 2**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>43.24</td>
<td>18.640</td>
<td>2.636</td>
</tr>
<tr>
<td>Control</td>
<td>57</td>
<td>50.61</td>
<td>16.994</td>
<td>2.251</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene’s test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
</table>

Note: $p \leq .05$

**Finding #7:** The results showed that the control-group participating students did have statistically significant higher scores on Quiz 2 than the treatment-group participating students did at the adopted level of significance, $p \leq .05$ with two-tailed test.

**Final Examination:** Table 15 represents that the *Independent-Samples T Test* analysis indicates that the 50 treatment-group students had a mean score of 64.50 and a standard deviation of 16.06 on the Final, the 57 control-group students had a mean score of 62.44 and a standard deviation of 18.23 on the Final, and the means did not differ statistically significant at the $p \leq .05$ (note: $p = .539$), because Levene’s test for Equality
of Variances indicates for the treatment-group and the control-group did not differ significantly from each other (note: $p = .214$). The results revealed that there was no statistically significant differences on the Final between the treatment group and the control group ($p$-value was $.539 > .05$) at the adopted level of significance, $p \leq .05$ with two-tailed test.

Table 15: Summary Table of Independent-Samples T Test for Final Examination

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>64.50</td>
<td>16.063</td>
<td>2.272</td>
</tr>
<tr>
<td>Control</td>
<td>57</td>
<td>62.44</td>
<td>18.230</td>
<td>2.415</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variance</th>
<th>Levene's test for equality of variances</th>
<th>t-value</th>
<th>d.f.</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal</td>
<td>F</td>
<td>.214</td>
<td>.617</td>
<td>105</td>
<td>.539</td>
<td>2.06</td>
<td>3.343</td>
</tr>
<tr>
<td>Unequal</td>
<td>F</td>
<td>.622</td>
<td>104.997</td>
<td>.535</td>
<td>2.06</td>
<td>3.315</td>
<td>-4.512 8.635</td>
</tr>
</tbody>
</table>

Note: $p <= .05$

**Finding #8:** The results showed that the treatment-group participating students did a slightly better performance (mean scores was 64.50) on the Final than the control-group did (mean scores was 62.44). However, the $p$-value of the *Independent Samples T Test* analysis revealed that the treatment-group participating students did not have statistically significant higher scores on Final examination than the control-group participating students did at the adopted level of significance, $p \leq .05$ with two-tailed test.

**Overall Performance:** Overall performance was distributed equally and calculated from four given examinations consisting of Quiz 1, the Midterm, Quiz 2, and the Final. The calculating equation function was stated as below:
(Quiz 1 * 25%) + (Midterm * 25%) + (Quiz 2 * 25%) + (Final * 25%) = Overall Scores.

Table 16 represents that the Independent-Samples T Test analysis indicates that the 50 treatment-group students had a mean score of 57.17 and standard deviation of 10.36, the 57 control-group students had a mean score of 58.72 and standard deviation of 12.92, and the means did not differ statistically significant at the \( p \leq .05 \) (note: \( p = .498 \)), because Levene's test for Equality of Variances indicates for the treatment-group and the control-group did not differ significantly from each other (note: \( p = .146 \)). The results showed that there was no statistically significant difference on overall scores of four given tests between the treatment group and the control group (\( p\text{-value} \) was \( .498 > .05 \)) at the adopted level of significance, \( p \leq .05 \) with two-tailed test.

**Table 16: Summary Table of Independent-Samples T Test for Overall Performance on Four Given Examinations**

<table>
<thead>
<tr>
<th>Group</th>
<th>( n )</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>S.E. of Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>50</td>
<td>57.1700</td>
<td>10.35880</td>
<td>1.46496</td>
</tr>
<tr>
<td>Control</td>
<td>57</td>
<td>58.7237</td>
<td>12.91669</td>
<td>1.71086</td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unequal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p =< .05 \)

**Finding#9:** The results showed that the control-group participating students did a slightly better performance (mean score was 58.7234) on overall scores of four given tests than the treatment-group did (mean score was 57.1700). However, the \( p\text{-value} \) of
the *Independent Samples T Test* analysis revealed that the control-group participating students did not have statistically significant higher scores on overall scores of four given tests than the treatment-group participating students did at the adopted level of significance, $p \leq .05$ with two-tailed test.

**Analyses of Attitudinal Survey Questionnaire**

The attitudinal survey questionnaire were only given to 50 treatment-group students, who received the proposed pedagogical method – the conventionally unidirectional lecturing format mixing with the team-based case-study activity of the experiential learning approach, to examine and determine their attitudes, preferences, reflections and perceptions toward the team-based case-study activities. The attitudinal survey questionnaire was accompanied with a Likert-Type Scale that consists of seven options, one of them being a neutral position. The options probe the level of agreement or disagreement with the question statements on the part of the participants. The respondents checked and rated each question on a Seven-Point Likert-Type Scale (1 = strongly disagree to 7 = strongly agree).

The attitudinal survey questionnaire was divided into two parts. The first part is basic demographics information such as gender and age. The second part concerned the questions of what kinds of attitudes, preferences and perceptions the treatment-group participants have had toward the team-based case-study activities of the experiential learning approach. The attitudinal survey questionnaire included: 11 single-choice questions (Q1 to Q11); one open-ended question (Q12); and one multi-choice question (Q13).
There were 50 students (13 males and 37 females) in the treatment group, and all of them responded to the attitudinal survey questionnaire at the 17th week of the experimental period; therefore, the respond rate was 100 percent. The researcher independently compiled and numbered each questionnaire correspondence from Sample 1 to Sample 50; data reduction included the process of coding, focusing, simplifying, abstracting and transforming raw data, and it is followed by the organization of information and data. The question 1 to question 11 in this attitudinal survey questionnaire was examined by Frequencies/Descriptive Statistics using SPSS 10.0 version. The mean, the standard deviation, the mode, other statistical figures, and the frequencies of each question were showed in Table 17 to Table 38.

Q1: “The team-based case-study activities helped me to learn the concepts, principles and theories of economics more thoroughly.” Table 17 presents the mean, the standard deviation, and the mode is 5.12, 1.223, and 6 respectively. Table 18 shows the frequencies of seven options. It has shown that the treatment-group participants have positive feedback toward Q1.

Table 17: The treatment-group participant attitudes toward Q1: The team-based case-study activities helped me to learn the concepts, principles and theories of economics more thoroughly

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>5.12</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.173</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>5.00</td>
</tr>
<tr>
<td>Mode</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.223</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td></td>
<td>1.496</td>
</tr>
<tr>
<td>Skewness</td>
<td></td>
<td>-1.145</td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td></td>
<td>1.582</td>
</tr>
</tbody>
</table>
Table 18: Frequency Table for Q1

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>6</td>
<td>12.0</td>
<td>12.0</td>
<td>12.0</td>
</tr>
<tr>
<td>No comment</td>
<td>3</td>
<td>6.0</td>
<td>6.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
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<td>36.0</td>
<td>36.0</td>
<td>56.0</td>
</tr>
<tr>
<td>Agree</td>
<td>19</td>
<td>38.0</td>
<td>38.0</td>
<td>94.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>3</td>
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<td>6.0</td>
<td>100.0</td>
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<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q2: “The team-based case-study activities made me do a great deal more work outside of class contact hours.” Table 19 presents the mean, the standard deviation, and the mode is 5.46, 1.034, and 6 respectively. Table 20 displays the frequencies of seven choices. It has indicated that the treatment-group participants have positive attitudes, preferences and perceptions toward Q2.

Table 19: The treatment-group participant attitudes toward
Q2: The team-based case-study activities made me do a great deal more work outside of class contact hours

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Miss</th>
<th>Mean</th>
<th>Std. Error of Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>Skewness</th>
<th>Std. Error of Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>50</td>
<td>0</td>
<td>5.46</td>
<td>.146</td>
<td>6.00</td>
<td>6</td>
<td>1.034</td>
<td>1.070</td>
<td>-1.618</td>
<td>.337</td>
<td>5.860</td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
<td>.662</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>Range</td>
<td>6</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Minimum</td>
<td>1</td>
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<td></td>
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<td>Maximum</td>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Table 20: Frequency Table for Q2

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
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<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>0</td>
<td>0.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>5</td>
<td>10.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>17</td>
<td>34.0</td>
<td>46.0</td>
</tr>
<tr>
<td>Agree</td>
<td>22</td>
<td>44.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q3: “The team-based case-study activities provided me a greater opportunity to
work with my classmates (to experience team-work situation).” Table 21 presents the
mean, the standard deviation, and the mode is 5.94, .818, and 6 respectively. Table 22
shows the frequencies of seven options. It has shown that the treatment-group
participants have positive attitudes, preferences and perceptions toward Q3.

Table 21: The treatment-group participant attitudes toward
Q3: The team-based case-study activities provided me
a greater opportunity to work with my classmates

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>5.94</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.116</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.818</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.670</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>-.120</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.953</td>
<td></td>
</tr>
</tbody>
</table>
Q4: “The team-based case-study activities provided me a higher level of participation and team problem-solving skills.” Table 23 presents the mean, the standard deviation, and the mode is 5.44, .907, and 5 respectively. Table 24 shows the frequencies of seven options. It has indicated that the treatment-group participants have positive feedback toward Q4.

Table 23: The treatment-group participant attitudes toward Q4: The team-based case-study activities provided a higher level of participation and team problem-solving skills

<table>
<thead>
<tr>
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<th>Valid</th>
<th>Miss</th>
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</thead>
<tbody>
<tr>
<td>Mean</td>
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</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.128</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.907</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.823</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.091</td>
<td></td>
</tr>
</tbody>
</table>
Table 24: Frequency Table for Q4

<table>
<thead>
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<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>4</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>24</td>
<td>48.0</td>
<td>48.0</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>28.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>7</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q5: “The team-based case-study activities aroused a greater interest in learning about current economic events happening in our global society.” Table 25 presents the mean, the standard deviation, and the mode is 5.52, .931, and 6 respectively. Table 26 shows the frequencies of seven choices. It has shown that the treatment-group participants have positive attitudes, preferences and perceptions toward Q5.

Table 25: The treatment-group participant attitudes toward Q5: The team-based case-study activities aroused a greater interest in learning about current economic events happening in our global society

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
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<td>.132</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.931</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.867</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>-.298</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
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<td></td>
</tr>
</tbody>
</table>
Table 26: Frequency Table for Q5

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>5</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>18</td>
<td>36.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Agree</td>
<td>19</td>
<td>38.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>7</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q6: “The team-based case-study activities allowed me to be involved more actively in learning.” Table 27 presents the mean, the standard deviation, and the mode is 5.30, .839, and 5 respectively. Table 28 shows the frequencies of seven options. It has indicated that the treatment-group participants have positive feedback toward Q6.

Table 27: The treatment-group participant attitudes toward Q6: The team-based case-study activities allowed me to be involved more actively in learning

<table>
<thead>
<tr>
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<th>Valid</th>
<th>Miss</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Mean</td>
<td>5.30</td>
<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.839</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.704</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>.237</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
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<td></td>
</tr>
<tr>
<td>Std. Error of Kurtosis</td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
Table 28: Frequency Table for Q6

<table>
<thead>
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<th>Frequency</th>
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<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>No comment</td>
<td>8</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
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<td>46.0</td>
<td>46.0</td>
<td>62.0</td>
</tr>
<tr>
<td>Agree</td>
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<td>30.0</td>
<td>92.0</td>
</tr>
<tr>
<td>Strongly agree</td>
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<td>8.0</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q7: “The team-based case-study activities allowed me to be involved with topics of greater complexity.” Table 29 presents the mean, the standard deviation, and the mode is 5.36, .827, and 5 respectively. Table 30 shows the frequencies of seven choices. It has shown that the treatment-group participants have positive attitudes, preferences and perceptions toward Q7.

Table 29: The treatment-group participant attitudes toward Q7: The team-based case-study activities allowed me to be involved with topics of greater complexity

<table>
<thead>
<tr>
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<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
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<tr>
<td>Mean</td>
<td>5.36</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.117</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.827</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
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<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td>Kurtosis</td>
<td>.425</td>
<td></td>
</tr>
</tbody>
</table>


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<table>
<thead>
<tr>
<th>Std. Error of Kurtosis</th>
<th>.662</th>
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</thead>
<tbody>
<tr>
<td>Range</td>
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</tr>
<tr>
<td>Minimum</td>
<td>3</td>
</tr>
<tr>
<td>Maximum</td>
<td>7</td>
</tr>
</tbody>
</table>
```

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Table 30: Frequency Table for Q7

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
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<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>5</td>
<td>10.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>22</td>
<td>44.0</td>
<td>56.0</td>
</tr>
<tr>
<td>Agree</td>
<td>19</td>
<td>38.0</td>
<td>94.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>3</td>
<td>6.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q8: “The team-based case-study activities enabled me to develop better comprehensive skills, such as higher-order thinking, interpersonal skills, decision-making skills, and analytic and synthetic skills, etc.” Table 31 presents the mean, the standard deviation, and the mode is 5.34, .823, and 6 respectively. Table 32 shows the frequencies of seven options. It has indicated that the treatment-group participants have positive feedback toward Q8.

Table 31: The treatment-group participant attitudes toward Q8: The team-based case-study activities enabled me to develop better comprehensive skills, such as higher-order thinking, interpersonal skills, decision-making skills, analytic and synthetic skill, etc.

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>Mean</td>
<td></td>
<td>5.34</td>
</tr>
<tr>
<td>Std. Error of Mean</td>
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<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>5.00</td>
</tr>
<tr>
<td>Mode</td>
<td></td>
<td>6</td>
</tr>
<tr>
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<td>.823</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
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<td>.678</td>
</tr>
</tbody>
</table>

109
Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Table 32: Frequency Table for Q8

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
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<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>6</td>
<td>12.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>20</td>
<td>40.0</td>
<td>54.0</td>
</tr>
<tr>
<td>Agree</td>
<td>21</td>
<td>42.0</td>
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</tr>
<tr>
<td>Total</td>
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<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q9: “The team-based case-study activities enabled me to develop and improve better oral presentation skills.” Table 33 presents the mean, the standard deviation, and the mode is 5.12, .918, and 5 respectively. Table 34 shows the frequencies of seven choices. It has shown that the treatment-group participants have positive attitudes, preferences and perceptions toward Q9.

Table 33: The treatment-group participant attitudes toward Q9: The team-based case-study activities enabled me to develop and improve better oral presentation skills

<table>
<thead>
<tr>
<th>N</th>
<th>Valid 50</th>
<th>Miss 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.12</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.130</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.918</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.842</td>
<td></td>
</tr>
</tbody>
</table>
Table 34: Frequency Table for Q9

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No comment</td>
<td>12</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>20</td>
<td>40.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>28.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>3</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q10: “The team-based case-study activities enabled me to relate other courses in a holistic manner.” Table 35 presents the mean, the standard deviation, and the mode is 5.38, 1.086, and 6 respectively. Table 36 shows the frequencies of seven choices. It has indicated that the treatment-group participants have positive feedback toward Q10.

Table 35: The treatment-group participant attitudes toward Q10: The team-based case-study activities enabled me to relate other courses in a holistic manner

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.38</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.154</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>6.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.086</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>1.179</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>-1.222</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
</tbody>
</table>
Kurtosis 1.681
Std. Error of Kurtosis .662
Range 5
Minimum 2
Maximum 7

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Table 36: Frequency Table for Q10

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>4</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>No comment</td>
<td>1</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>17</td>
<td>34.0</td>
<td>34.0</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
<td>46.0</td>
<td>46.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>4</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q11: “The team-based case-study activities enabled me to better relate and connect what I have learned in economics classes with ‘real-world’ situations.” Table 37 presents the mean, the standard deviation, and the mode is 5.36, .875, and 5 respectively. Table 38 shows the frequencies of seven options. It has shown that the treatment-group participants have positive attitudes, preferences and perceptions toward Q11.

Table 37: The treatment-group participant attitudes toward Q11: The team-based case-study activities enabled me to better relate and connect what I have learned in economics classes with ‘real-work’ situations

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Miss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>5.36</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Mean</td>
<td>.124</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>.875</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>.766</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>.163</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.337</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kurtosis</td>
<td>Std. Error of Kurtosis</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>------------------------</td>
</tr>
<tr>
<td></td>
<td>-0.574</td>
<td>0.662</td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Table 38: Frequency Table for Q11

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sometimes disagree</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>No comment</td>
<td>8</td>
<td>16.0</td>
<td>16.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Sometimes agree</td>
<td>21</td>
<td>42.0</td>
<td>42.0</td>
<td>58.0</td>
</tr>
<tr>
<td>Agree</td>
<td>16</td>
<td>32.0</td>
<td>32.0</td>
<td>90.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>5</td>
<td>10.0</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Seven-point Likert Scale were employed (1=strongly disagree to 7=strongly agree)

Q12: “During the team-based case-study activities, paper preparations and writing processes, did you change any of your thinking about the cases? If yes, what change(s) occurred?” In respondents’ answers, comments, and reflections to the Question 12, only one of 50 respondents did not answer this question and left it blank; therefore, it was perceived as missing data. Forty nine of 50 respondents did answer and write down their attitude changes, comments and reflections about processes of the team-based case studies. The respondent rate of the Question 12 was 98 percent. There were 49 respondents who answered Question 12; four respondents gave the answer “no”; and 45 respondents gave the answer “yes.”

Forty five treatment-group respondents with the answer “yes” expressed and wrote down their attitude changes, comments and reflections from Case Study #1 to Case
they described their attitudes, perceptions, reflections and opinions about processes of three case studies on the following qualitatively different terms:

- As changes in their thinkings and/or conceptions (such as attending classes can be interesting and a stimulating thing; see things from different aspects; respect others’ viewpoints, etc.)
- As the acquisition of communicative and interpersonal skills.
- As the acquisition of collaboration and cooperation (team-work) skills.
- As changes in their attitudes and perceptions toward ‘learning’: case-study activities stimulated them to learning something actively and automatically. Some of them expressed that in order to impress the instructor (to get good grades on team case studies) and classmates in other teams, they were motivated to learn how to use computer software – Power-point to create visual aids for better oral presentations in classes (according to current designed curricula by the school, they will be taught how to use every kind of computer software later in sophomore, junior and senior years).

Four treatment-group respondents with answer “no” expressed and wrote down their reflections from Case Study#1 to Case Study#3; they described their attitudes, perceptions, and reflections about processes of three case studies on the following qualitatively different terms:

- As a big burden of school life.
- Not interesting at all.
Q13: “What other experiential learning methods/activities/techniques would you suggest that your business professors/instructors might adopt and implement in future business courses?” There were seven options for respondents choosing including: simulations and games activity, role-playing activity, internship/practicum activity, field-trip activity such as domestic and abroad studies activity, business organization visit activity, guest-lecture activity, and others. Question 13 was designed as a multi-choice question; therefore, respondents were allowed to mark any one of choices listed in that question that they were interested in and thought it will be useful for their course learning in the future. Frequency of each choice is presented below on Table 39.

Table 39: Frequencies Table of Q13

<table>
<thead>
<tr>
<th>Method/Activity/Technique</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulations and games method/activity/technique</td>
<td>21</td>
</tr>
<tr>
<td>Role-playing method/activity/technique</td>
<td>20</td>
</tr>
<tr>
<td>Internship/practicum method/activity/technique</td>
<td>43</td>
</tr>
<tr>
<td>Field-trip (including domestic and abroad studies) method/activity/technique</td>
<td>36</td>
</tr>
<tr>
<td>Business organization visit method/activity/technique</td>
<td>45</td>
</tr>
<tr>
<td>Guest-lecture (from business organizations) method/activity/technique</td>
<td>21</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
</tr>
</tbody>
</table>

Evaluations of the Research Questions

The following are the research questions that this research study tried to answer:

1. Do the treatment-group participants who are receiving the business course, Economics, through the proposed treatment – a traditionally unidirectional lecturing method incorporating the team-based case-study method of the experiential learning approach, have higher scores and performance on the given tests than the control group participants who are receiving the same
business course utilizing only a unidirectional lecturing method of the
traditional learning approach? (In order to answer the first question, the
researcher generated five sub-research questions 1.1 to 1.5 stated as below).
1.1 Do the treatment-group participants have higher scores and performance on
Quiz 1 than the control-group participants?
1.2 Do the treatment-group participants have higher scores and performance on
Midterm examination than the control-group participants?
1.3 Do the treatment-group participants have higher scores and performance on
Quiz 2 than the control-group participants?
1.4 Do the treatment-group participants have higher scores and performance on
Final examination than the control-group participants?
1.5 Do the treatment-group participants have higher overall scores and
performance on four given examinations than the control-group
participants?

The results of the Independent-Samples T Test for sub-research question 1.1 to 1.5, p
= .007 (smaller than the adopted level of significance, \( p \leq .05 \) with two-tailed test), p =
.015 (smaller than the adopted level of significance, \( p \leq .05 \) with two-tailed test), p = .035
(smaller than the adopted level of significance, \( p \leq .05 \) with two-tailed test), p = 539
(larger than the adopted level of significance, \( p \leq .05 \) with two-tailed test), and p = .498
(larger than the adopted level of significance, \( p \leq .05 \) with two-tailed test), were not
totally consistent with the hypothesis as the participants performance in both group. In
summary of the results, the treatment-group did perform significantly worse than the
control-group did on Quiz 1 and Quiz 2, but the treatment-group did perform significantly better than the control-group did on the Midterm and the Final. As an overall performance on four given tests, there was no statistically significant differences between the treatment group and the control group; it implied that the proposed pedagogical method (i.e. treatment) – a conventionally unidirectional lecture method incorporating the team-based case-study activities of the experiential learning approach, the mixed teaching and pedagogical method, is at least as effective a method for teaching and delivering Taiwanese business students economics principles, concepts and theories as the traditionally unidirectional lecturing method only.

2. Do the treatment-group participants have positive attitudes, preferences, and perceptions toward the team-based case-study method of the experiential learning approach?

In observing the case studies classes of the treatment-group during the experimental period, the researcher noticed there was much progress of the treatment-group students from doing Case Study#1 to Case Study#3. It was organized and summarized via qualitative terms by this researcher. It was displayed in table 40 below:

Table 40: Summary Table of Observations of Class Process of Team-Based Case Studies

<table>
<thead>
<tr>
<th>Case Study#1</th>
<th>Case Study#2</th>
<th>Case Study#3</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Representatives from each group read drafts they prepared in front of the instructor and other classmates without any eye contact with the audience.</td>
<td>• Five groups did prepare power-points to help them give presentations in front of the instructor and other teams; one group did write down important key words and/or concepts on a</td>
<td>• Every team created power-points to help their group-representative give better oral presentations in front of the instructor and the other classmates.</td>
</tr>
<tr>
<td>• Each group did not</td>
<td>• Each group did not</td>
<td>• Each team did better</td>
</tr>
</tbody>
</table>
manage "time" effectively. The instructor required each team to finish giving oral presentations within ten minutes, but all of them did over ten minutes.

- None of the group prepared visual aids and/or handouts to help themselves to do a better oral presentation.
- There was no interactive communication and conversation between the presented group and other groups. After the presented group gave oral presentations, none of the students questioned, debated and/or commented on the content they presented.
- None of the students questioned, debated and/or commented to the instructor in classes.
- None of the students answered questions asked by the instructor voluntarily. The instructor had to assign certain students to answer questions.

blackboard; and two groups gave their content handouts of the case to the instructor and the other teams.

- Each team did better on "time management" comparing their first time oral presentations for Case Study#1. Most of teams could finish giving presentations within ten minutes.
- There was some interactive communication and conversation between the presented team and other teams. After the presented groups gave oral presentations, several students questioned, debated and/or commented on the contents of the represented teams.
- Several students answered questions asked by the instructor voluntarily; however, the instructor still had to assign certain ones to answer questions once there was no volunteer.
- Several students asked the instructor questions in class, when they had confusion and/or problems with lectures.

on "time management" comparing their first time oral presentations for Case Study#1. All of the seven teams could finish giving presentations within ten minutes.

- There was some interactive communication and conversation between the presented team and other teams. After the presented groups gave oral presentations, several students questioned, debated and/or commented on the contents of the represented teams.
- Several students asked the instructor questions in class, when they had confusion and/or problems with lectures.
Summary of treatment-group participants’ progress from Case Study#1 to Case Study#3: in Case Study#1, all the seven teams gave oral presentations in the same format – reading drafts; there was no interaction among each team; none of the students answered the instructor’s questions voluntarily; and none of the students asked the instructor questions. In Case Study#2 and Case Study#3, all the seven teams did perform differently from Case Study#1; students prepared visual aids to do a better oral presentation; there was some interaction among each team; there were some students who gave feedback on the content of the presented teams; there were some students who answered the instructor’s questions voluntarily; and there were some students who asked the instructor questions.

From the statistical analyses of the attitudinal survey questionnaire, overall, the treatment-group participants’ attitudes, preferences, and perceptions toward the team-based case studies were all “positive” and “agreeable,” because all mean scores for Question 1 to Question 11 were over 4 (5.12, 5.46, 5.94, 5.44, 5.52, 5.30, 5.36, 5.34, 5.12, 5.38, and 5.36 in order). It implied that the treatment-group participants did sometimes agree and/or did agree that doing team-base case studies did provide them good opportunities to view things from different view-points; to connect economics theories with ‘real-world’ events and situations that happened in Taiwan and in the global society; to stimulate and to motivate them to learn something actively; and to develop further and to improve important skills, such as higher-order thinking, team-working skill, communication and interpersonal skills, presentation skills, and learning skills about learning.
CHAPTER V

Conclusions, Limitations, and Recommendations

Overview

Chapter V presents an overview of this research study, a summary of the results and findings in this study about the effectiveness and efficiency of the team-based case-study activities of the experiential learning approach as compared to the unidirectional lecturing method of the traditional learning approach in one Business and Management College located in the City of Taipei, Taiwan; and treatment-group participating students attitudes, preferences, and perceptions toward that. This chapter includes several major sections: conclusions and implications, explanations and limitations, and recommendation for future activity and research.

Conclusions and Implications

Based on the review of the literature about the team-based case-study activity/method/technique of the experiential learning approach, it was anticipated by this researcher that the results and findings of this posttest-only control-group design experimental study conducted in one Taiwan Business school, would show that the treatment-group participants had higher scores (i.e. a better performance) on the given examinations than the control-group participants. However, this was not the case. The Independent-Samples T Test analyses on the given tests of both groups showed and revealed that:
The control group did statistically significantly better than the experimental group did on Quiz 1 (mean scores of the control group was 65.04; means scores of the experimental group was 57.50; and \( p\)-value was .007 < \( p = .05 \), the adopted significant level); it implied that the proposed treatment — a traditional lecturing format, incorporating the team-based case studies of the experiential learning approach, was not as effective and efficient as a unidirectional lecturing method of the traditional learning approach.

The treatment group did statistically significantly better than the control group did on the Midterm (mean scores of the experimental group was 63.44; mean scores of the control group was 56.81; and \( p\)-value was .015 < \( p = .05 \), the adopted significant level); it implied that the proposed treatment — a traditional lecturing format, incorporating the team-based case studies of the experiential learning approach was as effective and efficient as a unidirectional lecturing method of the traditional learning approach, or was superior to a unidirectional lecturing method of the traditional learning approach.

The control group did statistically significantly better than the experimental group did on Quiz 2 (mean scores of the control group was 50.61; mean scores of the experimental group was 43.24; the \( p\)-value was .035 < \( p = .05 \), the adopted significant level); it implied that the proposed treatment — a traditional lecturing format, incorporating the team-based case studies of the experiential learning approach was not as effective and efficient as a unidirectional lecturing method of the traditional learning approach.
There was no statistically significantly differences between the experimental group and the control group on the Final (mean scores of the experimental group was 64.50; mean scores of the control group was 62.44; the p-value was $p = .539 > .05$, the adopted significant level); it implied that the proposed treatment – a traditional lecturing format, incorporating the team-based case studies of the experiential learning approach was at least as effective and efficient as a unidirectional lecturing method of the traditional learning approach.

There was no statistically significantly differences between the experimental group and the control group on the overall performance of all four tests (mean scores of the experimental group was 57.1700; mean scores of the control group was 58.7237; the p-value was $p = .498 > .05$, the adopted significant level); it implied that the proposed treatment – a traditional lecturing format, incorporating the team-based case studies of the experiential learning approach was at least as effective and efficient as a unidirectional lecturing method of the traditional learning approach.

Why were the experimental group participants’ scores on given examinations inconsistent in this study? Why were the results and findings of this study not 100 percent compliant with the researcher’s expectations and anticipations? Possible explanations are discussed and stated in the next section, “Explanations and Limitations”.

The Frequency/Descriptive statistical analyses on the attitudinal survey questionnaire of 50 experimental group participants indicated that they “sometimes agreed” or “agreed” with statements on question 1 to question 11; the mean scores of each question (Question 1 to Question 11) was 5.12, 5.46, 5.94, 5.44, 5.52, 5.30, 5.36,
5.34, 5.12, 5.38, and 5.36 in order). Also, from qualitative terms used by the treatment-group participants (45 of 49 respondents with answer “yes”) on Question 12 were positive feedback. It implied that they had great and positive attitudes, feelings, reflections and preferences toward the team-based case-study activities of the experiential learning approach compared with the traditionally one-way information-distribution lecturing method. From table 39, treatment-group participants were interested in other experiential learning activities, methods and techniques in order including the following: business organization visits, internship and practicum, field-trips including domestic and abroad studies, simulations and games, guest-lecture from business organizations, and role-playing (from the highest score to the lowest score). Furthermore, three of the respondents gave the suggestion that they would like their business instructors and professors conducting courses in the English language in their sophomore, junior and senior years; it would help them improve the English listening ability.

Explanations and Limitations

The following are the possible explanations for the inconsistent performances on given tests of the experimental group participants. Also, several limitations of this research study should be made explicit:

1. The proposed experimental period of this study was limited to 20 weeks only. For Taiwanese students, they are used to a one-way information-dispensing lecturing method of the traditional learning approach (which results in passive learning) from elementary schools to senior high schools (12 years on average).
They have no experience with self-directed, self-managed and active learning. Making effective and efficient changes and transitions from conventional passive learning to active learning requires plenty of time, preparations and supports. The proposed 20-week experimental period might have been inefficient for them to adjust themselves into a new program and new pedagogical method.

From organizing and summarizing reflections, feelings, and comments stated by 49 respondents on the Question 12 of the attitudinal survey, 45 of them mentioned that they did have positive changes in their attitudes toward learning – they thought case-study activities made classes more interesting and stimulating; and case study activities broke boredom of the classroom.

However, some of them mentioned that there were several difficulties for them. First, most of them had never been exposed to the course subject matter, Economics, before. Second, they were involved in doing something to which they were unaccustomed and inexperienced. They had to learn how to do research and conduct interviews first, hold group discussion outside classroom hours, and then, combine group members’ contributions together, and finish written papers and presentations within one week. This was too much for them; after all, this was their first time to attempt case study activities. Some revealed that they were in the early stages of learning the case studies processes. Since the case study analysis was new to the students, the level of understanding of the processes may have varied among individuals.
Besides, in Schwitzer, Gonzalez and Curl’s study (2001), once instructors and professors adopted the teaching/learning approach other than the traditional lecturing method to deliver courses, they found out that students may have questions about whether course content will be sufficiently covered using a non-traditional learning approach. Because of this concern, students will show “resistance” to the new teaching/learning methods adopted by their instructors and professors at the beginning stage; “resistance” would affect student performance. Four respondents gave a negative feedback toward the three team-based case studies. For example, “I was not interested in doing three case studies at all. All I care was that if the instructor would provide me hints for the tests,” stated Sample 2. “I had a part-time job. I did not have much on doing that. It made me feel burdened,” stated Sample 13.

Thirdly, the traditionally cultural/national inheritance still has deep and rooted influence on Taiwanese society today. From results and findings of the attitudinal survey, it revealed that only a 20-week experimental period cannot change students’ learning attitudes effectively, efficiently and totally.

2. The other limitation of this study related to the need to ensure that every single participant (in each group) in the treatment-group has read and gone through the materials and related references, and completed the assigned team-base case studies through elaboration of the whole group. In this study, technically, the team-based case studies were completed outside the classroom, and the students only required to give public brief oral presentations and to run interactive discussions after presentations in class. Therefore, the instructor could not
ensure if interactive discussions outside the classroom were actually run by each
group. Sample 9, 24, 32, and 50 mentioned (on Question 12 of the attitudinal
survey) that their team leaders assigned each individual jobs; individuals were
responsible for a ‘piece’ of the process; and later putting each ‘piece’ together by
one person. It implicated that some teams did not hold interactive
meetings/discussions outside the classroom. Also, the instructor had no idea if
every student contributed equally to their team-case studies. Some of the
students probably did not contribute. Doing team-based activities, because of
the nature of the team-based activity design itself; “one problem that can arise in
any group endeavor is the ‘free rider’ phenomenon. Free riders are those who
benefit from a public good without contributing toward its attainment” defined
by Stanley and Plaza (2002, p. 92). It meant that people who did provide efforts
on team projects benefited from the activity itself; and people who did not
provide contributions on team projects did not benefit from the activity itself.

3. Those participating students in both groups probably only made a minimum
effort to obtain a passing grade. From the results and findings of the
Independent-Samples T Test analyses, this researcher found one routine
phenomenon and pattern existed in both groups. The treatment group did
significantly better on the Midterm and the Final; the control group did
significantly better on Quiz 1 and Quiz 2. It implicated that when the students
did perform well in the first test, their attitudes and efforts toward the next test
tended to become ‘loose’; the results of ‘loose’ attitudes and efforts were bad
performance on the next test, and vice versa. That was a possible explanation as
to why performances of both groups were inconsistent.

4. For Taiwanese educators and practitioners, the experiential learning/teaching approach is a relatively new pedagogical idea and method/activity/technique. Taiwanese educators and practitioners are not used to conducting these types of courses inside and/or outside classrooms. How to use and to implement an appropriate experiential learning activity, method and technique to teach students course subjects? How to create a positive and effective learning atmosphere and environment to help and foster Taiwanese students learning? How to perceive their roles in the whole learning process? Those are still big challenges for Taiwanese educators and practitioners. Just the foregoing mention in Chapter I, implementing the experiential learning exercises inside and/or outside classrooms, educators and practitioners have to spend much time in preparation before delivering them (Patterson, 1999).

5. The other possible explanation and limitation of this study is that the researcher did not take “learner learning styles” into account. The researcher, H. Gardner (1983) devises the theory of multiple intelligences. According to his categorization, there are eight intelligences of individuals (including: logical/mathematical, linguistic, spatial, musical, kinesthetic, interpersonal, intrapersonal and environmentalistic intelligences). In the other study, Kolb’s work in the experiential learning area began with experimentation with case studies, simulations and games and other exercises. He discovered that individuals had preferences for different types of experiential learning activities, methods and techniques, which reflected certain phases of the experiential
learning cycle he devised. Individual learning is different in terms of learning styles. He further referred to those styles as ‘underlying structures’ or ‘possibility-process structures’ that impact on the learning process. In terms of Kolb’s categorization, there are four kinds of learning styles/learner in general including: accommodation (accommodator), divergence (diverger), convergence (converger), and assimilation (assimilator) (Kolb, 1984).

For the accommodative learning style/learner, it is explained in the following:

It emphasizes concrete experience and active experimentation. The greatest strength of this orientation lies in doing things, in carrying out plans and tasks and getting involved in new experiences. The adaptive emphasis of this orientation is on opportunity seeking, risk taking, and action. This style is called accommodation because it is best suited for those situations where one must adopt oneself to changing immediate circumstances. In situations where the theory or plans do not fit the facts, those with an accommodative style will most likely discard the plan or theory. The accommodator tends to solve problems in an intuitive trial-and-error manner, replying heavily on other people for information rather than on their own analytic ability” (Kolb, 1984, p. 78).

For the divergent learning style/learner, it is stated in the following:

It emphasizes concrete experience and reflective observation. The greatest strength of this orientation lies on imaginative ability and awareness of meaning and values. The primary adaptive ability of divergence is to view
concrete situations from many perspectives and to organize many relationships into a meaningful 'gestalt'. The emphasis in this orientation is on adaptation by observation rather than action. This style is called *diverg* because a person of this type performs better in situations that call for generation of alternative ideas and implications; those oriented toward divergence are interested in people and tend to be imaginative and feeling-oriented (Kolb, 1984, p. 77-78).

For the convergent learning style/learner, it is stated in the following:

It relies on the dominant learning abilities of *abstract conceptualization* and *active experimentation*. The greatest strength of this approach lies in problem solving, decision making and the practical application of ideas. This style is called *conver* because a person with this style seems to do best in situations like conventional intelligence test, where there is a single correct answer or solution to a question or problem. In this learning style, knowledge is organized in such a way that through hypothetical-deductive reasoning. The convergent learners are controlled in their expression of emotion and prefer dealing with technical tasks and problems rather than social and interpersonal issues (Kolb, 1984, p. 77).

For the assimilative learning style/learner, it is explained in the following:

Its dominant learning abilities are *abstract conceptualization* and *reflective observation*. The greatest strength of this orientation lies in inductive reasoning and the ability to create theoretical models, in assimilating
disparate observation into an integrated explanation. The *assimilator* is less focused on people and more concerned with ideas and abstract concepts. Ideas, however, are judged less in this orientation by their practical value. For this kind of learner, it is more important that the theory be logically sound and precise (Kolb, 1984, p. 78).

Due to the differences of individuals’ learning styles, not every individual prefers the same experiential learning method, activity and technique. Each individual learns via different ways and methods. Kolb even figures out that some learners might still prefer the traditional one-way lecturing format; those learned more and benefited more through it than the experiential learning exercises (Kolb, 1984). “There is no single teaching way to connect the practices of teaching with a theory of what learners need,” concluded by Hickox (2002, p. 124).

6. Different course subject matters have different traits; therefore, not each course subject matter can adopt the same experiential learning activity, method and technique mentioned and explained by Kolb and other researchers (Kolb, 1984; Truscott, Rustogi, & Young, 2000). For instances, Kolb’s categorized that “undergraduate business majors tend to have accommodative learning styles; engineers on the average fall in the convergent quadrant; history, English, political science, and psychology majors all have divergent learning styles; mathematics, economics, sociology, and chemistry majors have assimilative learning styles; physics majors are very abstract, falling between the convergent
and assimilative quadrants” (1984, p. 85). In this study, the factor, “traits of course subjects,” was not taken into account.

7. In this study, the researcher assessed 107 participants’ performance in both groups using traditional standard testing format – paper-and-pen tests. In Tynjala’s recent study (1998), it is stated, “Students perceptions of assessment requirements direct their approaches to learning and affect their learning outcome.” It is mentioned that “traditional examinations encouraged students do adopt a surface approach and engage in rote learning even when teachers and departments explicitly emphasis higher order learning goals” (p. 3). In other words, Tynjala thought educational achievement of learners cannot easily assessed by only one assessment tool. Because of this, further research may reveal more effective approaches to both designing and grading students’ educational achievements; the multiple and appropriate forms of assessment for students’ performance should be developed.

**Recommendations for Future Activity and Research**

The following are the recommendations for future activity and research, and for researchers, educators and practitioners in Taiwan:

1. A replication of this study is needed. Findings of this study were limited by the lack of random assignment and the sequential nature of the experimental populations. It was also constrained by the lack of sponsorship to recruit the samples from multiple colleges and universities; a convenience sample with 107 students from one business major department from one Business and
Management College only was used in this *posttest-only control-group design* experimental study. It is noticed that it is possible that the findings of this study may not be generalized to other business and management colleges and/or universities and student populations in Taiwan. Therefore, an immediate future activity and research is the replication of this research to the hundreds of business and management schools (including public and/or private colleges and/or universities) throughout all of Taiwan. This experimental study research could be at best perceived as a pilot study for implementation of experiential learning approach in Taiwan. Also, additional research is needed to replicate the study under more well-defined and more controlled conditions; for example, take factors, "learner personal characteristics," "learner learning styles" and "traits of course subjects" into account. Third, posttest and delay-posttest design experimental study may be conducted and employed to figure out if the experiential learning approach has a more lasting and longer effect on students.

2. A comparative study is highly recommended. There are a variety of methods/activities/techniques under experiential learning (such as simulations and games, student study aboard, field trips, role-playing, guest lectures, practicum and others) devised and proposed by Western scholars, researchers, educators and practitioners. Using different experiential learning method, activity and technique in different groups, in different business subject courses (such as Marketing Strategy, Finance, Accounting, Management, Leadership, Human Resource, and other business courses) to see their varied degree of effectiveness and efficiency on student learning.
3. A longitudinal basis study can also be conducted. There was the lack of sponsorship to obtain a larger sample from multiple colleges and/or universities, and furthermore, to employ a long-term study. A longitudinal study would be more helpful to collect data about the effectiveness and efficiency of each kind of the experiential learning methods, activities, and techniques. The study should follow a cohort of students as they enter the first year of college and/or university until they finish the senior year in school, including, where possible, the first several years of their engagement in the workplace (follow-up).

The results of this posttest-only control-group design experimental study showed that there was still partial positive educational achievement which has been associated with the introduction of student-centered (i.e. learning paradigm) pedagogical method and idea. A primary goal and strategy of the team-based case-study activities conducted in Taiwanese Business classrooms have tried to create effective and efficient, and positive learning environment help and foster Taiwanese students learning: shift “instruction paradigm” and “teacher-centered” mode to “learning paradigm” and “students-centered” mode; help them to develop and improve critical thinking and other skills required for their future careers, and personal growth and development.
References


Cohen, R. B. (1974). The effectiveness of the researcher's simulation game Phantom Submarine as compared to traditional teaching (Doctoral dissertation, University of Kansas).


Flynn, A. E., & Klein, J. D. (2001). The influence of discussion groups in a case-based


culture: Managing in America: Recreating a competitive culture (pp. 105-124).


the classroom: A student entrepreneur’s refuge or risk? [Electronic version].


DATE: August 11, 2003
TO: Dr. P. J. Tsai,
    Dean of the International Trade Department
    College of Management
    Shih Chien University
FROM: Chuan-Chun (Stella) Kuo
RE: Doctoral Research

Dear Dean P. J. Tsai,

My name is Chuan-Chun (Stella) Kuo. I am a student at Lynn University in Boca Raton, Florida, U.S.A. I am working on my doctoral degree in Educational Leadership with a Global Perspective. I am particularly interested in doing research about the experiential learning/teaching approach in business colleges and universities in Taiwan.

There is large empirical evidence that shows that the experiential learning/teaching approach works well in business colleges and universities in many Western nations. (Experiential learning/teaching activities were adopted in order to better prepare students to accommodate themselves to the workplace quickly.) Given the positive results of the experiential learning/teaching approach adopted by many business colleges and universities in those Western nations, I believe we need to look at this approach in the East. This study is an initial effort to discover how effectively the experiential learning/teaching approach works in business colleges and universities in Taiwan.

I am seeking students who are enrolled in business colleges and universities in Taiwan to assist in my experimental study. I am hoping you will consider participating in my experimental study and include students who are enrolled in the International Trade Department, College of Management, Shih Chien University in Taipei, Taiwan to participate as experimental subjects.

The collected data and results of this experimental study could provide beneficial information for administrators, staff, and faculty of business colleges and universities in Taiwan. These colleges and universities may want to reconsider and redesign their business programs and curricula. They may want to incorporate the experiential learning/teaching approach to their curricula in order to better prepare Taiwanese students to accommodate themselves to the workplace quickly in the future.

If you decide to participate in this experimental study, here is what would happen:
1. I will need your assistance to deliver business courses to subject students in the experimental group and the control group due to my investigator position in this research.

2. I will discuss, design, and develop the course procedures with you in order to deliver business courses to subject students in the experimental group and the control group appropriately.

3. I will observe subject students’ attitudes, reactions, and reflections when you are teaching business courses to them during the experimental period.

4. I will need your assistance to give subject students quizzes and examinations periodically, and give subject students questionnaire at the end of the experimental period of time.

5. After collecting data for my study, I will analyze the results. You will be given the opportunity to share the results of the experimental study and read my dissertation. In addition, a copy of the completed dissertation will be given to you and the International Trade Department of College of Management of Shih Chien University in Taipei, Taiwan.

Ideally, I would like to have 100 to 120 students, including males and females, who are enrolled in the International Trade Department of College of Management of Shih Chien University for my experimental study. The students will receive all the details about the experimental study, along with an informed consent to sign.

There is the possibility that the results of this study could be published in a professional journal. However, in the event that this study or any portion of it is published, participating subject students will not be identified by name nor will any information be traced to them. All data collected for this study become the property of the researcher. Any information that is obtained in connection with this study and that can be identified with subject students will remain confidential and will be disclosed only with your permission and that of the subject students. All possible safeguards will be used to protect the subject students’ anonymity, and the methodology of the study will provide complete anonymity in all situations.

Dean P. J. Tsai, if you have any question, please feel free to contact me Chuan-Chun (Stella) Kuo, [Contact Information] in the U.S.] or [Contact Information] in Taipei, Taiwan] or electronically [Contact Information]. You may also contact my university dissertation committee chairperson, Dr. William J. Leary, [Contact Information] in the U.S.] or electronically [Contact Information].

Dean P. J. Tsai, the consent with your signature indicates that you have read and understood the information provided above. Furthermore, it indicates that you willingly agree to participate and assist me to conduct the experimental study with students enrolled in the International Trade Department of College of Management of Shih Chien University in Taipei, Taiwan.

Thank you for your attention and consideration of my request.
Yours Sincerely,

Chuan-Chun (Stella) Kuo,
Doctoral Student of Lynn University

Dr. William J. Leary, Ed. D., Ed. D.,
Dissertation Committee Chairperson
Professor of the Ross College of Education, Health and Human Services
Lynn University
APPENDIX B

PERMISSION LETTER

DATE: August 20, 2003
TO: Chuan-Chun (Stella) Kuo
FROM: Pei-Jong Tsai,
Chairman of the International Trade Department
College of Management, Shih Chien University
RE: Doctoral Research

Dear Miss Chuan-Chun (Stella) Kuo,

I have received your letter via e-mail. I understand and acknowledge the major purpose of the quantitative research for your doctoral dissertation.

I understand and acknowledge that the proposed experimental study involves no potential risk or harm to my students. In contrast, the results of the proposed study could provide beneficial and helpful information for us and other business colleges and universities in Taiwan. We may be able to redesign and provide more efficient, effective, appropriate, and diverse business programs and curricula (incorporating the experiential learning approach). This new approach may be of benefit for our Taiwanese business students in the future. We may be able to better prepare them for the workplace quickly. Therefore, I am interested in your proposed research study. I, furthermore, agree to participate in your research study and to provide the necessary assistance to you in conducting the experimental study with students enrolled in the economics courses I teach.

Please contact my assistant, Miss K. H. Chen, by telephone [redacted] or electronically [redacted] to make an appointment with me for further discussions about your proposed experimental study.

Sincerely,

Pei-Jong Tsai,
Chairman of the International Trade Department
College of Management, Shih Chien University
APPENDIX C
SYLLABUS (CLASS A) (CHINESE VERSION)

教學計劃表

科目名稱：經濟學
班級：國貿系一年級 (甲班)
任課教師：蔡培榮，實踐大學國際貿易系系主任
聯絡電話：(0123) 456789
辦公室傳真：(0123) 456789
聯絡網址：(www.example.com)

一、課程簡述:
此課程為大一經濟學包括：個體經濟學及總體經濟學的介紹，你/妳將會學到個體經濟學及總體經濟學一些基本且常用的經濟法則、經濟原理及經濟理論以幫助你/妳藉由這些基本的概念讓你/妳去了解我們國家的經濟情況及全球經濟情況。

二、課程目標:
首先，讓你/妳知道如何利用學到的經濟法則、原理及理論來解釋、分析我們的公營機構及私人企業各項執行決策之原因。進一步去評估這些決策的有效性及預測一些未來的經濟事件。再則，藉由此課程設計及訓練讓你/妳可以增進你/妳本身的各種能力，例如：分析能力、解決問題能力、溝通能力、決策能力等等。最後，希望你/妳可以藉由此課程安排瞭解學習的樂趣。

三、教學進度:
第二週：經濟學簡介
第三週：供給與需求
第四週：市場均衡與比較靜態分析
第五週：國民所得會計帳
第六週：個案討論 1---經濟指標的認識 vs. 台灣失業率問題研討
第七週：消費與投資理論
第八週：簡單凱因斯模型與支出乘數
第九週：財政政策
第十週：總合需求線/小考 1
第十一週：期中考試
第十二週：總合供給線
第十三週：AS-AD 模型分析/個案討論 2---古典與凱因斯之論爭
第十四週：貨幣與金融問題
第十五週：個案討論 3---認識金融控股公司的架構及業務
第十六週：中央銀行與貨幣政策
第十七週：就業與失業
第十八週：通貨膨脹/小考 2
第十九週：期末考試


五、
(一) 評分方式：
1. 平時測驗: 2 次, 中文命題, 共 40%。
2. 期中考:英文命題: 20%
3. 期末考:英文命題: 20%
4. 上課參與及個案討論 3 個: 20%

(二) 個案研討活動之進行方式：
1. 分組方式: 按學號順序 8-10 人一組，如此可以避免自行分組時因熟識或交情而勞逸不均。
2. 主題及研討目的:
   第一次：經濟指標之認識，且利用此經濟指標探討台灣勞動市場結構及現況，及台灣近年來的就業及失業問題。由學生蒐集重要經濟指標的項目、
內容並分析其用途，可以使經學程更接近現實生活，並提高學生的學習興趣。

第二次：探討古典學派及凱因斯學派的論點及其紛爭。
第三次：台灣金融體系涵蓋之機構與業務項目。由學生經由網上查詢與實地訪查金融機構，了解台灣的金融面面觀，對以後金融相關課程之學習有很大幫助。

3. 進行方式:
   (1.) 只大略說明主題，查詢管道，詳細內容由各組學生查資料。
   (2.) 學生彙總整理分析資料。
   (3.) 課堂分組報告與研討。
   (4.) 各組學生分別撰寫並繳交專題報告。

4. 學生的分工:
   (1.) 蒐集資料及撰寫蒐集過程之紀錄：2-3 人。
   (2.) 資料分析：3-4 人。
   (3.) 課堂分組報告：1 人。
   (4.) 撰寫並繳交專題報告：2 人。

註: 每一個學生均得在繳交的團體報告封面簽字以表示有參予個案研討的活動。

5. 評分方式: 報告的內容及格式都在評分的標準中，其中內容佔 80%，口頭報告佔 20%。

六、其他事項

1. 請維持上課良好環境：不隨意說話製造吵雜、手機請關機。
2. 請專心上課、努力學習，一定有好成績。
3. 本課程的教學經驗將會被研究者紀錄、整理、分析後提供我們台灣教育當局及各大專院校之課程設計者們、教職人員們設計、規劃課程、選擇教學方法之使用參考資料。

以上上課相關事項均知悉。學生簽名：_____________ 日期：__________
APPENDIX D

SYLLABUS (CLASS A) (ENGLISH VERSION)

Course Name: Economics (Class A)
Fall, 2003
Prepared by: Professor P. J. Tsai

SYLLABUS

INSTRUCTOR
P. J., Tsai
Chairman of the International Trade Department
College of Management
Shih Chien University
Office phone:
Office fax:
Office e-mail address:
Home phone:
Home e-mail address:

I. COURSE DESCRIPTION
This course provides the students with an integrated overview of the concepts of economics. The emphasis is on the application of economics and uses real-world economic events to encourage the study of the principles of economics and to show how those concepts can help understand the complex and dynamic global society economies and Taiwanese economy.

II. GOALS OF THE COURSE
The first goal of this course is to teach students how to use the concepts, principles, theories, and analytic techniques of economics to make practical decisions as participants/operators of business, government, and social organizations. A second goal is to teach students to better understand and appreciate the decisions made by other people and organizations. A third goal is to teach students to be able to analyze, explain, predict, and evaluate major economic events that affect business. A fourth goal is to teach students to improve their critical thinking skills, problem-solving skills, communication skills, and decision making skills, which are vital skills in the global diverse society of today. The final goal is to provide an enjoyable learning experience that the students appreciate and value.

III. COURSE SCHEDULE
2nd week: Lecturette 1: Introduction
3rd week: Lecturette 2: Supply and Demand Theories
4th week: Lecturette 3: Market Equilibrium & Comparative Statics Analysis  
5th week: Lecturette 4: National Income Accounting  
6th week: Case Study#1: Economic Indicators vs. Explore Employment & Unemployment in Taiwan  
7th week: Lecturette 5: Theories of Consumption and Investment  
8th week: Lecturette 6: Keynesian Model & Expenditure Multiplier  
9th week: Lecturette 7: Fiscal Policy  
10th week: Lecturette 8: Aggregate Demand, and Quiz#1  
11th week: Mid-term Examination  
12th week: Lecturette 9: Aggregate Supply  
13th week: Lecturette 10: AS-AD Model Analysis/Case Study#2: Debate between Classical View vs. Keynesian View  
14th week: Lecturette 11: Money & Financial Issues  
15th week: Case Study#3: The Framework and Operation Business of Financial System  
16th week: Lecturette 12: The Role of the Central Bank & Monetary Policy  
17th week: Lecturette 13: Employment & Unemployment/  
18th week: Lecturette 14: Inflation, and Quiz#2  
19th week: Final Examination

IV. TEXTBOOK


V. ASSIGNMENT SUMMARY

A. GRADE WEIGHTS, DUE DATES AND GRADING NOTES

<table>
<thead>
<tr>
<th></th>
<th>Weights</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiz#1</td>
<td>20%</td>
<td>10th week</td>
</tr>
<tr>
<td>Quiz#2</td>
<td>20%</td>
<td>18th week</td>
</tr>
<tr>
<td>Class participation &amp;</td>
<td></td>
<td>6th week for Case Study#1</td>
</tr>
<tr>
<td>Homework Assignments:</td>
<td>20%</td>
<td>13th week for Case Study#2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15th week for Case Study#3</td>
</tr>
<tr>
<td>Mid-term Examination</td>
<td>20%</td>
<td>11th week</td>
</tr>
<tr>
<td>Final Examination</td>
<td>20%</td>
<td>19th week</td>
</tr>
</tbody>
</table>

Total: 100%

B. GUIDELINES OF CASE STUDIES

1. Rules for Forming Group:
   I will assign every 8 to 10 students per group in terms of the order of student identification numbers. Each group of 8 to 10 students will be asked to complete the given case studies collaboratively including: preparing the group written paper, and doing 5-10 minutes oral presentation in class.

2. The Topics vs. Purposes and Goals of Case Studies:
The main purpose of the case-study activity is that trying to create the positive and enjoyable learning atmosphere of classrooms including: (a) increasing the students’ interests of learning; (b) encouraging active learning; (c) providing students the opportunity to apply what they learned in classes to real-world economic events. In writing the case studies, you will be required to (a) review some content of the textbook related to the given case studies in advance, (b) do research, (c) conduct interviews if necessary, and (d) merge the ideas with the principles, concepts, and theories in the textbook (applying what you have learned in classes and from textbooks to the real-world events).

3. Requirements of the Content of the Case Study:
   (a) The contents of case-study papers should include: topic/subject, introduction, body, conclusion, reference citation, etc. The format of the written paper includes: cover page, table content, job-breakdown chart, and content of case studies (including introduction, body, conclusion, and reference citation sections).
   (b) You will be required to do research, gather, organize, analyze and synthesize collected data and information.
   (c) Each group has to select one person at least to do brief oral presentations (5 to 10 minutes) and run the interactive group discussions in class.
   (d) Each group has to turn in one group written paper.

4. Guidelines for Job Breakdown Chart:
   You will be required to attach the job breakdown chart in details on the third page. (The format of the job breakdown chart as below:)

<table>
<thead>
<tr>
<th>Accountabilities</th>
<th>Accountable Person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data &amp; Information gathering</td>
<td>Mary, John, Bill</td>
</tr>
<tr>
<td>Data &amp; information analysis</td>
<td>Angela, Paula, Stella, Jeff</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

   (a) Data & information gathering, and recording: 2-3 persons.
   (b) Data & information organization, summary, and analysis: 3-4 persons.
   (c) In-class oral presentation and interactive discussion running: 1 person.
   (d) Preparing/editing the group written papers (one written paper per team): 2 persons.

Note: A group of 8-10 students will be asked to sign their names on the cover pages of the written papers to reveal their contributions to the group assignments.

5. Grading Criteria:
   Case-study assignments will be graded on content and format of written papers, and interactive group discussions (abilities to handle questions, and critiques from the other groups) and oral presentations in class, with 80% of the grade based on the quality of content including: identifying and focusing on important issues relevant to questions assigned and given by me, application of appropriate concepts to the given questions, and sound analysis.

VI. SPECIAL ATTENDANCE GUIDELINES & NOTE
1. Please keep the environment of classroom clean, and keep the class order when classes are in process (such as: do not make noises, turn off beepers and cell-phones, and so on).

2. Please attend classes regularly (three hours per week), take quizzes and examinations periodically, and complete/turn in all assigned homework on time according to the syllabus.

3. I have agreed to rules listed as above. Furthermore, I was informed that the information and data of mine obtained by Dr. P. J. Tsai might provide himself and/or other researchers for purposes of academic research studies and/or references for program and curricula design.

Signature of the Student: ___________________________ Date: ________________
APPENDIX E
SYLLABUS (CLASS B) (CHINESE VERSION)

教學計劃表

科目名稱：經濟學
班級：國貿系一年級 (乙班)
任課教師：蔡培榮，實踐大學國際貿易系系主任
聯絡電話：
辦公室傳真：
聯絡網址：

一、課程簡述：
此課程為大一經濟學包括：個體經濟學及總體經濟學的介紹，你/妳將會學到個體經濟學及總體經濟學一些基本且常用的經濟法則、經濟原理及經濟理論以幫助你/妳藉由這些基本的概念讓你/妳去了解我們國家的經濟情況及全球經濟情況。

二、課程目標：
首先，讓你/妳知道如何利用學到的經濟法則、原理及理論來解釋、分析我們的公營機構及私人企業各項執行決策之原因。進一步去評估這些決策的有效性及預測一些未來的經濟事件。再則，藉由此課程設計及訓練讓你/妳可以增進你/妳本身的各種能力，例如：分析能力、解決問題能力、溝通能力、決策能力等等。最後，希望你/妳可以藉由此課程安排瞭解學習的樂趣。

三、教學進度：
第二週：.經濟學簡介
第三週：供給與需求
第四週：市場均衡與比較靜態分析
第五週：國民所得會計帳
第六週：經濟指標的認識
第七週：消費與投資理論
第八週：簡單凱因斯模型與支出乘數
第九週：財政政策
第十週：總合需求線/小考 1
第十ー週：期中考試
第十二週：總合供給線
第十三週：AS-AD 模型分析
第十四週：貨幣與金融問題
第十五週：認識金融控股公司的架構及業務
第十六週：中央銀行與貨幣政策
第十七週：就業與失業
第十八週：通貨膨脹/小考 2
第十九週：期末考試


五、評分方式：
1. 平時測驗：2 次，中文命題，共 40%。
2. 期中考：英文命題：20%
3. 期末考：英文命題：20%
4. 上課參與：20%

六、其他事項

1. 請維持上課良好環境：不隨意說話製造吵雜、手機請關機。
2. 請專心上課，努力學習，一定有好成績。
3. 本課程的教學經驗將會被研究者紀錄、整理、分析後提供我們台灣教育當局及各大專院校之課程設計者們、教職人員們設計、規劃課程、選擇教學方法之使用的參考資料。

以上上課相關事項均已知悉。學生簽名：______________ 日期：__________
Course Name: Economics (Class B)
Fall, 2003
Prepared by: Professor P. J., Tsai

SYLLABUS

INSTRUCTOR
P. J., Tsai
Chairman of the International Trade Department
College of Management
Shih Chien University
Office phone:
Office fax:
Office e-mail address:
Home phone:
Home e-mail address:

I. COURSE DESCRIPTION
This course provides the students with an integrated overview of the concepts of economics. The emphasis is on the application of economics and uses real-world economic events to encourage the study of the principles of economics and to show how those concepts can help understand the complex and dynamic global society economies and Taiwanese economy.

II. GOALS OF THE COURSE
The first goal of this course is to teach students how to use the concepts, principles, theories, and analytic techniques of economics to make practical decisions as participants/operators of business, government, and social organizations. A second goal is to teach students to better understand and appreciate the decisions made by other people and organizations. A third goal is to teach students to be able to analyze, explain, predict, and evaluate major economic events that affect business. A fourth goal is to teach students to improve their critical thinking skills, problem-solving skills, communication skills, and decision making skills, which are vital skills in the global diverse society of today. The final goal is to provide an enjoyable learning experience that the students appreciate and value.

III. COURSE SCHEDULE
2nd week: Lecturette 1: Introduction
3rd week: Lecturette 2: Supply and Demand Theories
4th week: Lecturette 3: Market Equilibrium & Comparative Statics Analysis  
5th week: Lecturette 4: National Income Accounting  
6th week: Lecturette 5: Economic Indicators  
7th week: Lecturette 6: Theories of Consumption and Investment  
8th week: Lecturette 7: Keynesian Model & Expenditure Multiplier  
9th week: Lecturette 8: Fiscal Policy  
10th week: Lecturette 9: Aggregate Demand, and Quiz#1  
11th week: Mid-term Examination  
12th week: Lecturette 10: Aggregate Supply  
13th week: Lecturette 11: AS-AD Model Analysis  
14th week: Lecturette 12: Money & Financial Issues  
15th week: Lecturette 13: The framework and operation business of financial system  
16th week: Lecturette 14: The Role of the Central Bank & Monetary Policy  
17th week: Lecturette 15: Employment & Unemployment  
18th week: Lecturette 16: Inflation, and Quiz#2  
19th week: Final Examination  

IV. TEXTBOOK  

V. ASSIGNMENT SUMMARY  
A. GRADE WEIGHTS, DUE DATES AND GRADING NOTES  
<table>
<thead>
<tr>
<th></th>
<th>Weights</th>
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</thead>
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<tr>
<td>Quiz#1</td>
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<td>18th week</td>
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<tr>
<td>Mid-term Examination</td>
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<td>11th week</td>
</tr>
<tr>
<td>Final Examination</td>
<td>20%</td>
<td>19th week</td>
</tr>
<tr>
<td>Class participation</td>
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<td></td>
</tr>
</tbody>
</table>

Total: 100%  

VI. SPECIAL ATTENDANCE GUIDELINES & NOTE  
1. Please keep the environment of classroom clean, and keep the class order when classes are in process (such as: do not make noises, turn off beepers and cell-phones, and so on).  
2. Please attend classes regularly (three hours per week), take quizzes and examinations periodically, and complete/turn in all assigned homework on time according to the syllabus.  
3. I have agreed to rules listed as above. Furthermore, I was informed that the information and data of mine obtained by Dr. P. J. Tsai might provide himself and/or other researchers for purposes of academic research studies and/or references for program and curricula design.  

Signature of the Student: ____________________________ Date: ____________
APPENDIX G
INSTRUMENT I
CASE STUDIES (CLASS A) (CHINESE VERSION)

課程名稱: 經濟學 (甲班)
學期: 92 年度第一學期
授課教授: 蔡培榮 教授

第一次個案研討
主題: 識別經濟指標 vs. 台灣失業率問題研討
討論大綱:
1. 經濟指標的種類：盡你們所能，列出觀察一個國家經濟情況的各項經濟指標，
越完整越好。
2. 這些經濟指標的內容與重要性。
3. 以這些經濟指標討論我國目前的經濟概況及台灣就業與失業的問題。
4. 回顧並分析台灣過去 50 年的失業率。
5. 2000 年起台灣步入高失業率問題之研討。

第二次個案研討
主題: 古典與凱因斯之論爭
討論大綱:
1. 古典學派理論之背景。
2. 凱因斯學派理論之背景。
3. 個人的看法。

第三次個案研討
主題: 識別金融體系
討論大綱:
1. 何謂金融體系？有何重要性？
2. 我國金融體系的架構中，包含那些金融機構？
3. 這些金融機構各有那些業務？你個人或家人曾經接觸過這些業務嗎？

註：請你/妳要遵守教學計劃表中第五項中的第二小項（個案研討活動之進行方式）的規定、規則去進行並完成你/妳的組別報告。如果你/妳有任何疑問或不清楚有關此三個個案研討的準備及撰寫，歡迎你/妳隨時和我詢問。身為你/妳的教授老師，我有責任協助你/妳的學習過程及幫助你/妳解決學習上的難題。
APPENDIX H
INSTRUMENT I

CASE STUDIES (CLASS A) (ENGLISH VERSION)

Course Name: Economics (Class A)
Term: Fall, 2003
Prepared by: Professor P. J. Tsai

Instructions for Case Study#1

Subject: Economics Indicators and Employment vs. Unemployment Issues
Major Purposes: It is offering you opportunity to be familiar with a variety of economic indicators adopted by our government, and economic, and fiscal institutions worldwide today. Therefore, you will be required to find out what kinds of economic indicators used and adopted by government, and economic, and fiscal institutions worldwide currently, for what kinds of purposes, and how to use them to organize, analyze, synthesize, and interpret current economic situations and events in Taiwan and the global society.
Also, for a nation, employment and unemployment issue is one of biggest concern for a government; therefore, this case study is also providing you good opportunity to know the entire structure of labor force of one nation. In addition, it is offering you opportunity to know how the unemployment rate is calculated, and how many different kinds of unemployment are. And it is offering you opportunity to explore reasons and causes beyond these kinds of unemployment.

Guidelines & Requirements:
1. Categories of Economics Indicators: list a variety of economic indicators used and adopted by most governments and economic and fiscal institutions worldwide currently. (List economics indicators as much as you can).
2. Explain the implications, meanings, and the importance of those economic indicators you list.
3. Interpret the current economic situations and events in Taiwan and the global society in virtue of those economic indicators you list.
4. Please figure out and list the unemployment rate in the Taiwan society over past 50 years. Furthermore, please discuss the reasons and causes result in such kinds of unemployment.
5. Since the year 2000, we have been suffering high unemployment in the Taiwan society, we have to discuss the reasons beyond those high unemployment. Exploring the unemployment rate in Taiwan over past four years. Moreover, probing into and discussing causes and reasons of the high unemployment rate in Taiwan during the past several years.
Instructions for Case Study#2
Subject: Debate between the Classical View vs. the Keynesian View
Major Purposes: It is offering you opportunity to be familiar with major concepts, principles, and theories devised and supported by the Classical economists. Also it is offering you opportunity to be familiar with major concepts, principles, and theories devised and supported by the Keynesian economists. Furthermore, it is providing you with good chance to discern the major different standpoints from the Classical and Keynesian View.

Guidelines & Requirements:
1. Please organize major concepts, principles, and theories devised and supported by the Classical economists.
2. Please organize major concepts, principles, and theories devised and supported by the Keynesian economists.
3. Please analyze, synthesize, and compare the differences between the Classical View and the Keynesian View. Moreover, please issue personal reflection and opinion about the Classical View and the Keynesian View.

Instructions for Case Study#3
Subject: The Framework and Operation Businesses of Financial and Banking Systems
Major Purposes: It is offering you an opportunity to know the frameworks, business categories, and operations of banking and financial systems in Taiwan. Therefore, you will be required to conduct research and interviews in order to accomplish this given case study assignment. Besides, through processes of interview with people, who engage in banking and financial institutions, you will know various aspects of banking and financial institutions in Taiwan. Furthermore, it will help you learn the “finance” course more effectively and efficiently in the future (“finance” course is one of the required courses of sophomore’s curricula.)

Guidelines & Requirements:
1. What is so-called “financial & banking systems”? Why are they so important for one country?
2. What kinds of financial or banking institutions do we have according to the frameworks of the financial & banking systems in Taiwan currently?
3. What sort of businesses are run by those financial and banking institutions respectively? Have you and/or your family had business experiences with those financial and banking institutions? (Please describe and explain in detail as much as you can).

Note: Please follow the Guidelines of Case Studies in “Syllabus” prepared and given by me. If you have any question about Case Study#1, Case Study#2, and Case Study#3, please feel free to ask me in classes or call me anytime. As your instructor, I am responsible for helping and assisting you learning and solving problems.
### APPENDIX I

#### INSTRUMENT II

#### QUIZ 1 (CHINESE VERSION)

<table>
<thead>
<tr>
<th>實踐大學 92 學年度第 1 學期 平時(1) 考試試題紙</th>
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<tr>
<td><strong>考 試 科 目</strong></td>
<td><strong>系 班 級</strong></td>
</tr>
<tr>
<td>經濟學</td>
<td>國一甲、乙</td>
</tr>
</tbody>
</table>

學生可否攜帶計算機、書籍、筆記或其他資料作答，請在備註欄注明【如未註明，一律不准攜帶】

<table>
<thead>
<tr>
<th>班級： 學號： 姓名：</th>
</tr>
</thead>
</table>

一. 單選題 (15 分)

1. ( ) 檳榔漲價將使檳榔(A)供給量增加(B)需求減少(C)供給增加(D)以上皆對。

2. ( ) 下列何者屬於總體經濟學之範疇？(A) 消費決策(B) 生產決策(C) 蔬菜價格之決定(D) 經濟成長。

3. ( ) 存貨增加屬於何種支出？(A) 消費(B) 投資(C) 出口(D) 移轉支出。

4. ( ) 下列何者為流量？(A) 人口(B) 財富(C) 國民生產毛額(D) 資本。

5. ( ) 價跌量縮可能肇因於：(A) 需求減少(B) 供給減少(C) 供給增加(D) 需求增加。

二. 填充題(20 分)

1. 咖啡對紅茶的相對價格等於 2，一杯咖啡 60 元，則一杯紅茶_____元。若一杯紅茶 80 元，咖啡對紅茶的相對價格等於______。此時你多喝咖啡，是因為______效果。

2. 漁業靠海為生，海洋屬於生產要素中之______，漁船和漁網屬於生產要素中之______。

3. ________財與________財之需求曲線為正斜率。

4. 經濟問題起因於________與________。

5. 名目 GDP 除以實質 GDP 等於________。
三. 問答(共計 65 分)

1. 何謂機會成本？你讀實踐大學國貿系的機會成本有那些？請儘量列舉出來。(6 分)

2. 請以供需圖說明下列情況(14 分)

1)主機板降價對電腦價格與交易量的影響; 2)口蹄疫對豬肉價格與交易量的影響。

3. 請回答以下有關經濟指標的問題。(20 分)

1) 就業與失業人數分別為 950 萬人、50 萬人，非勞動力為 500 萬人，勞動參與率及失業率分別是多少?

2) 景氣對策信號綠燈與紅燈分別代表何種經濟情況?

3) 已知我國消費為 1200，投資為 200，政府購買支出為 250，出口為 1600，進口為 500，
政府移轉支出為 400，折舊為 150。求 GDP, NDP。

4) 用來衡量國民所得分配平均與否的指標有那些?

四. 解釋名詞(25 分)

1) 結構性失業 2) 新台幣升值 3) 通貨膨脹率 4) 貿易逆差 5) 外匯存底
APPENDIX J

INSTRUMENT II

QUIZ 1 (ENGLISH VERSION)

<table>
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<th>SHIH CHIEN UNIVERSITY</th>
<th>FALL TERM, 2003</th>
<th>QUIZ 1</th>
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</tr>
</thead>
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<tr>
<td>COURSE NAME</td>
<td>CLASS</td>
<td>NUMBERS OF STUDENTS</td>
<td>INSTRUCTOR</td>
</tr>
<tr>
<td>Economics</td>
<td>Class A &amp; B</td>
<td>50+57=107</td>
<td>Dr. P. J. Tsai</td>
</tr>
</tbody>
</table>

Note: If students are allowed to bring calculators, textbooks, and other reference notes with them when examination is going, please make marks in “Memo” column.

CLASS:  STUDENT ID:  NAME:

I. Multiple-Choice Question -- Choose the one alternative that best completes the statement or answers the question (3% per question; total: 15%):

1. ( ) If the price of betel nuts goes up, then, there will be an (A) increase in supply (B) demand decrease (C) supply increase (D) all items are correct listed as above.

2. ( ) Which one of the following items is the score of Macroeconomics? (A) Consumption policy (B) Production policy (C) Policy of prices of vegetables (D) Economic growth.

3. ( ) Increasing in “stock” belongs to what kinds of expenditures? (A) Consumption (B) Investment (C) Export (D) Transferable payment.

4. ( ) Which of the following is a “flow” variable? (A) Population (B) Wealth (C) GDP (D) Capital.

5. ( ) Which of following items listed as below causes “decrease in quantity and price goes down”? (A) Demand decrease (B) Supply decrease (C) Supply increase (D) Demand increase.

II. Short-Answer Question (2% per column; total: 20%):

1. The relative price of coffee and black tea is equal to “2”. If the price of a cup of coffee is 60 dollars, how much is a cup of black tea? _______ dollars. If the price of a cup of black tea is 80 dollars, what is the relative price of coffee and black tea? _______. During this time period, you will drink more coffee because of _______ effect.

2. Ocean is the major resource of Fishing Industry; therefore, which kinds of resource categories that ocean belongs to? _______ ; which kinds of resource categories “fishing boat” and “fishing net” are? _______.

3. What kinds of goods, the slopes of demand-curve are positive? _______ Goods and _______ Goods.

4. What kinds of two major reasons cause “economics problem”? _______ and _______.

Dr. P. J. Tsai
5. Real GDP divided by Nominal GDP is equal to _________.

III. Essay Question (Total: 65%):
1. What is “opportunity cost”? What kinds of opportunity cost items could happen, if you enrolled as a business student of the International Trade Department of College of Management of Shin Chien University? (Please list as much as you could.) (Total: 6%)

2. Please analyze and explain the following questions via “Demand-Supply Model” diagrams. (Total: 14%).
   (1) Please analyze and explain changes of the quantity of computers influenced by a drop in the price of computer’s CPU.
   (2) Please analyze and explain the changes of the price and the quantity of pork influenced by mad-cow disease.

3. Please answer the following items: (Total: 20%).
   (1) Please calculate “labor force participation rate” and “unemployment rate” according to the data provided as follows: employment population = 9.5 million; unemployment population = 0.5 million; and Non-labor force = 5 million.
   (2) What kinds of meaning of “GREEN” color and “BLUE” color of the national economics indicative light are respectively?
   (3) Please calculate the following items: “GDP” and “NDP” according to the data provided as bellow: consumption expenditure = 1200; investment = 200; government purchases of goods and services = 250; export = 1600; import = 500; government transfer payment = 400; and depreciation = 150.
   (4) What kinds of economics indicators can represent the difference/situation between the poor and the wealthy (please list as much as you can).

IV. Please define and explain the following items (5% per question; total: 30%):
1) Structural Unemployment
2) Appreciation of NT Dollar (Taiwan Dollar)
3) Inflation
4) Trade Exceed/Trade Surplus
5) Foreign Exchange Reserve
APPENDIX K

INSTRUMENT II

MIDTERM EXAMINATION (CHINESE VERSION)

I. Multiple-Choice Question -- Choose the one alternative that best completes the statement or answers the question (2% per question; total: 40%):


2. ( ) GDP equals net domestic product plus A) transfer payments and business transfers. B) depreciation. C) indirect business taxes and personal taxes. D) retained earnings.

3. ( ) The largest component of GDP is A) gross private domestic investment. B) personal consumption expenditures. C) net exports of goods and services. D) government purchases of goods and services.

4. ( ) All of the following are included in gross private domestic investment expenditure EXCEPT A) business’s purchase of a fleet of cars. B) household’s purchase of a new house. C) business’s purchase of another company’s stock. D) a retail store’s purchase of shoes to add to its inventory.

5. ( ) In the national income accounts, government purchases of goods and services exclude A) transfer payments. B) state and local government purchases. C) local government purchases but include state government purchases. D) spending on national defense.


7. ( ) Suppose that nominal GDP per person is $21,000 in 2002, the 1998 GDP deflator is 100, and the 2002 deflator is 105. The approximate real GDP per person in 2002 is A) $20,000. B) $21,000. C) $19,048. D) $22,050.

8. ( ) A point outside a production possibilities frontier indicates A) that resources are not being used efficiently. B) an output combination that society cannot attain given its current level of resources and technology. C) that resources are being used very efficiently. D) that both goods are characterized by increasing costs.

10. If the CPI was 122.3 at the end of 2002 and 124.5 at the end of 2003, the inflation rate over these two years was A) 1.8 percent. B) 2.5 percent. C) 22.5 percent. D) 18.0 percent.

11. Which of the following examples definitely illustrates an appreciation of the U.S. dollar? A) The dollar exchanges for 120 francs and then exchanges for 100 francs. B) The dollar exchanges for 200 yen and then exchanges for 250 francs. C) The dollar exchanges for 1 pound and then exchanges for 1.2 pounds. D) None of the above.

12. Which of the following is TRUE regarding the real interest rate? I. The real interest rate is the return on capital. II. The real interest rate equals the nominal interest rate adjusted for inflation. A) I. B) II. C) Both I and II. D) Neither I nor II.

13. A relative price is A) the slope of the demand curve. B) the difference between one price and another. C) the slope of the supply curve. D) the ratio of one price to another.

14. A drop in the price of a compact disc shifts the demand curve for prerecorded tapes leftward. From that you know compact discs and prerecorded tapes are A) complements. B) substitutes. C) inferior goods. D) normal goods.

15. Inferior goods are those for which demand increases as A) the price of a substitute falls. B) the price of a substitute rises. C) income decreases. D) income increases.

16. The price of a good will fall if A) there is a surplus at the current price. B) the current price is less than the equilibrium price. C) the quantity demanded exceeds the quantity supplied. D) the price of a complement falls.

17. A decrease in quantity demanded caused by an increase in price is represented by a A) rightward shift of the demand curve. B) leftward shift of the demand curve. C) movement up and to the left along the demand curve. D) movement down and to the right along the demand curve.

18. Which of the following will always raise the equilibrium price? A) An increase in both demand and supply. B) A decrease in both demand and supply. C) An increase in demand combined with a decrease in supply. D) A decrease in demand combined with an increase in supply.

19. The most fundamental economic problem is A) security. B) scarcity. C) health. D) the fact the United States buys more goods from foreigners than we sell to foreigners.

20. The marginal propensity to consume A) is negative. B) is between 0 and 1. C) equals 1. D) exceeds 1.
II. **Essay Question** (10% per question; total: 30%):

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<tr>
<td>Indirect taxes less subsidies</td>
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<tr>
<td>Depreciation</td>
<td>250</td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>1,35</td>
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<tr>
<td>Proprietor’s income</td>
<td>150</td>
</tr>
<tr>
<td>Rental income</td>
<td>70</td>
</tr>
<tr>
<td>Personal consumption expenditures</td>
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</tr>
<tr>
<td>Government purchases of goods and services</td>
<td>500</td>
</tr>
<tr>
<td>Net exports of goods and services</td>
<td>40</td>
</tr>
</tbody>
</table>

1. Using the data in the left table, calculate gross domestic product, gross private domestic investment, net private domestic investment.

2. In a country with a working-age population of 100 million, 70 million workers are employed and 5 million workers are unemployed. What is the labor force participation rate? What is the unemployment rate?

3. What is the effect on the price and quantity on the following events. Please explain with demand and supply diagrams.
   a) Over the past decade technological improvements that have lowered the cost of producing an automobile --- automobile market

b) People come to expect that the price of a gallon of gasoline will rise next week. --- gasoline market this week

4. Which of the following are microeconomic topics? a) The reasons why Kathy buys less orange juice. b) The reasons for a decline in CPI. c) The cause of why total employment may decrease. d) The effect of the government budget deficit on inflation. e) How a rise in the price of sugar affects the market for sodas.

5. During the summer you have made the decision to attend summer school, which precludes you from working at your usual summer job in which you normally earn $6,000 for the summer. Your tuition cost is $3,000, books and supplies cost $300, and room and board cost $1,000. How much is the opportunity cost of attending summer school?

III. **Please define and explain the following items** (6% per question; total: 30%):

1. Economic Growth Rate
2. Substitution Effect
3. Full Employment
4. Structural Unemployment
5. Change in Supply
I. Multiple-Choice Question – Choose the one alternative that best completes the statement or answers the question (2% per question; total: 40%):

2. GDP equals net domestic product plus A) transfer payments and business transfers. B) depreciation. C) indirect business taxes and personal taxes. D) retained earnings.
3. The largest component of GDP is A) gross private domestic investment. B) personal consumption expenditures. C) net exports of goods and services. D) government purchases of goods and services.
4. All of the following are included in gross private domestic investment expenditure EXCEPT A) business’s purchase of a fleet of cars. B) household’s purchase of a new house. C) business’s purchase of another company’s stock. D) a retail store’s purchase of shoes to add to its inventory.
5. In the national income accounts, government purchases of goods and services exclude A) transfer payments. B) state and local government purchases. C) local government purchases but include state government purchases. D) spending on national defense.
7. Suppose that nominal GDP per person is $21,000 in 2002, the 1998 GDP deflator is 100, and the 2002 deflator is 105. The approximate real GDP per person in 2002 is A) $20,000 B) $21,000. C) $19,048. D) $22,050.
8. A point outside a production possibilities frontier indicates A) that resources are not being used efficiently. B) an output combination that society cannot attain given its current level of resources and technology. C) that resources are being used very efficiently. D) that both goods are characterized by increasing costs.

10. ( ) If the CPI was 122.3 at the end of 2002 and 124.5 at the end of 2003, the inflation rate over these two years was A) 1.8 percent. B) 2.5 percent. C) 22.5 percent. D) 18.0 percent.

11. ( ) Which of the following examples definitely illustrates an appreciation of the U.S. dollar? A) The dollar exchanges for 120 francs and then exchanges for 100 francs. B) The dollar exchanges for 200 yen and then exchanges for 250 francs. C) The dollar exchanges for 1 pound and then exchanges for 1.2 pounds. D) None of the above.

12. ( ) Which of the following is TRUE regarding the real interest rate? I. The real interest rate is the return on capital. II. The real interest rate equals the nominal interest rate adjusted for inflation. A) I. B) II. C) Both I and II. D) Neither I nor II.

13. ( ) A relative price is A) the slope of the demand curve. B) the difference between one price and another. C) the slope of the supply curve. D) the ratio of one price to another.

14. ( ) A drop in the price of a compact disc shifts the demand curve for prerecorded tapes leftward. From that you know compact discs and prerecorded tapes are A) complements. B) substitutes. C) inferior goods. D) normal goods.

15. ( ) Inferior goods are those for which demand increases as A) the price of a substitute falls. B) the price of a substitute rises. C) income decreases. D) income increases.

16. ( ) The price of a good will fall if A) there is a surplus at the current price. B) the current price is less than the equilibrium price. C) the quantity demanded exceeds the quantity supplied. D) the price of a complement falls.

17. ( ) A decrease in quantity demanded caused by an increase in price is represented by a A) rightward shift of the demand curve. B) leftward shift of the demand curve. C) movement up and to the left along the demand curve. D) movement down and to the right along the demand curve.

18. ( ) Which of the following will always raise the equilibrium price? A) An increase in both demand and supply. B) A decrease in both demand and supply. C) An increase in demand combined with a decrease in supply. D) A decrease in demand combined with an increase in supply.

19. ( ) The most fundamental economic problem is A) security. B) scarcity. C) health. D) the fact the United States buys more goods from foreigners than we sell to foreigners.

20. ( ) The marginal propensity to consume A) is negative. B) is between 0 and 1. C) equals 1. D) exceeds 1.
II. Essay Question (10% per question; total: 30%):

<table>
<thead>
<tr>
<th>Corporate profits</th>
<th>$200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net interest</td>
<td>150</td>
</tr>
<tr>
<td>Indirect taxes less subsidies</td>
<td>230</td>
</tr>
<tr>
<td>Depreciation</td>
<td>250</td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>1,350</td>
</tr>
<tr>
<td>Proprietor's income</td>
<td>150</td>
</tr>
<tr>
<td>Rental income</td>
<td>70</td>
</tr>
<tr>
<td>Personal consumption expenditures</td>
<td>1,400</td>
</tr>
<tr>
<td>Government purchases of goods and services</td>
<td>500</td>
</tr>
<tr>
<td>Net exports of goods and services</td>
<td>40</td>
</tr>
</tbody>
</table>

1. Using the data in the left table, calculate gross domestic product, gross private domestic investment, net private domestic investment.
2. In a country with a working-age population of 100 million, 70 million workers are employed and 5 million workers are unemployed. What is the labor force participation rate? What is the unemployment rate?
3. What is the effect on the price and quantity on the following events? Please explain with demand and supply diagrams.
   a) Over the past decade technological improvements that have lowered the cost of producing an automobile --- automobile market
   b) People come to expect that the price of a gallon of gasoline will rise next week. --- gasoline market this week
4. Which of the following are microeconomic topics?
   a) The reasons why Kathy buys less orange juice.
   b) The reasons for a decline in CPI.
   c) The cause of why total employment may decrease.
   d) The effect of the government budget deficit on inflation.
   e) How a rise in the price of sugar affects the market for sodas.
5. During the summer you have made the decision to attend summer school, which precludes you from working at your usual summer job in which you normally earn $6,000 for the summer. Your tuition cost is $3,000, books and supplies cost $300, and room and board cost $1,000. How much is the opportunity cost of attending summer school?

III. Please define and explain the following items (6% per question; total: 30%):
1. Economic Growth Rate
2. Substitution Effect
3. Full Employment
4. Structural Unemployment
5. Change in Supply
APPENDIX M

INSTRUMENT II

QUIZ 2 (CHINESE VERSION)

<table>
<thead>
<tr>
<th>考試 科目</th>
<th>系 班 級</th>
<th>學生人數</th>
<th>命 題 教 師</th>
<th>備 註</th>
</tr>
</thead>
<tbody>
<tr>
<td>經濟學</td>
<td>國一甲、乙</td>
<td>50+57=107</td>
<td>蔡培榮</td>
<td>直接作答</td>
</tr>
</tbody>
</table>

學生可否攜帶計算機、書籍、筆記或其他資料作答，請在備註欄註明【如未註明，一律不准攜帶】

班級： 學號： 姓名：

一. 單選題(15分)
1.( )下列何種情況會使乘數降低? (A) 邊際稅率降低 (B) 邊際消費傾向提高 (C) 邊際進口傾向提高 (D) 邊際儲蓄傾向降低。

2. ( )短期總合供給曲線呈 (A) 負斜率 (B) 正斜率 (C) 垂直線 (D) 雙曲線。

3. ( ) M1 不包括 (A) 通貨 (B) 支票存款 (C) 活期存款 (D) 定期存款。

4. ( ) 下列那一選項與其他三個選項無關? (A) 國庫券 (B) 商業本票 (C) 股票 (D) 銀行承兌匯票。

5. ( ) 下列那一選項與其他三個選項無關? (A) 銀行 (B) 信用合作社 (C) 電信公司 (D) 證券商。

二. 填充題(10分)
1. 若不考慮稅收與進口, 邊際消費傾向 0.8, 定額稅乘數 = ________。

2. 總合需求曲線呈負斜率之原因包括 ________ 效果, ________ 效果, ________ 效果。

3. 發行共同基金之受益憑證的機構為 ________。
三.問答，計算與解釋名詞(共計75分):

1.消費C=1000+0.8Yd,投資I=500,政府支出G=600,出口X=1600,進口M=660+0.12Y,
稅收T=50+0.1Y。

求均衡時之(1)所得(2)政府財政收支赤字或盈餘多少(3)貿易出超或入超多少(4)政府
支出乘數(5)定額稅乘數(6)邊際進口傾向。(24分)

2.解釋名詞(15分)。

(1)排擠效果(2)金融控股公司(3)自動穩定因子

3.試以流程圖說明直接與間接金融體系，以及相關機構或市場之內容，愈詳細愈好。
(20分)

4. (1)何謂擴張性財政政策？請以總合供需圖說明其短期及長期效果。

(2)下列情況分別會引起SAS, LAS, AD線如何移動？A) 921大地震引起許多廠房及
設備嚴重受損；B) 縮減工時；C) SARS疫情嚴重,消費意願降低。(16分)
APPENDIX N

INSTRUMENT II

QUIZ 2 (ENGLISH VERSION)

I. Multiple-Choice Question — Choose the one alternative that best completes the statement or answers the question (3% per question; total: 15%):

1. ( ) Which one of the followings items will cause "decrease" in multiplier? (A) A decrease in the marginal tax rate (B) A increase in the marginal propensity to consumption (C) A increase in the marginal propensity to import (D) A decrease in the marginal propensity to save.

2. ( ) The slope of short-term aggregate supply (AS) is (A) negative (B) positive (C) vertical (D) double-curve.

3. ( ) According to the definition of M1, which one of the following items is NOT included? (A) Currency (B) Checking deposit (B) Saving deposit (D) Certificate deposit (CD).

4. ( ) Which one of the following items does not belong to the same category? (A) Government Bond (B) Commercial Paper (CP) (C) Stock (D) Bank Acceptance Draft (BA).

5. ( ) Which one of the following items does not belong to the same category? (B) Banks (B) Corporate banks (C) Electricity companies (D) Securities.

II. Short-Answer Question (2% per blank column; total: 10%):

1. If the tax and import items were not taken into account in this case, the marginal propensity to consumption (MPC) = 0.8, then, what is the lump-sum tax multiplier?

2. What are the three effects resulting in the negative slope of aggregate demand (AD)?

   ___________ Effect, ___________ Effect, and ___________ Effect

3. The financial institutes/companies collect money from lots of investors and invest it in the mutual fund market; what do we call this kind of financial institutes/companies?

   ___________
III. Essay Question (Total: 75%): 

1. Consumption: \( C = 1000 + 0.8Y_d \); Investment: \( I = 500 \); Government Expenditure: \( G = 600 \); Export: \( X = 1600 \); Import: \( M = 660 + 0.12Y \); and Tax: \( T = 50 + 0.1Y \). Please calculate the following items according to the information provided as above. (1) What will equilibrium income be? (2) What will government budget be? Budget surplus or budget deficit? (3) What will equilibrium trade balance? Trade surplus or trade deficit? (4) What will the government expenditure multiplier be? (5) What is the lump-sum tax multiplier be? (6) What will the marginal propensity to import be? (Total: 24%)

2. Please define and explain the following economics terms (5% per question; total: 15%):

   (1) Crowding-out Effect
   (2) Proprietary Company/Holding
   (3) Automatic Stabilizers

3. What is direct financial market and what kinds of financial institutes included/involved in it? What is indirect financial market and what kinds of financial institutes included/involved in it? Please draw a flow chart to explain the relationship among each kind of financial institutes in the financial market. (The more detail, the better; total: 20%).

4. Please analyze and explain the following questions via diagram. (Total: 16%)

   (1) What is the expansionary fiscal policy? Explain the long-term effect and short-term effect influenced by the expansionary fiscal policy via AD-AS Model diagram. (4%).

   (2) Please analyze and explain the shifts/movements of SAS, LAS, and AD caused by the following situations?

      (A) The factory plants and equipments were serious damaged and destroyed in 921-Earthquake in year 1999 in our country, Taiwan. (4%).

      (B) Taiwan government announces new labor policy: reduction of required weekly labor hours. (4%).

      (C) Decrease of consumers' consumption because serious SARS spreads nationwide. (4%).
APPENDIX O

INSTRUMENT II

FINAL EXAMINATION (CHINESE VERSION)

I. Multiple-Choice Question -- Choose the one alternative that best completes the statement or answers the question (2% per question; total: 30%):

1. ( ) In a country with no international trade, if the \( MPC = 0.67 \), the lump-sum tax multiplier is A) 3 B) -0.5 C) -2 D) 2

2. ( ) Which of the following reduces the size of the government purchases multiplier? A) A decrease in the marginal propensity to import. B) A decrease in the marginal tax rate. C) A decrease in the marginal propensity to consume. D) A decrease in the marginal propensity to save.

3. ( ) Autonomous expenditure is not influenced by A) the price level. B) the interest rate. C) real GDP. D) any other variable.

4. ( ) The short-run aggregate supply curve is upward sloping because A) a lower price level creates a wealth effect. B) lower taxes motivate people to work more. C) money wages do not immediately change when the price level changes. D) most business firms operate with long-term contracts for output but not labor.

5. ( ) An increase in the level of technology shifts A) both the \( SAS \) and \( LAS \) curves rightward. B) both the \( SAS \) and \( US \) curves leftward. C) the \( SAS \) curve rightward but leaves the \( LAS \) unchanged. D) the \( LAS \) curve rightward but leaves the \( SAS \) curve unchanged.

6. ( ) A reduction in money wages shifts A) both the \( SAS \) and \( LAS \) curves rightward. B) both the \( SAS \) and \( US \) curves leftward. C) the \( SAS \) curve rightward but leaves the \( LAS \) curve unchanged. D) the \( LAS \) curve rightward but leaves the \( SAS \) curve unchanged.

7. ( ) A budget surplus occurs when government A) expenditure exceeds tax revenue. B) tax revenue exceeds expenditure. C) tax revenue equals expenditure. D) tax revenue is expenditure.

8. ( ) An example of a discretionary fiscal policy is when A) tax receipts fall as incomes fall. B) unemployment compensation payments rise with unemployment rates. C) food stamp payments rise when the economy is in a recession. D) Congress passes a law that raises personal marginal tax rates.
9. ( ) The marginal propensity to import is A) the ratio of real GDP to total imports. B) the change in real imports divided by the change in real GDP. C) the change in real imports divided by total real GDP. D) total real imports divided by the change in real GDP.

10. ( ) The long-run aggregate supply curve is A) horizontal at the full employment price level. B) vertical at the full employment level of real GDP. C) upward sloping because of the effects of price level changes on output. D) the same as the short-run aggregate supply curve.

11. ( ) If the level of real GDP exceeds potential GDP, A) there is a long-run and a short-run equilibrium. B) there is neither a long-run nor a short-run equilibrium. C) there can be a short-run equilibrium with an inflationary gap. D) there can be a short-run equilibrium with a recessionary gap.

12. ( ) If aggregate demand decreases and neither short-run nor long-run aggregate supply changes, then A) the price level will increase in the short-run and decrease in the long-run. B) there will be an inflationary gap. C) there will be a recessionary gap. D) in the long run, the long-run aggregate supply will decrease.

13. ( ) In the short-run, a decrease in government spending ___ real GDP and ___ the price level. A) increases; increases B) increases; decreases C) decreases; increases D) decreases; decreases.

14. ( ) Liquidity is the A) speed with which the price of an asset changes as its intrinsic value changes. B) inverse of the velocity of money. C) same as the velocity of money. D) ease with which an asset can be converted into money.

15. ( ) Induced taxes A) are autonomous. B) are independent of real GDP. C) vary with real GDP. D) are fixed over time.

II. Essay Question (Total: 45%):

1. Given the following Simple Keynesian Model.
   \[ C=1200+0.8Yd, \quad T=250+0.25Y, \quad I=300, \quad G=500, \quad X=1800, \quad M=300+0.1Y. \]
   Here C is consumption, Y is real GDP, Yd is disposable income, T is tax revenue, I is investment, G is government expenditure, X is exports, M is imports. Calculate: 1) autonomous consumption, 2) marginal propensity to import, 3) equilibrium real GDP, 4) government budget deficit or surplus, 5) trade deficit or surplus, 6) investment multiplier, 7) lump-sum tax multiplier. (14%)

2. Explain why the aggregate demand curve is downward-sloping. (10%)

3. What are four factors that cause the AD curve shift to the right? (10%)

4. What is money? What are its functions? What is meant by $M_1$ and $M_2$? (11%)

III. Please define and explain the following items (5% per question; total: 25%):

1. Automatic Stabilizers
2. Potential Real GDP
3. Expansionary Fiscal Policy
4. Crowding-out Effect
5. Stagflation

184
APPENDIX P

INSTRUMENT II

FINAL EXAMINATION (ENGLISH VERSION)

<table>
<thead>
<tr>
<th>COURSE NAME</th>
<th>CLASS</th>
<th>NUMBERS OF STUDENTS</th>
<th>INSTRUCTOR</th>
<th>MEMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics</td>
<td>Class A &amp; B (Freshman)</td>
<td>50+57=107</td>
<td>Dr. P. J. Tsai</td>
<td>Attached answer sheet: 1 page</td>
</tr>
</tbody>
</table>

Note: If students are allowed to bring calculators, textbooks, and other reference notes with them when examination is going, please make marks in “Memo” column

CLASS: STUDENT ID: NAME:

I. Multiple-Choice Question -- Choose the one alternative that best completes the statement or answers the question (2% per question; total: 30%):

1. In a country with no international trade, if the \( MPC = 0.67 \), the lump-sum tax multiplier is A) 3 B) -0.5 C) -2 D) 2

2. Which of the following reduces the size of the government purchases multiplier? A) A decrease in the marginal propensity to import. B) A decrease in the marginal tax rate. C) A decrease in the marginal propensity to consume. D) A decrease in the marginal propensity to save.

3. Autonomous expenditure is not influenced by A) the price level. B) the interest rate. C) real GDP. D) any other variable.

4. The short-run aggregate supply curve is upward sloping because A) a lower price level creates a wealth effect. B) lower taxes motivate people to work more. C) money wages do not immediately change when the price level changes. D) most business firms operate with long-term contracts for output but not labor.

5. An increase in the level of technology shifts A) both the SAS and LAS curves rightward. B) both the SAS and LAS curves leftward. C) the SAS curve rightward but leaves the LAS unchanged. D) the LAS curve rightward but leaves the SAS curve unchanged.

6. A reduction in money wages shifts A) both the SAS and LAS curves rightward. B) both the SAS and LAS curves leftward. C) the SAS curve rightward but leaves the LAS curve unchanged. D) the LAS curve rightward but leaves the SAS curve unchanged.

7. A budget surplus occurs when government A) expenditure exceeds tax revenue. B) tax revenue exceeds expenditure. C) tax revenue equals expenditure. D) tax revenue is expenditure.

8. An example of a discretionary fiscal policy is when A) tax receipts fall as incomes fall. B) unemployment compensation payments rise with unemployment rates. C) food stamp payments rise when the economy is in a recession. D) Congress passes a law that raises personal marginal tax rates.
9. ( ) The marginal propensity to import is A) the ratio of real GDP to total imports. B) the change in real imports divided by the change in real GDP. C) the change in real imports divided by total real GDP. D) total real imports divided by the change in real GDP.

10. ( ) The long-run aggregate supply curve is A) horizontal at the full employment price level. B) vertical at the full employment level of real GDP. C) upward sloping because of the effects of price level changes on output. D) the same as the short-run aggregate supply curve.

11. ( ) If the level of real GDP exceeds potential GDP, A) there is a long-run and a short-run equilibrium. B) there is neither a long-run nor a short-run equilibrium. C) there can be a short-run equilibrium with an inflationary gap. D) there can be a short-run equilibrium with a recessionary gap.

12. ( ) If aggregate demand decreases and neither short-run nor long-run aggregate supply changes, then A) the price level will increase in the short-run and decrease in the long-run. B) there will be an inflationary gap. C) there will be a recessionary gap. D) in the long run, the long-run aggregate supply will decrease.

13. ( ) In the short-run, a decrease in government spending ____ real GDP and ____ the price level. A) increases; increases B) increases; decreases C) decreases; increases D) decreases; decreases.

14. ( ) Liquidity is the A) speed with which the price of an asset changes as its intrinsic value changes. B) inverse of the velocity of money. C) same as the velocity of money. D) ease with which an asset can be converted into money.

15. ( ) Induced taxes A) are autonomous. B) are independent of real GDP. C) vary with real GDP. D) are fixed over time.

II. Essay Question (Total: 45%):

1. Given the following Simple Keynesian Model.
   \[ C=1200+0.8Yd, \quad T=250+0.25Y, \quad I=300, \quad G=500, \quad X=1800, \quad M=300+0.1Y. \]
   Here C is consumption, Y is real GDP, Yd is disposable income, T is tax revenue, I is investment, G is government expenditure, X is exports, M is imports. Calculate: 1) autonomous consumption, 2) marginal propensity to import, 3) equilibrium real GDP, 4) government budget deficit or surplus, 5) trade deficit or surplus, 6) investment multiplier, 7) lump-sum tax multiplier. (14%)

2. Explain why the aggregate demand curve is downward-sloping. (10%)

3. What are four factors that cause the AD curve shift to the right? (10%)

4. What is money? What are its functions? What is meant by \( M_1 \) and \( M_2 \)? (11%)

III. Please define and explain the following items (5% per question; total: 25%):

1. Automatic Stabilizers
2. Potential Real GDP
3. Expansionary Fiscal Policy
4. Crowding-out Effect
5. Stagflation
APPENDIX Q
INSTRUMENT III
ATTITUDE SURVEY QUESTIONNAIRE (CHINESE VERSION)

團體個案研討活動之問卷調查

此論文研究題目為：「比較經驗學習之教學方法和傳統教學方法之有效性—在台灣一所商業學校」。研究者做此學習態度之問卷調查的主要目的，是想了解妳/你對於系主任培養老師在過去一學期的基礎經濟課程中所安排的”團體個案研討活動(屬於經驗學習教學方法中的其中一項教學技巧/活動)”之看法及有效性為何。此問卷調查的結果將不只可以提供實踐大學國際貿易系的教職人員們、課程設計者們、教授們重新審視其課程安排及其教學方法之選擇的適當性，且同時也可以提供他們在設計、規劃課程、選擇教學方法時的參考資料。另外，此論文研究實驗之最終目的是為幫助我們台灣的教育當局、各教育機構設計出更符合我們商學院及管理學院的學生們所需要之課程，幫助我們學生們發展出應付職場上必要之知識及技巧，以便將來在畢業後離開學校可以順利進入職場並迅速適應職場上的環境。因此，妳/你對於此問卷各題目的回答將是非常重要的。請妳/你一定要確實且誠實地填寫清楚。

妳/你填寫此份問卷調查表即表示妳/你同意參與此研究實驗的活動，但請妳/你放心，妳/你的參與及妳/你所提供的各項參與活動的經驗資料將會被研究者紀錄、整理、分析後以各種的統計表格呈現出來。妳/你的名字及妳/你所提供的各種相關資料將不會被公開。

非常感謝妳/妳的合作。

第一部份：基本資料：
請回答下列問題：以下資料請以正楷書寫之或在適當的選項打 ( √ )：

1. 年紀：______________ 歲
2. 性別：_____ 男     _____ 女
第二部分：對於“團體個案研討活動”之看法:
請回答下列問題：請在適當的選項中勾選 (✓) :（以下問題均為單選）

1. 透過“團體個案研討”之活動，我個人認為我將經濟學的內容及理論學的更貫通
   透徹。
   ______ 極度不同意
   ______ 非常不同意
   ______ 些微不同意
   ______ 沒有差別
   ______ 些微同意
   ______ 非常同意
   ______ 極度同意

2. 透過“團體個案研討”之活動的進行，讓我有更多的機會及動力/動機驅使我花更多
   課堂外的時間去學習此門課程。
   ______ 極度不同意
   ______ 非常不同意
   ______ 些微不同意
   ______ 沒有差別
   ______ 些微同意
   ______ 非常同意
   ______ 極度同意

3. “團體個案研討”之活動提供我極好的機會讓我和同學們一起工作完成教授所交付的
   個案研討功課並讓我體驗及瞭解到團體合作的必要性及重要性。
   ______ 極度不同意
   ______ 非常不同意
   ______ 些微不同意
   ______ 沒有差別
   ______ 些微同意
   ______ 非常同意
   ______ 極度同意
4. “團體個案研討”之活動讓我對課程學習的參與度提高許多，同時也增進我解決問題的能力及技巧。

_____ 極度不同意
_____ 非常不同意
_____ 些微不同意
_____ 沒有差別
_____ 些微同意
_____ 非常同意
_____ 極度同意

5. “團體個案研討”之活動不但可以增加我學習經濟學這一門課的興趣，更讓我注意到我們台灣及國際社會的經濟情況、所發生及進行的各種經濟活動事件。

_____ 極度不同意
_____ 非常不同意
_____ 些微不同意
_____ 沒有差別
_____ 些微同意
_____ 非常同意
_____ 極度同意

6. “團體個案研討”之活動提供我更多的機會去學習我想學的課題內容且引起我的主動學習精神。

_____ 極度不同意
_____ 非常不同意
_____ 些微不同意
_____ 沒有差別
_____ 些微同意
_____ 非常同意
_____ 極度同意

7. “團體個案研討”之活動提供我很好機會從各種不同的層面及觀點去看待、了解、解決一個問題、事件。

_____ 極度不同意
非常不同意

些微不同意

沒有差別

些微同意

非常同意

極度同意

“團體個案研討”之活動讓我對事物、問題的瞭解及理解能力提高增進許多。

極度不同意

非常不同意

些微不同意

沒有差別

些微同意

非常同意

極度同意

“團體個案研討”活動中的團體討論機會及上台報告機會讓我的口語、肢體表達能力增進許多。

極度不同意

非常不同意

些微不同意

沒有差別

些微同意

非常同意

極度同意

透過“團體個案研討”之活動，我可以更了解一個主題的完整架構及其和其它相關主題的相聯性（提高我對於一事件、或一問題點的來龍去脈之瞭解能力）。

極度不同意

非常不同意

些微不同意

沒有差別

些微同意
11. 透過“團體個案研討之活動”，我有機會將課堂上所學到的經濟法則、原理、理論適時地應用、對照、解釋我們現今實際生活上所發生的各種經濟事件，讓我可以在理論及實務做一個結合。

____ 極度不同意
____ 非常不同意
____ 有些不同意
____ 沒有差別
____ 有些同意
____ 非常同意
____ 極度同意

請回答下列問題：請以正楷書寫妳/你的感想及意見。
12. 在準備及撰寫“團體個案研討”報告的過程中，妳/你的學習態度、意見、看法是否有因此改變？若有，請妳/你敘述妳/你的學習態度、意見、看法之改變。若沒有，也請妳/你稍稍敘述沒有的原因。

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

請回答下列問題：請在適當的選項中勾選 (√)：(可複選)
13. 以下所列出的各項教學方法活動，妳/你希望妳/你的教授們可以在未來的課堂中採用安排。

____ 擬態、模擬遊戲之方法、活動
____ 角色扮演之方法、活動
____ 實習之方法、活動（即學校和企業合作以提供在學學生到其單位實習）
________ 國內外參觀教學活動 (即學校舉辦國、內外其它學術單位的參觀或海外遊學或交換學生活動等等)

________ 企業參觀及類似活動 (即學校舉辦到公司行號去做參觀以了解各行業、各部門的業務及操作等等)

________ 知名企業人士客座演講

________ 其它

(若你有勾選“其它”之選項，請你在後面空白欄位寫下以上沒有提及到的教學法、活動但你期望學校及教授們可以安排在將來的課程、課堂中。)
APPENDIX R

INSTRUMENT III

ATTITUDE SURVEY QUESTIONNAIRE (ENGLISH VERSION)

Attitude Survey of the Team-Based Case Study Activity of the Experiential Learning Approach

Questionnaire

This research study is entitled, “The Effectiveness of a Case-Study Method as Compared to a Traditional Learning Method in one Business School in Taiwan.” The major purpose of this attitude survey is that the researcher wants to inquire as to the effectiveness and efficiency of the team-based case-study method of the experiential learning approach you have experienced in Dr. P. J. Tsai’s Economics classes during the past one academic session. The results of this research questionnaire will provide valuable and useful information to administrators, staff, and faculty, not only in the International Trade Department of College of Management of Shih Chien University, but also other business colleges and universities in Taiwan. It will help Taiwanese business colleges and universities to redesign and redevelop more appropriate, effective, efficient, and diverse business programs and curricula. It also will help other business students to become better prepared for the diverse workplace of the future. Your responses in this attitude survey are important for this experimental study. Please answer the following questions of this survey completely.

Be advised that by filling out this questionnaire you agree to participate in this research study and the information on this questionnaire will be used only for statistical analysis. All information and data collected from this questionnaire will be kept confidential and no personal information will be divulged.

Your attention, participation, and cooperation are greatly appreciated.

Part I: Background Information:
Please fill in or mark (√) the answer that corresponds to you.

3. Age: ______________________________
4. Gender: _____ Male _____ Female

Part II: Attitude Information for the team-based case study activities:
Please mark (√) the answer that corresponds to you.
1. The team-based case study activities helped me to learn the concepts, principles and theories of economics more thoroughly.
   
   ____ Strongly disagree
   ____ Disagree
   ____ Sometimes disagree
   ____ No comment
   ____ Sometimes agree
   ____ Agree
   ____ Strongly agree

2. The team-based case study activities made me do a great deal more work outside of class contact hours.
   
   ____ Strongly disagree
   ____ Disagree
   ____ Sometimes disagree
   ____ No comment
   ____ Sometimes agree
   ____ Agree
   ____ Strongly agree

3. The team-based case study activities provided me a greater opportunity to work with my classmates (to experience team-work situations).
   
   ____ Strongly disagree
   ____ Disagree
   ____ Sometimes disagree
   ____ No comment
   ____ Sometimes agree
   ____ Agree
   ____ Strongly agree

4. The team-based case study activities provided a higher level of participation and team problem-solving skills.
   
   ____ Strongly disagree
   ____ Disagree
   ____ Sometimes disagree
   ____ No comment
   ____ Sometimes agree
   ____ Agree
   ____ Strongly agree

5. The team-based case study activities aroused a greater interest in learning about current economic events happening in our global society.
   
   ____ Strongly disagree
   ____ Disagree
   ____ Sometimes disagree
   ____ No comment
   ____ Sometimes agree
   ____ Agree
   ____ Strongly agree
6. The team-based case study activities allowed me to be involved more actively in learning.
   ___ Strongly disagree
   ___ Disagree
   ___ Sometimes disagree
   ___ No comment
   ___ Sometimes agree
   ___ Agree
   ___ Strongly agree

7. The team-based case study activities allowed me to be involved with topics of greater complexity.
   ___ Strongly disagree
   ___ Disagree
   ___ Sometimes disagree
   ___ No comment
   ___ Sometimes agree
   ___ Agree
   ___ Strongly agree

8. The team-based case study activities enabled me to develop better comprehensive skills, such as higher-order thinking, interpersonal skills, decision-making skills, analytic and synthetic skills, etc.
   ___ Strongly disagree
   ___ Disagree
   ___ Sometimes disagree
   ___ No comment
   ___ Sometimes agree
   ___ Agree
   ___ Strongly agree

9. The team-based case study activities enabled me to develop and improve better oral presentation skills.
   ___ Strongly disagree
   ___ Disagree
   ___ Sometimes disagree
   ___ No comment
   ___ Sometimes agree
   ___ Agree
   ___ Strongly agree

10. The team-based case study activities enabled me to relate other courses in a holistic manner.
    ___ Strongly disagree
    ___ Disagree
    ___ Sometimes disagree
    ___ No comment
    ___ Sometimes agree
    ___ Agree
11. The team-based case study activities enabled me to better relate and connect what I have learned in economics classes with ‘real-world’ situations.

___ Strongly disagree
___ Disagree
___ Sometimes disagree
___ No comment
___ Sometimes agree
___ Agree
___ Strongly agree

Please fill in the answer that corresponds to you.

12. During the team-based case study activities, paper preparations and writing processes, did you change any of your thinking about the cases? If yes, what change(s) occurred?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Please mark the response that best corresponds to your viewpoint: check all that apply.

13. What other experiential learning methods/activities/techniques would you suggest that your business professors/instructors might adopt and implement in future business courses?

___ Simulations and games method/activity/technique
___ Role-playing method/activity/technique
___ Internship/Practicum method/activity/technique
___ Field-trip (including: domestic and aboard studies) method/activity/technique
___ Business organization visit method/activity/technique
___ Guest-lecture (from business organizations) method/activity/technique
___ Others

(Please include below any other recommendations you might have concerning teaching methods or activities.)