The relationship between attitudes and achievements in English integrated business courses

Lidia Pin Chou
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THE RELATIONSHIP BETWEEN ATTITUDES AND ACHIEVEMENTS IN ENGLISH
INTEGRATED BUSINESS COURSES

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Date
4/25/06
The Relationship between Attitudes and Achievements in English Integrated Business Courses

Chairperson: Dr. Merle Farrier

An important educational goal of the Ministry of Education and the departments of applied foreign language in institutes and universities of technology in Taiwan was to implement English integrated business courses. The purpose was to prepare students for basic and general foreign language knowledge, to acquaint them with practical business knowledge applicable in a foreign market, and to provide them with technology application skills across multiple languages. However, a national concern was that not all the teachers in the departments were willing to teach the courses. The purpose of this research was to investigate whether or not there was a relationship between teachers' attitudes toward the integration of English in their course offerings in the departments of applied foreign language teachers and their students' achievements.

This research did not find an experimentally important predictability regarding teachers' attitudes toward English integrated business courses and their students' achievement in these courses. However, both teachers and students had a strong support for integrating English into their business courses. The teachers strongly supported more professional development designed to assist them with their ability to teach these courses. Most teachers acknowledged these courses consumed more time for preparation, but the concern regarding their implementation was not directed at having to do more work as much as it was for not having proper preparation and/or ongoing professional development. A second concern with the integrated courses regarded the issue of increasing English fluency at the expense of academic content. Students, while supportive of the integrated coursework, were primarily concerned about the applicability of this coursework to their future employment. This research concludes with the observation that the Ministry of Education could greatly capitalize on its investment in English integrated courses throughout higher education by making a much smaller but highly important investment into appropriate ongoing, high quality professional development.
Acknowledgements

This research was the most powerful part of my educational experience. Completion of this dissertation was entirely due to the contributions of many individuals who deserve to be recognized.

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CHAPTER ONE

STATEMENT OF THE PROBLEM

Introduction

English language education had long been a major focus in compulsory education in Taiwan. The Taiwan government emphasized English language education because a majority of the most progressive nations in the world spoke and used English. Furthermore, as Taiwan was the member of the World Trade Organization (WTO), the English language took on even more importance as a necessity to conduct international business.

The Accelerating Importance of English

In the 21st century, there is little doubt that the English language has become a lingua franca, an inter-language or medium of communication between people of different languages that is widely used as a mean of communication among speakers of other languages. According to the Merriam-Webster Online Dictionary (2004), the English language, with almost a billion speakers worldwide, was at an unprecedented zenith in global influence and prestige. The growing importance of English could be seen in the following passage:

Some 380 million people speak it as their first language and perhaps two-thirds as many do it as their second language. A billion people are learning it, about a
third of the world's population are to some extent exposed to it. It is predicted that by 2050 half the world’s population will be more or less proficient in it. It is the language of globalization regarding international business, politics, diplomacy, computers and the Internet (Economist, 2001).

Indeed, English was important in every aspect of life worldwide. According to Bollag (2000), 95 percent of the 925,000 scientific articles published in thousands of major periodicals in 1999 were written in English. Baker et al. (2001) mentioned that in business, workers who speak English often command salaries 25% to 35% above those who don’t. Over 1.4 billion people lived in countries where English had official status and about 85 percent of the mails in the world were written in English (Chang, 2001).

According to Morano (2002), English was the language used by many to express their own cultural views to those of a different culture. Many authors in such places as the European Union, Africa, and India now commonly used English to present their own works and express their views on life. They were able to describe their lives, their cultures, and their worlds in a common language so that their influence reached far beyond their national boundaries.

Aware of the accelerating importance of English, the Taiwanese government had stressed the importance of English education. The government had implemented
English education as a requirement for the majority of its citizens and would implement English as an official language beginning in 2008.

Starting in 2001, English became one of the required courses for fifth and sixth graders in primary schools in Taiwan (Lee, 2004). Recently, some metropolitan schools were offering English courses to first graders. At the college level, many universities required their students to pass English exit performance tests such as TOEFL or TOEFIC before graduation (China Times, 2001). Also, a majority of job openings required applicants to submit their English proficiency certificates as a part of the screening process. An increasing number of English learning institutes and agencies had been set up to meet the huge market demand. English education was considered a necessary component in many important areas of Taiwan’s future.

The Establishment of Departments of Applied Foreign Languages

In 1997, the Ministry of Education (MOE) in Taiwan announced the deregulation of the University Law and transferred autonomy to universities (MOE, 1997). This change resulted in the increase in the number of institutes, including colleges and universities of technology, from 46 to 160 in 2001 (MOE, 2001). In the past years, both liberal and technology universities, had established departments of applied foreign language in both two-year and four-year programs, to meet the market demands for language professionals (Chuo, 2002). As of the 2002 academic year,
there were 14 universities of science and technology and 31 institutes of technology offering diversified programs to perspective students from diversified academic backgrounds (Ministry of Education, 2002).

In response to the job market demand, and the university policies of enrolling more students, the number of departments of applied foreign language, including applied English, had increased (Wu & Chuo, 2002). Table 1 shows the number of departments of applied foreign language in universities of science and technology and institutes of technology (MOE, 2002).

Table 1

The Number of Departments of Applied Foreign Language in Universities of Science and Technology and Colleges of Technology.

<table>
<thead>
<tr>
<th>Program</th>
<th>University of Science &amp; Technology</th>
<th>Institute of Technology</th>
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<tbody>
<tr>
<td>4-year program</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>2-year program</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>4-year evening program</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>2-year evening program</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Weekend program</td>
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Educational Backgrounds of Students of Applied Foreign Language

The majority of students of institutes and universities of technology were graduates of vocational high schools or five-year junior colleges. Students of applied foreign language of those institutes and those universities of technology were no exception (Chen & Dai, 2003). Generally in Taiwan, vocational high schools recruited
junior high school graduates with relatively lower cognitive ability and academic achievement, especially in English and math (Chen & Dai, 2003). The Centre News (Wong, 2003), cited the data from the Taiwanese Ministry of Education and reported an embarrassing situation where college students, particularly students of institutes of technology, demonstrated low performance in the basic level of the general English proficiency test in the 2001-2002 school year. According to the report, the English ability test, which the Ministry of Education administered to approximately 8,000 freshmen in institutes of technology, resulted in much lower scores than anticipated. The majority of the test-taking students, who were vocational high school graduates, scored relatively low on the test based on junior high school-level English.

**Educational Goals of Applied Foreign Language**

On the basis of University Law, institutes of technology were mainly established to meet social and market demands and not for academic pursuit (Lin & Chang, 2001). When institutes of technology establish English departments, they were basically market oriented in order to meet such an educational goal. The department of applied foreign language of the institutes of technology shared the same educational goals with the institutes. Therefore, departments of applied foreign language were supposed to be different from traditional foreign language departments with respect to educational goals and curricula. Unlike the traditional foreign language departments,
which placed a high premium on literature and linguistics, the departments of applied foreign language focused mainly on communicative language and career related content (Chen, 2001). The threefold educational goal was intended to prepare students for basic and general foreign language knowledge, to acquaint them with business knowledge applicable in a foreign market, and to provide them with technology application skills (Wu & Chuo, 2002).

Curriculum of Applied Foreign Language

To meet such an educational goal, departments of applied foreign language were offering courses covering basic language knowledge, business application, and technology skills. In their study of 11 universities of technology, Wu and Chuo (2002) found that departments of applied foreign language offered courses in 10 areas of study, namely language, business, literature, translation, culture, research methods, a second foreign language, business, business language and technology.

Wu and Chuo (2002) further pointed out that knowledge-oriented courses, including language, linguistics, culture, a second foreign language and translation, comprise 70% of the total curriculum, followed by business-oriented courses with 20%, and technology oriented courses with 10%. Wu and Chuo (2002) also found that at least 30% of the courses offered by departments of applied foreign language were business or technology related, or so-called interdisciplinary or integrated courses.

The Context of the Problem

The missions of the departments of applied foreign language were to respond to the government's policy of expanding international relations, of promoting Taiwan as the center of the Pacific Rim, and to cultivate people with proficiency in foreign languages and abilities (Lin & Chang, 2001). In order to broaden students' understanding of the international and local trends, the departments emphasized both theories and practices (Wenzao, 2004). The curricula focused on teaching language skills and familiarizing students with business management. The courses were based on a long-term development assessment and were designed to integrate various themes to meet different employment needs.

If teachers had unwilling attitudes to teach English integrated business courses, the goals and objectives of the departments of applied foreign language would be hindered. Any unwillingness on the part of the teachers to teach English integrated business courses would likely confuse students and result in lower academic achievement, inconsistent with the goals of educational reform. Traditionally, graduates of institutions of technology might either further pursue graduate study or
find jobs. If the courses in the institutes of technology could not provide what they needed, students might lose faith in schools (Xie, 2000; Reid, 1987). The possible negative attitudes might affect students' learning outcomes and achievements as well.

The Problem

The teachers' attitudes toward English integrated business courses might influence the course arrangement in the department of applied foreign language (Chen, 2002). If teachers had unwilling attitudes to teach English integrated business courses, department chairs would likely have a great deal of difficulty keeping collaboration among teachers (Chen, 2002). Collaboration in the workplace helped to improve higher performance at work (Levin & Lezotte, 1990).

If teachers were unwilling to teach English integrated business courses, their attitudes might affect their teaching quality (Chen, 2002). As a result, these teachers might spend as little time as possible on the course preparation. Teachers who were assigned to teach the English integrated business courses would likely tend to emphasize grammatical aspects in the course rather than the specific knowledge about the subject matter (Liao, 2001; Tzai, 2001). If this happened, then the initial purpose of integrating English language with career-related content would be compromised.

Teachers' Attitudes toward Integrative Courses

In departments of applied foreign language (AFL) some teachers were willing to teach English integrated business courses while others complain about the courses (Li,
Teachers willing to teach English integrated business courses tended to embrace the positive aspect of integration (Hsiu, 2001). Those teachers realized that using the English language as a tool to convey specific knowledge, might improve both language skills and subject matter and further, this teaching method complies with the purpose of integration (Hsiu, 2001).

On the other hand, teachers who complained about teaching English integrated business courses tended to consider the students of AFL as unqualified to take the integrated courses, in view of their relatively lower English proficiency (Chen, 2001; Yong, 2002). They believed that the students should command more language knowledge and skills before taking English integrated business courses (Huang, 2000; Li, 2000; Chen 2001). In addition, lecturing in English in class was a challenge to some teachers. The non-native speaking teachers were afraid that they could not convey the theme and idea of subject matters fluently and clearly (Huang, 2000). The teachers of English integrated business courses had to spend more time preparing courses (Hou & Tien, 2000), as they had to pay attention to what the students were interested in and what they needed in order to evaluate and modify their own teaching at any time. Therefore, not all the teachers were satisfied with the requirement to teach the English integrated business courses (Liao, 2001).
Research Question

This research was guided by the following question: What is the relationship between the attitudes of teachers of applied foreign language in institutes and universities of technology toward English integrated business courses and the achievement of their students?

Definitions of Terms

For the purpose of this study the following terms had been defined:

* AFL
  
The abbreviation used for Applied Foreign Language.

* Achievement
  
Student achievement was determined from students' total classroom scores at the end of the semester at the time of the survey.

* Attitude
  
Both teachers' and students' attitudes were determined to be positive when a majority of questions indicating attitude were answered with a positive responses.

* Department of Applied Foreign Language
  
The departments of applied foreign languages focus mainly on communicative language and career related content (Chen, 2001). They were job market-oriented and provided students with general foreign language knowledge (Wu & Chuo, 2002).
Four-Year Institute (University) of Technology

Four-year program courses were divided into daytime and night school programs. The programs were offered to vocational high school graduates or students who had an equivalent academic level and require four years to complete. A bachelor’s degree was conferred on students who have completed the program (MOE, 2003).

Interdisciplinary Course

Interdisciplinary course had the same meaning in Taiwan as in the United States and referred to a course that combines two or more subjects into a new and single organizational construct (Wiles, 1999).

Integrated English Courses

The integrated courses integrate English with other subject matter. English was the instructional language used in class (Chen, 2001).

MOE

MOE indicates the Ministry of Education.

Two-year Institute (University) of Technology

Two-year program courses were divided into daytime and supplementary programs. Daytime programs were aimed at graduates of junior colleges of technology who needed two years to complete. Supplementary programs were designed for people who had been employed for more than one year, and the period of
the study was two to three years. A bachelor’s degree was conferred on students who had completed these courses of study (MOE, 2003).

Purpose of the Study

The purpose of this study was to investigate the attitudes of applied foreign language teachers in institutes of technology and universities toward the integration of English in their course offerings. The findings regarding attitudes were compared to student achievement and the resulting information was used to make recommendations regarding the improvement of English education in Taiwan. Specifically, this research was to identify the degree of teacher willingness to cooperate with educational reform as a distinguishing factor in the national expectations of educational achievement.

This research served to provide baseline data by which the progress of English integrated coursework might be established and utilized for future research regarding the relationship between attitude toward implementation of specific national education reform goals and achievement.

Importance of the Study

Over the past 10 years, the Taiwanese government had set up policies for expanding international relations and promoting Taiwan as the center of the Pacific Rim. Responding to the government's commitment to expanding international
relations and building business and trade contacts with other countries, more than 20 billion NTD (equivalent to 572 million US dollars) had been invested, and there would continue to be substantial investments into higher education reform. The future economy of Taiwan was thought to depend upon the success of educational reforms, particularly the English fluency component, so Taiwanese officials were willing to make this investment today for tomorrow’s future. Any improvement that could be made to better the results of educational reform would be taken into account.

Teachers were the classroom leaders. Their classroom interactions with students affected the degree of what students had to learn in the courses. Understanding the attitudes of applied foreign language teachers toward the implementation of integrated courses might help to improve English education, which would benefit the teachers, the departments, the schools and the nation itself, and ultimately improved student learning.

By improving the English education of Taiwanese students, many more opportunities would be available to the graduates of universities and institutes of higher education in Taiwan. These additional opportunities would not only improve the well-being of each student, but also provided collectively for a more affluent and robust Taiwan.
CHAPTER TWO  

LITERATURE REVIEW  

Introduction  

This research will be guided by the following question: What is the relationship between the attitudes of teachers of applied foreign language in institutes and universities of technology toward English integrated business courses and the achievement of their students? This review of literature will look at the national goals of Taiwanese higher education reform and the importance of teachers' attitudes and student's learning.

Recent Education Reform in Taiwan  

Goals of Education Reform in Taiwan  

Since the 1980s, high-tech industries have been developing at a very rapid pace. The government in Taiwan has been implementing education reform in order to meet the needs of a changing world and the demands of a global economy (Wu, 1999). Education reform has become an enormous social, political and moral concern in this age of technological, economical and socio-cultural changes. This information era brings challenges to the operation of education. The general worldwide pessimistic tone of the inability of education to cope with the emerging social problems has pushed many countries to make innovations toward educational reform. The focus of
the reform effort all around the world seems to be changing from restructuring public education in the 1980s to the raising of national educational standards in the 1990s with a view to strengthening international competitiveness (Berman, 1996; Yang, 1998; Yang, 2000).

Taiwan has also started a program of continual educational reform. Education has been available in Taiwan since 1945. Today, the first nine years of education are compulsory and free of charge. As the Ministry of Education stated in 2004, the ROC's education system follows a basic 6-3-3-4 pattern, including six years in elementary school, three years in middle school, three years in high school and four years in college or university. As a result of dramatic economic growth, the public and private sectors commitment to education has expanded rapidly. Total government expenditures on education in the 1996-1997 fiscal year exceeded $NT 537 billion (equivalent to $US 156 million) while in the 1997-1998 fiscal year it exceeded $NT 554 billion (equivalent to $US 160 million). In 2002, the expenditure on education was 609 billion $NT (equal to $US 170 million).

In 2004, the Ministry of Education stated that a Research Group for Reforming the School System was formed in 1983 by the Ministry of Education to investigate feasible strategies for reorganizing the school system. Since the early 1990s, a popular sense of educational crisis has resulted in a demand for major changes in the system.
It was under these circumstances that premier approved the establishment of a Council on Education Reform in September, 1994. This council had 31 members, with Professor Lee Yuan-Tze, Nobel Laureate in Chemistry, as chairman. The purpose of this council was to study feasible strategies for restructuring the educational system to meet the new demand of the coming century. After two years of research, the Council on Education Reform published the General Consultation Report for Education Reform on December 2, 1996. A total of 32 recommendations were suggested to bring about fundamental changes to education in Taiwan. Those recommendations included reforming elementary, secondary and higher education; improving and diversifying channels of admission to higher level schools and universities, and facilitating life-long learning.

To implement the reform proposals, the Executive Yuan set up a Commission for Promoting Education Reform in January, 1997. On April 4, 1998, the Commission approved the proposed Twelve Education Reform Mandates allocating a special budget of SNT 150 billion (equivalent to $US 5 billion) for the unprecedented mission to be accomplished in 5 years.

Furthermore, in his Inaugural Address in 2000, President Chen Shui-Bian reaffirmed the determination of the New Government to launch an overall reform of education in the Republic of China on Taiwan:
"We will seek a consensus among the ruling and opposite parties, academics and public to carry on with educational reforms and build a healthy, proactive, lively and innovative education system, which will allow Taiwan to cultivate first-class, outstanding talents amid fierce international competition. We let Taiwan move gradually toward a learning organization and a knowledge-based society. We will also encourage people to take up life-long learning to fully develop their potential." (2000)

In response to the stated reform proposals and ideas, the central government, as well as many local governments across Taiwan, took many initiatives and set up a co-coordinated effort in planning and promoting reforms. As part of the overall educational innovation, several laws, decrees and working guidelines have been enacted or revised.

Since the Executive Yuan set a time limit for implementing the Reform Mandates within five years, the Ministry of Education, and the related educational authorities in Taiwan, immediately reviewed and revised the existing laws and enacted new laws (MOE, 2001). Among these pieces of legislation, the revised University Law is thought to be particularly important in restructuring the higher education system in Taiwan. Because of the revision of the University Law, an accelerated process of educational liberalization and deregulation was launched. The
new University Law has reduced the centralized power of the Ministry of Education over universities and colleges, and, consequently, campus operations have become more flexible. A new system of the selection and/or election of academic chiefs (department heads, deans and university presidents) has replaced the old system, where deans and department heads were appointed by the university president, and, the university president was selected by the Ministry of Education. To assure more financial autonomy for public universities, a University Development Fund System was established to provide more flexibility for public universities in using their revenue from students' tuition fees, college-enterprise corporations and research projects (MOE, 2001). However, this new freedom comes with responsibility. Under this system, public universities have to assume the full responsibility for approximately 20% of their annual operation. Each university will have to face the consequences of a deficit and raise the necessary funds for university operations. The way to acquire educational resources will become a very serious issue for most public universities.

The reform puts forward concrete measures for short- and mid-range proposals in higher education, including the ranking of universities, the raising and apportionment of resources, the legislation of university operations, nurturing of personnel, raising of international competitiveness, increase of adult education.
opportunities, the pursuit of academic excellence and the development of national economy. The reform heralds a new beginning for higher education policies.

To raise international competitiveness and develop a knowledge-based economy nationwide, improving vocational education is one of the ways. Vocational Education includes professional high schools, junior colleges, institutes of technology and universities of technology. In the reform of higher education, MOE encourage the transformation of junior colleges to technological colleges and then to technological universities and also promote the setup of more comprehensive high schools. MOE make great adjustment to vocational education system along with industrial development. The educational purpose is to develop technical manpower for economic development.

Special Emphasis on English Education

English is a major language of international business, diplomacy, and science and the professions. It is the language that international businessman are likely to use to communicate. Important commodities such as silver, tin, and hard currency are traded in English. English is also an official language, or the official language, of many international organizations, including the United Nations and many professional organizations. It is frequently the language of international conferences, and it is the language of international athletics. Throughout the world, many professional papers
are published in English. Even papers that are published in other languages often have abstracts in English.

Being globalizing and staying competitive in world trade cause education reform to put emphasis on English education. The influence of globalization has continued to spread in many ways, including the teaching and learning of English as a Second or Foreign Language. However, this rapid spread has also brought new challenges. One such challenge is the role of English in education around the globe. Nations, which had previously paid cosmetic attention to English, are increasingly promoting the language. English has become the *de facto* (actual) language of globalization. Globalization has not bypassed Taiwan. Taiwan has been a member of the World Trade Organization (WTO) since 2002. Therefore, the need for specialists in the fields of English and business has been increasing. English is the pivotal issue in job competitions and is crucial for the future development of Taiwan. English teaching has become an important course to enhance the students' communication abilities. English comprehension is the prerequisite for employment in the current job market (Chang & Su, 2004).

*Early English Education in Taiwan*

English has been one of the subjects in the junior high, senior high and university levels of education since 1968. Traditionally in Taiwan, English education
has been defined purely as an academic undertaking, which requires intellectual fervor from adolescent, and adult learners. Rote learning was more emphasized for learning English.

In the 1990s, experts began questioning the system, citing the need for new types of English education to meet the changing demands of the 21st century. The status of English as the world's most prominent international language has prompted the Taiwan government to mandate a nationwide English curriculum for primary schools. Language and education policies at the national, regional, and local levels can facilitate strong language education (Hong & Su, 2000). The most influential policy, with respect to English language learning, is the status of languages within the elementary school curriculum.

In his speech on National Education Development and Reform for the New Millennium, at the Taipei International Conference on Education in 1999, the Minister of Education indicated that education was one of the key indicators of national competitiveness, and a major driving force for the reformation of the mind, as well as social and culture development. Therefore, the promotion of educational reform and the establishment of a society of learning have been high on the agenda of national policies. In his speech on December 10, 1999, the Minister announced the
national education reform directions and measures in the New Millennium. One of the
directions was English teaching at the elementary level.

The Ministry of Education made English lessons mandatory in all primary
schools, at the level of fifth grade, beginning in 2001. The MOE allocated an extra
budget of $NT 100,000 for each elementary school. In order to start language
education early, the Ministry of Education called for a national commitment to
elementary school language teaching for all children. The government provided
leadership in developing long-term policies for enhanced teacher training, incentives
for school districts to offer early language instruction, and a detailed research agenda.
The final goal was to develop bilingual or multilingual proficiency among citizens. In
order to improve teacher education, the government put a lot of effort into recruiting
high-caliber students for the teaching profession and provided top quality in-service
and pre-service training (MOE, 1999).

Current English Education in Taiwan

In a bid to sharpen Taiwan's competitive edge, Premier Yu Shyi-kun announced
in 2002 that the government would make English the nation's semi-official language
and transform Taiwan into an English-friendly environment over a period of six years.
This is in conjunction with the government's Challenge 2008: Six-Year National
Development Plan. In order to achieve that goal, the Taiwan government is planning
to launch a variety of programs to encourage the entire nation to learn English, by extending English-language education to both younger and older age groups.

Furthermore, in 2003, the new Minister of Education, Huang Jong-Tsun, stated, in a meeting with the local educational authorities, that the government's policy to implement English-teaching programs in elementary schools would begin at the third-grade level. That is, English education in primary schools currently starts in the fifth grade and will be extended to the third grade starting in 2005. Reports from the Ministry in 2004, however, showed that at least 17 of the 25 cities and counties have begun English education for first graders. This is in response to the high demand for students to learn English as early as possible. It has motivated local school authorities to begin their English education programs in grade one or even in kindergarten.

In the past, Taiwanese students began to learn English in the first year of junior high school. Since 2001, English-teaching programs were instituted at the fifth-grade level in elementary schools, and now, the MOE is planning to begin English education at the third-grade level. According to the Taipei City Bureau of Education, English-learning activities beginning in the first grade, are supposed to be non-intensive and should have an aim simply to lay a foundation to stimulate the students' interest in learning English.
Nationwide Development of English Assessments

The government has not only pushed for an island wide English education but also developed appropriate language assessments to encourage people to improve English proficiency. In almost all of the national or regional examinations, English language proficiency assessments are necessary (Xie, 2000). In recent years, there are Official English Proficiency Tests developed by a national testing institute and administered at certain times every year. A result of these central exams, which are in accordance with the Taiwan Education Framework, is a coherent approach with respect to English. These exams test, not only grammar and vocabulary, but also, English usage. This leads to a decrease of rote memorization in English learning practices (Curtis & Yan, 1999).

In response to the series of reforms in English education, in 2003, the MOE announced the budget for 2004 would be $NT 20 billion (China Times, 2003). In order to complete the goals in education reforms, the Ministry of Education has hired 369 teachers from English speaking countries, including: 150 teachers from the U.S., 100 teachers from Canada, 80 teachers from Australia, and 70 teachers from England. The annual budget for foreign teaching is $NT 160 million, which is equivalent to $US 4.65 million (Education Comments, 2004).
Requirements for Integrated English Courses

According to the University Law, mandated by Taiwan's Ministry of Education, institutes of technology and universities of technology are mainly established to meet the national and market needs, and not for academic pursuit. The purpose is to develop technical manpower for economic development (Shi, Su & Lin, 1997). In institutes of technology and universities of technology, the Department of Applied Foreign Language is different from traditional foreign language departments. The former focuses mainly on communicative language and career related contents and, the later places a high premium on literature and linguistics (Chen, 2001).

The student population of applied foreign language departments is mainly composed of students who have graduated from vocational high schools. Therefore, the departments inevitably have to prepare students to meet the needs of the market and national goals, and to offer courses tailored to, the unique needs as well (Xie, 2000; Huang, 2000). In view of this, during past five years, more integrated courses have been offered by departments of applied foreign language in Taiwan's institutes of technology and universities of technology.

The integrated courses integrate multiple themes in one course and convey the knowledge as a whole, not as fragments. In the departments of applied foreign language, the integrated courses integrate English and subject matters. English is the
language of instruction in class. Teachers should introduce subject matter related
terminologies and implement related knowledge in their instruction. That is, teachers
and students use language skills in normal communication. Usually, the integrated
courses include: financial English, English for touring, news English, web English,
legal English, film English, business English, technical English, English for
negotiation, psycholinguistics, socio-linguistics, and conferencing English. The
integrated courses cover two learning goals in English learning. One is language
learning, and the other is employment related learning (Xie, 2000; Huang, 2000).

The integrated-skill approach, as contrasted with the purely segregated approach,
exposes English language students to authentic language immersion and challenges
them to interact naturally in the language. Students rapidly gain a true picture of the
richness and complexity of the English language as employed for communication.
Moreover, this approach stresses that English is not just an object of academic interest
or merely a key to passing an examination; instead, English becomes a real means of
interaction and sharing among people. This approach allows teachers to track students'
progress in multiple skills at the same time. Integrating the language skills also
promotes the learning of real content, not just the dissection of language forms.
Finally, the integrated courses can be highly motivating to students of all ages and
backgrounds.
Teacher Attitudes

According to Webster’s College Dictionary (2000), attitude refers to manner, disposition, feeling, and position. The Oxford English Dictionary (1978) defines attitude as (a) settled behavior or manner of acting, as representative of feeling or opinion, (b) deliberately adopted, or habitual, mode or regarding the object of thought. The two dictionaries indicate that the attitude toward something or someone is likely to influence the way people react to something or someone. Wenden (1998) defined attitude as learned motivation, valued belief, evaluation, what one believes is acceptable, or response oriented towards approaching or avoiding.

Literature on teacher education suggests that teachers’ beliefs and attitudes play an important role in their decision-making and teaching practice (Williams & Burder, 1997). Richards and Lockhart (1996) have indicated, teachers’ actions reflect their knowledge and beliefs. Also these teachers’ knowledge and beliefs provide the underlying framework or schema which guides the teachers’ classroom actions (Richards & Lockhard, 1996).

According to Dornyei (2002), everything that is done by teachers has a motivational, formative, influence on students. In other words, teachers’ attitudes are a powerful motivational tool. Teachers’ influences are manifold, ranging from the rapport with the students to teachers’ attitudes that attract students to engage in tasks.
Language attitudes in learner, teacher and school at large can have an enormous effect on the second language learning process, both positive and negative (Walqui, 2000).

When educational reform comes with so many changes, teachers are supposed to either accept them naturally or painfully suffer from them. This may result in their attitudes toward the reform and decide whether to make efforts to deal with the challenges or plainly give up. In integrated courses, teachers face changes of teaching modes from the teaching of individual subjects to that of several areas. Teachers may differ on their attitudes toward the integrated courses. In the implementation, teachers' attitudes will be key point to the success of the integrated courses and of the students' learning, which is why this research mainly aims at exploring teachers' attitudes toward integrated courses. To examine teachers' attitudes toward integrated courses may help teachers and schools at large to find the best way to improve students' language learning.

**Teachers' Attitude toward Students' Learning**

Alison (1993) indicated that, at any rate, teachers impart a sense of commitment to, and interest in, the specific thing, not only verbally but also non-verbally—cues that students take from them about how to behave. Dornyei (2002) emphasized that teachers' attitudes play an important role in the success of the implementation and the students' motivations to learn. Moreover, Brown (1987) mentioned that as a child
reaches school age, the child begins to acquire certain attitudes toward types and
stereotypes of people. Brown (1987) also pointed out that most of these attitudes are
taught, consciously or unconsciously, by parents, other adults, and peers. It implies
that teachers' attitudes affect students' attitudes and success in language learning.

Teachers' positive attitudes could lead to the students becoming more motivated.

In a way, attitudes are part of one's perception of self, of others, and of the culture in
which one is living, or the culture of the target language (Brown, 1987; Brown 1994).
It seems clear that positive attitudes are conducive to increased motivations, while
negative attitudes have the opposite effects. A positive approval is contagious. The
students can learn by example.

According to Maslow's Model (1970), if a student lacks a sense of security of
safety, he or she is unlikely to have further development. Maslow believed that the
individual will do whatever is necessary to achieve or satisfy a need, and, when that
need is met, the individual will seek to satisfy a higher need. If teachers decide to
produce productive learners, the positive attitudes towards a paradigm and pedagogy
are necessary. Students need to have positive and realistic role models who
demonstrate the value of being proficient and consistent in classes, contents, curricula
and school. Teachers' encouraging model may help students face challenges and deal
with difficulties. Students can develop a better understanding of the target language and then achieve learning objectives (Walqui, 2000).

**Teachers' Attitude toward Classroom Climate Building**

Teachers decide the aims, goals, and strategies of teaching to be implemented in the classroom. Teachers' attitudes affect classroom learning environment and achievements. A pleasant and supportive classroom atmosphere helps learning. A tense and negative classroom climate could undermine learning and demotivate learners (MacIntyre, 1999; Lee, 1995).

Teachers' positive energy affirming a belief in the students' abilities developed a comfortable atmosphere for the students in the classroom (Brown, 1987). This positive attitude allowed the students to know that the teachers' viewpoints of teaching were consistent with those of departments and institutes and the students would not be so reluctant to learn and to trust the whole curriculum. This trust might lead to a successful learning environment.

Good and Brophy (1994) indicated the importance of learning within a relaxed and supportive atmosphere. In order to be motivated to learn, students needed ample opportunities to learn, steady encouragement because of their efforts, and a supportive learning environment. Because such motivation was unlikely to develop in a negative classroom, it was important that teachers acknowledge the classroom courses and
leaded an effective learning environment.

Language teachers had a greater opportunity, and therefore a greater responsibility than their colleagues in other subjects, to consciously convey alternative values that could empower students toward greater autonomy and learning. Onweugbuzie had documented the powerful negative correlation between student anxiety and second-language acquisition (Onweugbuzie et al., 2000). The need for reduction of student anxiety and the inculcation of a non-threatening learning environment figured prominently in many of the currently predominant models of foreign-language learning and acquisition (Krashen, 1988). In fact, Gardner and MacIntyre (1999) had shown language anxiety to be the best single correlate of foreign-language achievement. Consequently, a learning environment that reduced student anxiety and fosters self-confidence held great potential for maximizing foreign language achievement.

Language teachers were responsible to create efficient learning environments without sacrificing the pedagogical goal to help students acquire a target language. Deci and Ryan (1985) stated that intrinsic motivation is related to basic human needs for competence, autonomy, and relatedness. Intrinsically motivated environments were those that the students engaged in for their own sake because of their value,
interest, and challenge. Such an environment presented the best possible opportunities for learning.

*Teacher's Attitude toward School-wide Collaboration*

Collaboration was the process whereby two individuals or groups work together for a common goal, a mutual benefit, or a desired outcome. Trust, respect, openness, active listening, clear communication, and risk taking are fundamental requirements for collaborative efforts. In order for collaboration to happen participants must share a common vision and agree on a common mission. The motivation for a common mission may be the need to identify or solve a problem, to focus on the issues, or to achieve consensus. Initiating and maintaining collaborative efforts is an appropriate role of the school administrators and teachers in educational reform.

School improvement requires efforts from both teachers' cooperation and administration support in order to develop a successful collaborative environment and to produce productive learners. Schools and teachers have to have a shared knowledge base about effective ways to work with students learning English and are responsible for building a collaborative community for both learning and teaching. Jackie M. advocates that collaboration for student success is an integral part of educational reform (1994). An essential ingredient in the development of such a community is the quality of interpersonal relationships (Hemmings, 1984). Those relationships need to
be collegial, cooperative, and interdependent.

Judith Warren Little defined the collaborative school as one in which administrators and teachers routinely work together to promote effective teaching and learning (1982). Hemmings also emphasized that collaborative relationships are desirable because they expand the capacity of the participants to accomplish objectives that could not be accomplished alone. Making the classroom a place that naturally motivates students to learn is much easier when students and teachers function in an atmosphere where academic success and the motivation to learn are expected and rewarded. Such an atmosphere, especially when motivation to learn evolves into academic achievement, is a chief characteristic of an effective school.

Additionally, Hemmings indicated that as teachers work cooperatively, they learn about each other, understand what lies behind an organization's point of view, the constraints under which an organization operates, and the strengths and weaknesses (1984). Providing an appropriate academic climate to the students is therefore of tremendous importance to educator teachers and institutions.

_Teachers' Attitudes towards Business Collaboration_

Collaboration is essential for second language learners, because to develop language proficiency they need opportunities to use the language in meaningful, purposeful, and enticing interactions (Kagan & McGroarty, 1993). Collaborative work

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needs to provide every student with substantial and equitable opportunities to participate in open exchange and elaborated discussions (Adger et al., 1995). In these collaborative groups, teachers are no longer the authority figure. Students work autonomously, taking responsibility for their own learning. Teachers provide a task that invites and requires each student's participation and hands over to the students the responsibility for accomplishing the task or solving the problem. Students are able to apply acquired knowledge to novel situations. These applications reinforce the development of new language, concepts, and academic skills as students actively draw connections between pieces of knowledge and their contexts. Understanding a topic of study involves being able to carry out a variety of cognitively demanding tasks (Perkins, 1993).

Advances in knowledge and an increasingly complex society call for an even more educated electorate. In institutes and universities, internationally focused courses have been created, and interdisciplinary programs of study requiring foreign language proficiency and business knowledge have been developed. The application of foreign language to the field of business has emerged as a prominent component in these recent reforms. Teachers face changes of teaching modes from the teaching of individual subjects to that of several business areas. Teachers need to cooperate with other teachers of different academic subjects and outside force of related business.
knowledge literally at daily life. Schools must engage and connect more openly and deeply with the wider community. Fullan (1999) argued that it is vitally important that educators not ignore these outside forces for if they are unprepared, they will only fall prey to their most damaging effects. Teachers need to have open mind to collaboration between academia and business organization and to integrate business techniques and academic knowledge for knowledge creation to improve students' learning. According to Fullan (1999), knowledge creation is the ability to generate and learn new ideas.

In language education, integrated courses require cooperation among teachers, educational institutions and business organization. Teachers should be able to create an efficient learning environment to encourage students to spend some time acquiring practical experience in business and foreign language, especially English. Institutions may create study abroad opportunities and business internship focused specifically on international business practices and foreign language use. The practical locations offer the advantages of total immersion, direct contact with foreign business people in a variety of economic sectors, and personal observation of business operations. The other collaboration in language education is access to examinations leading to certificates and diplomas offered by foreign educational, business, and governmental organizations. Language education should be able to train students to be competitive in employment field (MOE, 2004).
This experience, requiring collaboration with the public and private sectors, are considered to be essential in laying a broad foundation of professional training and awareness for students who will represent Taiwan professions in the world at large. Teachers have the responsibilities to build an efficient learning environment. This learning environment must recognize the intricate, embedded interaction inside and outside schools, which converts tacit knowledge to explicit knowledge on an ongoing basis.

*Teachers' Attitude towards Changes and Challenges*

The world of new millennium is in a rapid change in economics, politics and technology. Coming along with the change are new challenges. Since Taiwan has become a member of World Trade Organization (WTO) in 2001, the globalization change the way Taiwan does business with the world. The accession to WTO means more English is needed. English is currently the most widely utilized language in international economic and cultural communication situations (Zhang, 2003). As language educators, teachers should also be keenly of the shift and be prepared to modify their teaching programs, within reasonable expectations, to accompany and meet the needs, as well as, the expectations and desired goals of students. Teachers must do this while they are in conscious of the numerous factors that can improve or
impinge upon second language acquisition (Kent, 1997). Teachers' beliefs and attitudes about the change and challenges, and their functions in language classrooms, have momentous implications for the students' ability to learn successfully. Fullan (1998) argued that it is vitally important that educators not ignore these outside forces for if they are unprepared, they will only fall prey to their most damaging effects.

In current English education in Taiwan, a change for many schools is the implementation of integrated courses, which necessitates dramatic changes in teaching and learning. Curricula must be changed. Teachers may be challenged to re-examine, adjust, and sometimes drastically alter their practices. Students will be expected to master skills and knowledge at specified levels of performance. This is like what Fullan (1998) stated that the education leaders of tomorrow will need a reservoir of skills and characteristics that differs significantly from those successful school leaders possessed just 10 years ago. Developing high-quality, skilled, and sustainable teacher leadership is a critical link in realizing the kind of long lasting changes in education that are the mark of true transformation.

**Teachers' Attitudes towards National Goals and Needs**

Since the entrance into WTO, Taiwan has been given a way to maximize the market opportunities and to change current crisis into opportunities. Accordingly, universities have a chance to develop their own specialty areas, so that they can...
distinguish themselves internationally, especially in the areas of research, training and development.

The Ministry of Education (2004) would like to develop and promote higher university education. Taiwan's 10 years of Educational Reform movement has resulted in the prolific creation and development of higher education institutions, allowing universities and colleges to assume more autonomy by relaxing higher education legal restrictions, promoting a diversified system for admission into universities and supporting universities to utilize their resources, so as to establish learning environments for internationalization (MOE, 2003).

However, other countries realize this, too. Therefore, it is crucial that local universities realize the significance of the crisis situation. If schools and teachers do not begin to upgrade higher education systems and infrastructures, they will lose out on a competitive economic opportunity and they will not be able to sustain themselves on a domestic level, because other international universities will attract the students.

On a global scale, Taiwan face challenges with the internationalization process for higher education. The most importance is to upgrade universities so that they meet international standards.

In order to be competitive internationally, learning objectives should have close relationships to employment trends. Teachers should know well about educational
goals and learning objectives and then be able to implement learning objectives in content lessons. An increasing economic base in education, coupled with increased changes reflected in market needs and an era of educational reform, have challenged institutes, departments and teachers to maximize their effectiveness through improved curriculum and programs (Chen, S. C. 2002).

According to national policy goals, the objectives for AFL courses are to train qualified and higher level personnel working as interpreters, researchers, teachers, administrators in fields of foreign service, business, culture, journalism, publishing, education, scientific research and tourism (MOE, 2001). Hence it is of paramount importance that the national syllabus dictating AFL major education should convey up-to-date information during the era of globalization. What the AFL students are learning will formulate and even define the future of AFL students in education and other works of society.

*Teachers’ Attitude towards Teaching Efficacy*

In response to the emerging paradigm of integrated courses, teachers require a new teaching attitude towards the new educational paradigm. In traditional teaching, the teaching process is centered on one theme, with Chinese as the language of instruction. Teachers try to transfer their knowledge in their native language to the students. In integrated teaching, the teaching is focused on integrating multiple
themes with English instruction. Teachers have an enormous amount of responsibilities to stimulate this type of learning and teaching in classrooms.

Bandura’s (1977) theory of self-efficacy led to the construct of teacher efficacy. Self-efficacy deals with self-perceptions of competence as opposed to the actual level of competence. Teachers having a strong sense of self-efficacy tend to be more willing to experiment with new ideas and concepts in order to more effectively meet the needs of their students (Ashton & Webb, 1982). Teachers’ perceived efficacy, or teachers’ sense of efficacy, is very much related to teachers’ behavior and students’ achievements (Wu, 2002).

Yen (1996) commented that in every step of the passage of teaching, teachers’ performances will affect students as a whole and good teachers will have higher beliefs in teaching. Freeman (1989) defined that awareness as a constituent integrates and unifies knowledge, skills, and attitudes. Therefore it can account for why teachers grow and change (1989). Besides, in 2000, Dornyei and Malderez (2000) indicated that teachers are the major participants in the current educational reforms. Teachers’ attitudes will directly and greatly affect students’ learning processes.

In language learning, Moon’s research in 2000 showed that, in order to be able to develop positive attitudes to English in pupils, teachers need to be aware of how they feel about English and teaching English. That is, teachers should have confidence
in themselves, understand themselves and have enthusiasm about teaching English.

However, David Kent (1997) pointed out that teachers are not always clear what kind of knowledge would be most relevant and in what way this knowledge can be acquired. Shi (2000) also claimed that most teachers in universities and institutes are aware of variable working patterns and have virtually no knowledge of vocational qualifications, and, hold stereotypical views of specific occupational fields. Teachers are knowledgeable about academic routes and qualifications, particularly via ‘A’ levels and a specific subject degree, but, they are unaware that a fundamental social and market shift is required to meet the need for highly skilled and educated individuals in the new century. Young people trust and rely on a number of key adults, including teachers, to provide them with up-to-date knowledge and support. Young people need to make informed choices about their future. Teachers’ beliefs and attitudes about themselves and teaching are the key element to the success of students’ learning.

Teachers standing on the front line in education should be aware of the change in the education paradigm. It is important for teachers to learn something about their teaching in order to invest more efficiently in the teaching-learning process (Li, 2000). Shi implied teachers need to understand the change and furthermore change themselves accordingly (2000). Language teachers should keep themselves updated of
new information and teaching approach to meet the needs. This will put teachers in a right frame of mind and lead their students into becoming productive learners.

*Teachers' Attitudes towards Professional Development*

The demands of school reform and the changing face of the Taiwan student population require that all teachers learn more about the role of language in teaching and learning. This knowledge can enhance their practice overall, improving their ability to teach literacy, and it can increase their effectiveness with students. Long-term professional development that views teacher and student learning as paramount must play a central role. The challenges are real but worth confronting, because high-quality education demands a well-educated teaching force (Diaz-Maggioli, 2004).

Students have the rights to access high-quality instruction designed to help them meet high expectations. Teachers should employ strategies known to be effective with students, such as drawing on their prior knowledge; providing opportunities to review previously learned concepts and teaching them to employ those concepts; organizing themes or strands that connect the curriculum across subject areas; and providing individual guidance, assistance, and support to fill gaps in background knowledge.

School reform and accountability initiatives call for a new role for professional development in the career paths of teachers. Current research shows a strong
correlation between teachers' teaching and students' school success (Darling-Hammond, 1998; Sparks, 2002). Professional development has become increasingly important as a way to ensure that teachers succeed in matching their teaching goals with their students' learning needs. In the case of AFL teachers, professional development is needed to enable them to help their students develop proficiency in the target language and an understanding of the cultures associated with that language.

Professional development models are differentiated by the degree of involvement of the teachers themselves in planning, delivering, and evaluating the activities in which they are involved. Sparks (2002) argued that professional development should be embedded in the daily lives of teachers, with strong administrative support and use of strategies that are tailored to their specific needs. These needs may incorporate issues of language, culture, pedagogy, national goals and needs.

Teaching and learning are complex, and teachers need time to learn and experiment with new concepts in the classroom, just as their students do. Principles of effective teaching and learning for students extend to effective professional development for teachers (Rueda, 1998). To be successful, professional development must incorporate opportunities for learning that center on teachers and students. Hawley and Valli (1999) suggested eight principles of effective professional
development: It should be driven by an analysis of teachers' goals and student performance; it should involve teachers in the identification of what they need to learn; it should be school based; it should be organized around collaborative problem solving; it should be continuous and adequately supported; it should be information rich; it should include opportunities for the development of theoretical understanding; and it should be part of a comprehensive change process. The most importance is that in-service teacher education on language in teaching and learning must address teachers' attitudes toward language and toward students.

Teachers need time to reflect on the meaning of education in a pluralistic society, on the relationships between teachers and learners, and on social attitudes about language and culture that affect students (Clair, 1998; Gonzalez & Darling-Hammond, 1997). AFL teachers must maintain proficiency in the target language and stay up to date on current issues related to the target culture. Regardless of the skills and knowledge that foreign language teachers possess when they commence teaching, maintenance and improvement must be an ongoing process. This can be done through evening courses, summer seminars, lectures, or workshops offered by professional associations or universities.

Phillips (1991) outlined a number of formal and informal ways that teachers can improve their language proficiency and cultural knowledge including participation in
study and travel abroad programs, summer institutes and seminars, and informal opportunities that can be arranged locally such as immersion weekends or monthly dinners where current events and other issues are discussed in the target language.

In the departments of applied foreign language, teachers have to seek training in the application of foreign language and cultural instruction to business, as well as business educators want to internationalize their courses and programs. What kinds of professional development experiences can help practicing teachers learn more about language and apply that knowledge to improving classroom practice? An important consideration in the professional development is the educational context in which it is carried out. Pontz (2003) highlighted minimum conditions that education for adults including education for teachers should meet in order to be effective: clarity of goals, adequate levels of challenge, capitalization on previous knowledge, sustainability over time, organizational support, and alignment of achievement with the goals set.

Traditional professional development strategies such as one-shot workshops can be useful for delivering information, but the opportunities they provide for teachers to translate theoretical knowledge into effective classroom practices are limited. Effective professional development calls for adequate support structures and opportunities for teachers to select, plan, carry out, and evaluate the professional development activities in which they are involved (Zhang, 2003). When teachers have
the chance to participate collegially and collaboratively in the creation and
implementation of professional development activities, they develop ownership over
the learning process, and their learning is more likely to promote student success.

For AFL teachers, before the implementation of integrated courses, regular
attendance in in-service training will not only keep teachers updating to information
but also promote teachers' recognition toward the innovations. This recognition may
affect teachers' teaching attitude, approach and performance. The ultimate purpose of
professional development is to promote effective teaching that results in learning
gains for all students. Teachers need to be open minded toward teacher professional
development in order to efficient in teaching.

Students' Attitudes

Students come to schools for diverse reasons. They frequently have very specific
learning goals and needs. If their needs are not met, they are more likely to have
negative attitude toward learning and likely get failed or drop out (Ortiz, 1997; Ortiz
& Wilkinson, 1991). Therefore, to have positive attitude toward learning is an
important factor in eventual academic success.

Students' attitude toward teachers and curriculum has an impact upon the
acquisition of the language. Successful students hold a positive attitude toward the
teachers and instruction (Robinson, 1978). Teachers are the most frequently
interacting persons with students. Student attitudes toward education can be
significantly affected by facilitating some degree of interaction among students and
teachers. Student-teacher interaction plays an important role in student attitudes about
learning and further in students’ level of achievements.

Educators and administrators have in recent years been taking Taiwan’s students
along the path toward a more student-centered system of education. Students are the
main customers/consumers of higher education, and their views are highly valued for
the generation of satisfactory educational outcomes. To know students’ attitude
toward specific aspects of education help improve teaching and learning.

Students’ Attitude toward Teaching Instruction

Students come to AFL with different background. They may want to learn
English to apply in their daily lives, develop skills to find a new or better job, get a
higher education diploma or degree, and advance to higher education program. When
curricula and teachers conduct a thorough positive instruction, students new to a
curriculum or school fell at ease and supported to the study. Teachers can facilitate
motivation by helping students identify short-term goals and reflect on their progress
and achievements. Teachers can provide learners with self-assessment checklists to
identify skill strengths and weaknesses, weekly checklists to track their progress on
meeting a learning goal, and self-reflection tools to help students build autonomy and
take charge of their learning (Marshall, 2002).

Recent research looks at how instructional contexts also affect motivation. A student’s motivation may vary from day to day and even from task to task (Dornyei, 2002; Dornyei & Kormos, 2000). Using varied and challenging instructional activities helps students stay focused and engaged in instructional content (Dornyei & Csizer, 1998). Research examining how to improve students’ motivation suggests that learning environment affect a students’ attitude, effort, classroom behavior, and achievement (Dornyei, 2002). Therefore, teachers should respond to learners' needs and goals when planning instruction and create a positive environment that is conducive to learning by encouraging students in the classroom (Florez & Burt, 2001).

Teachers need to determine the core knowledge and skills that these students need to master and then incorporate these needs into their teaching approach for effective teaching (Dornyei & Csizer, 1998).

Effective teaching approaches focus on themes and develop skills that are relevant to students’ needs and to their studies in mainstream academic classes (Weddel & Van Duzer, 1997). Effective teaching prepares students for high-quality academic work by focusing their attention on key processes and ideas and engaging them in interactive tasks that allow them to practice using these processes and concepts. Teachers must be familiar with the basic concepts and theories underlying
instruction and must maintain academic standards and have high expectations of their students (Weddel & Van Duzer, 1997).

In AFL, students must have access to high-quality instruction designed to help them meet expectations. Teachers should employ strategies known to be effective with English learners, such as drawing on their prior knowledge; providing opportunities to review previously learned concepts and teaching them to employ those concepts; organizing themes or strands that connect the curriculum across subject areas; and providing individual guidance, assistance, and support to fill gaps in background knowledge. Teachers need to know the linguistic, cognitive, and academic demands they are preparing their students for and help them develop the necessary proficiencies. Teachers may need to develop instructional strategies which explicitly acknowledge and enhance students' potential.

Students' Attitude toward their Achievements

The academic achievement of English learning students has long been a major national educational concern in Taiwan. For students to achieve their full potential, a strong commitment must be made to their educational needs and futures. Students are a national resource to be nurtured and encouraged to attain their maximum level of achievement. Oxford (1989) maintained that language learning styles and strategies appear to be among the most important variables influencing performance in a second
language. Saville-Troike (1984) found that students who had active and competitive coping styles, and a more positive attitude toward learning English achieved better in school.

*Students' Expected Learning Achievements*

Over the past 40 years, the field of English language education has moved gradually away from the simple focus upon grammatical rules or vocabulary lists toward the direction refers to as linguistic competence or communicative competence. At the most basic level these terms speak of the students' capacity to understand and speak a target language, with the additional expectation that the speaker do so skillfully and effectively (Jong, 1996; Chang, 2001).

The purpose of vocational education is to provide technical manpower for economic development (MOE, 2004). Students come to institutes of technology or universities of technology holding the same purpose—being skilled for successful employment. For AFL students, language proficiency—in speaking, reading, and writing—is the road to high learning achievement and the road to future employment or advanced study. Whether in bilingual or monolingual programs, whether instruction is in English, or Chinese, language development in the language of instruction is the first goal of teaching and learning. Students in AFL must learn English, master academic content, and then earn credits to pursue challenging careers.
and higher education. How to prepare students to achieve the learning goals and become productive is the major duty of the vocational education. Teachers and schools need to help student attain these goals.

_Students' Learning Achievements toward Teachers' Attitude_

Teachers must share a common philosophy and knowledge base relative to the education of students learning English (Ortiz, 2000). Teachers stand on the first line of education. Teachers' role is perceived as the leading model for students' learning. Teachers' attitude about students' ability to learn influences students' achievement. Research suggested linking differential teacher effectiveness as a strong determinant of differences in student learning (Darling-Hammond, 1999). In addition, Firestone and Rosenblum (1988) indicated that students are more engaged in the learning process when teachers have high expectations and are willing to take personal responsibility. Students will tend to learn more as well.

Teachers' attitudes in classroom affect the success of students' achievement. Delpit (1995) argues in language learning, guidance and modeling can go a long way toward promoting awareness of and facility with language discourse. In this way, teachers' preferred and accepted ways of talking, writing, and presenting are classroom culture specific. Developing student awareness of different learning, modeling by teachers of preferred styles, and study by students themselves of
differences and preferred styles are important steps in the development of proficiency and autonomy that need to be included in the education of language students.

Students in English integrated business courses may face obstacles and difficulties in learning and need guidance to negotiate the courses successfully. At this time, teachers need to build bridges to students’ learning process and curriculum courses, to provide students with strategies about language learning as well as business-related learning, and to develop appropriate instructions that incorporate students’ abilities and experiences, knowledge and skills. The development of English language abilities, academic skills, and content knowledge, accompanied by current technology technique can provide the foundation for the future success of students in applied foreign language departments.

*Language Immersion toward Learning Achievements*

Students in applied foreign language departments need to learn not only new content, but also the language and discourse associated with the language. All subject matter classes must have language focus and subject matter focus as well. Therefore, teachers’ instruction needs to provide students with appropriate levels of language and subject content. To use English as the instruction language in classroom provides students a language immersion learning environment. Immersion is as a method of language instruction in which the curriculum is taught through the medium of the
language. The target language is the vehicle for content instruction. Students in the immersion sequence are fluent in the foreign language (Cummins, 1983).

Learning a language takes times and the more time students are exposed to comprehensible input in the language they are learning the better they will do. Immersion approaches to teaching second languages maximize the time students get to practice the language they are learning without being slowed down by having to translate what they hear and speak. Language immersion is one of the effective ways of developing English language proficiency. The intensity of the immersion experience coupled with the amount of exposure to English language assures that students would have the necessary language skills to deal with the content materials and have better language abilities to apply in real life (Campbell et al., 1985).

The Importance of Learning Environment for Integrated Courses

Current trends and issues in education indicate the importance of collaborating for student success. Collaboration is essential for second language learners, because to develop language proficiency they need opportunities to use the language in meaningful, purposeful, and enticing interactions (Kagan & McGroarty, 1993). Collaborative work needs to provide every student with substantial and equitable opportunities to participate in open exchange and elaborated learning environment (Adger et al., 1995). In collaboration, teachers provide a task in an authentic learning
environment that invites and requires each student's participation. Then students take responsibility for their own authentic learning.

In AFL, the integrated courses give students opportunities to extend their understanding and apply their knowledge in learning. One of the goals in the Department of Applied Foreign Language is to be able to apply acquired knowledge to authentic situations. These applications reinforce the development of new language, concepts, and academic skills as students actively draw connections between pieces of knowledge and their contexts. Understanding a topic of study involves being able to carry out a variety of cognitively demanding tasks (Perkins, 1993). Schools and teachers should increase coordinating community services and establishing links with the business community and other educational institutions to provide students with a variety of future employment opportunities. This applying gives students pre-employed working experience and help them better adapt to future employment.

Summary

Along with globalization, the improvement of technology, competition in economics and membership in the World Trade Organization, Taiwan has put into place a continuous program of education reform to meet the demand of the changing social reality. Since 2002, Taiwan has been a member of the World Trade organization. The need for specialists in the fields of English and business has been
increasing. Furthermore, in his speech in the spring of 2002, President Chen called to make English the second official language of Taiwan. English has become even more important in Taiwan. English education is one of the targets of education reform.

**Summary of English Education Development**

For generations in Taiwan, English education was seen as a lectured subject; teachers gave lectures of grammatical rules and skills of passing tests. There was an emphasis on rote learning. The content then was academic and test oriented. In the 1980s, experts began questioning the system, citing the need for new types of education paradigms to meet the changing demands of the twenty-first century (MOE, 2003). In 2003, the Ministry of Education announced the major expectations of vocational and technical education in higher education.

For students, the major expectations are to equip students with expertise that meets the needs of industries, as well as, giving industries a competitive edge in terms of technical know-how. The schools are to teach students applied scientific and technical knowledge to provide enterprises with technicians and engineers who have practical skills and to provide competitive skills in order to compete internationally.

For teachers, the schools are to encourage teachers to avoid an overemphasis on either academia or industry and to increase teachers' willingness to participate in cooperative projects between academia and industry. Meanwhile, the schools are to provide
teachers with regular in-service training to ensure the best teacher quality and to inspire more creative teaching materials and instructional methods. For institutes and universities, the schools should also promote cooperation between academia and industry and to teach students with applied scientific and technical knowledge to provide enterprises with technicians and engineers who have practical skills (MOE, 2003).

The government, on one side, has pushed for massive reform in English education, including mandating English language as a compulsory subject starting from the fifth grade in elementary schools, developing English Language Proficiency Test and adding English language test in most of the official examinations. On the other side, universities and institutes of technology have been working hard on improving English education to provide manpower to meet the huge market demands. Institutes and universities of technology have established departments of applied foreign language, which preparing students to meet the market needs (Lin & Chang, 2001). The departments of applied foreign language provide integrated courses, which integrated multiple themes in one course and convey the knowledge as a whole. It is expected to provide students an authentic learning environment with the focus on language learning and business content.
Summary of Teachers' Attitude and Students' Attitude

Teachers stand on the first line in teaching and learning. Teachers should be alert to the changes in education paradigm, understand the nature of the new paradigm and further try to adapt with it accordingly. Teachers' reaction toward the change and challenges affect teachers' attitudes, teaching performance, students' learning achievement. In order to keep updating, teachers' professional development is a pivotal access to improve teachers' professional skills and expertise. Creating positive learning atmosphere and promoting students' motivation are teachers' responsibilities.

Learning English is important because it is an international language. Developing foreign language fluency is a long process and that while it is essential to continue supporting and nurturing language development, students' attitude has an impact on students' long-range academic outcomes. Positive attitude of students themselves and strong support from teachers are given to continuous development of students' academic skills.

The goal of AFL education is to provide productive human resources for the development of national economic and market demands. Teachers' attitude on courses and curricula affect their teaching approach and students' learning attitude. Students' learning attitude takes an important role on their learning achievements. Teachers' attitude, students' attitude and the implementation of integrated courses are
inter-related in teaching and learning. Education reform is a long term process. To understand the inter-relationship gives helps to the improvement of education reform.
CHAPTER THREE

METHODOLOGY

Introduction

The departments of applied foreign languages in institutes of technology and universities offer English integrated business courses to meet the educational expectations of reform. More specifically, English integrated business courses are developed to meet the goals of English language competency and business training. There is evidence that some teachers are willing to teach English integrated business courses while other teachers are less willing to teach English integrated business courses. The review of the literature indicated a substantial link between teachers' attitudes and students' attitudes toward learning. In turn, the attitudes that students have toward learning is related to their academic achievement. For example, Kent pointed out that teacher attitudes and functions have momentous implications for students' ability to learn successfully (1997).

This study sought to determine whether there is a relationship between teacher attitudes toward English integrated business courses and their students' achievement. In addition, this study examined the degree of teacher willingness to cooperate with educational reform based upon both teacher and student perspectives. Finally, this research also compared teachers' attitudes and their students' perception of their
teachers' attitudes toward English integrated business courses.

Research Design

The design of the proposed study utilized a quasi-experimental quantitative research design to collect and analyze data concerning teachers' and students' attitudes toward English integrated business courses utilizing the English language. Two questionnaires were developed to conduct this study. One questionnaire focused on the investigation of teachers' attitudes toward English integrated business courses; the other was to gather data on students' perceptions of their teachers' attitudes toward English integrated business courses as well as the students' attitudes toward English integrate business courses. The questionnaires were developed based upon factors identified in the review of literature.

Pilot Study

The purpose of pilot study was intended to understand the difficulties and identify discrepancies that the teachers and students may encounter during answering the questionnaires. The pilot study also helped researcher to become familiar with the whole process of conducting the study. Three teachers and 76 students at Mei-ho Institute of Technology were the subjects of a pilot study on Oct. 24, 2005. Both of the questionnaires were further modified and refined for validity through a pilot study implemented by the researcher. Modifications of the earlier one were based on the
participants' responses as well as their recommendations. Items were evaluated based on the ability to identify features, to correlate with the corresponding items in each of those three demographic, perception and opinion perspectives and to specify unique information.

On the teachers' questionnaire, specialization was added next to educational background. Teacher participants provided the information of their ultimate education degree and their specialization as well as their teaching year at their current school. For the students' questionnaire, college, university and other were put into the selection of previous education background. Also, for both of the questionnaires, a brief explanation and examples of English integrated business courses were printed on the top of the questionnaires. Thus teachers and students were able to understand the definition of English integrated business courses before responding to the questions.

Population and Sample

This research focused on institutes of technology and universities of technology that had the departments of applied foreign language located in southern Taiwan. There were eight such schools with each school averaging about 10 full-time applied foreign language teachers and about 350 applied foreign language students per school. This provided for a population of approximately 80 teachers and 3,500 students. From this population, five teachers from each institute and university of technology who
taught English integrated courses were to be randomly selected from appropriate faculty. If there were fewer than five eligible teachers in a particular school, all appropriate teachers were asked to participate. The anticipated sample size was approximately 35 teachers and 1200 students.

Procedures

In order to secure permission from the appropriate administrator, a letter requesting permission was delivered to the chairpersons of the eight departments as well as an oral explanation of the purpose of the study and possible contributions to the education of applied foreign language. The letter of permission specified that the research would need five full-time applied foreign language teachers from the department and one class of students from each teacher. One of the eight chairpersons refused to participate in the study.

Each teacher was given a questionnaire regarding demographic information and questions regarding their attitudes toward integrating English into their coursework. In addition, each student in the class was given a questionnaire requesting responses relative to their perceptions of their teacher’s attitude toward English integration as well as each student’s attitude toward English integration. Students’ achievement scores were gathered and reported by teachers. Students’ achievement scores were defined as the mid-term scores in the semester.
The questionnaire surveys on teachers and students were conducted at the end of the fall semester, 2006. The questionnaires were administered and collected with the assistance of each department office. Among 752 questionnaires that were returned, 679 were determined to be valid after filtering out those not completed.

Instrumentation

Two questionnaires were developed to conduct this study. The first questionnaire was developed to examine teachers' attitudes toward teaching English integrated courses while the second questionnaire was given to the students attending a class from each teacher. The questions on both questionnaires were classified into three categories as demographic, attitude and descriptive opinions.

Survey of Teachers' Attitude

In order to gather information allowing the degree to which teachers' attitudes were related to the educational reform goals of Taiwan, the questionnaire for teachers' attitudes was developed so that the attitude of teachers of English integrated courses may be determined. The questionnaire sought to collect teachers' attitudes regarding student achievement and the overall educational value, based upon their experience, of integration of English into business related courses. Demographic data was also collected and used for analysis.
Survey of Students' Attitude

The second questionnaire was developed to investigate students' perceptions of their teachers' attitudes toward integrated courses, their own attitudes toward integrated coursework, and a self-reporting of their academic achievement. Demographic data was also gathered from the students' questionnaire.

Anonymity

The first teacher's questionnaire was coded with the letter A. Each student in that teacher's class was coded with an A also, followed by their placement in the grade book. Hence, the first teacher's students received questionnaires numbered A1, A2, and so forth. The questionnaires were distributed according to the order established in the teacher's grade book. Finally, the department office was given a matrix with the student numbers A1, A2, and so forth. The department office then recorded the students' achievement scores on the matrix. Care was taken to ensure that students who were absent were so noted in order to prevent final course scores from being incorrectly assigned.

This procedure allowed the responses from the students to be correlated to the appropriate teacher and the individual student achievement score correlated to the matching student questionnaire without having to know the identity of the teachers or their students. Thus, these procedures provided for anonymity of all participants.
Findings were reported on an aggregate level.

Variables and Level of Data

The independent variable consisted of whether teachers who taught English integrated coursework were positively or negatively disposed toward utilizing that curriculum. Dependent variables consisted of achievement scores, which were reported in ratio level data, i.e., percents. Achievement scores were collected from the total classroom semester score earned by each student. Additional analyzes were conducted in which variables collected in the questionnaire may serve as discriminators regarding teacher attitudes or achievement of students.

Sub Questions

The sub questions of the study were:

1. What is the relationship between teachers' attitudes and their students' attitudes?
2. What is the relationship between teachers' attitudes and their students' perceptions of their teachers' attitudes?
3. What is the relationship between students' attitudes and their achievements?
4. What is the relationship between students' perceptions of their teachers' attitudes and students' achievements?

Null Hypothesis

The null hypothesis for this research is as follows: There will be no
experimentally important or consistent predictability of teachers’ attitudes toward English integrated business courses and their students’ classroom achievement.

Definitions

Experimentally important was defined at a level of 70% correct predictability or higher. Experimental consistency was defined at the .05 level. The level of experimental importance was set based upon a dichotomous variable potentially may be guessed correctly 50% of the time and the absence of any determined level of predictability in the review of literature.

Statistical Procedures

Discriminate function analysis was used to compute predictability and experimental consistency. Discriminate function analysis (DFA) is a statistical procedure originally developed “to classify subjects into one of two clearly defined groups” (Mertler & Vannatta, 2002, p. 281). More recently, DFA has been utilized as a kind of post hoc procedure for MANOVA analyses. This research employs DFA in its original use whereby interval/ratio level variables are utilized as predictor variables analogous to multiple regression with the distinction that the criterion variable in DFA is nominal and dichotomous rather than interval/ratio as in multiple regression. By using a dichotomous variable, a nominal variable may be considered equal interval as a result of the identity property in which a single interval between the two levels of
that variable is equal to itself (Sarle, 1996).

Discriminate function analysis was used to determine if any interval/ratio level descriptive data served as experimentally important and consistent predictor variables of objective and/or subjective evaluators. The general form of the predictor equation for DFA was: Dichotomous criterion variable (equals) computed coefficient (times) predictor variable. More specifically, the equation for one of the groups may be expressed as

\[ Q = C_1 V_1 + C_2 V_2 + \ldots + C_j V_j + \ldots + C_p V_p + C_0 \]

where \( Q \) is the classification score for group I, the \( C_j \)'s are the classification coefficients, \( C_0 \) is the constant, and the \( V \)'s are the discriminating variables. A case is classified into the group that produces the highest classification score.

In practice, the procedure determines a cutoff score in which the computed value was compared to a calculated cutoff score and group membership is determined relative to the cutoff score. In addition, the procedure computed a p-value and a percentage of correct predictability for each group. If both groups were equally weighted, guessing would result in a rate of 50% correct predictability; therefore, a level of 70% correct predictability was set \textit{a priori} as a level of experimental importance. Discriminate function analysis develops a predictor equation with a cutoff score but does not provide the mathematical function, coefficients, and constants necessary to reproduce the predictor equation. Once the software has
computed the analysis, the computer will calculate predictions based upon a score that the researcher then compares to the cutoff score.

Additional analysis was conducted as appropriate from the initial findings. These included a comparison of teacher attitudes with students' perception of the teachers' attitudes, a comparison of teachers' willingness to teach English integrated coursework with national educational reform goals, and subgroup analyzes based upon demographic variables.

Limitations

This research was limited by a sample selected from intact groups thereby limiting generalizability. A majority of the students had self-selected into the integrated classes thus creating a potential bias. Additionally, data were gathered that was subjective and therefore, lacked objective reliability.

The chair of each department of applied foreign languages selected the teachers to participate in this research. There were no controls over whether the chairs randomly selected teachers for participation, therefore the sample should be considered a convenience sample and not a random sample across all teachers.

Delimitations

The population for this research was delimited to southern Taiwan. Achievement data were delimited to a single semester score. The semester scores were not
determined from the same assessments across all institutes and universities of technology.
CHAPTER FOUR

RESULTS

Introduction

The goal of this study was to determine whether there was a relationship between teacher attitudes toward English integrated business coursework and their students' achievement. This study also examined the degree of teacher willingness to cooperate with educational reform based upon both teacher and student perspectives. In addition, this research compared teachers' attitudes and their students' perception of their teachers' attitudes toward English integrated business courses. All the responses and data analysis are shown as follows.

Sample

The sample for this study was a population of 22 teachers and 752 students of applied foreign language department in eight institutes of technology in southern Taiwan from the total population of approximate 80 teachers and 3,500 students. There were 22 teachers who participated in this research. The return rate was 63%. The exact enrollments for each class was not known; however, it appeared that nearly 100% of the students of teachers who participated responded to the survey as an average of 34 students per teacher responded to the survey, which was close to the anticipated average class size of 35. However, 93 returns were invalid for various
reasons such as a number of incomplete or blank responses. This provided for an effective student response rate of 86%.

Analysis of Teachers' Questionnaire

On the teachers' questionnaire, Questions 6, 7, 8, 11, 13, 16, 17 and 18 were designed with the answers of Yes or No. Questions 12 and 14 were multiple-choice. Questions 9 and 10 had subset questions that were answered Yes or No and also had a follow up question requiring a blank to be filled in. Questions 15 and 19 provided the answers about the percentages of various factors. Finally, Question 20 and 22 were answered with descriptive responses.

Teachers' Demographics

On the teachers' questionnaire, Question 1 through Question 6 were designed to investigate teachers' background information. There were a total of 22 teachers who participated in this study. Of the 22 participating teachers, 12 were female and 10 were male (Illustration 1). The teachers' ages ranged from 29 to 66 years old with an average age of 46. Table 2 shows the percentage of the distribution by age range.
Table 2

The Demographic of Teacher Subjects by Age and Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>25-30 yrs</th>
<th>31-40 yrs</th>
<th>41-50 yrs</th>
<th>51-60 yrs</th>
<th>More than 60</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Percent</td>
<td>1%</td>
<td>36%</td>
<td>32%</td>
<td>14%</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

Illustration 1

Teachers' Ages and Genders

Teachers specified their educational background on Question 3. Teachers' educational degrees were dichotomous, that is, all surveyed teachers had earned either masters or doctoral degrees. There were seven (32%) teachers with doctorate degrees.
and 15 (68%) teachers with masters degrees. The teachers’ specializations were
denoted in Table 3.

Table 3

<table>
<thead>
<tr>
<th>Specializations</th>
<th>TESOL</th>
<th>Linguistic</th>
<th>Journal</th>
<th>Tour</th>
<th>Translation</th>
<th>Weather Science</th>
</tr>
</thead>
<tbody>
<tr>
<td># Teachers</td>
<td>12</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Percentage</td>
<td>56%</td>
<td>18%</td>
<td>9%</td>
<td>9%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Most of the 22 teachers, 12 (56%), held the same specializations of teaching
English as a second language (TESOL) and four of them (18%) were in linguistics.

Both journal media and tourism specializations had the same number of teachers, each
with two teachers (9%). In addition, one of the teachers (5%) was in translation
specialization. Finally there was one teacher (5%) in the specialization of weather
science. His strong English skills helped him get the position in the department of
applied foreign language.

Question 4 provided information about the length of teachers’ teaching
experience. The average length of teachers’ teaching experiences was 11 years. There
were four (18%) teachers with less than two years of teaching experience. Among the
22 teachers, five (23%) of them had four to six years of experience, three (14%) of
them had seven to nine years and four of them had 10 to 12 years of experience.
Finally, six (27%) teachers had more than 12 years of experience.

Question 5 gave information about the length of teachers’ teaching experience in English integrated business courses. The average length of teaching experience in English integrated business courses was three years with a range of 1 to 8 years. Table 3 shows the distribution of years of teaching experience. On Question 6, 20 (90%) of the teachers believed they had a sufficient academic background in order to integrate English into their courses (Table 4).

Table 4

<table>
<thead>
<tr>
<th>Teachers' Teaching Years on English Integrated Business Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Years on English Integrated Business Courses</td>
</tr>
<tr>
<td>1 yr</td>
</tr>
<tr>
<td># Teachers out of 22</td>
</tr>
<tr>
<td>Percentage</td>
</tr>
</tbody>
</table>

Of the 22 participating teachers, 27% (6) of them have spent their entire teaching experience in English integrated business courses. The remainder of the teachers have also taught in areas other than English integrated business courses.

Teachers’ Attitudes

Questions 7, 8, 11, 12, 13, 16, 17 and 18 were designed to investigate teachers’ attitudes toward the requirement of integrating business courses with English. These
eight questions were answered with a Yes or No with the exception of Question 12.

Question 12 was denoted as positive when the response “Integrated” was the preferred response. A positive response was given a value of 1 and the scores on these eight questions were summed. Teachers having scores of five or greater were characterized as having an overall positive attitude toward integrating business courses with English while the remaining teachers were denoted as having a negative attitude.

Table 6 shows the result of teachers’ attitudes toward English integrated business courses. Teachers who scored five or more points were considered to hold positive attitudes. On the other hand, teachers with a score less than five were denoted as teachers holding negative attitudes toward English integrated business courses. The results found that 19 (86%) of the teachers responded with positive attitudes while three (14%) of the teachers held negative attitudes toward English integrated business courses. The average percentage of positive responses given by all 22 teachers of English Integrated business courses was 75%, or, on the average, six of the eight questions were answered expressing a positive attitude toward integrating English into the business courses. Table 5 provides a summary of the results of teacher attitude scores.
Table 5

Result of Teachers' Attitude

Teacher Attitude Scores

<table>
<thead>
<tr>
<th>Score*</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td># Teachers</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>0%</td>
<td>4%</td>
<td>9%</td>
<td>14%</td>
<td>36%</td>
<td>18%</td>
<td>18%</td>
</tr>
</tbody>
</table>

* Score is determined by giving one point for each positive response, up to a maximum of eight points.

Among the 19 teachers with a positive attitude, four of them had a score of eight positive responses out of eight possible questions, four teachers had seven of eight positive responses, 8 teachers recorded six out of eight, and three teachers had five of eight possible positive attitude scores. The average percentage of those teachers having a positive attitude was 81%. On the other hand, the average percentage of those teachers having a negative attitude was 46% (Illustration 2).

Illustration 2

Percent of Teachers Having a Given Score (0-8)
Questions Pertaining to Teacher Attitudes

An analysis of the questions that determined the attitude of the 22 teachers who teach English integrated business courses found that the attitude questions were answered positively 75% of the time. Among the 22 teachers, 86% held a positive attitude toward English integrated business courses while 14% had a negative attitude. The average percentage of those teachers having a positive attitude was 81%.

Questions 11 and 16 had a 100% positive response rate. The two questions asked if teachers believed English integrated business courses were beneficial to the education of the students in the department of applied foreign language, and then also believed the courses could better prepare students for work in the business sector with English speaking people.

Question 18, 17 and 13 had positive response rates from 95% to 82%. Question 18 described if the Ministry of Education should continue with its encouragement for English integrated business courses to be taught in higher education. The positive response rate was 95% for Question 18. Question 17 asked about if teachers believed that students were better prepared academically as a result of taking courses that were English integrated, and this question had an 86% positive response rate. Question 13 talked about if teachers believed that English integrated business courses can improve students' language and business knowledge at the same time. The positive response
rate was 82%.

Question 12 had a 64% positive response rate, which described if English integrated business courses were able to better prepare students in the department of applied foreign language for business related employment. Questions 8 and 7 had positive response rates were 45% and 36% respectfully. Question 8 asked teachers if they had participated in professional development opportunities intended to help prepare teachers themselves for teaching English integrated business courses. Question 7 specified if teachers had professional development opportunities to help them better prepare for integrating English into their courses.

Illustration 3

*Teachers' Attitude Questions*

Questions Pertaining to Teacher Experience

In Question 9, 17 (77%) of the teachers specified that they had spent more time preparing for their English integrated business courses than that they would prepare
for the same course without English integration. Of the 17 teachers spending more
time, four of the teachers spent one additional hour per week to prepare for one
English integrated business course and 10 of the teachers spent two additional hours
each week. There was one teacher who spent three and four hours each. Finally, one
of the teachers indicated he or she had spent 10 additional hours to prepare for one
English integrated business course (Table 6).

Table 6

<table>
<thead>
<tr>
<th>Spending Addition Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hr</td>
</tr>
<tr>
<td>Number of Teacher</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>Percentage</td>
</tr>
<tr>
<td>24%</td>
</tr>
</tbody>
</table>

Question 10 had subset questions that were answered Yes or No and also contained a follow up question requiring a blank to be filled in. Question 10 (a) described if teachers believed that teaching English integrated business courses required more work. The results found that 18 (82%) of the teachers indicated teaching English integrated business courses required more work, while four (18%) of the teachers gave negative responses. On Question 10(b), of the 18 teachers providing positive responses, 17 (94%) indicated that the extra work required to teach English integrated business courses was worth the extra effort, and one (6%) of the teachers
specified it was not worth the extra effort. Finally, Question 10 (c) asked teachers to fill in the blank with the percentage of teachers' colleagues who would agree with their answers to Questions 10 (a) and 10 (b). The result found two (9%) of the 22 teachers specified 90% of their colleagues who would agree with their response, three (14%) of the 22 teachers specified 80% and one (4%) of the teachers specified 60% of their colleagues who would agree with their responses on Question (a) and Question (b).

Table 7

| Question 10 (c)- Percentage of Teachers' Colleagues Agree with Their Response |
|---------------------|-----|-----|-----|-----|-----|-----|
| 90% | 80% | 70% | 60% | 50% | 20% |
| # Teacher | 2 | 3 | 4 | 3 | 8 | 2 |
| % | 9% | 14% | 18% | 14% | 36% | 9% |

Question 14 was multiple-choice. Of the 22 teacher participants, two (9%) indicated that English integrated business courses should be kept, but reduced in number. These two teachers specified that the courses of Law English, English Negotiation and Marketing should be reduced. There were 14 (64%) teachers who believed English integrated business courses should be maintained at the present level. In addition, six (27%) of the teachers believed English integrated business courses should be increased. In this section, the courses of Law English, Tour English, Translation English, News English, English Negotiation, Marketing, Net English,
Movie English and Humanity Translation were suggested to be added in the curriculum of the departments of applied foreign language. Finally, none of the 22 teachers remarked that English integrated business courses should be eliminated.

Question 15 provided information about the percentage of total teaching responsibilities that teachers would use on the English integrated business courses. The average percentage of teachers' preferred teaching responsibilities on English integrated business courses was 35%. Diagram 4 provides the percentage results of the distribution of teaching responsibilities that teachers would prefer to teach on the English integrated business courses. Of all 22 teachers, one (4%) of them preferred to teach 70% of their total teaching responsibilities using English integrated business courses while another one (4%) teacher would not like to teach any of English integration courses, four (16%) teachers preferred to spend 50% of teaching responsibilities, six (24%) teachers would like to spend 30% and the remaining five (16%) teachers wanted to spend 20% of teaching responsibilities on the English integrated business courses (Illustration 4).
Illustration 4

Question 15- Teachers' Teaching Responsibilities Using English Integrated Business Courses

Question 19 provided information about students' performance in teacher participants' English integrated business courses. The descriptions of students' performance descriptions were categorized into Do More Poorly, Make No Difference and Do Better. On the first category, Do More Poorly, two (9%) of the 22 teachers indicated 70% of their students did more poorly in the teachers' English integrated business courses while three (14%) teachers considered that none of their students had performed more poorly, nine (41%) teachers considered 30% of their students did more poorly and three (14%) teachers specified 40% of their students did more poorly in their courses.

Referred to the second category of Make No Difference, of all 22 teachers, one (5%) teachers believed 60% of their students made no difference on English
integrated business courses while nine (41%) teachers considered 30% of their students made no difference in class. Then on the last category of Do Better, one (5%) teacher indicated 75% of their students did better and two (9%) teachers remarked 10% of their students did better on English integrated business courses.

*Teachers' Descriptive Responses*

Question 20 provided the information about the main advantages of English integrated business courses. The descriptive responses were divided into four categories. First, English integrated business courses better enabled students to gain both English and business knowledge concurrently. Second, students with the training of English integrated business courses were able to get into employment smoothly upon graduation and also students were better prepared to be more competitive in the marketplace or future work setting. Next, the integration of English language and business knowledge motivated students to learn more efficiently, the courses had multiple purposes and themes, and students would not feel bored easily. Finally, teachers agreed the practical content of English integrated business courses were relevant to students' life. Students could apply this relevant content to their real life.

Question 21 described the information on the disadvantages about English integrated business courses. There were several disadvantages. First, students were not well prepared yet to the course. English language courses should be taught prior to
English integrated business courses and then students were able to understand sufficiently the content material in English. Next, the English integrated business courses had not been developed in accordance with students’ level. The course design should take into account of students’ income level both in English and business. Then, departments and institutes should hire more teacher resource to support English integrated business courses because some teachers were not proficient in business-related content.

On Question 22, teachers specified what they believed could be done, if anything, to improve the use of English integrated business courses in higher education. First, some teachers expressed that departments should hire more teacher resource to reduce the workload of each teacher and should invite more business professionals from industry into workforce. Next, departments should regularly provide regular professional development for teachers. After that, teachers should participate in-service training during semester time and summer and winter breaks. Then, schools should provide teacher trainers for teachers who have difficulty teaching. Finally, there should be appropriate instructional guidelines for each English integrated business courses.

Analysis of Students’ Questionnaires

The initial number of students who participated in the study was 752; however,
93 returns were invalid for various reasons such as a number of incomplete or blank responses. This provided for an effective student response rate of 86%. There were total 679 students who had participated in the study.

_Student Demographics_

On Students’ questionnaire, Question 1 to Question 4 provided information about students’ educational background. The students came from vocational high schools, senior high schools, colleges, universities and others. Of all 679 students who participated in the study, 381 (56%) were from colleges, 192 (28%) were from vocational high schools, 81 (21%) came from high schools and finally 22(12%) came from other educational backgrounds. In addition, there were three students (0.05%) from university level (Table 8).

Table 8

_Students’ Previous Education Background_

<table>
<thead>
<tr>
<th>Previous Education</th>
<th>Vocational H.</th>
<th>Senior H.</th>
<th>College</th>
<th>Univ.</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td># Students</td>
<td>192</td>
<td>81</td>
<td>381</td>
<td>3</td>
<td>22</td>
</tr>
<tr>
<td>Percentage</td>
<td>28%</td>
<td>12%</td>
<td>56%</td>
<td>0.05%</td>
<td>3%</td>
</tr>
</tbody>
</table>

The numbers of female and male participants were 478 and 201 respectfully. The ages of the students ranged from 18 to 50 years old with an average age of 25. Of the

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679 students, 376 (55%) of them were between 20 and 25 years old, 127 (19%) of them were under 20 years old, 91 (14%) of them were between 31 and 40 years old, 44 (6%) of them ranged from 26 to 30 years old and finally 37 (5%) of them were at least 41 years old.

The student participants in this study included freshman, sophomore, junior and senior students. Among the 679 students, 273 (40%) of them came from junior level, 200 (29%) of them came from senior level, 129 (19%) of them were from sophomore level and 77 (11%) of them came from freshman level. All the 679 students had enrolled in English integrated business courses of the teacher participants up to Jan. 2006. The average score of all 679 students' semester scores was 77%. Illustration 5 shows the distributions of the students' level year.
Questions 5, 6, 7 and 8 provided information about the numbers of courses taken by the students. Question 5 gave information about the total numbers of courses that the students had taken per week. The average number of the courses they had taken per week was nine. Of all 679 students, 455 (67%) took 10 to 12 courses per week and 141 (21%) took seven to nine courses. There were a total of 39 (6%) students taking more than 12 courses per week while seven (1%) of the students took less than three courses per week (Illustration 6).
Question 6 described the total number of English integrated courses the students had taken per week in the semester that the survey was conducted. The average number of English integrated business courses that the students had taken per week in the semester that the survey was conducted was three. Of all 679 students, 434 (64%) students took one to two English integrated courses per week while nine (1%) students had taken nine to twelve and 176 (26%) students had three to four English integrated business courses per week.

On Question 7, students indicated if the English integrated course they were taking was an elective or not. Among the 679 students, 269 (40%) indicated the English integrated course was an elective while 410 (60%) students expressed it was not an elective. On Question 8, students specified the total number of English
integrated business courses taken up to Jan. 2006. Of all 679 students, 242 (36%) took one to two English integrated business courses, 215 (32%) indicated three to four courses, 91 (13%) indicated seven to eight courses and finally 14 (2%) indicated 11 to 20 English integrated business courses up to Jan. 2006.

Question 9 asked students if they had sufficient English ability to understand the content of the English integrated Business courses. Among 679 student subjects, 288 (42%) indicated they had sufficient English ability to understand the content while 391 (58%) gave the reverse response.

On Question 12, of all 679 students, 102 (15%) specified about 81%-100% of their classmates would agree on their response to Question 11, 228 (34%) believed 61% to 80% of their classmates would have the same opinion and 275 (41%) believed 41% to 60% of their classmates would agree with them. Finally 36 (5%) believed 21% to 40% of their classmates would agree with them and (6%) of the students thought 0% to 20% of their classmates would agree on their responses.

Students' Perceptions of Their Teachers' Attitudes

Question 10 was designed to investigate teachers' attitudes from the perception of their student. Student participants had to specify the attitude degree they perceived their teachers had regarding the importance of integrating English into this course. The degree was based upon 100% representing a completely positive attitude toward
English integration and 0% representing a completely negative attitude toward
English integration. The average of the total 679 students' perception of their teachers' attitudes toward English integrated business courses was 67%. Of all 679 students, 21 (3%) of them perceived that their teachers had a 0% completely negative attitude whereas 39 (6%) of them perceived that their teachers had a 100% completely positive attitude toward English integration business courses. In addition, 277 (41%) of the students perceived the degree of their teachers' positive attitudes was around 61% to 80% and 206 (30%) of the students perceived their teachers' positive attitudes were in 41% to 60% degree. In addition, 93 (14%) of the students perceived that their teachers had an 81% to 99% positive attitude rate and 32 (5%) of the students perceived their teachers had a 21% to 40% positive attitude rate.

Illustration 7
Percentages of Students' Perception of Teachers' Attitudes

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Students' Attitudes toward English Integrated Courses

On Students' questionnaire, Questions 11, 13, 14, 15, 16 and 17 were designed to investigate students' attitudes toward English integrated business courses. These six questions were answered with a Yes or No. A positive response was given a value of 1 and the scores on these six questions were combined. Students having scores of four or greater were characterized as having an overall positive attitude toward English integrated business courses while the remaining students were denoted as having a negative attitude.

Table 9 shows the result of students' attitudes toward English integrated business courses. Students who scored four or more points were considered to hold positive attitudes. On the other hand, students with a score less than four were denoted as students holding negative attitudes. The results found that 546 (80%) of the students' responded with positive attitudes while 133 (20%) of the students held negative attitudes toward English integrated business courses. The average percentage of positive responses given by all 679 students of English Integrated business courses was 80%, or, on the average, five of the six questions were answered expressing a positive attitude toward English integrated business courses. Table 9 provides a summary of the results of student attitude scores.
Table 9

Result of Students' Attitude

Student Attitude Scores

<table>
<thead>
<tr>
<th>Score*</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td># Students</td>
<td>3</td>
<td>30</td>
<td>50</td>
<td>50</td>
<td>78</td>
<td>143</td>
<td>325</td>
</tr>
<tr>
<td>%</td>
<td>0%</td>
<td>4%</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
<td>21%</td>
<td>48%</td>
</tr>
</tbody>
</table>

* Score is determined by giving one point for each positive response, up to a maximum of six points.

Among the 546 students with a positive attitude, 325 (48%) students had a score of six positive responses out of six possible questions, 143 (21%) students had five of six positive responses, 78 (11%) students recorded six out of six possible positive attitude scores (Illustration 8). The average score of those 546 students having a positive attitude was 91%.

Illustration 8

Percent of Students Having a Given Score (0-6)

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Questions Pertaining to Students’ Attitudes

An analysis of the questions that determined the attitude of all 679 students who took English integrated business courses found that the attitude questions were answered positively 80 percent of the time. The average score of those students having a positive attitude was 91%.

Question 11 had a follow up question that was answered Yes or No. Question 11 described if the students believed taking English integrated business courses required more work to prepare their assignment. Of all 679 students, 593 (87%) of the students believed taking English integrated business course required more work from them to prepare the assignment while 86 (13%) of them gave the reverse response. The follow up question described if students believed the extra work required to take English integrated business courses was worth the extra effort. Among the 593 students, 507 (85%) of them believed the extra work required to take English integrated business courses was worth the extra effort and 86 (15%) students gave the reverse response.

Questions 13, 14, 15, 16 and 17 were answered with a Yes or No. On Question 13, of all 679 students, 559 (82%) believed courses that had English integrated into them better prepare them for work in the business sector with English speaking people. On Question 14, 593 (87%) students believed English integrated business courses help them to improve both their language ability and academic knowledge. Referred
to Question 15, 485 (71%) students believed they were more competitive in the marketplace as a result of having taken English integrated business courses. For Question 16, 422 (62%) students assumed they were better prepared for employment upon graduation as a result of English integrated business courses. Finally, on Question 17, 604 (89%) student believed the Ministry of Education should continue with its encouragement for English integrated business courses to be taught in higher education (Illustration 9).

Illustration 9
*Students’ Attitude Questions*

![Bar chart showing students' attitude questions and responses](chart.png)

*Students’ Descriptive Responses*

Questions 18 provided the information about the main advantages of English integrated business courses. The descriptive responses were divided into several categories. First of all, the students believed the courses fairly helped them to improve
both language ability and industrial knowledge at the same time. Second, the students believed that English integrated business courses were able to arouse their interests in learning. They felt more motivated to learn the contents. Third, some students believed that with the training of English integrated business courses they were more confident to compete in future work setting. Finally, the students believed English instruction in class gave them more authentic environment in language learning.

Question 19 described the disadvantages of English integrated business courses. Students identified some disadvantages. First, English integrated business courses had not been developed in accordance with their academic level. Some courses were too easy while others were too difficulty for them. Second, some teachers were not able to select an appropriate textbook for the courses. The content materials were either too difficult or not relevant. Third, departments should seek more internship opportunities for students in relevant industry. Next, not all teachers had been trained to teach the courses that integrated English and business-related knowledge. Some teachers were not able to convey the course contents clearly in English. Finally, some teachers were not able to use appropriate teaching approach in the course.

On Question 20, students specified what they believed could be done, if anything, to improve the use of English integrated business courses in higher education. Students specified that teachers had to have more professional development in order
to enhance teachers' expertise and teaching proficiency in English integrated business courses. Administrations were supposed to hire more teacher professionals to teach the courses. Next, schools had to provide more selection of courses for students to take. The course contents should be relevant and practical to real life and future work setting. The last was to apply more technological supports and multi-media might help improve the use of English integrated business courses.

Analysis of Teachers' Willingness to Cooperate with Educational Reform

All 22 teacher participants had positive attitudes with an average of 75% positive responses toward English integrated business courses. Most of the teachers (90%) indicated they had sufficient academic background in order to integrate English into their courses. A strong majority of the teachers (82%) believed teaching English integrated business courses required additional workload while 94% of those teachers who reported the additional work believed the extra workload was worth while. None of the teachers indicated the integrated courses should be eliminated.

The average percentage of the total 679 students' perception of their teachers' attitudes toward English integrated business courses was 67%. Among the 679 students, there were 546 students having a positive attitude and 133 students with a negative attitude toward English integrated business courses. The average percentage of the 546 students' perception of their teachers' attitude was 69% and 58% for the
133 students. All the results present the teachers had positive willingness to cooperate
with educational reform from the perspectives of both teachers and students.

Analysis

The purpose of this study was to investigate whether there was a relationship
between teacher attitudes toward English integrated business courses and their
students' achievement and to examine the degree of teacher willingness to cooperate
with educational reform from the perspectives of teacher and student. Also, this study
compared teachers' attitudes and their students' perception of their teachers' attitudes
toward English integrated business courses.

General Analysis from Teachers' Questionnaire

There was no difference between female teachers' attitude score and male
teachers' attitude score toward English integrated business courses. The average
number of positive responses given by female teachers was 76% and the average
score of positive responses given by male teachers was 76% as well.

There was no correlation using a Pearson r test between teachers' age and
teachers' attitude scores when expressed in percentages. Also, there was a small
difference between teachers' graduate degree and their attitude scores. The average
score of positive responses given by teachers with doctorate degrees was 70% and
72% for the teachers with master degrees.
There was a difference between teachers' positive scores and total years of teaching experience. The average number of years of experience for teachers having positive attitude was 12 years and the average years of experience for teachers having negative attitude was 5 years. Teachers having positive attitude had, on the average, seven more years of teaching experience than teachers having negative attitude toward English integrated business courses.

There was also a small difference between teachers' attitude and years of teaching experience in integrated courses. The average teaching years for teachers having a positive attitude was three years and the average teaching years for teaching having a negative attitude was two years. Teachers with positive attitude toward English integrated business courses had one more teaching year of English integrated business courses than the teachers with negative attitudes.

*General Analysis from Students' Questionnaire*

There were slight differences between female students' attitude scores and male students' attitude scores. The average score of positive responses given by female students was 79% and the average score of positive responses given by male students was 82%. On the average male students had 3% higher positive attitude toward English integrated business courses than did female students.

There was a small negative Pearson r-value of -0.24 between students'
percentage of positive responses and their age. The average age of the students having positive attitude was 24 and the average age of the students having negative attitude was 29. The students holding a positive attitude were five years younger than the students having a negative attitude.

There was no correlation between the number of courses taken per semester, the number of English integrated courses business taken, or previous English integrated business courses taken and students' attitude scores.

*Sub Question One: Teachers' Attitudes and their Students' Attitudes*

The majority of the teachers and students had a strong, positive attitude toward the English integrated business courses. An analysis of the correlation between the percentage of positive responses from the teachers' and the percentage of positive responses from their students was analyzed using a Pearson r test. The resultant r-value was .07 and the p-value was .74 for this correlation. When using Discriminate function analysis, a 50% predictability having a p-value of .54 was computed, providing results consistent with the Pearson r calculations.

*Sub Question Two: Teachers' Attitudes and Students' Perceptions of their Teachers' Attitudes*

A Pearson r was conducted to determine if any relationship exists between teachers' attitude and their students' perception of their teachers' attitudes. A Pearson r
value of zero was found.

*Sub Questions Three: Students' Attitudes and Students' Achievement*

The Pearson r was also utilized to determine the presence of any relationship between the percentage of positive responses on the students' attitude questions and their percentage of correct responses for the semester. A Pearson r was calculated to be -0.17 with a p-value of 0.45 indicating a very weak negative correlation between student attitude and student achievement. The adjusted $r^2$ for this comparison was 0.

*Sub Question Four: Students' Perceptions of their Teachers' Attitudes with Student Achievement*

As a follow up analysis to the main question examined above, the Pearson r test was conducted to determine the strength of any possible correlation between the students' achievement and their perception of their teachers' attitude. The correlation so calculated resulted in a Pearson r-value of -0.37, a p-value of 0.09, and an adjusted $r^2$ of 9%.

*Research Question: Teachers' Attitudes and Their Students' Achievement*

*Teacher Percentages of Positive Responses and Student Achievement*

The Pearson r was again utilized to determine the presence of any relationship between the percentage of positive responses on the teachers' attitude questions and their students' achievement for the semester when expressed as a percentage. A
Pearson r was calculated to be .40 with a p-value of .07 indicating a moderately positive correlation between teachers' attitude toward English integrated business courses and their students' achievement in those courses. The adjusted $r^2$ for this comparison was 12%.

*Teacher Positive/Negative Attitudes with Student Achievement*

For this comparison, a discriminate function analysis was conducted in which teachers' attitudes were dichotomized into either a positive attitude or a negative attitude. This dichotomy was determined by classifying teachers having five or more (of eight possible) positive responses as having a positive attitude with the remainder of the teachers characterized as having a negative attitude. The calculations resulted in finding the data supported a correct prediction of teacher self reported positive attitude based upon student achievement scores 68% of the time. The data also supported a 67% predictability of teachers having a negative attitude using the same variables. The F-ratio for these calculations was 3.6 and the p-value was .07.

**Summary**

Chapter Four reported the basic demographic findings, the results of each questionnaire, and the analysis necessary to answer the null hypothesis and research question. An effective response rate of 86% was achieved, which allowed for meaningful data analysis. Statistical analysis consisted of Pearson r and discriminate
functional analysis techniques. While r-values and $r^2$ percentages were reported, no predictor equations were supplied owing to the weak levels of correlation and the lack of p-values larger than .05. Omitting predictor equations for weak correlations and large p-values is intended to prevent misuse of such equations when their statistical properties do not warrant use as predictors.
CHAPTER FIVE

Introduction

The Taiwan government has put a lot of effort into promoting international position and economical development. English is the international language. To improve English education can help reach the goals fundamentally. Therefore, institutes and universities of technology established departments of applied foreign language in order to meet the need. The educational goal of the department of applied foreign language is intended to prepare students for basic and general foreign language knowledge, to acquaint them with practical business knowledge, and to provide them with technology application skills (Wu & Chuo, 2002). However, in the department of applied foreign language, some teachers are willing to teach integrated courses while others complain about integrated courses (Li, 2000).

Experts worry about teachers' attitude may affect the students' learning achievement. If teachers are unwilling to teach integrated courses, their attitudes may affect their teaching quality (Chen, 2002). Teachers are the classroom leaders. Their classroom interactions with students affect the degree of what students have to learn in the courses. Understanding the attitudes of applied foreign language teachers toward the implementation of English integrated business courses may help to improve English education, which will benefit the teachers, the departments, the
The purpose of this study was to investigate the attitudes of applied foreign language teachers in institutes of technology and universities toward English integrated business courses. The findings regarding attitudes were compared to student achievement and the resulting information was used to make recommendations regarding the improvement of English education in Taiwan.

Null Hypothesis

The null hypothesis stated that there would be no experimentally important or consistent predictability of teachers' attitudes toward English integrated businesses courses and student classroom achievement. Teachers' attitudes were dichotomized as positive or negative based upon at least five of eight positive responses on the attitude questions. Students' achievement was determined based upon their semester scores in the English integrated business course at the time of data collection.

Discriminate function analysis computations found the percentage of correct predictability of those teachers having a positive attitude was 68% and those teachers having a negative attitude was computed to have a 67% level of correct predictability, thus not meeting the a priori level of experimentally important predictability set at 70%. Further, a p-value of .07 was calculated and also failed to meet the a priori level for experimental consistency set at an alpha level of .05. Therefore, there was a failure...
to reject the null hypothesis.

A Pearson correlation analysis was also done to analyze the null hypothesis. Ratio level data taken from the percentage of the number of positive responses teachers gave in identifying their attitudes was correlated to ratio level data of the percentage of students’ achievement scores. The findings here were similar to the findings using the discriminate function analysis technique. A moderate to weak correlation of $r = .40$, adjusted $r^2 = 12\%$, and $p = .07$ suggests a low level of predictability using these data and statistics. This analysis also suggests failure to reject an appropriate null hypothesis.

From both of these analyzes, the conclusion results in the failure to reject the hypothetical assumption that there was no relationship between teachers’ self-identified attitudes toward English integrated business classes and the same teachers students’ achievement. Worth noting is that while this research cannot support such a relationship, there is no intimation that this research concludes such a relationship does not exist.

Research Question

The research question of this study was: What is the relationship between the attitudes of teachers of applied foreign language in institutes and universities of technology toward English integrated business courses and the achievement of their
students? The findings from this research found that there were low levels of predictability of teachers' attitudes based upon student achievement, but not at a sufficient level to suggest there might be a causal relationship between teachers' attitudes, or students' perception of their teachers' attitudes, and the students' achievement in those classes. This conclusion is contrasted below with the theoretical framework developed in the problem statement and the review of literature.

*Teachers' Attitude and Students' Achievements*

Students' achievements were not predictable based upon their teachers' attitudes toward English integrated business courses. Dornyei indicated that teachers' attitudes played an important role in the success of the implementation and the students' motivations to learn (2002). Teachers' positive attitude might help students face challenges and deal with difficulties. If students had positive and realistic role models who demonstrate the value of being proficient and consistent in classes, contents, curricula and school, then students could have developed a better understanding of the target language and then achieve learning objectives (Walqui, 2000). However, the theories were not supported by this research.

There were several explanations for this lack of support, the first of which was the sample consisted of just three teachers had a low level of support for English
integrated business courses. This lack of variability eliminated the capacity to determine correlational and/or predictive properties. Another explanation resided in the finding that while teachers were positive toward to the integration of English, they believed that they lacked sufficient professional development to properly deliver the courses. While teachers’ attitudes were good toward the integrated coursework, they might have given limited exposure to that enthusiasm based upon their perception that they were not properly prepared to teach such courses. While teachers would like to spend more time preparing for integrated courses, teachers indicated in the descriptive responses that they had heavy workloads. The teaching hours for teachers holding master’s degree was 11 to 12 hours per week while teachers holding doctorate degrees had to teach eight to 10 hours per week. In order to conserve budgets, teachers were also required to do additional administrative work. If schools hired more teachers to reduce the instructional workload, teachers may be able to have more preparation time for teaching integrated courses.

Sub Questions

Sub Question 1: What is the Relationship between Teachers' Attitudes and their Students' Attitudes?

Most teachers expressed a strong positive attitude toward English integrated business courses. The students, as a whole, also expressed a similarly strong, positive
attitude toward the English integrated business courses. However, there was no meaningful correlation between teachers and students with respect to their attitudes. This would suggest that students attended these courses predisposed to a positive attitude or at least with attitudes independent of their teachers' attitudes.

Sub Question 2: What is the Relationship between Teachers' Attitudes and their Students' Perceptions of their Teachers' Attitudes?

There was no relationship between teachers' attitudes and the perception of the student's perception of their teachers' attitudes. One explanation of this finding lay in the possibility that teachers having positive attitudes might not be revealing this attitude and students were not always aware of their teachers' attitudes. The findings from this research indicated one possible reason teachers might be reluctant to freely show their enthusiasm for the integrated coursework was a concern they had regarding a need for ongoing professional development to improve their delivery of the curriculum.

Sub Question 3: What is the Relationship between Students' Attitudes and their Achievements?

Once again, there was no meaningful relationship between attitudes and achievements, in this case, the students' attitudes and their achievements. The lack of variability among data limited the ability to provide statistical analysis to identify any
relationship between the two variables.

Sub Question 4: Students' Perceptions of their Teachers' Attitudes with Student Achievement

The conclusion drawn from the findings of this sub question fell more in line with the theoretical models. A Pearson r-value of .4 with an r^2 of 12% suggests that the students' perception of their teachers' attitudes were somewhat predictive of their achievement. Once again, a sample that would have included a greater stratification of negative attitudes would have provided a more statistically consistent model upon which to draw conclusions.

Recommendations

Professional Development

The results of this study presented that the teachers had serious concerns regarding the lack of teacher professional development for the purpose of implementing English integrated business courses. Bandura (1997) specified that teachers' perceived efficacy or teachers' sense of efficacy is very much related to teachers' behavior and students' achievements. Also, Kent (1997) pointed out that teachers not only had to be clear what kind of knowledge would be most relevant but also had to know in what way this knowledge could be acquired.

In the study, most of the teachers reported few opportunities were available for
professional development to help them better prepare for integrating English into their courses. In order to help teachers to teach English integrated business courses, schools and departments should regularly provide professional development for teachers and provide teacher trainers for teachers who had difficulty teaching.

These professional development opportunities should provide more access for teachers to well developed in-service and pre-service training. Sparks (2002) argued that professional development should be embedded in the daily lives of teachers, with strong administrative support and use of strategies that are tailored to their specific needs. In addition, schools should invite business professionals from industry in curriculum design and hire more teachers to support English integrated business courses.

Teacher Willingness to Cooperate with National Education Reform

This research was predicated, in part, upon a concern regarding teacher acceptance of specific components of educational reform, that is, implementation of English integrated business courses. The findings from this research suggested that a lack of support for these new courses was experienced by 14% of the teachers. While this number was not excessive, it still meant that 1 out of 7 teachers did not have a positive attitude toward implementation of these courses. All of the teachers who were characterized as having a negative attitude toward English integrated business courses...
stated that they lacked initial academic preparation for teaching these courses. All of these teachers also stated that they lacked professional development opportunities including not having had an opportunity to participate in related professional development. These same teachers all stated they believed that these courses were beneficial for students who were seeking preparation in working in an English speaking business climate, but these teachers saw a conflict between the former curriculum's ability to provide academic rigor and the new curriculum's ability to provide practical preparation.

Hence, it was recommended that if the Ministry of Education sought to gain greater support for the implementation of English integrated coursework within the framework of professional development, it should seek to specifically address the issue of whether academic content has been lost in order to gain greater fluency with English. The negative teachers' resistance to change was centered around their lack of opportunity to be prepared well enough to properly teach the new curriculum and whether English fluency was being gained at the cost of academic rigor. These teachers did resist the new curriculum based upon workload issues.

Students' Attitudes

The students' attitudes are important to the success of the new curriculum. This research found strong student support for the English integration into business
coursework. However, among the 20% of the students who were characterized as having a negative attitude, 95% of them did not believe they would be more competitive in the marketplace as a result of taking these courses and 89% of them did not believe they would be better prepared for employment as a result of English integration into their coursework.

These concerns should be addressed in the professional development opportunities for teachers if the Ministry of Education is interested in gaining greater support from the students of these courses. If, indeed, the Ministry of Education can successfully address these two related concerns of the students, the percentage of negative student attitudes would decrease from 20% to less than 5%.

Summary

This research did not find an experimentally important predictability or relationship regarding teachers’ attitudes toward English integrated business courses and their students’ achievement in these courses. However, both teachers and students had a strong support for integrating English into their business courses. The teachers strongly supported more professional development designed to assist them with their ability to teach these courses. Most teachers acknowledged these courses consumed more time for preparation, but the concern regarding their implementation was not directed at having to do more work as much as it was for not having proper
preparation and/or ongoing professional development. A second concern with the integrated courses regarded the issue of increasing English fluency at the expense of academic content. Students, while supportive of the integrated coursework, were primarily concerned about the applicability of this coursework to their future employment. This research concludes with the observation that the Ministry of Education could greatly capitalize on its investment in English integrated business courses throughout higher education by making a much smaller but highly important investment into appropriate ongoing, high quality professional development.

Implications for Further Research

Achievement for this study was conducted on the basis of the current semester's classroom score. Additional research might consider expanding that assessment to a full year for students who remain with a single teacher for both semesters. Additional research would benefit from taking a random sample throughout Taiwan in order to analyze all relevant geographical regions.
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Appendix A

Teachers' Survey

The integrated courses integrate English with other subject matter. English is the instructional language used in class. The integrated courses include financial English, English for tourists, news English, web English, legal English, film English, business English, technical English, English for negotiation, psycholinguistics, socio-linguistics and conferencing English.

Please provide the following information:

1. Gender: □ Female □ Male
2. Age: ______
3. Highest completed educational degree: __________________________
   Specialization ________________________________________________
4. Total number of years teaching through January 1, 2006: _______ years.
5. Total number of years you have been teaching English integrated business courses? _____ years.
6. Do you have a sufficient academic background in order to integrate English into your courses? □ Yes □ No
7. Do you have any professional development opportunities to help you better prepare for integrating English into your courses? □ Yes □ No
8. Have you participated in professional development opportunities intended to help prepare you for teaching English integrate business courses? □ Yes □ No
9. Do you spend more time preparing for your English integrated business courses than you would prepare for the same course without English integration?
   □ Yes □ No
   If yes, how many additional hours per week do you spend preparing for one English integrated business course? _____ hours.
10. Based upon your experience,
   (a) Do you believe teaching English integrated business courses requires more work? □ Yes □ No
(b) If you answered Yes, do you think the extra work required to teach English integrated business courses is worth the extra effort? □ Yes □ No

(c) What percent of your colleagues would agree with your answer(s) to this question? _________ %

11. Do you believe that English integrated business courses are beneficial to the education of the students in the department of applied foreign language?

□ Yes □ No

12. Which courses do you believe are able to better prepare students in the department of applied foreign language for business related employment?

□ English Integrated □ Non-integrated

13. Do you believe that English integrated business courses can improve students’ language and business knowledge at the same time?

□ Yes □ No

14. Please check only one box. I believe that

□ English integrated business courses should be eliminated.

□ English integrated business courses should be kept, but reduced in number.

□ English integrated business courses should be maintained at their present level.

□ English integrated business courses should be increased.

If you checked either reducing or increasing the number of English integrated business courses, please note which courses should be either reduced or added.

________________________________________________________

15. I would prefer to teach _____ percent of my total teaching responsibilities using English integrated business courses.

16. Do you believe courses that have English integrated into them better prepare students for work in the business sector with English speaking people?

□ Yes □ No

17. Do you believe, overall, that students are better prepared academically as a result of taking courses that are English integrated? □ Yes □ No

18. Should the Ministry of Education continue with its encouragement for English intergraded business courses to be taught in higher education? □ Yes □ No
19. In your experience, based upon taking your English integrated business courses, what percent of your students do you believe perform as follows if compared to non-integrated English business courses?

_____% Do more poorly

_____% No Difference

_____% Do Better

20. What are the main advantages, if any, of English integrated business courses?

__________________________________________________________

__________________________________________________________

__________________________________________________________

21. What are the main disadvantages, if any, of English integrated business courses?

__________________________________________________________

__________________________________________________________

__________________________________________________________

22. What do you believe could be done, if anything, to improve the use of English integrated business courses in higher education?

__________________________________________________________

__________________________________________________________

__________________________________________________________
Appendix B

Students' Survey

The integrated courses integrate English with other subject matter. English is the instructional language used in class. The integrated courses include financial English, English for tourists, news English, web English, legal English, film English, business English, technical English, English for negotiation, psycholinguistics, socio-linguistics and conferencing English.

Please provide the following information:

1. Gender:  □  Female  □  Male

2. Age: ______

3. Previously completed school:
   □  high school
   □  vocational high school
   □  college
   □  university
   □  others

4. What college level are you?
   □  1st Year
   □  2nd Year
   □  3rd Year
   □  4th Year

5. The total number of courses you take per week: __________

6. The total number of English integrated business courses you take per week: __________

7. Is this course an elective?  □  Yes  □  No
8. Total number of English integrated business courses you have taken including any you are taking up to Jan. 1, 2006: _________

9. Do you have sufficient English ability to understand the content of the English integrated business courses? □ Yes □ No

10. Based upon 100% representing a completely positive attitude toward English integration and 0% representing a completely negative attitude toward English integration, please express the attitude you perceive your teacher has regarding the importance of integrating English into this course. ______% 

11. From your experience, do you believe taking English integrated business courses requires more work from you to prepare your assignments?

□ Yes □ No

If you answered Yes, do you think the extra work required to take English Integrated business courses is worth the extra effort? □ Yes □ No

12. In your experience, what percent of your classmates who also take English integrated business courses would agree with your answers to #11 above? ______% 

13. Do you believe courses that have English integrated into them better prepare you for work in the business sector with English speaking people?

□ Yes □ No

14. Do you think English integrated business courses help you to improve both your language ability and academic knowledge? □ Yes □ No

15. Do you believe you will be more competitive in the marketplace as a result of having taken English integrated business courses? □ Yes □ No

16. Do you believe you will be better prepared for employment upon graduation as a result of English integrated courses? □ Yes □ No

17. Should the Ministry of Education continue with its encouragement for English intergrated courses to be taught in higher education? □ Yes □ No

18. What are the main advantages, if any, of English integrated business courses?
19. What are the main disadvantages, if any, of English integrated business courses?

20. What do you believe could be done, if anything, to improve the use of English integrated business courses in higher education?
Appendix C

Teachers’ Survey with Response Data

The integrated courses integrate English with other subject matter. English is the instructional language used in class.

The integrated courses include financial English, English for tourists, news English, web English, legal English, film English, business English, technical English, English for negotiation, psycholinguistics, socio-linguistics and conferencing English.

Please provide the following information:

1. Gender:  □ Female  55%  □ Male  45%

2. Age:  46

3. Highest completed educational degree:  Either Masters or Doctors

4. Total number of years teaching through January 1, 2006:  11  years.
   Total number of years teaching at this universities or institutes:  6  years.

5. Total number of years you have been teaching English integrated business courses?  3  years.

6. Do you have a sufficient academic background in order to integrate English into your courses?  □ Yes  90%  □ No  10%

7. Do you have any professional development opportunities to help you better prepare for integrating English into your courses?
   □ Yes  36%  □ No  64%

8. Have you participated in professional development opportunities intended to help prepare you for teaching English integrate business courses?
   □ Yes  45%  □ No  55%

9. Do you spend more time preparing for your English integrated business courses than you would prepare for the same course without English integration?
   □ Yes  77%  □ No  23%

If YES, how many additional hours per week do you spend preparing for one English integrated business course?  2 hours.
10. Based upon your experience,
(a) Do you believe teaching English integrated business courses requires more work?

- Yes 82%
- No 18%

(b) If you answered YES, do you think the extra work required to teach English integrated business courses is worth the extra effort?

- Yes 94%
- No 6%

(c) What percent of your colleagues would agree with your answer(s) to the question of 10 (a) and 10 (b)? 60%

11. Do you believe that English integrated business courses are beneficial to the education of the students in the department of applied foreign language?

- Yes 100%
- No 0%

12. Which courses do you believe are able to better prepare students in the department of applied foreign language for business related employment?

- English Integrated 64%
- Non-integrated 36%

13. Do you believe that English integrated business courses can improve students' language and business knowledge at the same time?

- Yes 82%
- No 18%

14. Please check only one box. I believe that

- English integrated business courses should be eliminated. 0%
- English integrated business courses should be kept, but reduced in number. 9%
- English integrated business courses should be maintained at their present level. 64%
- English integrated business courses should be increased. 27%

If you checked either reducing or increasing the number of English integrated business courses, please note which courses should be either reduced or added.
Courses should be either reduced

Courses should be either added

15. I would prefer to teach ___ 35% ___ percent of my total teaching responsibilities using English integrated business courses.

16. Do you believe courses that have English integrated into them better prepare students for work in the business sector with English speaking people?

☐ Yes 100%  ☐ No 0%

17. Do you believe, overall, that students are better prepared academically as a result of taking courses that are English integrated?

☐ Yes 86%  ☐ No 14%

18. Should the Ministry of Education continue with its encouragement for English integrated business courses to be taught in higher education?

☐ Yes 95%  ☐ No 5%

19. In your experience, based upon taking your English integrated business courses, what percent of your students do you believe perform as follows if compared to non-integrated English business courses?

  ___ 29 ___ % Do more poorly

  ___ 31 ___ %  No Difference

  ___ 39 ___ % Do Better

20. What do you believe could be done, if anything, to improve the use of English integrated business courses in higher education?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

21. What are the main advantages, if any, of English integrated business courses?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
22. What are the main disadvantages, if any, of English integrated business courses?
Appendix D

Students’ Survey with Response Data

The integrated courses integrate English with other subject matter. English is the instructional language used in class. The integrated courses include financial English, English for tourists, news English, web English, legal English, film English, business English, technical English, English for negotiation, psycholinguistics, socio-linguistics and conferencing English.

Please provide the following information:

1. Gender: □ Female 70% □ Male 30%
2. Age: 25
3. Previously completed school:
   □ high school 21% □ vocational high school 28%
   □ junior college 56%
   □ others 22%
4. What college level are you? □ 1st Year 11% □ 2nd Year 40%
   □ 3rd Year 19% □ 4th Year 29%
5. The total number of courses you take per week: 9 courses
6. The total number of English integrated business courses you take per week: 3 courses
7. Is this "________ course" an elective? □ Yes 40% □ No 60%
8. Total number of English integrated business courses you have taken including any you are taking up to Jan. 1, 2006: 4 courses
9. Do you have sufficient English ability to understand the content of the English integrated business courses?
   □ Yes 42% □ No 58%
10. Based upon 100% representing a completely positive attitude toward English integration and 0% representing a completely negative attitude toward English integration, please express the attitude you perceive your teacher has regarding
the importance of integrating English into this course. 67%

11. From your experience, do you believe taking English integrated business courses requires more work from you to prepare your assignments?

☐ Yes 87% ☐ No 13%

If you answered YES, do you think the extra work required to take English Integrated business courses is worth the extra effort?

☐ Yes 85% ☐ No 15%

12. In your experience, what percent of your classmates who also take English integrated business courses would agree with your answers to #11 above?

64%

13. Do you believe courses that have English integrated into them better prepare you for work in the business sector with English speaking people?

☐ Yes 82% ☐ No 18%

14. Do you think English integrated business courses help you to improve both your language ability and academic knowledge?

☐ Yes 87% ☐ No 13%

15. Do you believe you will be more competitive in the marketplace as a result of having taken English integrated business courses?

☐ Yes 71% ☐ No 29%

16. Do you believe you will be better prepared for employment upon graduation as a result of English integrated courses?

☐ Yes 62% ☐ No 38%

17. Should the Ministry of Education continue with its encouragement for English intergraded courses to be taught in higher education?

☐ Yes 89% ☐ No 11%

18. What do you believe could be done, if anything, to improve the use of English integrated business courses in higher education?

______________________________________________________________

______________________________________________________________

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19. What are the main advantages, if any, of English integrated business courses?

20. What are the main disadvantages, if any, of English integrated business courses?
This form confirms the consent of ____________________________ to participate in the study entitled, The Relationship between Attitudes and Achievements in English Integrated Business Courses, conducted by Lidia Pin Pin, Chou under the supervision of Dr. Merle Farrier in the Department of Education Leadership in the University of Montana. The purpose of the study is to investigate the attitudes of applied foreign language teachers in institutes of technology and universities toward teaching integrated English and the relationship of that attitude with the goals of English language communication anticipated and expected by the Taiwanese Higher Education Reform.

I have been informed, to an appropriate level of understanding, about the purpose and methodology of this study and the nature of my involvement. I agree to participate in this study by filling out a set of questionnaires.

I understand and agree that:

_____ My participation is voluntary and I have the right to withdraw from this study at any time without penalty.

_____ All data will be kept in a secure place inaccessible to others.

_____ Anonymity will be assured.

_____ Data will be coded in such a way that I will not be identified.

________________________________________  __________________________
Signature                      date
Appendix F

Consent Form

Lidia Pin Pin, Chou

This form confirms the consent of _____________________________ to participate in the study entitled, The Relationship between Attitudes and Achievements in English Integrated Business Courses, conducted by Lidia Pin Pin, Chou under the supervision of Dr. Merle Farrier in the Department of Education Leadership in the University of Montana. The purpose of the study is to investigate the attitudes of applied foreign language teachers in institutes of technology and universities toward teaching integrated English and the relationship of that attitude with the goals of English language communication anticipated and expected by the Taiwanese Higher Education Reform.

I have been informed, to an appropriate level of understanding, about the purpose and methodology of this study and the nature of my involvement. I agree to participate in this study by filling out a set of questionnaires.

I understand and agree that:

_____ My participation is voluntary and I have the right to withdraw from this study at any time without penalty.

_____ All data will be kept in a secure place inaccessible to others.

_____ Anonymity will be assured.

_____ Data will be coded in such a way that I will not be identified.

__________________________________  __________________________
Signature                        date

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