

# **Taiwanese College Teachers' Attitudes toward English Reading Instruction in their Discipline-Specific Areas**

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## **Abstract**

*This study examined the attitudes of 137 Taiwanese college subject-area teachers toward teaching English reading in their discipline-specific areas. The results, based on a 12-item 7-point Likert scale survey, revealed that while college subject-area teachers regard content learning as their teaching priority, they acknowledge the importance of providing English reading instruction. The study found that despite the belief that English reading instruction can be incorporated into their courses and that there is a need for this, most teachers do not feel competent to teach such skills. The study concludes by identifying a direction for future research based on the experiences of college subject-area teachers.*

## **1. Introduction**

This study investigates the attitudes of Taiwanese college subject-area teachers toward English reading instruction in their discipline-specific areas. The study is part of a series of research designed to find out the best approaches to solving the dilemma Taiwanese college students are confronted with: increasing demands for and lack of training in reading discipline-specific texts in English. As Kasper (2000) points out, the main goal of many ESL or EFL programs is to prepare students to pass the TOEFL exam so that they may enter the academic mainstream in a native-English speaking setting. However, once they succeed in entering college, major problems can

arise from the combined pressures of rigorous course content coupled with the demands of academic English, and many students find their formal ESL/EFL qualifications have failed to prepare them for survival.

In this paper, the context of this issue is presented, followed by a review of the relevant research, and finally the study, which was carried out on a sample group of 137 Taiwanese college subject-area teachers. The study may be of interest to educators in countries where students are facing the need to learn a new language while simultaneously being required to comprehend texts in that language in order to succeed academically, and where teachers are often bilingual and using texts written in their second language. It is hoped that this preliminary research will lead the way to large-group studies for bettering not only EFL college students' English proficiency but also their efficiency in reading to learn from texts in English.

## **2. The context**

The demand for English in Asia has increased dramatically since World War II. An increasing number of countries, including the Philippines, Hong Kong, and Singapore, now include English among their official languages, while others, such as Indonesia and Malaysia, now demand English competence within government and business (Ives, 2006). The English proficiency of these Southeast Asian countries has facilitated a significant amount of trade with Australia and India. Across broader Asia,

the increasing use of English is displacing local languages, and it is expected that the Chinese community will soon generally become bilingual (Pennycook, 2003).

The academic world of Mainland China and Taiwan has favoured the practice of studying English scholarly works and publishing English papers in internationally refereed journals (Li, 2002). As reported by Chen, Hu, and Liu (2008) and Hu, Chen, and Liu (2008), colleges in Taiwan have been proposing the teaching of subject content courses entirely in English as evidence of campus globalisation and academic excellence. By the end of 2008, some top-ranked universities, such as National Taiwan University, had announced that the number of courses instructed entirely in English had reached 10%.

## **2.1. Two stages of reading development**

Reading development consists of two stages: learning to read and reading to learn (Singer & Donlan, 1989). During the first and second grades children learn to read, but when children enter the third and fourth grades more emphasis is placed on reading to learn from discipline-specific texts (Vacca, Vacca, & Gove, 1991). These texts commonly include the natural sciences and social studies, which are diverse fields with their own specialised vocabulary and concepts requiring special reading skills (Dechant & Smith, 1961). Even within a native English setting, for many children, the transition to discipline-specific texts leads to their first difficulties with

reading (Anderson, Hiebert, Scott, & Wilkinson, 1985). To cope with this problem, pre-service and in-service science and social studies teachers are required to complete a discipline specific reading methods course as a program endorsement (Christiansen, 1986; Stieglitz, 1983) and a number of subject-area reading and teaching strategies have been proposed for secondary school as well as college and ESL/EFL students (Echevarria, Vogt, & Short, 2000; Forget, 2004; Singer & Donlan, 1989; Vacca & Vacca, 2007).

## **2.2. Stages of English learning in Taiwan**

In Taiwan, however, English learning and instruction from elementary to senior high school remains mainly within the first stage: learning to read. English subjects represent only a small fraction of the compulsory courses for students. Children usually begin learning English in Grade 3 and receive two hours of lessons per week until the end of Grade 6. But as Gluck (2007) reported in the BBC News, over 60% of families in cities begin private English classes when their children are at or below kindergarten age. However, these courses are generally quite basic as Mandarin Chinese is the official school language. Furthermore, the widespread use of local Taiwanese dialects in the home, such as Min and Hakka, and the focus of elementary schools on ensuring pupils meet Mandarin Chinese reading and writing standards, mean that English learners in the 4-7 year old range receive little additional support.

Taiwanese middle and high schools offer six to ten hours of English instruction per week as a compulsory foreign language course along with mathematics, biology, physics, chemistry, Mandarin Chinese, history, geography, and civics, which are instructed in Mandarin Chinese. It is common for students to seek additional private English classes after school. However, Gluck (2007) reported that due to the design of English exams in Taiwan, particularly the Nation's Joint High School and the Nation's Joint College Entrance Examinations, English instruction focuses on simple rote-learning methods with students being required to memorise vocabulary and grammar.

As Liaw (2007) points out, EFL students in Taiwan “may have years of experience being asked to engage in conversations and reading simple texts related to functional language, but not necessarily higher-level thinking and content reading” (p. 57). Children in the EFL context do not study science, social studies, and mathematics in English from Grade 1 to Grade 12 as do their peers in English-speaking countries. Yet, Taiwanese students after entering college are faced with reading to learn from the English-language discipline-specific textbooks that are not prepared for non-first-language students, but were originally written for native English speakers. No empirical studies, however, have documented whether the process of reading to learn from Mandarin and English discipline-specific texts is identical and

interchangeable.

### **2.3. English teachers' ability to teach discipline-specific reading**

In the United States, college-trained English teachers are expected to know how to teach reading skills to students despite only being trained in English content (Bintz, 1997). However, 5 out of 19 studies revealed that pre- and in-service English teachers believe they are not appropriately qualified to effectively teach reading to their students (Bintz, 1997). Similarly in Taiwan, junior and senior high school English teachers are trained in English literature, linguistics, or TEFL methodologies that focus on grammar, listening, writing, speaking, and reading. But they simply do not have the required training for readying high school graduates for reading to learn from content-area texts in English.

In light of the deficiencies in the current EFL educational framework, Taiwanese college subject-area teachers should be invited to contribute to shaping a new teaching model for tackling this dilemma. The reason for this is that many college teachers in Taiwan have obtained their masters and doctoral degrees in foreign countries, in most cases the United States, and in the process, they have had to develop their own strategies for developing competence in reading English subject texts in order to successfully graduate. Their experience in transitioning from the learning-to-read

phase to the reading-to-learn phase may provide valuable insights to assist current students to successfully make the transition in the respective fields.

### **3. Review of the literature**

Reading educators suggest that reading instruction in discipline-specific areas is intended to help students acquire and refine the reading-to-learn strategies; to enable students to learn faster, to retain and retrieve more information contained in different styles of writing across the curriculum (Moore, Readence & Rickleman, 1983); to provide students with the best avenue for learning (Simonson & Singer, 1992); and to cope with the increasing literacy demand on jobs and in society (Clifford, 1984). Studies on EFL students have documented that instructing through integrating reading strategies while reading for content significantly improves college students' text comprehension as well as grammar and reading ability (Hudson, 1991). Many content-based ESL programs have been offered to ensure a less abrupt transition from the ESL classroom to the academic programs instructed entirely in English (Kasper, 2000; Mohan & Beckett, 2003; Montes, 2002).

#### **3.1. Subject-area teachers' attitudes towards reading**

In the native English setting, there has been a considerable amount of research produced on subject-area teachers' attitudes toward reading instruction in their discipline-specific areas. Research has documented that most elementary and

secondary school subject-area teachers in North America reported having positive attitudes toward teaching reading in their major fields (Gillespie & Rasinski, 1989; Lloyd, 1985; Shymansky, Yore, & Good, 1991; Yore, 1991). Yore (1991) surveyed 215 British Columbia secondary science teachers and found that science teachers placed high value on reading as an important strategy to promote learning in science. Science teachers generally accepted responsibility for teaching content reading skills to science students. Shymansky, Yore, and Good (1991) also reported that most kindergarten to eighth grade teachers had positive attitudes about science reading. Lloyd (1985) found that most high school teachers also strongly agreed that teaching reading skills is not a waste of time, and that reading teachers should not be the only people to teach students how to study textbooks.

Other studies have documented that almost all undergraduate and graduate students (Christiansen, 1986; Stieglitz, 1983) and junior and senior high school teachers (Jackson, 1978) saw the benefits of completing a subject-area reading methods course. They believed that a course in teaching reading should be required. Moreover, pre-service teachers who had enrolled in a course in reading methods changed their negative view toward teaching reading in the subject areas (Christiansen, 1986; Stieglitz, 1983; Welle, 1981). Bean (2000) concluded that in essence, pre-service teachers are likely to respond positively to strategies learned in

their university classes, but jettison most of these approaches in favour of more didactic modes of instruction once they are at the school site.

Gillespie and Rasinski (1989) summarised that subject-area teachers' attitudes decrease with the increase of grade levels. They found this pattern of attitude shift: elementary school teachers > middle school teachers > senior high school teachers. This pattern is also an indication of the shift of the teaching priority between content and reading instruction. Yet, as Singer and Donlan (1989) pointed out, subject-area teachers who do teach reading contribute to both stages of reading development in their students.

This review on subject-area teachers' attitudes toward reading instruction reveals that the studies are dated, but the results have been well-established, and are naturally biased toward junior and senior high school teachers of science and social studies in the English native setting. Hence we find a dearth of studies on this same topic in an EFL context, particularly in college subject-area teachers who are also EFL learners in Asian countries. For this reason, I have chosen to research this issue in the Taiwanese context, as a step toward narrowing that research gap.

#### **4. Methodology**

##### **4.1. The attitude scale**

The survey consisted of a 12-item, 7-point Likert scale, which measures degrees

of agreement and disagreement. The items were chosen and adopted from Smith and Otto's Attitude Inventory (14 items) (Smith & Otto, 1969), Usova's Attitude Scale (20 items) (Usova, 1979), Vaughan's Reading Attitude Scale (15 items) (Vaughan, 1979), and Singer's Attitudes Scales for Teaching Students Reading (14 items) (Singer & Donlan, 1989). The correlations among the four scales are at the 0.001 level of significance (Gillespie & Clements, 1991).

The items among the four scales are overlapping in nature and were written for kindergarten to twelfth grade teachers in the United States. Therefore, in the present study, to increase the content validity of the attitude scale, a panel discussion consisting of the researcher and three college English teachers was held to select and adopt the items believed to be the most appropriate for the teaching context in Taiwan. Twelve items were finally agreed upon as the result of the discussion. The panel discussion also suggested that "reading teachers" be changed into "English teachers" and "secondary school" into "college." A field testing of the 12 items was further executed on 10 college subject-area teachers (5 masters and 5 doctorates) to ensure questions were easily comprehended and unambiguous.

The 12 items addressed three areas: importance of English reading instruction in the subject areas (items 1, 2, 3, 4, 5, & 6); responsibility of teaching priority (items 7, 8, 9, & 10); and competence in teaching English reading in the subject areas (items 11

& 12). Items 8, 9, and 10 were negative statements that addressed a teaching focus on either content or reading/study skills. The final questionnaire was printed on a piece of A4 paper with the following information listed on the top as the respondent's personal data: Highest Degree, Country Where Highest Degree Obtained, Years of Teaching, Percent of English Texts Used in Class, and Major Field of Study. A space at the bottom was also provided for the participants to make comments in the language they felt comfortable and expressive.

#### **4.2. Participants**

The subjects were drawn from a public university in Taiwan. The university accepts the upper 35% of high school and vocational high school graduates from the Nation's Joint College Entrance Examination held annually in July. In the process of selecting the pool of participants, first excluded were teachers who teach Chinese literature, Chinese history, Chinese philosophy, arts, and English. Then 200 teachers or about 70% were randomly selected from the pool of 282 teachers.

In gathering the data, a questionnaire with a cover letter and a return envelope was delivered to each of the teachers' offices. Two weeks later, 143 teachers returned their questionnaires. The return rate was 71.5%, and 137 questionnaires were found useful for the final data analysis. Table 1 presents a description of the respondents' characteristics.

Table 1: Respondents' Characteristics by Percent ( $N = 137$ )

Education	Where Highest Degree Obtained	% of English Texts Used	Years of Teaching
Doctorate (70.7)	Taiwan (37.23)	100% (8.03)	≤5 (38.69)
Master (28.5)	U.S.A (43.07)	99~76% (24.09)	6 ~10 (21.90)
Bachelor (1.5)	Japan (6.57)	75~51% (18.98)	≥11 (36.50)
	<sup>a</sup> Others (4.38)	50~26% (47.74)	Not Stated (02.91)
	Not Stated (8.76)	25~00% (1.46)	

<sup>a</sup>This includes the Philippines and Thailand.

### 4.3. Reliability

The 137 subjects' responses to the questionnaires were further analysed to identify the reliability of the items. The Split-half reliability procedures yielded a correlation coefficient of 0.344 (significant at the 0.000 level).

## 5. Results and Discussion

This section presents the findings regarding the three foci that made up the attitude scale: importance of English reading instruction in the subject areas, responsibility for teaching priority, and competence in teaching English reading in the subject areas.

### **5.1. Importance of English reading instruction in the subject areas**

Items No. 1, 2, 3, 4, 5, and 6 investigated the degree of importance that college teachers assign to English reading instruction in their subject areas when English texts are assigned to their students:

1. College subject teachers need to introduce the text and discuss how it may be read effectively.
2. Any college subject teacher who assigns texts written in English should teach his/her students how to read what is assigned.
3. College subject teachers who assign textbooks written in English need to know the reading skills necessary for successful reading within their content areas.
4. College subject teachers who assign textbooks written in English need to know the reading level of the textbooks being used.
5. Supplementary books and easier text materials are needed for students who read English below their reading grade level.
6. Teaching of English reading skills in the subject areas can be incorporated into college courses without interfering with the major objectives of these courses.

Sharp contrasts between the percentage of agreement and disagreement were observed on five of the six items: Item 1 (80.3% vs. 13.9%); Item No. 2 (86.1% vs. 09.5%); Item No. 3 (81.7% vs. 10.2%); Item No. 4, (81.1% vs. 10.9%); and Item No. 6 (70.8% vs. 21.9%). Item No. 5 showed a slight difference between agreement and disagreement (46.7% vs. 37.2%). Table 2 displays the descriptive statistical data for the items.

Table 2: The Importance of English Reading Instruction in the Subject Areas (7=*most agree*; 1=*most disagree*)

Item	7	6	5	4	3	2	1
1	21.2	37.2	21.9	05.8	06.6	06.6	00.7
	80.3%				13.9%		
2	19.7	48.9	17.5	04.4	06.6	02.2	00.7
	86.1%				09.5%		
3	18.2	51.8	11.7	08.0	05.8	04.4	00.0
	81.7%				10.2%		
4	19.7	45.3	16.1	08.0	05.8	05.1	00.0
	81.1%				10.9%		
5	08.0	19.7	19.0	16.1	19.7	13.1	04.4
	46.7%				37.2%		
6	08.8	36.5	25.5	07.3	15.3	06.6	00.0
	70.8%				21.9%		

The majority of the respondents consistently valued the importance of subject-area reading instruction if students were assigned to read discipline-specific texts in their major fields. The respondents also agreed that the teaching of English reading skills in the subject areas can be incorporated into college subject courses without interfering with the major objectives of these courses. The findings indicate that Taiwanese college subject-area teachers recognise the value and importance of English as an important tool in learning from discipline-specific texts. In addition, the results also indicate that teachers are aware of their students' English deficiency and difficulties in learning from English texts.

Nevertheless, around 10~13% of the participants hold negative attitudes towards

offering reading instruction in their subject areas. As commented by some of the respondents, especially those who assigned less than 50% of the texts in English to their students, their purpose of assigning English texts is to give students a chance to read and improve English rather than learn from the content. They were suspicious of the efficiency and quality of the learning outcome when students were required to read texts in English. Some of them further stated that the use of Mandarin texts instead of English texts would increase the efficiency and quality of learning the content. This view was further demonstrated in the results of Question 5: Supplementary books and easier text materials are needed for students who read English below their reading grade level. The participants suggested that Mandarin texts are the best supplementary materials if students are particularly deficient in English.

The participants' questioning of the quality of learning from English discipline-specific texts is not without grounds, as the efficacy of English instruction in Taiwan has been very controversial. For example, as reported by Gluck (2007) and Shieh (2008), Taiwan ranked 17th in 2006 and 16th in 2007 among the top 20 Asian countries which had the highest number of people taking the International English Language Testing System (IELTS). Moreover, as reported again by Shieh (2008), Taiwan ranked last among Mainland China, Korea, and Singapore in the Test of

English as a Foreign Language (TOEFL-CBT) between 2004 and 2006. In 2007, Taiwan again ranked last among Mainland China, Korea, Hong Kong, and Singapore in the Test of English as a Foreign Language (TOEFL-iBT), according to Hu (2008) writing in the *Taiwanese Liberty Times*.

The restricted Taiwanese high school EFL learning context, coupled with limited English proficiency and the abundance of academic and technical vocabulary for specific purposes in the discipline-specific texts (Coxhead, 2000; Konstantakis, 2007), contributes to the inefficient and poor quality learning outcomes from English texts. Indeed as some of the respondents have suggested, the students' native language should not be undervalued as an effective tool for knowledge learning during college education.

## **5.2. Responsibility for teaching priority**

Items No. 7, 8, 9, and 10 explored the degree of responsibility felt by college teachers to provide reading instruction in the subject areas:

7. College subject teachers who assign textbooks written in English are obliged to help students improve their English reading ability so they can learn from the texts they read.
8. Only teachers of English should be responsible for teaching college students to read English so they can learn from the texts they read.
9. College subject teachers should feel a greater responsibility to the content they teach than to any English reading instruction they may be able to provide.
10. At college, students want to learn content, not how to read in English.

Item No. 7 revealed a sharp contrast in percentages of agreement versus disagreement (75.2% vs. 21.2%), favouring the practice of helping students improve their English reading ability so they can learn from the texts they read. Near equal percentages were found in Item No. 8, 48.1% vs. 40.1%, regarding who should be responsible for teaching college English reading in order to help students learn better from the texts. Item No. 9 showed an overwhelming percentage favouring content as the teaching priority (93.4% vs. 05.1%). Near equal percentages were found again in Item No. 10, 47.4% vs. 48.2%, regarding what college students should learn. Table 3 displays the descriptive data for the items.

Table 3: Responsibility for Teaching Priority Areas (7=*most agree*; 1=*most disagree*)

<b>Item</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
7	21.9	35.8	17.5	03.6	06.6	11.7	02.9
	75.2%				21.2%		
8	05.8	20.4	21.9	11.7	19.7	14.6	05.8
	48.1%				40.1%		
9	29.2	60.6	03.6	01.5	04.4	00.7	00.0
	93.4%				05.1%		
10	05.8	29.2	12.4	04.4	23.4	20.4	04.4
	47.4%				48.2%		

The data revealed that Taiwanese college subject teachers accept a high degree of responsibility for providing English reading instruction in their major areas when

they assign texts written in English. This again indicates that they recognise that their students may have difficulties learning from the texts in English. The study also revealed that college subject teachers overwhelmingly judge content learning as their major teaching priority (93.4% *agree*), indicating that the transmission of knowledge is their primary concern. However, a much lower percentage of participants (47.4%) believe that content learning is their students' only objective, acknowledging the expectations of students to receive at least some English reading instruction. This explains that when college teachers assign English texts to students, they still give consideration to whether or not the students have sufficient English ability to learn the content effectively.

The study revealed that 48.1% of the participants believed English teachers should assume more responsibility than college subject teachers for providing reading in the discipline-specific areas. This may be due to subject-area teachers believing learning content is more important than learning how to read in English, or it may be an indication that subject-area teachers are unfamiliar with the type of training Taiwanese EFL teachers receive. While Taiwanese English teachers and policy makers may believe that teaching science is the responsibility of science teachers, subject-area teachers may believe that the primary function of an English teacher is to teach students how to read English.

The study also reveals that 40.1% of the participants believed that subject-area teachers should assume at least some responsibility for helping their students read-to-learn from texts in English. Quite a few may believe that they are more familiar with the content they teach than English teachers, so they know what reading and study strategies are more pertinent to the content being taught. Yet, it may also be an indication that they distrust the ability of EFL teachers. As Kasper (2000) points out, formal ESL/EFL programs have largely failed to prepare non-native English speakers for surviving the dual pressures of rigorous course content and the demands of academic English. The participants may have learned from their own experiences that Taiwanese EFL instruction fails to adequately prepare students for reading college discipline-specific texts in English.

### **5.3. Competence of teaching English reading in the subject areas**

Items 11 and 12 examined the degree of competence felt by college teachers to provide English reading instruction in their subject areas when English texts are assigned to their students.

11. College subject teachers can teach English reading effectively without special courses in methods of teaching subject-area reading.
12. College subject teachers, as experts in their content, are probably more competent than English teachers to teach English reading skills needed for their subjects.

Table 4: Competence of Teaching English Reading in the Content Areas (7=*most agree*; 1=*most disagree*)

Item	7	6	5	4	3	2	1
11	01.5	17.5	12.4	22.6	21.2	18.2	06.6
	31.4%				46.0%		
12	02.2	13.9	11.7	21.9	22.6	20.4	07.3
	27.8%				50.3%		

As shown in Table 4, low percentages of agreement were found in Item 11 (31.4%) and Item No.12 (27.8%). A substantial percentage of the respondents agreed that English teachers are more capable of teaching reading skills needed for their subjects (Item No. 12, 50.3%).

The study reveals that a significant proportion of college subject teachers (46.0%) do not feel competent to teach English reading skills in their subject areas without additional training. This finding may be attributable to the fact that subject-area reading instruction and training courses are virtually absent in Taiwanese educational institutions. Nonetheless, 31.4% of participants reported that they felt competent in teaching English reading skills, and 27.8% of them believed that they were more competent than English teachers to teach reading skills needed for their subjects. In the study, 43.07% of the participants earned their highest degree in the United States. They are college professors who appear to have been more successful at EFL learning than other professionals, possibly through devising their own

innovative approaches to learning from discipline-specific texts in English.

The data reveal that 50.3% of the participants did not feel more competent than English teachers to teach English reading skills needed for their subjects. This finding proves once more the misconception of how college teachers generally believe an English teacher has been prepared for their profession. This finding leads us to believe that, if we are to involve college subject-area teachers in the mutual endeavor for helping college students read to learn, they should be informed about the different stages of reading development and the educational training most EFL teachers have received.

## **6. Conclusions**

This study found that college subject-area teachers in Taiwan do value the importance of English reading instruction in their subject areas. Furthermore, although subject teachers continue to perceive content learning as their major teaching priority, they do give consideration to their students' English ability and allow this to influence their decisions regarding the use of English texts. Most college subject-area teachers believe that the teaching of English reading skills in their major areas can be incorporated into lessons without interfering with the major objectives of their content teaching. Significantly, however, the majority do not feel competent to teach English reading skills in their subject areas without additional training. The study also

revealed that participants recognise the importance of English as a tool for learning from texts in college, and they are aware of their students' English deficiency and difficulties in learning from texts.

## **7. Implications for further studies**

Over a third of the participants in this study completed their undergraduate education in Taiwan and then went on to successfully earn their masters or doctoral degrees in the United States. They are therefore successful EFL learners and are more experienced than other professionals in learning to read academic texts in English.

Future research efforts can focus upon: 1) how they learned to read English as an EFL student and 2) the approaches they employed in reading college subject texts in English at college.

In addition, 31.4% of the participants agreed that they can teach English reading without additional training. Further studies can concentrate upon what subject-area reading strategies are being practiced by this group of teachers and the effectiveness of those strategies in helping students learn from texts. The data can provide guidelines for informing EFL teachers and students about effective approaches for learning to read English and reading to learn from texts.

In the study, factors such as educational level, teaching experience and country where highest degree was earned might influence attitudes. In the future, these factors

should be investigated. Some other factors may include why some of the surveyed teachers use English texts entirely in the courses they teach, why some use a certain proportion of Mandarin and English texts in class, and why a small number of them reject the use of English texts. The findings may assist college subject-area teachers to make decisions upon text language selection and teaching priority.

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