Exploring English Remedial Instruction for Freshmen at a Technical College from the Perspective of Teaching Efficacy

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Abstract
Due to the widespread concern regarding the poor English proficiency levels of technical college students, remedial instruction has become one of the programs used to improve English proficiency. In this study, the researcher explored the process in which English remedial instruction teaching efficacy was achieved. The participants of this study included a teacher, a teaching assistant, and 28 freshman English underachievers at a technical college. The study used the qualitative analysis method and a paired sample $t$-test to identify the differences in the students’ academic achievements. Statistical data was used to show the students’ reactions to remedial instruction and learning effectiveness. The study showed that to achieve efficacy in English remedial instruction, teachers should: (1) diagnose the students’ learning experiences and competence; (2) strengthen the students’ basic English cognition and application capabilities; (3) use diverse teaching strategies and assessment methods during English remedial instruction, including the provision of digital technology learning resources to enhance the students’ learning motivation and foster their learning autonomy; and (4) reflect on their teaching and continue to revise the curriculum and teaching plans based on the students’ grades and learning attitudes. Finally, conclusions and recommendations are drawn from the findings of this study.

Key Words: remedial instruction, teaching efficacy, English teaching
INTRODUCTION

Studies have shown that English learners of all ages in Taiwan, especially students of technical colleges, exhibit poor proficiency and low English learning interest (Liauh, 2010; Ministry of Education, Republic of China [Taiwan], 2007). W. C. Chang (2007) indicated that technical college students in general carry a sense of anxiety and fear about English learning. Further, as a result of a weak foundation in English and lack of effective remedial instruction, technical college students often have poor grades and give up learning due to a fear and frustration towards English classes (Lin & Su, 2003; Liou, 2012). For these reasons, it is critical to further explore English remedial instruction to aid the learning process of technical college students.

Most technical college students have limited vocabulary and grammatical skills, making their overall proficiency in English insufficient before entering colleges (W. C. Chang, 2007; Liou, 2012). Furthermore, most technical colleges place more emphasis on technical courses and allocate fewer resources to English learning, thus making it difficult to foster interest in English learning development and self-efficacy among students. Therefore, teachers of technical colleges must address the students’ English learning difficulties and strengthen their English learning ability.

In recent years, many technical colleges have established English remedial instruction on their campuses under the auspices of the Ministry of Education. English remedial instruction has become a part of the school curriculum used to improve the English proficiency of underachieving students (Chen, 2003; Sheu, 2010). However, remedial instruction is different from traditional instruction in that
teachers have to continuously adjust curriculum objectives, select course materials and instruction methods, and evaluate students’ learning processes based on the needs of individual students. Rather than just “imparting knowledge,” remedial instruction must adapt to the students’ learning progress and address their shortcomings (Chuang & Yang, 1996). As a result, teachers play a key role in English remedial programs (Chen, 2003).

Teaching efficacy is essential to successful instruction and an indicator used to evaluate the effectiveness of teachers. According to Borich (2007), teaching efficacy is achieved when both teaching and learning is made more effective. In this light, teaching objectives can most likely be met by making teaching more directed, diverse, task-oriented, and dedicated to improve learning outcomes. F. M. Wang (2005) studied remedial education and found that teachers involved in remedial instruction were aware of its importance, yet their students still showed limited progress in their English learning. Their motivation and interest levels remained low. Other related studies on remedial education only focused on “what” should be done in remedial instruction rather than on “how” to actually implement it. According to studies on teacher efficacy, indicators for effective teaching are displayed through three aspects: teachers’ curriculum and instruction design and planning, teaching processes and strategies, and post-instruction reflection (C. T. Lin, 1998). Adopting these three aspects, this study explored the process of effective English remedial instruction in terms of the teacher’s rationale and planning during the pre-teaching stage, methods and strategies used during the teaching stage, and reflection at the post-teaching stage.
It is important to note that most studies related to English remedial programs were conducted in middle and elementary school settings rather than in technical colleges. In addition, there is a scarcity of empirical research on the teaching efficacy of English remedial courses in middle schools, elementary schools, or technical colleges. Research on teaching efficacy in remedial instruction is essential in establishing effective English instruction that improves technical college students’ learning. Given these facts, the purposes of this study are as follows:

(1) Understand the implementation process of English remedial instruction.
(2) Examine the teacher’s rationale and planning during the pre-teaching stage, methods and strategies used during the teaching stage, and reflection at the post-teaching stage.
(3) Observe teaching efficacy in remedial instruction from the perspective of students.
(4) Provide recommendations for effective English remedial instruction based on the conclusion of the study.

LITERATURE REVIEW

The purpose of this study is to explore the process of effective English remedial instruction in terms of the teacher’s rationale and planning during the pre-teaching stage, methods and strategies used during the teaching stage, and reflection at the post-teaching stage. This section is accordingly divided into three parts: the scope and importance of English remedial instruction, teaching efficacy, and related research on English remedial instruction and teaching efficacy.
The Scope and Importance of English Remedial Instruction

English remedial instruction is a special learning activity designed by teachers to provide additional learning opportunities for underachieving students to help them meet the minimal academic standards. It is a practice of individualized teaching (Lee, 2002) and a cycling process of “assessment-instruction-assessment” (S. J. Chang, 2001). When implementing remedial programs, teachers first assess the students’ abilities and investigate reasons behind their poor academic results in order to select appropriate course materials and teaching strategies. Then teachers must evaluate the students’ learning outcomes under individualized instruction (T. W. Hsu, 1986). The goal is to help underachievers meet the minimum academic standards of the general curriculum. According to a study conducted during the 2002 school year by The Language Training & Testing Center (LTTC), only 21.7% of two-year university, 18.3% of four-year university, and 6% of two-year junior college students were able to pass the elementary level standards (four skills) of the General English Proficiency Test (GEPT) (Lin & Su, 2003). As a response to this situation, English remedial programs have been established at many schools. Colleges, which now share the common goal improving English abilities, have begun to dictate minimal English requirements for graduation. Therefore, it is necessary for schools to implement remedial programs to assist underachievers in overcoming their academic hardships (Yu, 2008). Although some studies (Sheu, 2010; Tsai et al., 2011; C. F. Wu, 2005) lack descriptive data on remedial courses and the students’ learning history and difficulties, they nonetheless showed that the learning ability of the majority of underachievers who underwent remedial instruction had improved.
From a teaching perspective, English remedial instruction is different from regular English instruction. Rather than merely following a course syllabus, teachers must adjust teaching materials and address the students’ shortcomings to meet their learning needs. For this reason, teachers of remedial courses should adopt diverse teaching strategies such as collaborative learning, computer-aided instruction, or multimedia teaching to enhance their effectiveness (Chuang & Yang, 1996).

From a learning perspective, technical college students’ fears and frustrations with English are exacerbated by their school’s lack of English remedial instruction measures (Lin & Su, 2003; S. P. Wang, 1998). Therefore, McLaughlin and Vacha (1992) suggested that English remedial instruction should provide student-centered teaching to increase learning motivation and reduce negative experiences from learning setbacks. When gauging students’ learning difficulties or providing assistance, teachers should strengthen student-teacher interaction, which helps students to develop positive learning attitudes and motivations (Chen, 2003), and achieve real learning results.

The purpose of implementing an English remedial program is to improve students’ English ability and enhance their learning interests and self-efficacy. Properly implemented, English remedial instruction will undoubtedly help the technical college students establish the foundation to reach their future career goals.

**Teaching Efficacy**

The scope of teaching efficacy. The concept of teaching efficacy stems from Bandura’s concept of self-efficacy. According to Bandura, students with high levels of self-efficacy can adapt better
and help others to do the same. Later research confirmed that teachers’ self-efficacy is a strong indicator of their teaching efficacy (Guskey, 1987). Although early studies mostly investigated the relationship between teachers’ personality traits (i.e., self-efficacy) and students’ achievements, these studies were criticized for excluding the actual teaching-learning setting. Nonetheless, despite facing criticisms, studies using teachers’ self-efficacy and personal beliefs to measure teaching efficacy are still continuing (Harris, 1998), with later studies focusing on the relationship between teachers’ personality traits and actual teaching activities, as well as trying to identify specific teaching behaviors that promote learning. This research approach is called the “process-product” model (Harris, 1998), which become popular after the 1970s and which stresses student-teacher interaction during the instruction and learning process. This model focuses on how teacher behaviors influence learning achievements, and thus includes an analysis of classroom instruction and class-time management. Yet, some experts (Macmillan & Garrison, 1984) considered the research methodologies used in the “process-product” model problematic in that they suffered from inadequate inferences and ignored the intentions of teachers and students during instruction. Since the 1980s, studies have expanded to include teacher thoughts, material organization, and teacher evaluations that contain many factors that influence the level of teaching efficacy (Harris, 1998).

**Influencing factors of teaching efficacy.** Dunkin and Biddle (1974) conducted a quantitative research on variables that affect teaching efficacy, resulting in a classification of four variables: (1) presage variables, such as teachers’ personal traits and characteristics;
(2) context variables, such as teaching and learning settings or conditions; (3) process variables, such as student-teacher interaction; (4) product variables, such as changes in student achievement and attitudes. After reviewing past studies, Harris (1998) observed four points relevant to increasing teaching efficacy: (1) well-defined teaching objectives form the basis for achieving high levels of educational outcomes and teaching effectiveness; (2) instructional techniques and behaviors affect the quality of an instruction; (3) diverse teaching strategies are vital for achieving teaching efficacy; (4) teachers’ reflections and continuous professional growth are closely related to their teaching efficacy. Harris (1998) also criticized past studies on teaching efficacy for their failure to address how to increase teachers’ teaching efficacy. He was vocal about the overall lack of research that went beyond the scope of effective teaching practices and focused on improving teaching efficacy. This led to the notion that increasing instructional effectiveness forms the very essence of teaching efficacy. C. T. Lin (1999) stressed that teaching efficacy is influenced by three factors: (1) teachers’ thoughts and rationale that prelude actual instruction; (2) student-teacher interaction during instruction, and (3) teachers’ post-instruction evaluation and reflection.

In conclusion, given the findings that teaching does not equate to learning, understanding the factors that influence teaching efficacy is an important precondition to the further enhancing of instructional effectiveness.
Research on English Remedial Instruction and Teaching Efficacy

While English remedial instruction studies in Taiwan mostly focus on remedial instruction and learning strategies for underachieving middle and elementary school students (C. T. Hsu, 2009; Hsu & Chen, 2007; Juan & Cheng, 2008), there is little research investigating English remedial programs at the college or university level. Research on the process and implementation of such programs are also limited. Chang, Chiu, and Li (2000) conducted a study on the teaching efficacy of remedial instruction on nine freshman junior high school English underachievers. The results showed that the instruction had a positive impact on the students’ learning achievements and attitudes. However, no significant lasting effects were reported. The study also suggested that materials for underachieving students should be tailored to their specific needs. Later, Kuo and Huang (2009) studied seven elementary school underachievers from higher grade levels. The results also indicated that English remedial instruction had a positive effect on the students’ English learning. Hsu and Chen (2007), surveying 239 elementary and junior high school English teachers regarding their views on remedial instruction, found that although most teachers acknowledged the importance of such instruction for underachieving students, they themselves were not knowledgeable enough on the subject. In other words, most teachers did not have a clear idea on how to successfully implement English remedial instruction (Chen, 2003).

Many studies over the past decade confirmed that technical college students have relatively poor English abilities (Joe & Wu, 1998; Yang, 2003). For example, Chou (2003) studied 291 freshman technical college students and found that 60% of these students only
knew only about 1,000 English vocabulary words. The students’ limited English vocabulary impeded their basic reading comprehension. M. S. Lin (1992) pointed out that schools should provide more instructional hours, better learning environments, and additional after-school activities to promote language learning. These research findings stressed the importance of English remedial programs for technical colleges. A later study conducted by Chuang and Yang (1996) on 38 teachers and 243 students from four different vocational high schools showed that student-teacher interaction can significantly impact the effectiveness of English remedial instruction. According to a study conducted by Y. C. Chang (2008) on six technical college teachers and six students receiving remedial instruction he found diverse teaching strategies and good teacher-student interaction could enhance teaching effectiveness as well as student learning outcomes. In addition, through a survey conducted on 2,217 college freshmen, Yu (2008) found that students who received English remedial instruction performed better in school and had better attitudes towards learning in general. Further, H. R. Wu (2010) studied English remedial instruction given to 94 technical college students and found that instruction must start with the basics (e.g., pronunciation and basic vocabulary), and should include formative assessments to foster students’ confidence in learning.

In conclusion, the studies discussed above indicate that examining the process of English remedial instruction as well as its implementation from the perspective of teaching efficacy can provide a point of reference for teachers who engage in English remedial instruction.
METHODOLOGY

This study conducted analyses on observations, recordings, interviews, and other related data. In addition, paired samples $t$-tests were used to understand the discrepancies in the students’ academic performances, and descriptive statistics were used to illustrate the students’ responses to teaching efficacy.

Participants

The teacher. The teacher in this study is 48 years old with 20 years of English teaching experience. Her academic expertise is in teaching English and digital language learning. She has six years of college remedial teaching experience. She was chosen because she won the “Excellent Teacher” award for two consecutive years, as well as for her diligence and vast teaching experience.

The teaching assistant. A 23-year-old graduate student who majored in business management and passed an intermediate level English proficiency test was selected by the teacher to conduct classroom management and after-school tutoring.

The students receiving remedial instruction. Under the grading criteria developed by the school, the students whose English grades were at the lowest 10% among freshmen are to receive remedial instruction. After a preliminary diagnosis of the students’ English learning difficulties, the teacher excluded nine students who were visually and aurally impaired as well as those who were hindered by familial factors. A group of 34 (18 males and 16 females) students that majored in subjects other than English volunteered to participate in the remedial instruction. The students were split into
two classes (class A of 10 males and 7 females, and class B of 8 males and 9 females) taught by the same teacher. Six students dropped out halfway through the course due to leaves of absence or transfers, and the valid sample size was eventually reduced to 28 students. Among the 28 participants, two majored in nursing, five majored in nutrition, four majored in child education, six majored in restaurant management, seven majored in information technology, and four majored in health management.

Setting

The remedial instruction curriculum and this study were conducted over two semesters between mid-September of 2009 and late-June of 2010. Fifty minutes of English remedial instruction was conducted twice a week for each class (one class was held on Monday mornings and the other was held on Wednesday afternoons). Instruction took place in regular classrooms, and students were seated around the teacher to facilitate teacher-student interaction. Sometimes, classes were held in multimedia classrooms to help students learn English with the aid of technology-related resources. Regardless of whether classes were held in a regular classroom or a multimedia one, the teaching assistant was available to assist the teacher in classroom management and assist the students during classroom activities.

Researcher’s Role

The researcher took on an observer’s role to observe, film, and record class proceedings. At the end of each class, the researcher solicited explanations or clarification from the teacher regarding questions on the structure and method of the instruction.
Procedure and Methods

After defining the research theme, collecting relevant data, and conducting a literature review, the researcher proceeded to observe and film the instruction, interview the teacher, analyze data, and log the reflective journals. After the end of the semester, the researcher implemented a questionnaire survey and conducted semi-structured interviews with six students who were selected based on their grades, classroom performance, and the teacher’s recommendation. The interviews focused on understanding how students with different grades and performances viewed teaching efficacy and their own learning.

In this study, the researcher employed the case study method that emphasized the particularistic, descriptive, interpretative, inductive, and heuristic approaches (Merriam, 1998; Yin, 2001). The researcher also conducted a total of 12 classroom observations (six times each semester), four recordings of the classroom teaching (twice each semester), nine recorded interviews with the teacher, and seven recorded interviews with the students. The data were analyzed and supplemented by the student grade records and the questionnaire survey. The purpose of the descriptive statistical analysis was to understand the students’ reactions to the teacher’s teaching.

Data Collection and Analysis

Notes for teaching observations were documented the day after classroom observations or classroom recordings. Audio recordings were made during interviews with the interviewees’ consent and were summarized after each interview. The research was presented to the
class in an anonymous fashion. Once interview summaries were finalized, they were submitted to the interviewees for review to ensure that accuracy and objectivity were maintained for data analysis and interpretation purposes. The teacher’s perspective was used to clarify concepts and formulate questions for the questionnaire, and thus increased the questionnaire’s “pragmatic validity” (Yin, 2001). Because only 28 students were involved throughout the entire course of English remedial instruction, simple statistics were used to process the results of the questionnaire.

To ensure the credibility of this study, the researcher obtained data from different sources such as reflective journals, observations and recordings, teacher interviews, and document analyses. The triangulated-validation method was adopted by having the students, the teacher, and three other English professors review the data obtained from the questionnaires and interviews in order to increase the objectivity and fairness of data analysis.

RESULTS AND DISCUSSION

Based on the data analysis, the results of the study are presented in the following five categories: the diagnosis of student characteristics, teaching rationale and planning, teaching implementation, teaching reflection, and student learning performance and feedback.

**Diagnosis of Student Characteristics**

The case study teacher skillfully implemented adaptive teaching techniques, and engaged in informal conversations with the
students before class to grasp the real reasons behind their English learning difficulties and past negative learning experiences (Observation 09-09-2009). In this study, the teacher believed that only by understanding the students’ learning experiences and abilities can remedial instruction be implemented effectively.

… students who participate in English remedial instruction usually have long-term poor English grades. These students cannot use basic English sentences correctly to introduce themselves, cannot fully understand the teacher’s instructions, are confused in English classes, lack English learning abilities and self-confidence, and fear English or have even given up on English learning…. (Interview TA 09-16-2009)

In this study, most students who received remedial instruction suffered from below average academic performance in general. Aside from poor English abilities, they exhibited poor classroom behaviors such as tardiness, dozing off, or creating distractions. As a result, behavioral management became an important part of the instruction (Observation 09-16-2009). Therefore, the teaching assistant was there to help manage the students, deal with misconduct, and provide immediate solutions to learning difficulties.

The motivation for remedial instruction students to learn English is very weak…. Arriving late to class, chatting, and dozing off are common. It is very rare for the students to actively answer the teacher’s questions…. The students do not complete their class assignments, nor do they ask for help…. Therefore, it is necessary to urge the students to concentrate on their studies from the sidelines. (Interview TA 09-23-2009)
Teaching Rationale and Planning

According to Price and Nelson (2010), teachers’ rationale and planning should focus more on instructional content rather than on teaching strategies and classroom activities. Examining teachers as they plan their curriculum can help identify the core of their teaching, as shown in Table 1.

Based on the teacher’s teaching plan, classroom observations (Observations: 11-11-2009, 11-22-2009, 12-09-2009, 12-23-2009, 03-17-2010, 03-31-2010, 04-14-2010, 04-28-2010, 05-12-2010, 05-26-2010), and interviews, three main teaching points stood out: cultivating the students’ basic communicative skills, increasing the students’ basic vocabulary capacity and its application, and helping the students master the content of the textbook and use the extra-curricular learning resources.

**Cultivating students’ basic communicative skills.** The teacher’s rationale behind the English remedial curriculum was to provide students with the ability to conduct basic English communication on a daily basis. To address the students’ pronunciation difficulties, the teacher had the students practice speaking in basic English so they could conduct simple daily conversations in English.
Table 1
Teaching Plan

| Curriculum outline | A. Review the basic rules of pronunciation (K.K. phonetics and phonics).  
|                   | B. Review 2,000 basic vocabulary, grammar, and sentence patterns.  
|                   | C. Improve English listening, speaking, reading and writing abilities.  
| Teaching goals    | A. Help students learn basic English conversation and reading in real life situations.  
|                   | B. Raise students’ motivation, interest, and confidence in learning English.  
|                   | C. Foster students’ positive learning habits and autonomous learning.  
|                   | Supplementary Materials:  
|                   | A. Let’s Talk in English and Studio Classroom—Online Multimedia Learning System  
|                   | B. English websites (to help students practice pronunciation, vocabulary and obtain relevant information)  
|                   | C. English comics (1: Learning English from Comics; 2. Snoopy comic series; 3. Doraemon comic series)  
|                   | D. Story books (1. Little Red Riding Hood; 2. Goldilocks and the Three Bears; 3. The Frog and the Toad)  
| Teaching contents | A. Main learning content: Review of basic pronunciation, grammar, sentence patterns, and content of freshman English class lectures; vocabulary familiarization; dialogue teaching and learning  
|                   | B. Multiple assessments and teaching resources: dialogue and discussion; lecture; homework; reading out-loud; online English instruction; multimedia; Power Point presentation  

The purpose for including English instruction into a technical and vocational education is to cultivate the students’ English communicative abilities, which can be applied at the workplace. Seven students stated that previous teachers had mistakenly believed that the entire class already
understood the rules of pronunciation, and therefore did not teach the rules.... As a result, these students were very unfamiliar with English pronunciation. Not only that, they did not understand most English sentences.... The students tend to use the simplest words rather than complete sentences.... (Interview T 10-07-2009)

The course design included sentence-pattern training, reading aloud exercises, group discussions, and online and audio-video instructions.

I ask students to repeat the dialogues many times and assign homework that consists of reading out short texts. From this, they gradually became able to conduct simple conversations in English with me.... I also use some story books to guide the students to become familiarized with the sentence structures.... (Interview TA 10-07-2009)

**Increasing the students’ basic vocabulary capacity and its application.** In this study, the teacher observed that the students had very limited vocabulary and that it was almost impossible for them to communicate in English. However, vocabulary capacity is related to the ability to use English and a prerequisite to developing reading, listening, speaking, and writing skills. Therefore, various memory techniques for vocabulary memorization, such as phonetic symbolism (which combines the meaning and pronunciation of the vocabulary words) and morphemic analysis of the word roots and affixes were used during the teaching process to help the students understand new words. Students were also encouraged to use high frequency vocabulary words to make sentences and converse. In summary, the
teacher believed that the students’ vocabulary affected their English learning and also indirectly affected their academic performance.

At least 2,000 words are required for basic communication…. But students often complained that the words were too hard, and they cannot remember them. They also don’t know how to use them and feel that the English learning process was very strenuous…. Therefore, I must use various techniques to help the students memorize the vocabulary, words, and expand vocabulary capacity. Hopefully this will enhance their comprehension skills…. (Interview T 05-12-2010)

Helping the students master the content of the textbook and use the extra-curricular learning resources. The classroom instruction generally included two parts: reviewing textbook content and guiding students toward the use of extracurricular resources to help promote autonomous learning. Course content in the remedial program consisted of pronunciation practice (K.K. phonetics and phonics), basic vocabulary review, regular course materials, dialogue practices, short and long readings, and letter writing to help cultivate the students’ basic language abilities. The teacher’s methods for guiding students to utilize extracurricular resources comprised online multimedia learning systems, English listening comprehension and conversational training, vocabulary training and reading out-loud using story books, reading comics, and PowerPoint presentations of self-introductions and professional English terminologies.

The main objective of remedial instruction is to enable the students to master the teaching materials and improve their learning motivation and
interest.... I think multimedia and comic books that young people enjoy can eventually guide students into a process of autonomous learning.... (Interview T 09-30-2009)

The clear objectives enabled students to progress faster in their learning. However, based on classroom observations, some students seemed more likely to give up on English learning when they encountered difficulties or lost confidence without teacher or assistant supervision of their learning progress (Observation 04-14-2010).

Teaching Implementation

Regular teaching procedures. Before lessons, the teacher would review the materials from the previous instruction. At the end of each class, students are given a preview of the next session’s materials and key points. Much emphasis was placed on the students’ after-class activities, oral expression skills, and online listening training. Every 100 minutes of instruction (two 50-minute classes) included the following: a review of pronunciation rules, vocabulary words, basic grammar, and sentence structures; practical daily conversational topics such as prices, time, locations; reading of simple English materials related to daily life such as menus, timetables, postcards; and simple sentence writing, form-filling, and self-introductions. The goal was to enable students to use basic vocabulary words in their daily lives. The teacher would call on students and quiz them then respond to their questions to clarify any points of confusion. Ten minutes before the end of each class, the teacher would provide students a preview of the next session’s course materials and discuss dialogue contents and after-class exercises.
Example 1

Teachers: … please think about which words you often use on campus.
Think of the topic, ‘my school life’ and write out which English words you would use to describe this topic, and then use these words to write eight simple dialogues lines….
(Observation 11-11-2010)

Example 2

Teacher: Does anyone have questions about reading the next article, “Eating Well” out loud?
Student: Can two people read it together? It will be less stressful that way (in Chinese).
Teacher: Sure. However, both of you have to speak up! One cannot do all the speaking while the other mumbles along. Practice the reading at home a couple of times, and you’ll grow familiar with it....
(Observation 04-14-2010)

**Student-Teacher interaction.** MacIntyre and Gardner (1991) pointed out that students’ difficulties in learning a foreign language usually stem from their past learning experiences. Interpersonal interaction provides a chance for students to gain experience in communicating through a foreign language. Therefore, student-teacher interaction plays a vital role in language learning. The teacher of in this study was patient with the students, even when they did not answer any in-class questions. The teacher played the role of facilitator and mentor, and seldom used a commanding tone to converse with the students. In addition, eye contact was made with every student during the course of the instruction. The teacher also
encouraged students to ask questions and would not immediately correct wrong grammar or word choices. Only after the student had spoken did the teacher praise or tactfully correct the student. At times, the teaching assistant would help students resolve difficulties they encountered during class through after-class tutoring. This echoed the viewpoint of Hall (2010) that the essence of foreign language education is not in the predefined rules of educators, but in student-teacher interaction.

... When students took the initiative to speak, I consider it great progress, and I would reward them with verbal praises. Then, I would tactfully explain the correct diction.... The right classroom atmosphere encourages students to speak up and become actively involved. (Interview T 03-17-2010)

The students and I are like “friends.” I would share frustrations of my own English learning experiences and how I overcame them with the students, letting them know that they do not have to be a so-called linguistic genius to learn English. (Interview T 03-17-2010)

**Multiple learning assessments.** The teacher used traditional written tests, oral examinations, and performance assessments to measure student progress. A total of 16 assessments were conducted in one school year. The teacher took notes during oral examinations and performance assessments while evaluating the students and orally commented on their performance so that the students were aware of their individual progress. As for the teaching assistant, she tracked student absences, recorded their learning situation, and provided in-class as well as after-class learning counseling. According to Berry
multiple assessments can reflect differences in individual students and their abilities to solve complex real world problems, thus leading to more accurate student learning measurements. That is, the essence behind a performance assessment and its methods are to obtain concrete assessments of individual students’ ability to use the language they are learning.

... Oral evaluations force students to speak the English language.... Performance assessments require students to use the English they are learning and communicate in real-life situations, which will greatly help them when they look for jobs in the future.... (Interview T 05-12-2010)

... the grades for remedial instruction evaluation accounted for 30% of their regular English course grade. This type of fixed and continuous assessments trains the underachieving students to get in the habit of allocating time wisely to review their English coursework. (Interview TA 2010/05/12)

The teacher used various “competency-based” evaluation techniques to assess the students. The assessment process served as a mechanism for the teacher to reflect upon her own teaching efficacy, set the expectations toward student learning, and gather necessary information to adjust future instruction.

**Diverse teaching strategies.** Meaningful teaching strategies and activities are deciding factors in determining the success of foreign language instruction (Omaggio, 1982). In this study, the teacher used simple English as the primary means of communication, supplemented with Chinese to explain more abstract or difficult concepts. In addition, the teacher complemented English explanations
with concrete examples, sample sentences, and body language. According to classroom observations, the teacher’s teaching techniques can be categorized into the following four categories:

1. Direct instruction: The teacher used textbooks, story books, and comics as learning materials to help the students practice pronunciation, vocabulary words, and grammar. Then, the students analyzed passages and engaged in activities. The teacher would demonstrate before having students practice on their own.

2. Mastery learning: The teacher guided students in practicing conversation and reading out loud. For example, she asked students to spend ten minutes practicing dialogues on the topic “ordering Western food,” issued a written test to assess dictation capabilities, and read a text on “mobile phone etiquette.” Students who did not perform adequately would receive after-class instruction from the teacher or the teaching assistant and would be retested after additional practice.

3. Cooperative learning: The teacher chose a topic for students to discuss in groups. For example, students were asked to discuss “my favorite leisure activities” or “ways to celebrate New Year’s.” Then, the students had to present their opinions or elaborate on the details in front of the class. Sometimes the students were asked to share their success stories and methods for overcoming learning challenges. This established an encouraging and positive learning atmosphere.

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1 Direct instruction takes learners through the steps of learning systematically, helping them see both the purpose and the result of each step. Teachers explain what students are expected to learn and demonstrate the steps needed to accomplish a particular academic task (Englert, 1984).
(4) Digital learning: The teacher used online resources to help students improve their listening skills and their ability to navigate English websites and conduct self-introductions through multimedia formats. Under the teacher’s guidance, the students used the sites, *Starfall’s Learn to Read with Phonics—Exciting Phonics Games and Online Interactive Books* (http://www.starfall.com/), *English Vocabulary Games and Pictures* (http://www.manythings.org/lulu/), and *200 Vocabulary Games* (http://web2.uvcs.uvic.ca/elc/studyzone/200/vocab/index.htm) to analyze English spelling patterns, practice spelling, and familiarize themselves with the connections between letters and sounds. The school’s internal “*Let’s Talk in English Online Multimedia Learning System*” also helped train students’ listening abilities by presenting conversations. Students could select from topics such as “birthday celebration,” and “let’s watch a movie together.” Sentences were presented in both textual and audio formats, and could be replayed when needed. Furthermore, the teacher taught the class to search for information related to the course, such as the “history of Valentine’s Day” and “introductions to schools abroad” on English websites. The students were also asked to introduce themselves with the aid of PowerPoint presentations.

... Multiple and varied evaluations allow students to gain a mastery over materials and hopefully help them internalize the English learning content…. Their interest in learning English can be heightened through the use of digital learning media, but I have to design good course content beforehand. Otherwise, students might feel bored or have nothing to do and, as a result,
become distracted by websites that are irrelevant to the course. (Interview T 05-26-2010)

The teacher and I need to monitor the group discussions.... Each class activity comprises four parts: demonstration, practice, implementation, and assessment.... (Interview TA 05-26-2010)

**Teaching Reflection**

As was evident through the observation data, the teacher’s primary method of reflection was to record every student’s learning progress, behavior, and student-teacher interaction in her assessment notes. “… from the students’ responses, I am able to know whether the teaching content is too easy or too difficult, and when to give students more opportunities to practice …” (Interview T 05-12-2010). The teacher often adjusted the teaching content based on the students’ responses, and when necessary, handled the students’ undesirable classroom behavior in an appropriate manner. In this study, the teacher paid more attention to students who lagged behind and were afraid to speak out during the class by monitoring their behavior and directing questions at them. At times, the teacher would provide one-on-one tutoring in class, or have the teaching assistant provide additional assistance after class. Besides this, the teacher had the teaching assistant handle special student needs, such as identifying the reasons behind poor class attendance, poor grades, or fear of speaking out in class (Observations: 11-11-2009, 11-22-2009, 12-09-2009, 12-23-2009, 03-17-2010, 03-31-2010, 04-14-2010, 04-28-2010, 05-12-2010, 05-26-2010). This reaffirmed Luttenberg and Bergen’s (2008) observation that experienced teachers would reflect upon their
teaching experiences and the students’ reactions as a way to assess instruction effectiveness and to make necessary adjustments.

The students’ silence and passivity frustrated me.... I would reflect on whether or not the students really like the course content.... I often came up with instructional methods on how to increase class participation opportunities.... (Interview T 05-26-2010)

Based on the data collected, it is apparent that the teacher reflected mostly on four issues: the learning responses of students; the design, planning, and instruction of the curriculum; the adjustments to teaching practices; and the student-teacher interaction. The reflection thus mainly focused on the technicality of her teaching rather than on the cultivation of students’ metacognitive abilities in English from the students’ perspectives. The reason for this may be that the teacher was aware that underachievers in English usually lack metacognitive abilities. Such abilities include being able to make connections between newly learned material and material already known, the ability to correct English errors made by their peers, and monitoring their own learning progress.

**Student Learning Performance and Feedback**

The statistical data analysis and interview summary are used to analyze the students’ learning performance and feedback.

*Analysis of student performance.* To identify changes in the students’ achievement in English remedial instruction throughout the school year, the researcher performed a paired sample t-test on the students’ first and second semester grade averages in their regular
“freshman college English” course. Each semester included three quizzes, four oral tests, one performance assessment, one midterm exam, and one final exam.

As can be seen in Table 2, the paired sample \( t \)-test value is -11.96 with a \( p \)-value of less than .001, which is under the significance value of .05, and thus indicates a significant difference between the first and second semester English grades of students who received remedial instruction. Second semester English scores (\( M = 71.54 \)) were significantly higher than first semester scores (\( M = 58.79 \)). This indicates that providing additional English instruction to underachievers for an extended period of time can lead to an improvement in their academic performances.

**Table 2**

A Comparison of First and Second Semester Grades

<table>
<thead>
<tr>
<th>Variables</th>
<th>( M )</th>
<th>( N )</th>
<th>( SD )</th>
<th>( t )-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>First semester</td>
<td>58.79</td>
<td>28</td>
<td>9.11</td>
<td>-11.96***</td>
</tr>
<tr>
<td>Second semester</td>
<td>71.54</td>
<td>28</td>
<td>9.09</td>
<td></td>
</tr>
</tbody>
</table>

### Statistical Significance

***\( p < .001 \)

**Student feedback on teaching efficacy.** According to the Table 3, the majority of the students found the teacher’s course design agreeable.

**Student feedback.** The students’ perspectives regarding the instruction and their own learning enabled a deeper understanding of the teacher’s teaching efficacy and the students’ learning effectiveness. This is shown in the following excerpts:
Table 3
Questionnaire Design and Analysis of Students’ Feedback on Teaching Efficacy

<table>
<thead>
<tr>
<th>Teaching Efficacy</th>
<th>Items</th>
<th>Agree</th>
<th>Disagree</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching Rationale and Planning</strong></td>
<td>1. The teacher understands my learning experiences and problems.</td>
<td>28</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>2. The course content matches my ability.</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>3. The course content helps me learn English.</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>4. The teacher can assist me with my English learning problems.</td>
<td>25</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td><strong>Teaching Implementation</strong></td>
<td>5. I can understand the course content.</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>6. The quantity and the difficulty of the course content are appropriate.</td>
<td>19</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>7. The teacher can answer my questions and provide assistance with patience.</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>8. The teacher provides students with specific feedback and suggestions.</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td><strong>Students’ Learning Performance</strong></td>
<td>9. The teacher’s instructional methods boost my learning outcomes.</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>10. The course content helps me improve my English ability.</td>
<td>25</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>11. I can use what I have learned in class in real-life situations.</td>
<td>21</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>12. I can use various learning resources to improve my English abilities.</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td><strong>Students’ Learning Attitude</strong></td>
<td>13. The teacher’s instructional methods increase my willingness to learn English.</td>
<td>26</td>
<td>2</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>14. The teacher’s instructional methods boost my interest in learning English.</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>15. The teacher’s instructional methods reduce my anxiety over learning English.</td>
<td>24</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>16. I will be more proactive in learning English in the future.</td>
<td>20</td>
<td>8</td>
<td>28</td>
</tr>
</tbody>
</table>
S1 (highly-motivated)—attendance rate was acceptable; took the initiative to ask and answer questions in class; hopes to work in the technology industry in the future; lagged behind in schoolwork due to after school work.

**Perspectives on Teaching:** “The teacher would instruct us to visit English websites to search for subjects that we are interested in. To me, using various websites as an English learning resources and listening training platform is very useful.... I also hope that the teacher can teach us more English that is related to our professional fields....” (Interview HS1 04-28-2010)

**Perspectives on Learning:** “(The instruction) improves my ability to use English websites to search for information.... I learned a lot of information about other countries. This also helps me build a sense of self-confidence. This should be very helpful in planning for my career in the future.” (Interview HS1 04-28-2010)

S2 (highly-motivated)—good attendance rate; took the initiative to respond to the teachers’ questions; helped other students to review coursework

**Perspectives on Teaching:** “I feel that learning English requires continuous practice and review.... Patience and perseverance are very important. The teacher often verbally praised and encouraged me to give me more confidence in speaking up.... The course content is very practical and interesting, and I don’t feel like it is a waste of time....” (Interview HS2 04-28-2010)

**Perspectives on Learning:** “It is very meaningful for me to be able to learn English from scratch and I do not fear English like I used
to any more.... I also learned to ‘speak out’ the language, and this helped improve my English.” (Interview HS2 04-28-2010)

**S3 (moderately-motivated)**—attendance rate was acceptable; occasionally took the initiative to answer the teacher’s questions; has lively personality and is willing to try to learn new things.

**Perspectives on Teaching:** “The main reason behind my improvement is the practice of reading the articles out-loud.... When I practice reading out-loud, I can familiarize myself with the way to pronounce a particular vocabulary word. After practicing for some time, I was able to understand the meanings of the text and the structures of the sentences.... But I was extremely nervous the first time I had to read out-loud in front of the class.” (Interview MS3 04-16-2010)

**Perspectives on Learning:** “I learned a lot of words from the remedial instruction, and I spend more time studying English now. I should be able to cope with the regular English coursework now.... I don’t think English is so bad any more. However, sometimes when there is a lot of pressure from other coursework, I will start to neglect English....” (Interview MS3 04-16-2010)

**S4 (moderately-motivated)**—good attendance rate; completed the assignments in time; quiet and passive in the classroom; never took the initiative to speak; more likely to consult with the teaching assistant in a private session when having difficulties.

**Perspectives on Teaching:** “I like the teacher’s use of picture books and comics. It is easier to understand the English texts this way because I can guess the content of the story from the pictures. But the
teacher’s requirements are more stringent so if I had any problems, I would ask the teaching assistant because it was less daunting to do so....” (Interview MS4 04-16-2010)

**Perspectives on Learning:** Now I have a better understanding of the rules of pronunciation and I know a lot of words.... I am less likely to shy away from reading English article. The teaching assistant helps me with problems that I have with the coursework, so I don’t always want to give up when I encounter difficulties.... I feel that English is no longer the most challenging subject....” (Interview MS4 04-16-2010)

**S5 (lowly-motivated)—often late for class; held negative attitudes towards learning; never took the initiative to ask questions; relied on the constant supervision and timely assistance of the teacher and teaching assistant for progress.**

**Perspectives on Teaching:** “I had difficulty practicing listening online…. It is very difficult for me to memorize vocabulary words. I think learning simple dialogs is easier and more practical.... The teacher and the teaching assistant were both very good to us, and they helped us review before exams. That way, at least I do not feel like giving up on the exams....” (Interview LS5 05-02-2010).

**Perspectives on Learning:** “I am less afraid of English classes now.... Even though it takes me more time listening and memorizing to understand content, I can now guess the meaning and pronunciation of some simple vocabulary words on my own.... I feel more confident passing my exams, though I still don’t really like English.” (Interview LS5 05-02-2010)
**S6 (lowly-motivated)**—often absent from class; easily distracted or dozed off while in class, chatted with other students instead of practicing dialogues and doing coursework; believes that future job and life would have nothing to do with English.

**Perspectives on Teaching:** “I feel that the teacher teaches too much content too quickly... My English has been bad since I was a kid, and I always feel I don’t have enough time to absorb and memorize (English content).... I really do not have any interest learning English, especially memorizing vocabulary words and grammatical rules.... Having to go to two more classroom sessions each week is very tiring.... But, at least, I spent some time reviewing the course content and have not completely given up on it....” (Interview LS6 05-02-2010)

**Perspectives on Learning:** “Prior to school exams, I would spend some time studying English because the teacher and the teaching assistant would be there to help me review.... Before, I didn’t even study English.... I think the chance that my future job will require English is very slim. All I need to do is to pass the school’s English exams and that’s it.” (Interview LS6 05-02-2010)

The following findings are obtained from statistical analyses and interview summaries: (1) In addition to the diagnoses of student characteristics, planning for effective classroom management and teaching strategies were vital prerequisites to remedial instruction; (2) In this study, a variety of teaching materials were used to enhance the students’ basic knowledge in pronunciation and vocabulary. Digital learning resources effectively addressed the students’ lack of learning experience and helped them develop autonomous learning abilities.
These were key points in increasing the efficacy of remedial instruction. By employing varied teaching and assessment methods, the teacher encouraged the students to participate in in-class activities and fostered positive student-teacher interaction. This reduced the students’ learning anxiety and fears, which is an important point in achieving teaching efficacy, and (3) Student performance, scores, and learning were useful indicators to measure teaching efficacy, which could then be used to determine appropriate adjustments to the course design and provide a more holistic remedial curriculum.

The teaching process and its major components are summarized and presented in Figure 1 based on an overview analysis of the teacher’s effort to achieve teaching efficacy.

As shown in Figure 1, a diagnosis of student characteristics formed the basis for the English remedial instruction. This is followed by the deliberation and planning of the use of appropriate teaching materials such as pronunciation exercises, vocabulary and grammar reviews, and learning resources which encourages autonomous learning. Teaching implementation covered different kinds of teaching strategies, classroom management techniques, and positive feedback by the teacher. Reflections on the instruction from the perspectives of curriculum implementation and student achievements and attitudes formed the basis for instruction adjustments. All of these are important steps for achieving teaching efficacy.
CONCLUSIONS AND SUGGESTIONS

Conclusions
The results of this study indicate that there were four stages required to achieve English remedial instruction efficacy: (1) diagnosis of student characteristics; (2) teaching rationale and planning; (3) teaching implementation, and (4) teaching reflection.

**Diagnosis of student characteristics: Understanding students’ learning experiences and abilities.** The results of this study highlighted the importance of diagnosing student characteristics to understand the students’ learning experiences and abilities. The
teacher can use the analysis as a basis to design appropriate curriculum, teaching methods, teaching activities, and counseling methods to allow students to combine their prior knowledge with the new knowledge, facilitate learning, and achieve the objective of teaching.

**The teaching rationale and planning: Strengthening students’ basic English cognition and application capabilities.** The findings of this study indicate that students in technical colleges lack English proficiency because of their weak English foundation. Therefore, remedial instruction course design should make up for the student’s previous learning deficiency by helping students become familiar with basic linguistic components such as pronunciation patterns, basic sentence structures, and essential vocabulary words. The teaching content should also be supplemented by a variety of simple learning resources such as story books or comic books to encourage students to read short essays or become exposed to basic English conversations patterns that are used in daily life.

**Teaching implementation: Strengthen student-teacher interaction, using diverse teaching strategies and assessments, and providing digital learning resources.** It was observed from this research that the students who participated in remedial instruction lacked basic English proficiency, and therefore showed no initiative to learn English and would not preview or review the learning content. The teacher then employed direct instruction method, mastery teaching method, and cooperative learning to enhance the students’ learning experiences. Diverse formative assessments were also used consistently to monitor learning progress. In addition, the teacher introduced the students to online and multimedia English learning
resources, encouraged student interests to facilitate learning, and developed their ability for autonomous learning.

**Teaching reflection: Gauging student learning performances and attitudes to supplement the curriculum.** In this study, the teacher used student learning performances and attitudes as a basis to revise teaching rationale and planning components (for instance, by reflecting on teaching activity designs and methods of assisting students) to achieve optimal teaching efficacy. However, the teacher failed to cultivate the students’ metacognitive abilities and positive English learning attitudes to facilitate learning progress and autonomy.

**Suggestions**

**Pedagogical implications.** Teachers are suggested to use the four dimensions of diagnosis of student characteristics, teaching rationale and planning, teaching implementation, and teaching reflection to achieve teaching efficacy to evaluate remedial instruction. In addition, it is recommended that teachers employ dynamic assessments\(^2\) by using the “test-intervene-retest” method to regularly track learning progress. Other methods can also be used to understand the relationship between the teacher’s involvement and the students’ cognition. Specifically, these methods can also be used to recognize the degree to which the students’ cognitive development can be

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\(^2\) Dörfler, Golke, and Artelt (2009) defined dynamic assessment as “one approach to gaining insight into the current level of competence as well as into how this competence can be influenced by specific educational interventions” (p. 77). Lidz (1991) defined dynamic assessment as “an approach that follows a test–intervene–retest format, and that focuses on learner modifiability and on producing suggestions for interventions that appear successful in facilitating improved learner performance” (p. 6).
rectified, to gauge the students’ maximum learning potential, to diagnose why the students cannot learn effectively, to provide prescriptive information, and to implement appropriate remedial instruction measures.

Meanwhile, teachers should also sustain students’ attention and manage classroom discipline; otherwise, any curriculum will be ineffective no matter how well-designed the remedial curriculum is. When students can actively participate in learning activities, they receive more learning opportunities, thereby promoting learning efficacy. During the teaching reflection stage, besides amending the teaching rationale and planning process according to the students’ learning performance and attitudes, teachers can also gain insight into the students’ learning behaviors and metacognitive abilities.

Finally, teachers can work with English teaching and counseling experts to develop a set of digital English remedial teaching efficacy evaluation systems in order to: (1) diagnose student learning characteristics; (2) provide a manual for English remedial instruction, and (3) construct an online assessment platform to test student abilities and track student progress. It is believed that such an evaluation system can provide a clearer direction for student guidance during English remedial instruction. This system can also reduce teachers’ work load, provide an objective evaluation for teaching efficacy, and help create a more suitable instruction guide based on student needs. Finally, it is important to note that factors contributing to low achievement are very complex and are beyond the control of teachers, so teachers can only try their best.

For future research. The participants in this study were 28 low-achieving students from one college. Future studies are suggested
to increase the number of participants, explore various student characteristics and identify factors that influence achievement levels to adjust the planning and implementation of the English remedial instruction.

**Limitations.** The participants of this study are low-achieving students in a first-year English class at a technical college. These students do not represent college students. The results of this study thus cannot reflect the performance of college students from other disciplines or stages of learning. With regards to the course materials, the simple English textbooks used in this case were chosen by the case study teacher to strengthen the students’ basic English capacities and enhance their learning motivation. Different course materials may yield different study results. Furthermore, since this is a case study project, the researcher employed observations, interviews, and a simple questionnaire survey for analysis and confirmation; inferences thus cannot be made from the descriptive statistical results of this study.

**REFERENCES**


ABOUT THE AUTHOR

Chi-ting Chou is an assistant professor at Ching-Kuo Institute of Management and Health, Taiwan. Her research mainly focuses on foreign language learning and teaching.
從教學效能觀點檢視科技大一生英語補救教學

摘要
由於科技大學英文程度不佳情形受到普遍關注，補救教學即為改進學生英文能力的方案之一。本研究探究達成英語補救教學效能的歷程。研究對象為28位科技大學大一英文低成就學生、授課教師和助教。本研究採用質性研究的資料分析法，輔以相依樣本t考驗瞭解學生在學習成績上的差異，以及描述性統計資料呈現學生對教學和學習成效的反應。研究發現，達成英語補救教學之效能(1)教師應以診斷學生學習經驗和能力為基礎；(2)應重視強化學生對基礎英文的認知和應用能力；(3)英語補救教學應運用多元教學策略和多元評量，並提供數位科技學習資源，以提升學生學習動機和發展自主學習能力；(4)教師必須依據學生學習成績和態度，反思其教學，並持續修正其課程和教學規劃。最後根據研究發現歸納結論並提出建議。

關鍵詞：補救教學 教學效能 英語教學