

Effects of a Remedial Program on Beginner-Level, Low-Achieving EFL Learners*

Tsui-Chun Hu

Center for General Education
Chinese Language and Technology Center
National Taiwan Normal University

Ying-Ju Hsu

Institute for Research Excellence in
Learning Sciences, Research Center for
Psychological and Educational Testing
National Taiwan Normal University

Bridging the achievement gap among learners and maximizing the effectiveness of instruction have attracted significant research attention; however, very few studies have focused on developing a systematic remedial program, particularly for beginner-level EFL learners. Hence, this study first proposed a remedial program to develop the language component skills of low-achieving beginner-level EFL learners. Subsequently, the program's effect on low-achieving learners' vocabulary and grammar was measured. Finally, the study provided an overview of the remedial program's characteristics, highlighting its instructional methods and materials, teaching procedures, activity designs, and approaches for enhancing learner engagement. This study recruited 11 teachers and 567 grade 7 students from six junior high schools in Taiwan. Two subtests, DCEC-Vocabulary Size and DCEC-Grammar of the Diagnosis and Certification of English Competency (DCEC) system, were conducted on all 567 seventh-graders. In total, 117 grade 7 students who failed to reach the grade 4 level were assigned into an experimental and a control group. The experimental group ($N = 56$) received experimental instruction, whereas the control group ($N = 61$) received traditional instruction. The study results indicated that the seventh-graders who received experimental remedial instruction demonstrated better English component skills, including better vocabulary and familiarity with grammatical sentence patterns, compared with students who received traditional instruction for remediation. The current study provided a model remedial program by delineating the implementation of remedial instruction for low-achieving beginner-level EFL learners. The proposed remedial program can serve as a model to facilitate the work of practitioners, researchers, curriculum designers, and policymakers.

* 1. Corresponding author's e-mail address is tsuichunhu@gmail.com.
2. This work was financially supported by the "Chinese Language and Technology Center" of National Taiwan Normal University (NTNU) from The Featured Areas Research Center Program within the framework of the Higher Education Sprout Project by the Ministry of Education(MOE) in Taiwan.

Keywords: achievement gap, low-achieving English learners, English intervention, remedial instruction, remedial program

Issues of Achievement Gap and English Remedial Instruction

The issues of closing the achievement gap between affluent and disadvantaged students and maximizing the effectiveness of instruction are increasingly gaining in importance (Ladson-Billings, 2006; Sung et al., 2014). Many countries dedicate themselves to bridging the achievement gap. For instance, the No Child Left Behind Act (U.S. Department of Education, 2002) initiated by the U.S. Department of Education and its successor, the Every Student Succeeds Act (Executive Office of the President, 2015) aimed to provide underachieving students with academic assistance. In the U.K., the Plowden Report published in 1967 (Central Advisory Council for Education, 1967) mentioned the Educational Priority Area (EPA) project, which focused on helping underachieving students to improve their learning outcomes (Smith & Smith, 1975). In Taiwan, the After School Alternative Program was enacted in 2006 to provide local governments with financial aid to help underachieving students. Afterward, its successor, the Project for the Implementation of Remedial Instruction, was passed in 2012 to reach the goal of enhancing the learning achievement of disadvantaged groups (Ministry of Education, 2012).

Among all the measures taken by national programs to bridge achievement gaps, language literacy, such as English learning, is one of the most emphasized domain subjects. For instance, in the US, due to a weakness in language literacy, there is an increasing growth of English Language Learners (ELLs) in schools, and the persistent achievement gap between ELLs and native speakers of English has continually aroused concerns (Genesee et al., 2005). While some of the ELLs can integrate into mainstream classes without serious concerns, many of them had difficulties achieving success because of their limited English proficiency (Lucas et al., 2008). Similarly, in the context of English as a foreign language (EFL) such as in Taiwan, a bimodal distribution has been existing in Taiwanese learners' performance for years (Chang, 2006). Students from lower socioeconomic families are behind in learning English at the onset because of their limited opportunities to access the target language and learning resources for facilitating their learning (Lee, 2002). The noticeable gap is also evidenced in a large-scale study examining Taiwanese elementary graduates' English abilities conducted by National Taiwan Normal University (Everington, 2018). The findings revealed that 25% of 3,405 participants and 54% of 2,617 participants failed to reach the level of sixth-graders in vocabulary and grammatical sentence patterns respectively. The high percentage of Taiwanese elementary school students failing to reach the expected level led us to reexamine the overall effectiveness of Taiwanese English education as well as English remedial instruction.

The Effects of English Remedial Instruction

As previously mentioned, several intervention programs have been implemented to help underachieving students improve their English abilities. Participants in Amendum et al. (2017) were 108 ELLs, including 70 kindergartners and 38 first graders. Teachers in the experiment received assistance from literacy coaches to implement the Targeted Reading Intervention (TRI), and the results supported the effectiveness of the TRI for young ELLs. Also aiming to help young learners, Calhoun et al. (2007) examined the effect of a 20-week peer-assisted learning strategies (PALS), including the practice of letter sounds and letter combinations, segmentation, reading decodable words, and reading simple PALS stories. The results revealed that, on average, the PALS students demonstrated significant growth on all the tests except for letter naming fluency. On the other hand, to help 6th-grade ELLs meet the Common Core State Standards for literacy in science, August et al. (2014) implemented instructional intervention focused on academic language. The results indicated that the performance of the treatment group sections was statistically significant for academic language but not for science achievement. In addition to interventions devised to assist young learners' learning, Olson et al. (2017) reported that taking a cognitive strategies approach to teaching text-based analytical writing showed a significant positive effect for a group of 7-2th grade ELLs.

On the other hand, in the EFL context, Abu-Rabia et al. (2013) examined the effects of an intervention designed for helping struggling readers at elementary school improve their reading and writing skills. The intervention program highlighted developing learners' transferring linguistic skills from the participants' L2 (English) to L1 (Arabic). After the intervention, significant improvement was found in all linguistic and metalinguistic skills in English among students in the experimental group. In Al-Qahtani (2015), students in the experimental group received explicit discourse marker instruction, whereas the control group received prescribed reading lessons. These results indicated that explicit instruction in DMs improved secondary low-proficient EFL learners' reading comprehension. At the tertiary level, Ismail and Tawalbeh (2014) examined how effectively metacognitive reading strategies helped underachieving university students in Saudi Arabia to improve their reading skill. The results showed that there are significant differences between the experimental group and the control group in metacognitive reading strategies and in reading comprehension post-tests.

Limitations of English Remedial Instruction Programs

Despite the positive effects of English remedial instruction shown in the previous research, the studies mentioned above exhibit three significant limitations. The first limitation is that the previous research focuses on higher-level language skills such as reading and writing, which usually are not the focus in a typical class for EFL learners at the beginner level. The development of reading and writing skills is generally not an essential goal for low-achieving EFL beginning learners, given that at this stage, they still barely know fundamental rules in phonics and hardly recognize key English vocabulary words.

The second limitation is that most of the studies were designed to improve ELLs' English proficiency. The necessity of using English in daily life differs significantly in the ELL context and EFL context. For ELLs, English is a must in daily life, both in terms of fulfilling academic tasks or meeting all kinds of needs in life. However, English, in the EFL context, is commonly regarded as a subject for learning rather than a tool for meeting daily needs. Therefore, it is not plausible to generalize remedial packages implemented in the ELL context to appropriate for learning in the EFL context.

The third limitation is that there is a lack of appropriate diagnostic tools and corresponding diagnostic reports serving as the foundation for compiling remedial materials. Language acquisition will go through a series of cognitive stages (Alderson & Lukmani, 1989). Different learning stages are all connected since there are specific contents to be taught in every stage. The insufficiency of diagnostic reports makes it difficult for the instructors to identify their students' initial learning levels and learning obstacles. This may possibly lead to a failure to provide the students with adaptive and effective instructions or interventions.

Elements for an Effective Remedial Instruction Program for EFL Learners at the Beginner Level

Building a necessary vocabulary foundation, mastering basic grammatical sentence patterns, connecting the not-yet-mastered previous lesson materials with the currently required to-be-learned lessons, and engaging learning scenarios are critical elements for establishing a systematic remedial intervention program for low-achieving EFL learners at the beginner level. These four essential elements are as follows:

Building a Basic Vocabulary Foundation. It is widely accepted that vocabulary has been a determiner for developing learners' four language skills (e.g., Alderson, 2005). Thus, the preliminary design of vocabulary instruction for low-achieving learners is particularly crucial. At the initial learning stage, establishing meaning-form linking is essential, and connecting word form and meaning is best learned explicitly (Ellis, 1994). Schmitt (2008) indicated that having an explicit focus on vocabulary almost always results in more significant gains. Furthermore, as researchers have pinpointed, facilitating

learners' phonological and orthographic mastery of word forms is an essential part of learners' lexical development (Schmitt, 2010), and ignoring orthographic decoding is probably the primary source that accounts for many EFL learners' learning difficulties (Hunt & Beglar, 2005).

Moreover, the importance of emphasizing the correspondence between graphemes and morphemes (letter-sound relationship) at the beginning of the EFL learning stage was addressed by researchers (e. g., Chu et al., 2007; Lin & Cheng, 2008). As Spector (1995) pinpointed, Chinese is a logographic writing system, different from an alphabetic system such as English, wherein "the aural pronunciation of a symbol is not predicted by its form" (p. 40). Shen (2003) also argued for the necessity of delivering explicit instruction for efficiently developing L2 learners' phonemic awareness, considering that EFL learners have fewer chances and much less time to immerse themselves in English speaking environments. Hence, it is a fundamental task to engage students in activities underscoring grapheme-phoneme manipulation (Ehri et al., 2001b).

Mastering Basic Grammatical Sentence Patterns. Like vocabulary, grammar or sentence patterns are also crucial components in developing L2 learners' language skills, as they are closely related with the production skills (Celce-Murcia & Olshtain, 2005; Hinkel, 2002). In general, the primary goal of grammar instruction is to enable students to express meanings by using different syntactic structures (Doff, 2000). On the other hand, the rules that L2 learners learn in grammar class are typically sentence patterns (Widodo, 2006), and knowing grammatical rules would enable learners to understand the process of how to produce sentence patterns. Regarding instructional approaches, the core approaches in grammar presentation are the deductive approach and the inductive approach (e.g., Shaffer, 1989). According to Nunan (2002), the difference between deductive learning and inductive learning is learners receive explanations about grammatical rules in deductive learning, whereas learners categorize grammatical rules by studying examples of language in use in inductive learning. In fact, as Nunan concluded, inductive learning can be an effective way to learn grammar.

Despite the harsh decades-long criticisms against the Grammar-Translation method, more and more studies have suggested translation of L1 can be used as a positive and facilitative role in language learning (e.g., Husain, 1994; Liao, 2006). Results of Husain (1994) revealed that translation strategy had highly positive effects on learners with low and intermediate proficiencies. On the other hand, Makulloluwa (2013) also posited that learners' L1 might be a useful strategy for enhancing target language acquisition, given that it could help create a supportive classroom climate and lower students' affective filter. In fact, translation should be considered as a strategy that enables students to use their first language "as a base for understanding and/or producing the second language" (O'Malley et al., 1985, p. 583).

Connection of the Old but Not-Yet-Mastered Lessons and the New, To-Be-Learned Lessons. The educational systems of many Asian countries, such as Korea, China, and Taiwan, follow a centrally controlled approach; all learning content and learning progress (such as the curriculum standards, unified teaching schedule, and summative/monitoring assessment) are under strict government control. Under such a context, low-achieving students not only have to receive remedial instruction, but also regular instruction and content in their current classes. Therefore, building appropriate connections between the content of the remedial and regular classes is critical to reducing students' anxiety about falling behind in regular lessons. Also, in doing so, their learning motivation and confidence could be increased because what they are learning in the remedial classes is relevant to and beneficial for their current regular learning progress. This is more important in countries with high stakes entrance examinations, as students in those contexts usually suffer from significant stress when preparing for the examinations (Chao & Sung, 2019; Sung et al., 2014; Sung et al., 2016), making them pay less attention to and exert less energy in their remedial classes.

Engaging Scenarios for Learning. To ensure that low-achieving learners receive successful learning experiences, in addition to a need for specifying what linguistic elements should be included in the remedial program, affective variables such as L2 anxiety and motivation should be highlighted. Among the affective factors, L2 anxiety is viewed generally as "a major obstacle to be overcome in learning to speak another language" (Horwitz et al., 1986, p. 125), which frequently impedes the learning process (Arnold & Brown, 1999). Besides, as Lamb (2012) pointed out, a positive English learning experience has a strong influence on motivating learning behavior and L2 proficiency. That is, learners' successful engagement with the language learning process would strongly impact on L2 motivation

(Dörnyei, 2009). As promoting engagement is an essential task for benefitting L2 vocabulary development (Schmitt, 2008), using activities that maximize learners' engagement with target lexical items is vital. In this regard, word cards/flashcards can serve as invaluable learning aids for processing vocabulary activities, considering that they are not only beneficial in helping learners consolidate learned lexical items, but also have great potential for stimulating student motivation (Hunt & Beglar, 2005). For grammatical sentence patterns, flashcards are also an engaging tool for encouraging students to conduct drills. Through repetitively substituting flashcards and practicing with peers in a dialogic manner, students spontaneously produce numerous sentences that follow the sentence patterns presented in class.

Purposes of this Study

To address the problems above, the researchers propose the following purposes for the current study. First, unlike other studies that mainly focus on developing higher language skills such as reading and writing for ELLs, this study highlights providing EFL learners at the beginner level with abilities to develop preliminary language skills such as phonics, vocabulary, and sentence pattern. Second, this study aims to evaluate the effectiveness of the diagnosis-based adaptive intervention program proposed by the current study, particularly examines if the intervention can help improve low-achieving EFL learners' component language skills, including vocabulary and grammatical sentence patterns. Lastly, despite the additional interventions that help improve students' language skills, the disjunction between the old, but never mastered materials, and the new, to-be-learned materials is still a problem under EFL contexts. Hence, in order to know what constitutes effective intervention that fosters low-achieving students' learning, the present study aims to provide an overview of the characteristics of the intervention, including its teaching methods, teaching procedures, activity designs, materials, and approaches for fostering learners' engagement. Since no widely recognized framework for remedial instruction has ever been established in Taiwan (Cheng, 2013), we hope the model provided in the current study can assist instructors in implementing remedial instruction for low-achieving learners.

Method

Research Design

Researchers implemented a pretest-posttest quasi-experimental factorial design, in which the instruction methods (PASSION instruction vs. traditional instruction), were set as the independent variables. PASSION is an acronym for "Program of Adaptive Screening, Streaming, and Instruction for Omni-directional Nurturing." This study examined the effects of the PASSION Program on a treatment group of seventh-graders and compared them to a control group that did not participate in the program. The pretest results of the Diagnosis and Certification of English Competency for Vocabulary Size (DCEC-VS) and the Diagnosis and Certification of English Competency for Grammar (DCEC-G) were set as the covariates. Before the experiment, the two subtests, DCEC-VS and DCEC-G, were administered to all the participants. Upon completion of the first experiment, the DCEC subtests were administered as the post-test. These results became the dependent variables.

The English Educational System in Taiwan

English has been officially introduced to third graders at elementary school since 2005. Elementary school students in third grade and above receive at least two class periods per week (Chen & Tsai, 2012). However, at regular schools in metropolitan cities, elementary students starting to learn English

before the third grade is a common scenario. To assist the Taiwanese Ministry of Education in monitoring the progress that students make in learning English, the Research Center for Psychological and Educational Testing (RCPET) at National Taiwan Normal University (NTNU) has developed the Diagnosis and Certification of English Competency (DCEC) test. The DCEC is a computer-based assessment tool administered to all 3rd through 9th-grade students to obtain feedback about their learning progress. The present study, as described in detail below, employed the DCEC as the primary assessment tool.

Participants and Procedure

The participants in this study were 11 teachers and 567 seventh graders from six junior high schools in Taiwan. There were 312 male students and 255 female students. All of the seventh graders in the six schools received the DCEC-VS and DCEC-G subtests in September 2016, and 117 seventh graders who did not reach the level of fourth grade on the two subtests became the research sample. Though having received at least four years of instruction in English in elementary school, the participants were akin to beginning learners. They barely knew the basic phonetic rules for spelling and had difficulties recognizing vocabulary words and constructing basic English sentences. Researchers assigned participants both to classes with PASSION intervention (experimental group) and to traditional classes (control group) based on their parents' agreement and willingness, as well as opinions from their homeroom teachers. There were 56 and 61 students in the experimental and control groups, respectively. Gender wise, there were 40 boys and 16 girls in the experimental group, and 38 boys and 23 girls in the control group.

Measurement Instruments

The DCEC is composed of four subtests, including vocabulary size, grammar, reading comprehension, and listening comprehension. For each subtest, examinees' performance was divided into five DCEC levels (from DCEC 1 to DCEC 5) that represent the equivalent grade level proficiency (Grades 3-4, 5-6, 7, 8, and 9) (See Table 1).

Table 1
The DCEC levels and the equivalent grade level proficiency

DCEC level	Corresponding grade level in school
DCEC 1	Grades 3-4
DCEC 2	Grades 5-6
DCEC 3	Grade 7
DCEC 4	Grade 8
DCEC 5	Grade 9

The item development of DCEC was composed of multiple phases (Hu et al., 2020). First, a cohort of experts identified the appropriate subskills or content specification corresponding to each grade level. This cohort included ten EFL instructors in primary and middle schools with more than ten years of experience, and two researchers specializing in language assessment. Then, depending upon the content specification, the items were developed by 12 experienced EFL instructors in primary and middle schools and three specialists in listening comprehension.

Next, three rounds of item review sessions were held to discuss the developed items. Two professors specializing in TESOL and the 15 item developers reviewed the items twice based on content relevance and language suitability. The third round of item reviews was carried out by eight other EFL teachers who did not participate in the item development to confirm the item quality. For each subtest, the report card

of DCEC provides three kinds of information: leveling, diagnostic, and advisory. The leveling information includes a scaled score (ranging from 0 to 250) and the DCEC level that represents the examinee's performance in the exam. The diagnostic information provides the performance level descriptors that the examinee was able to reach for each subtest. Therefore, a standard-setting approach, the yes/no Angoff method (Jaeger, 1978; Nassif, 1978), was adopted to identify the cut scores for each subtest.

A panel of well-trained experts (three EFL instructors with more than ten years teaching experience and three researchers specializing in language assessment and TESOL) constructed the performance standard of each subtest depending upon the national curriculum guidelines. It was up to the experts to determine whether a student with basic and mastered ability in each DCEC level could correctly answer a test question from that level. If the subject were able to answer correctly, it would have been evaluated as "yes", and if the subject did not answer correctly, it would have been evaluated as "No". Based on the percentage of the "yes" questions determined by experts in the test questions of a particular level, the number of correct answers that students with basic or mastered abilities should meet was determined. The instructional information describes what types of content or concepts require the examinee to pay attention to in order to advance to the next level. The psychometric properties of each DCEC subtest were evaluated based on representative samples and demonstrated sufficient reliability and validity evidence. The current study adopted the two subtests, the DCEC-VS and the DCEC-G, as the measurement tools. Moreover, the description of the evaluation of the subtests was as follows:

DCEC-VS. According to Hu et al. (2020), the DCEC-VS aims at increasing test efficiency and providing useful diagnostic information for subsequent remediation through the technique of computer adaptive testing (CAT). Regarding test efficiency, the computerized function can provide immediate scoring and performance feedback. Also, it can reduce the need for administrative resources, such as paperwork and human resources. Moreover, the adaptive nature of our test allows us to estimate students' vocabulary size concerning the 2,000 words listed in the curriculum with only 40 items, which take approximately 10 to 15 minutes to complete. With respect to diagnostic feedback, the DCEC-VS implements IRT analysis (2 parameter logistic model) to not only estimate their vocabulary size but also indicate words that students might not have yet mastered. Hence, students can identify the words they need to concentrate on to achieve mastery.

The quantitative evaluation of the DCEC-VS was comprised of one reliability study and two types of validity evidence. Table 2 shows the distribution of 960 primary and middle school students in Taipei City and New Taipei City participating in the evaluation study. First, concerning different grade levels, the group-level conditional reliability coefficients of the DCEC-VS were between .89 and .95. These values confirmed that the DCEC-VS performed consistently regarding the measurement of EFL learners' vocabulary proficiency across different grades. Second, the criterion-related validity compared students' DCEC-VS scores to their English performance in schools (converted to z-scores), and the correlation coefficients for grades 3-4, 5-6, 7, 8, and 9 were .61, .74, .52, .84, and .62, respectively. Additionally, for the ninth graders, their standardized English reading scores on CAP, the entrance exam for Taiwanese senior high schools, were correlated with their DCEC-VS scores, which is equal to .67. These results provide strong evidence that the DCEC-VS scores can reflect EFL learners' English performance at early learning stages. Third, researchers examined the construct validity by analyzing if the EFL learners among the five DCEC levels demonstrated diverse vocabulary sizes. Examinees' average vocabulary sizes across different DCEC levels were also analyzed by the one-way analysis of variance (One-way ANOVA). The significant result ($F_{4,856} = 1,549.55, p < .001, \eta^2 = .88$) demonstrated that examinees demonstrated diverse vocabulary sizes among the five DCEC levels. Further, the post-hoc tests adopted Tukey's HSD method to analyze examinees' average vocabulary size with respect to each DCEC level, and all the pairwise comparisons were significant ($p < .001$). Accordingly, these significant results confirmed that the design of DCEC-VS successfully levels EFL learners' vocabulary sizes (Hu et al., 2020).

Table 2*Sample distribution of the quantitative evaluation study for DCEC-VS*

Grade	Number of examinees
4	103
5	83
6	102
7	187
8	212
9	273
Total	960

DCEC-G. The DCEC-G adopts the progressive approach in its grammar tests to align with the main trend found in textbooks and the Taiwanese curriculum guidelines as well. The DCEC-G focuses primarily on the grammar dimensions of form and meaning. For lower grades (third and fourth grades), the test focuses on measuring the implicit knowledge, which reflects the inductive-based instruction in the classroom. Types of grammar categories include word order and sentence meaning, and the test item types include rearranging items, multiple-choice, and questions with pictures. For higher-grades (fifth grade and above), explicit knowledge is the main focus of the test. Deductive-based instruction is a common approach in the higher grades, which shows the increased emphasis on developing analytic ability for the higher grades. The grammatical knowledge measured in the higher grades encompasses the morphosyntactic forms and cohesive forms (Purpura, 2004). There are seven grammar categories in the DECE-G, including word order, tense and aspect, modal auxiliary verbs, special sentence structures, coherence, questions, and parts of speech. The test item types include mixed-up sentences, multiple-choice questions, and matching.

The psychometric properties of the DCEC-G were evaluated in terms of internal consistency reliability and criterion-related validity. The evaluation study recruited 407 primary and middle school students in Taipei City and New Taipei City. Their grade distribution is provided in Table 3. First, Cronbach's α coefficient was used to measure the internal consistency reliability. The reliability coefficients for grades 6, 7, 8, and 9 were .95, .98, .98, and .96, respectively. The DCEC-G demonstrated strong internal consistency. Second, the criterion-related validity of the DCEC-G was assessed in terms of the correlation between examinees' DCEC-G scores and their English grades in school (converted to z-scores). The correlation coefficients for grades 6, 7, 8, and 9 were .53, .70, .76, and .88, respectively. The significant result ($F_{3,403} = 116.41, p < .001, \eta^2 = .46$) demonstrated that examinees demonstrated diverse grammar competence among 6th, 7th, 8th, and 9th graders. Further, the post-hoc tests adopted Tukey's HSD method to analyze examinees' average DCEC-G scores with respect to each grade, except for grades 6 and 7, all other pairwise comparisons were significant ($p < .001$). Also, for the ninth graders, their DCEC-G scores correlated with CAP reading scores, and the correlation coefficient was .70. These results demonstrated that examinees' DCEC-G scores were positively associated with their English performance.

Table 3*Sample distribution of the quantitative evaluation study for DCEC-G*

Grade	Number of examinees
6	91
7	129
8	100
9	87
Total	407

Instructional Methods and Materials

PASSION Program (Program of Adaptive Screening, Streaming, and Instruction for Omni-directional Nurturing). The PASSION Program is composed of two essential parts. The first is screening and streaming students for different types of instruction based on their performance on the DCEC tests. The second is concerning how instructional contents, materials, methods, principles, and assessment were implemented in the class. The current study utilized the diagnostic functions of the DCEC system. The diagnostic results given by the DCEC system were used as the parameter for screening low-achieving students who need remedial intervention to compensate for falling behind in English learning. As a diagnosis-based program for further treatment for developing low-achieving EFL learners' preliminary skills, PASSION has distinctive features in its instructional content and materials, instructional method and approach, and instructional principles, as well as assessment. Before designing the curriculum for this program, we attempted to identify factors that might impede or demotivate teaching and learning in a remedial class and adapt our curriculum to truly meet low-achieving EFL learners' cognitive, affective, and psychological needs.

Instructional Content and Materials

We employed teaching materials based on the 7th grade textbooks published by the three different publishers, Han Lin, Kang Hsuan, and Nani. There were eight lessons in each textbook per semester, totaling 16 lessons in each textbook per school year. The versions selected for students were in accordance with the versions used in their school. There were four units for remedial instruction in a lesson, and in total, we designed 64 units for the remedial intervention for a school year (64 classes 32 weeks).

Principles of Designing Teaching Materials

Both cognitive and affective factors for effective remedial EFL instruction are considered when designing teaching materials. For cognitive factors, teaching materials should not only be adaptive to a student's actual EFL competence level but also target their deficiency in specific skills such as the un-mastered English vocabulary and sentence pattern. In other words, the teaching materials should be customized to individual students. In addition, affective factors play crucial roles in predicting foreign language achievement (Ehrman & Oxford, 1995). Gardner et al. (1997) found strong relationships between foreign language achievement and noncognitive variables, including foreign language anxiety, self-confidence, and perceived foreign language ability. Considering that low-achieving learners usually have negative concepts of themselves (Rimm, 1997) and may easily give up when encountering learning difficulties, making learners feel comfortable about using the materials and helping learners gaining confidence are essential principles when designing materials (Dulay et al., 1982).

Standardizing Teaching Procedures in Each Unit. We designed lesson plans by the following steps: warm-up presentation, practice, production, and wrap up. Learning contents include phonics, vocabulary words, and sentence patterns. Teaching procedures and suggested activities were all listed in the lesson plan. Since complicated teaching steps and activity design may cause students' confusion and uncertainty about how to proceed with activities, the consistent and systematic learning/teaching procedure and suggested activities can not only shorten teachers' preparation time for new lessons but also stabilize students' learning.

Bridging Old and New Learning Contents. In general, learning content in remedial classes is different from what students learn in regular classes, and it is one of the most potentially demotivating factors impeding low-achieving learners. To complement this, we compiled our teaching materials in alignment with versions from different publishers employed by different schools. Syllabi scheduled for

each lesson in remedial classes are consistent with those scheduled for regular classes. Learning contents for low-achieving students elicited from each lesson comprised four to six of the essential vocabulary words and one focal grammatical sentence pattern. To help learners adequately acquire or review vocabulary words taught at elementary school, we selected elementary-level vocabulary words (usually fitting into the focal sentence pattern) to be incorporated into the lesson plan. As language learning is a connected, continual, and incremental process (Schmitt, 2010), it is crucial to build a bridge between old learning materials and new learning materials.

Simplifying Learning Contents. Learning content used in a regular class is generally too complicated and challenging for those who need remedial intervention. Learning content that is not simplified could hardly engage students in learning. More seriously, it might cause low-achieving learners' anxiety or uneasiness toward the remedial class. To lessen those students' sense of strangeness as well as anxiety, we replaced all the lessons for regular classes with simplified versions. The original lesson is composed of two dialogues and one reading. Every lesson for a remedial class is divided into four units. The first two units in one lesson are simplified versions of two dialogues in each lesson; the third unit is a simplified version of the reading; the fourth unit is a review lesson. Every four units is a learning cycle.

Instructional Methods

Drawing on the view of principled eclecticism in foreign language teaching (Larsen-Freeman, 2012), we designed the remedial teaching methods by blending different foreign language teaching methods, teaching strategies, and learning activities catering to low-achievers' needs. We believe that rather than a specific method or approach, it should be the cumulative body of knowledge and principles that could enable teachers to diagnose the situational and communicative needs of students, to provide students with appropriate treatments based on their needs, and to assess the outcome of those treatments (Brown, 2002).

In each class, a synthetic phonics approach was adopted to guide children to convert graphemes into phonemes (e.g., to pronounce each letter in “top”/t/-/a/-/p/) and learn how to blend the phonemes into a word. In doing so, students could be systematically aware of the correspondences between graphemes and phonemes of the language and learn how to use grapheme-phoneme correspondences to decode or spell words (Ehri et al., 2001a). By constant and continuous training like this, their phonemic awareness (Ehri et al., 2001b) was expected to improve. In addition to phonics instruction, four to six vocabulary words in the same category (e.g., cooking, eating, jumping, sleeping, hopping) were illustrated to fit into one grammatical sentence pattern (e.g., What are you doing? I am XXXing). Only one focal grammatical sentence pattern was listed in one unit to ensure that even the lowest-achieving learners could digest the given content with ease (see Appendix A for an example, <https://drive.google.com/open?id=1YIZrKelEtd4lFnlnOggFO-NF79HhaARJ>).

Method for Teaching Vocabulary and Grammatical Sentence Pattern. Considering that EFL learners are situated in an environment without comprehensive target language input, providing enough opportunities to familiarize learners with sounds of vocabulary words and sentence patterns is crucial. The standard practices employed in the PASSION program correspond with characteristics illustrated in the Audiolingual Method. The effectiveness of employing flashcards for language learning has been proven in the previous studies (BAŞOĞLU & Akdemir, 2010; Tan & Nicholson, 1997). Visual aids, such as flashcards, are used to provide contextual cues when using specific words. As Nation (2003) suggested, it is a very effective way for L2 learners to learn vocabulary using word cards with their L1 translations. After students became familiar with the correspondence between sounds and pictures, L1 translation was introduced in the classroom from time to time to make sure students did not misunderstand the meanings of particular pictures.

On the other hand, the selected focal sentence pattern is presented in a dialogic form, and structural patterns are taught by using repetitive skills. Rather than deductively, students learned grammar inductively with little or no grammatical explanation (Prator & Celce-Murcia, 1979). In other words, habit formation (Larsen-Freeman & Anderson, 2013) is considered to be an essential process to help low-achieving

learners get used to target language use. Teaching techniques such as a repetition drill, a chain drill, a single-slot substitution drill, as well as a question and answer drill are typical techniques employed in the class (Larsen-Freeman, 2000). Applying characteristics of the Audiolingual method to remedial classes can help low-achieving learners increase their oral fluency through repetition and imitation. In addition to oral/aural training, students were taught to learn how to write by translating Chinese into English after they became familiar with the sounds of the vocabulary words and sentence patterns in each class. The combination of aural and visual stimulation encompassing both sounds and written images could help embed any knowledge learned into students' memories.

Instructional Methods for Stimulating Motivation and Fostering Student Engagement

Motivation is widely recognized as one of the key factors that influences the success of L2 learning (Dörnyei, 1998). Undeniably, students who need remedial instruction are usually low-motivated in learning (Chen, 2009). Therefore, in addition to tailoring a structured instructional framework delineating teaching content, teaching materials, teaching procedures, teaching approaches and strategies specifically for low-achieving EFL learners, affective and psychological factors that might influence those learners' motivation are also taken into consideration. Principles for stimulating students' motivation in the PASSION Program are addressed as follows.

Integrating Games into Class. It is a challenging task for low-achieving learners to concentrate on the lesson without being introduced to engaging activities. Many believe that engaging games and activities can lower their inhibitions toward class participation (Brown, 2007). Hence, rather than sitting in the classroom and listening to lectures full of explanations of grammatical drills and practices, the students were guided to participate in a series of game-based activities, which could yield abundant opportunities for practicing English (examples appear in Appendix B, <https://drive.google.com/open?id=1TDFqhWdSkssFcekPsr9HQw4FyyNV4Oy7>).

Positive Reinforcement. To maximize the possibility of opening up opportunities for students to experience success is one of the core principles of the PASSION Program. To promote excellence in learning, we set high standards for classroom behaviors and regarded cultivating good learning habits as one of the most important tasks in the remedial class. We established a reward system to provide positive reinforcements to encourage students' attempts to cultivate good learning habits, such as active participation in class, demonstration of progress and perseverance, and collaboration with peers. Providing demotivated students with sufficient opportunities to experience learning success is one of the most vital elements in stimulating their motivation (Vaughn et al., 2000).

Instructional Activities. The control group was taught with traditional teaching methods, whereas the experimental group was provided with the PASSION teaching toolkits. The main characteristics of the instructional activities in the two groups are as follows:

(1) Teachers, instructional progress, and duration. English teachers and supply teachers guided both groups. Teachers in the experimental groups were trained on the implementation of the remedial lessons before and during the intervention. The training lasted 12 hours, and it highlighted developing teaching skills by conducting teaching activities to enhance learners' component skills, phonemic awareness, vocabulary, and grammatical sentence patterns (oral/aural drill and translation). To ensure the fidelity of the implementation, the trainer observed every experimental teacher's class and gave feedback at least once a month throughout the school year. The purpose of the observation was to provide teachers with teaching nuances needed to optimize their effectiveness in remedial intervention. Feedback was given to the observed teacher right after the class. It was expected that teachers could modify their teaching based on the feedback. Both of the groups had two classes per week, and the duration of each class was 45 minutes. In total, there were 64 classes within 32 weeks.

(2) Instructional materials. Both the experimental group and the control group used the same teaching contents provided by the three publishers noted earlier. However, the teaching material in the experimental group was adapted according to the principles for compiling remedial learning materials illustrated by the PASSION Program.

(3) *Instructional methods*. the experimental group employed PASSION teaching toolkits and followed the teaching procedure suggested by the program, whereas classes in the control group were conducted without adopting the PASSION teaching toolkits. Additionally, an experienced teacher in remedial instruction observed classes in the experimental groups and gave feedback for teachers to adjust their teaching, whereas no observation occurred in the control group classes.

Classroom Assessment Activities

As assessment results are conducive to having a better understanding of learners' learning starting point (Tomlinson et al., 2015), two types of assessments at two different times during the remedial instruction were employed. The first kind of assessment occurred at the end of each class. All the students were required to read aloud all the vocabulary words learned in a given class to the teacher before they left the classroom. After confirming that students were able to say each word correctly and confidently, the teacher guided the students to use the sentence pattern in a dialogic way, so that the students could use the sentence pattern in dialogue format before leaving the classroom. The second type of assessment took place at the end of the intervention. All the students in the remedial program wrote a composition titled "My" by using the sentence patterns learned in the remedial class throughout the school year. Students wrote one or two sentences in one class, and the composition consisted of 8-10 sentences (see Appendix C for an example, https://drive.google.com/open?id=1O0RgcceH2_sVG9IPFvyp2Ip8H2MVxutQ). All the students delivered an oral presentation about what they had written, and their performance was assessed by both their teachers and peers. Several awards were given to students for their hard work after the final oral presentation session. Formally, a comparison between the experimental group and the control group is provided in Table 4.

Table 4

Comparison between experimental group and control group

	Experimental group	Control group
Teachers	English teachers and supply teachers	English teachers and supply teachers
Instructional progress	<ul style="list-style-type: none"> • training workshop • class observation and observational feedback 	<ul style="list-style-type: none"> • without training workshop • without class observation
Duration	64 classes (32 weeks)	64 classes (32 weeks)
Instructional materials	PASSION toolkits	textbooks
Instructional methods	PASSION toolkits	traditional method
Classroom assessment activities	<ul style="list-style-type: none"> • oral assessment at the end of each class • composing an essay at the end of the intervention • delivering a presentation at the end of the intervention 	paper and pencil tests

Procedure

Both the experimental and control groups received pretests on the DCEC-VS and the DCEC-G before the intervention started. After being screened and streamed based on the results of the DCEC tests, the experimental group employed the PASSION teaching toolkits and was instructed by teachers trained and observed by the PASSION Program, whereas the control group used traditional teaching methods and was instructed by teachers without being trained or observed by the PASSION Program. The participants

in both groups were administered the DCEC-VS and the DCEC-G posttests after the 32-week (64 classes) intervention.

Data Analyses

The descriptive statistics of examinees' pre- and post-test scores on the two subtests of the DCEC-VS and DCEC-G were calculated and compared between the control and experimental groups. The Chi-squared test was adopted to analyze the performance of the two groups of students based on their pretest and posttest scores on the DCEC-VS and DCEC-G.

However, the outcome measured in this study might include not only individual students' performance but also the schools which the students were nested within. Thus, considering the school effect, the effectiveness of the remedial English method on students' post-test performance with respect to the two DCEC subtests was further analyzed by the hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002). The models adopted in this study were listed below:

Level-1 model: Student level

$$post - tests = \beta_0 + \beta_1(pre - test) + \beta_2(Group) + r_0$$

Level-2 model: School level

$$\beta_0 = \gamma_{00} + u_{00}$$

$$\beta_1 = \gamma_{10}$$

$$\beta_2 = \gamma_{20}$$

Results

Descriptive Statistics

Table 5 presents the mean and standard deviation of the pre- and post-test scores with respect to the two subtests. Comparing the performance of the examinees in the control and experimental groups, the experimental group exhibited higher subtest scores than the control group on both pre- and post-tests. Also, the examinees' performances on two subtests were compared between the pre- and post-tests. As to the DCEC-VS and DCEC-G tests, both groups had higher performance on the post-tests than the pre-tests.

Table 5

The mean and standard deviation of the two instructional groups on the DCEC subtests

Subtest	Group	Pre-test		Post-test	
		Mean	SD	Mean	SD
DCEC-VS	Control group (N = 61)	0.97	1.66	3.72	4.62
DCEC-Grammar		14.90	9.77	25.60	20.70
DCEC-VS	Experimental group (N = 56)	1.50	1.91	7.91	9.49
DCEC-Grammar		15.40	10.90	37.80	20.80

Effectiveness Evaluation

The effectiveness of the remedial English instruction was measured by comparing the performance of the control and experimental groups on the differences between pre- and post-test scores with respect to the two subtests.

We compared the number of students who improved after the instruction with remedial instruction or regular instruction. The criterion for significant improvement is that the difference between post- and pre-test should be more than 0.5 SD of the groups to which the students belonged. Table 6 demonstrates the improving results of two instructional methods. For DCEC-VS and DCEC-G, the experimental group had a higher rate of improvement than the control group. The Chi-squared test showed that, for the DCEC-VS, the percentages of students who improved were not significantly different between the control (55.74%) and experimental groups (71.43%) ($\chi^2 = 2.45, p = .12$). As to the DCEC-G, the percentages of improved students were significantly different between the two groups ($\chi^2 = 7.48, p < .05$). The control group has fewer students (63.93%) than the experimental group (87.50%).

Table 6

Percentages of students improved in the control and experimental groups on the DCEC subtests

Subtest	Group	<i>n</i>	improved	
			<i>N</i>	%
DCEC-VS	Control group	61	34	55.74%
	Experimental group	56	40	71.43%
DCEC-Grammar	Control group	61	39	63.93%
	Experimental group	56	49	87.50%

In our study, as the students were from different classes and schools, individual student's learning achievement may be influenced by their performance but also classroom context (e.g., teachers and classroom climate) and school context (e.g., principal's leadership style and socioeconomic levels). Considering the students were nested in different classes and schools, the HLM was employed to analyze the differences in the scores of the two subtests in two groups, in which the school factor may be statistically controlled for more robust testing for the differences. The measurement unit in HLM's level-1 model is students, using the post-test scores of students as dependent variables. Pre-test scores and groups are independent variables. The measurement unit in the level-2 model is schools. Table 7 provides the results of HLM analysis for DCEC-VS and DCEC-G. Using the procedure recommended by Lorah (2018), the effect size measure related to variance explained for the DCEC-VS overall model is .16 (medium effect). The effect size measure related to variance explained for the DCEC-G overall model is .47 (large effect) (Cohen, 1992). Taking the DCEC-VS as an example, with one unit increasing in the pre-test score, the post-test score was predicted to increase by 1.18 units. With respect to the two subtests, the significantly positive results in the group variable support that when controlling examinees' pre-test scores, the experimental group achieved higher post-test scores than the control group.

Table 7*HLM results for the post DCEC scores*

Main effect	DCEC-VS		DCEC-Grammar	
	Coefficient	<i>t</i>	Coefficient	<i>t</i>
Constant	3.59		13.15	
Pre-test	1.18	2.36*	1.03	21.97**
Group	2.71	2.56*	9.12	5.08**
Random effect	Variance component	χ^2	Variance component	χ^2
Student-level variance	46.50		281.94	
School-level variance	3.11	11.29*	22.48	13.72**
f^2	.16		.47	

Discussion, Implications, and Conclusions

The current study provided a model of remedial intervention program by delineating how to implement remedial instruction for low-achieving EFL learners at the beginner level. We employed the DCEC to assess English learners' component skills, including vocabulary and grammatical sentence patterns and then utilized the teaching toolkits in the PASSION program for subsequent remediation to enhance their language component skills in vocabulary and grammatical sentence patterns. The results of this study indicate that seventh-graders receiving remedial instruction under PASSION demonstrated better English component skills, including vocabulary and grammatical sentence patterns, compared to students receiving traditional instruction for remediation. The learning outcomes presented in this study could be attributed to two key factors. The two key factors for the learners' component skill development can be discussed from both cognitive and affective perspectives.

Considering that low-achieving learners are generally not equipped with sufficient prerequisite knowledge, the complicated teaching materials used in regular classes with these types of learners would be a cognitive and psychological burden to them. This burden would potentially impede their motivation to learn English. To amend this problem, we selected only four to six vocabulary words and one focal sentence as required learning contents for each class; the quantity and complexity of learning contents are both largely reduced compared to what should be learned in the regular class. Learning contents of this sort seemed to be more approachable and could be absorbed effectively by the majority of low-achieving learners.

In addition to simplifying the learning content and materials, the other feature is that the learning content for low-achieving learners is compiled based on contents currently learned at school and related content previously learned at elementary school. There are two major reasons for establishing the connection between the old and new learning materials. One is that language learning is a continuous and incremental process (e.g., Schmitt, 2010); it is difficult for learners to fully comprehend receiving messages (both in written and spoken form) when lacking the most fundamental vocabulary and sentence patterns taught at the elementary level. The other reason is that most English remedial materials are not linked directly to a version of a textbook adopted by each school. That is, there is little relevance between what students learn in the remedial class and what they learn in the regular class. The lack of connection would lead to learners' poor performance in regular class (e.g., not motivated to participate in class because of the unfamiliar and challenging tasks, not be able to do well on various tests and exams because of different learning contents in remedial class and regular class). As achievement plays an important role in L2 motivation (Lasagabaster, 2011), any potential variables preventing students from accomplishing expected tasks should be avoided.

Moreover, in terms of teaching methods, we attempted to provide a teaching approach by subscribing to the pluralistic view of choosing methods (Larsen-Freeman, 2012), and then, blending appropriate characteristics of different methods to meet low-achieving learners' learning needs.

Regarding vocabulary instruction, we referred to the characteristic underscored by the Audio-lingual method, wherein repetition and habit formation are highlighted. Besides, rather than writing down vocabulary words on the blackboard and using translation to explain each word's meaning, all the vocabulary words were learned through flashcards (BAŞOĞLU & Akdemir, 2010; Tan & Nicholson, 1997) or activities derived from using flashcards. As EFL learners are situated in a learning environment without target language exposure, employing instruments with the function of contextual cues would significantly help students associate meanings of target words. In fact, word cards/flashcards are invaluable aids for helping learners repeat and consolidate words learned before through activities (Hunt & Beglar, 2005). Learners in the experimental group continuously contact target words via various flashcard activities. Repetitive oral/aural drills through flashcards would effectively help the learners form a habit of saying and recognizing target words, and this can be discerned from their performance on the vocabulary posttest.

As for grammatical sentence pattern, in a similar vein, we also highlighted the characteristics of the Audio-lingual method, wherein oral/aural drills and pattern practice were repetitively delivered to develop learners' oral fluency through repetition and imitation (Larsen-Freeman, 2000). In order not to bore learners with complicated grammatical rules containing a lot of linguistic and technical terms, we adopted the inductive approach (Nunan, 2002) to familiarize the students with sounds and utterances of each sentence pattern and to learn how to respond to specific questions in a dialogic form. Besides, using translation is a means for converting learners' aural memories into written formats. Learners in the experimental group were asked to do translation after they received sufficient oral practice in the sentence pattern. Congruent with previous studies (Husain, 1994; Liao, 2006), which argued for the effectiveness of adopting translation as a useful strategy for L2 learning, we also noticed the effectiveness that translation has manifested in the learners' learning process. The results of this study revealed that learners in the experimental group outperformed learners in the control group in the grammatical sentence pattern posttest, and this confirms the effectiveness of teaching methods for grammatical sentence patterns in the PASSION Program.

Last but not least, as previous research (e.g., Dörnyei, 1998, 2009) suggested, motivation is an important factor determining if learners can succeed in their learning process. Therefore, aside from teaching methods delineating principles for developing low-achieving EFL learners at beginning level component skills, we also underscored the significance of engaging students in the class, providing them with opportunities to experience success, and suggesting concrete means for rewarding learners' positive behaviors. By reshaping those low-achieving learners' English learning experiences, they may be intrinsically motivated towards learning English (Noels et al., 2000) and eventually enable them to establish autonomy in their English learning journey (Ushioda, 2006).

We also believe, as explained above, that the three distinct features related to cognitive learning in our remedial program, the standardized teaching procedures in each unit, bridging old and new learning contents, and simplifying learning contents for designing instructional contents and materials of PASSION in vocabulary and grammatical sentence pattern, are potent factors positively influencing learners' affective domain in the learning process. It must be noted that although the participants had received at least four years of instruction before they entered junior high school, their performance on vocabulary and grammatical sentence patterns was far from satisfactory for their learning level, based on the results of the DECE diagnostic report. According to the informal communication with teachers in the experiment, many participants were resistant towards learning English before they started the remedial intervention because of unpleasant learning experiences occurring in elementary school. Possibly, negative emotions such as being anxious, demotivated, or resistant could accompany their subsequent English learning (e.g., Arnold & Brown, 1999; Dörnyei, 2009; Horwitz et al., 1986).

In light of this, while designing content, how to lessen students' anxiety and stimulate their motivation was/ is a major part of our consideration. As mentioned earlier, to avoid students' confusion and uncertainty about what they are going to learn and how to proceed with activities in class, the teaching procedure is standardized in each unit. Establishing learners' familiarity with what is going to take place in class could shorten the distance between learners and learning contents, and thus, lessen their potential anxiety with the learning procedure.

The primary impetus for this study has been our expectation that all learners deserve a quality education, which provides them with appropriate teaching toolkits, as well as a positive and engaging

environment (Papi, 2010). After all, no child should be left behind at the onset of his/her learning. There is abundant research that has offered teaching strategies for assisting English learners in developing different language skills at different learning levels (e.g., Chen et al., 2016; Hao et al., 2019; Tseng et al., 2018). However, a systematic curriculum design underpinning a teaching toolkit for developing low-achieving EFL learners' primary component skills (phonic knowledge, vocabulary, grammatical sentence pattern) is limited. The current study supplements this insufficiency by proposing a remedial program encompassing diagnostic assessment, teaching methods and materials for developing EFL learners' primary component skills, and strategies for engaging and motivating low-achieving learners. The proposed remedial program can serve as a model for practitioners, researchers, curriculum designers, and policymakers to consult.

References

- Abu-Rabia, S., Shakkour, W., & Siegel, L. (2013). Cognitive retroactive transfer (CRT) of language skills among bilingual Arabic-English readers. *Bilingual Research Journal*, 36(1), 61-81. <http://doi.org/10.1080/15235882.2013.775975>
- Alderson, J. C. (2005). *Diagnosing foreign language proficiency: The interface between learning and assessment*. Continuum. <http://doi.org/10.5040/9781474212151>
- Alderson, J. C., & Lukmani, Y. (1989). Cognition and reading: Cognitive levels as embodied in test questions. *Reading in a Foreign Language*, 5(2), 253-270.
- Al-Qahtani, A. A. (2015). The effect of explicit instruction of textual discourse markers on Saudi EFL learners' reading comprehension. *English Language Teaching*, 8(4), 57-66. <http://doi.org/10.5539/elt.v8n4p57>
- Amendum, S. J., Bratsch-Hines, M., & Vernon-Feagans, L. (2017). Investigating the efficacy of a web-based early reading and professional development intervention for young English learners. *Reading Research Quarterly*, 53(2), 155-174. <http://doi.org/10.1002/rrq.188>
- Arnold, J., & Brown, H. D. (1999). A map of the terrain. *Affect in Language Learning*. Cambridge University.
- August, D., Branum-Martin, L., Cárdenas-Hagan, E., Francis, D. J., Powell, J., Moore, S., & Haynes, E. F. (2014). Helping ELLs meet the common core state standards for literacy in science: The impact of an instructional intervention focused on academic language. *Journal of Research on Educational Effectiveness*, 7(1), 54-82. <http://doi.org/10.1080/19345747.2013.836763>
- BAŞOĞLU, E. B., & Akdemir, O. (2010). A comparison of undergraduate students' English vocabulary learning: Using mobile phones and flash cards. *Turkish Online Journal of Educational Technology*, 9(3), 1-7.
- Brown, H. D. (2002). English language teaching in the "post-method" era: Toward better diagnosis, treatment, and assessment. In J. C. Richards & W. A. Renandya (Eds.), *Methodology in Language*

- Teaching: An anthology of current practice* (Approaches and Methods in Language Teaching, pp. 9-18). Cambridge University. <http://doi.org/10.1017/CBO9780511667190.003>
- Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy*. Longman.
- Calhoun, M. B., Otaiba, S. Al., Cihak, D., King, A., & Avalos, A. (2007). Effects of a peer-mediated program on reading skill acquisition for two-way bilingual first-grade classrooms. *Learning Disability Quarterly, 30*(3), 169-184. <http://doi.org/10.2307/30035562>
- Celce-Murcia, M., & Olshtain, E. (2005). Discourse-based approaches: A new framework for second language teaching and learning. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 729-742). Laurence Erlbaum Associates.
- Central Advisory Council for Education (1967). *The plowden report: Children and their primary schools*. Her Majesty's Stationary Office, HMSO. Retrieved <http://www.educationengland.org.uk/documents/plowden/plowden1967-1.html>
- Chang, W. C. (2006). English language education in Taiwan: A comprehensive survey. *Bimonthly Journal of Educational Resources and Research, 69*, 129-144.
- Chao, T.-Y., & Sung, Y.-T. (2019). An investigation of the reasons for test anxiety, time spent studying, and achievement among adolescents in Taiwan. *Asia Pacific Journal of Education, 39*(4), 469-484. <http://doi.org/10.1080/02188791.2019.1671804>
- Chen, H.-C., Chern, C.-L., & Wu, A. M. C. (2016). Becoming reflective readers: A case study of group discussion in reading. *English Teaching and Learning, 40*(1), 1-24. <https://doi.org/10.6330/ETL.2016.40.1.01>
- Chen, S.-L. (2009). *Ruoshi xuetong duxie xiwang gongcheng-kefu xianchang de liaojie yu gsizao*. Psychological Publishing.
- Chen, S., & Tsai, Y. (2012). Research on English teaching and learning: Taiwan (2004-2009). *Language Teaching, 45*(2), 180-201. <http://doi.org/10.1017/S0261444811000577>
- Cheng, S.-Y. (2013). A study on disadvantaged students and remedial teaching. *Educators and Professional Development, 30*(1), 13-26.
- Chu, H.-M., Yu, Y.-Y., Chang, H.-T. A., Ting, L., Yu, C., & Hu, C.-F. (2007). Effectiveness of phonological remediation for children with poor English word reading abilities. *English Teaching & Learning, 31*(4), 85-125.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159. <http://doi.org/10.1037/0033-2909.112.1.155>
- Doff, A. (2000). *Teach English: A training course for teachers* (Vol. 2.). Cambridge University.

- Dörnyei, Z. (1998). Motivation in second and foreign language learning. *Language Teaching*, 31(3), 117-135. <http://doi.org/10.1017/S026144480001315X>
- Dörnyei, Z. (2009). Individual differences: Interplay of learner characteristics and learning environment. *Language Learning*, 59, 230-248. <http://doi.org/10.1111/j.1467-9922.2009.00542.x>
- Dulay, H., Burt. M., & Krashen S. (1982). *Language two*. Oxford University Press.
- Ehri, L. C., Nunes, S. R., Stahl, S. A., & Willows, D. M. (2001a). Systematic phonics instruction helps students learn to read: Evidence from the National Reading Panel's meta-analysis. *Review of Educational Research*, 71(3), 393-447. <https://doi.org/10.3102/00346543071003393>
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghouh-Zadeh, Z., & Shanahan, T. (2001b). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly*, 36(3), 250-287. <http://doi.org/10.1598/RRQ.36.3.2>
- Ehrman, M. E., & Oxford, R. L. (1995). Cognition plus: Correlates of language learning success. *The Modern Language Journal*, 79(1), 67-89. <https://doi.org/10.1111/j.1540-4781.1995.tb05417.x>
- Ellis, N. C. (1994). Implicit and explicit language learning-An overview. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 1-31). Academic.
- Everington, K. (2018, June 1). Many Taipei elementary students score low in English proficiency: NTNU. *Taiwan news*. Retrieved <https://www.taiwannews.com.tw/en/news/3445978>
- Executive Office of the President (2015). *Every student succeeds act: A progress report on elementary and secondary education*. Executive Office of the President. Retrieved https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/ESSA_Progress_Report.pdf
- Gardner, R. C., Tremblay, P. F., & Masgoret, A. M. (1997). Towards a full model of second language learning: An empirical investigation. *The Modern Language Journal*, 81(3), 344-362. <https://doi.org/10.1111/j.1540-4781.1997.tb05495.x>
- Genesee, F. H., Lindholm-Leary, K. J., Saunders, W., & Christian, D. (2005). English language learners in U.S. schools: An overview of research findings. *Journal of Education for Students Placed at Risk*, 10(4), 363-385. http://doi.org/10.1207/s15327671espr1004_2
- Hao, Y., Lee, K. S., Chen, S.-T., & Sim, S. C. (2019). An evaluative study of a mobile application for middle school students struggling with English vocabulary learning. *Computers in Human Behavior*, 95, 208-216. <https://doi.org/10.1016/j.chb.2018.10.013>
- Hinkel, E. (2002). Teaching grammar in writing classes: Tenses and cohesion. In E. Hinkel & S. Fotos (Eds.), *New perspectives on grammar teaching in second language classrooms* (pp. 181-198). Lawrence Erlbaum.

- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125-132. <https://doi.org/10.1111/j.1540-4781.1986.tb05256.x>
- Hu, T.-C., Hsu, Y.-J., & Sung, Y.-T. (2020). Vocabulary size, lexical threshold, and reading comprehension of elementary-school EFL learners. *Journal of Research in Education Sciences*, 65(1), 137-174.
- Hunt, A., & Beglar, D. (2005). A framework for developing EFL reading vocabulary. *Reading in a Foreign Language*, 17(1), 23-59.
- Husain, K. (1994). Translation in the ESL classroom: Emerging trends. *International Journal of Translation*, 1(2), 115-30.
- Ismail, N. M., & Tawalbeh, T. I. (2014). Effectiveness of a metacognitive reading strategies program for improving low achieving EFL readers. *International Education Studies*, 8(1), 71-87. <http://doi.org/10.5539/ies.v8n1p71>
- Jaeger, R. M. (1978). *A proposal for setting a standard on the North Carolina High School Competency Test*. Paper presented at the annual meeting of the North Carolina Association for Research in Education, Chapel Hill.
- Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Researcher*, 35(7), 3-12. <https://doi.org/10.3102/0013189X035007003>
- Lamb, M. (2012). A self-system perspective on young adolescents' motivation to learn English in urban and rural settings. *Language Learning*, 62(4), 997-1023. <http://doi.org/10.1111/j.1467-9922.2012.00719.x>
- Larsen-Freeman, D. (2000). *Techniques and principles in language teaching*. Oxford University Press.
- Larsen-Freeman, D. (2012). From unity to diversity: Twenty-five years of language-teaching methodology. *English Teaching Forum*, 50(2), 28-38.
- Larsen-Freeman, D., & Anderson, M. (2013). *Techniques and principles in language teaching 3rd edition-Oxford handbooks for language teachers*. Oxford University.
- Lasagabaster, D. (2011). English achievement and student motivation in CLIL and EFL settings. *Innovation in Language Learning and Teaching*, 5(1), 3-18. <http://doi.org/10.1080/17501229.2010.519030>
- Lee, J.-T. (2002, September 28). *Qiong hai zi yi shang guo zhong jiu fang qi ying wen*. United News. <http://erdos.csie.ncnu.edu.tw/~rctlee/article/910928.htm>
- Liao, P. (2006). EFL learners' beliefs about and strategy use of translation in English learning. *RELC Journal*, 37(2), 191-215. <http://doi.org/10.1177/0033688206067428>

- Lin, F.-Y., & Cheng, C.-K. (2008). The combined effects of the keyword method and phonics instruction on 5th graders' English vocabulary learning in Taiwan. *English Teaching & Learning, 32*(3), 71-114.
- Lorah, J. (2018). Effect size measures for multilevel models: definition, interpretation, and TIMSS example. *Large-scale Assess Educ, 6*, 1-11. <http://doi.org/10.1186/s40536-018-0061-2>
- Lucas, T., Villegas, A. M., & Freedson-Gonzalez, M. (2008). Linguistically responsive teacher education: Preparing classroom teachers to teach English language learners. *Journal of Teacher Education, 59*(4), 361-373. <http://doi.org/10.1177/0022487108322110>
- Makulloluwa, E. (2013). Code-switching by teachers in the second language classroom. *International Journal of Arts & Sciences, 6*(3), 581-598.
- Ministry of Education (2012). Enforcement Directions Regarding Subsidies from the K-12 Education Administration in the Ministry of Education to the Municipalities, County (City) Governments to Provide Remedial Instructions. K-12 Education Administration. <https://edu.law.moe.gov.tw/LawContent.aspx?id=GL001731>
- Nassif, P. M. (1978, March). *Standard setting for criterion-referenced teacher licensing tests*. Paper presented at the annual meeting of the National Council on Measurement in Education, ON, Toronto, Canada.
- Nation, P. (2003). The role of the first language in foreign language learning. *Asian EFL Journal, 5*(2), 1-8.
- Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2000). Why are you learning a second language? Motivational orientations and self-determination theory. *Language Learning, 50*(1), 57-85. <http://doi.org/10.1111/0023-8333.00111>
- Nunan, D. (2002). Learner strategy training in the classroom: An action research study. In J. Richards & W. Renandya (Eds.), *Methodology in Language Teaching: An anthology of current practice* (Approaches and Methods in Language Teaching, pp. 133-144). Cambridge University. <http://doi.org/10.1017/CBO9780511667190.019>
- Olson, C. B., Matuchniak, T., Chung, H. Q., Stumpf, R., & Farkas, G. (2017). Reducing achievement gaps in academic writing for Latinos and English learners in grades 7-12. *Journal of Educational Psychology, 109*(1), 1-21. <http://doi.org/10.1037/edu0000095>
- O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Russo, R. P., & Küpper, L. (1985). Learning strategy applications with students of English as a second language. *TESOL quarterly, 19*(3), 557-584.
- Papi, M. (2010). The L2 motivational self-system, L2 anxiety, and motivated behavior: A structural equation modeling approach. *System, 38*(3), 467-479. <http://doi.org/10.1016/j.system.2010.06.011>

- Prator, C. H., & Celce-Murcia, M. (1979). An outline of language teaching approaches. In M. Celce-Murcia & L. McIntosh (Eds.), *Teaching English as a Second or Foreign Language* (pp. 3-5). Newbury House.
- Purpura, J. (2004). *Assessing grammar*. Cambridge University.
- Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). Sage Publications.
- Rimm, S. B. (1997). An underachievement epidemic. *Educational Leadership*, 54(7), 18-22.
- Schmitt, N. (2008). Review article: Instructed second language vocabulary learning. *Language Teaching Research*, 12(3), 329-363. <http://doi.org/10.1177/1362168808089921>
- Schmitt, N. (2010). *Researching vocabulary: A vocabulary research manual*. Palgrave Macmillan .
- Shaffer, C. (1989). A comparison of inductive and deductive approaches to teaching foreign languages. *The Modern Language Journal*, 73(4), 395-403.
- Shen, H. J. (2003). The role of explicit instruction in ESL/EFL reading. *Foreign Language Annals*, 36(3), 424-433. <https://doi.org/10.1111/j.1944-9720.2003.tb02124.x>
- Smith, T., & Smith, G. (1975). Educational priority areas: Options in a no or low growth economy. *Education 3-13*, 3(2), 89-94. <http://doi.org/10.1080/03004277508558810>
- Spector, J. E. (1995). Phonemic awareness training: Application of principles of direct instruction. *Reading & Writing Quarterly: Overcoming Learning Difficulties*, 11(1), 37-51. <http://doi.org/10.1080/1057356950110104>
- Sung, Y.-T., Chao, T.-Y., & Tseng, F.-L. (2016). Reexamining the relationship between test anxiety and learning achievement: An individual-differences perspective. *Contemporary Educational Psychology*, 46, 241-252. <https://doi.org/10.1016/j.cedpsych.2016.07.001>
- Sung, Y.-T., Tseng, F.-L., Kuo, N.-P., Chang, T.-Y., & Chiou, J.-M. (2014). Evaluating the effects of programs for reducing achievement gaps: A case study in Taiwan. *Asia Pacific Education Review*, 15(1), 99-113. <http://doi.org/10.1007/s12564-013-9304-7>
- Tan, A., & Nicholson, T. (1997). Flashcards revised: Training poor readers to read words faster improves their comprehension of text. *Journal of Educational Psychology*, 89(2), 276-288. <http://doi.org/10.1037/0022-0663.89.2.276>
- Tomlinson, C. A., Moon, T., & Imbeau, M. B. (2015). *Assessment and student success in a differentiated classroom*. Association for Supervision and Curriculum Development.
- Tseng, F.-L., Chung, C.-H., Chen, S.-Y., & Chang, M.-C. (2018). Development and implementation of a standardized junior high school classroom literacy assessment: English reading comprehension as

- an example. *Journal of Research in Education Sciences*, 63(4), 119-155. [http://doi.org/10.6209/JORIES.201812_63\(4\).0005](http://doi.org/10.6209/JORIES.201812_63(4).0005)
- U.S. Department of Education (2002). *No child left behind: A desktop reference*. the Office of the Under Secretary. <https://www2.ed.gov/admins/lead/account/nclbreferenc/reference.pdf>
- Ushioda, E. (2006). Language motivation in a reconfigured Europe: Access, identity, autonomy. *Journal of Multilingual and Multicultural Development*, 27(2), 148-161. <http://doi.org/10.1080/01434630608668545>
- Vaughn, S., Gersten, R. M., & Chard, D. J. (2000). The underlying message in LD intervention research: Findings from research syntheses. *Exceptional Children*, 67(1), 99-114.
- Widodo, H. P. (2006). Approaches and procedures for teaching grammar. *English Teaching: Practice and Critique*, 5(1), 122-141.

收 稿 日 期：2020 年 03 月 10 日
一稿修訂日期：2020 年 03 月 11 日
二稿修訂日期：2020 年 04 月 27 日
接受刊登日期：2020 年 04 月 29 日

國立臺灣師範大學教育心理與輔導學系
教育心理學報，2020，51 卷，4 期，687-711 頁

補救教學計畫對以英語為外語的低成就初階學習者之成效*

胡翠君

國立臺灣師範大學
通識教育中心暨華語文與科技研究中心

許嫻茹

國立臺灣師範大學
學習科學跨國頂尖研究中心、
心理與教育測驗研究發展中心

縮小學習成就落差，以及如何最大化教學效能一直是廣泛討論的議題。然而，針對以英語為外語（EFL）的低成就初階學習者，所需擬定系統化補救教學的組成要素及其成效之相關研究卻很有限。有鑑於此，本研究提出一補救教學計畫，針對 EFL 低成就學習者的詞彙和文法句型做教學介入，並提供此教學介入在教材教法、教學流程、教學活動設計以及促進學習者參與等方面的特色做法。本研究參與者為來自臺灣 6 所國中的 11 位教師和 567 位七年級學生，567 名學生皆接受英語文能力認證及診斷系統（DCEC）的詞彙量和文法句型測驗作為前測，根據測試結果，將 117 名在兩子測驗中皆未達到國小四年級程度的學生分為實驗組和對照組，實驗組（ $N = 56$ ）接受實驗教學模組，而對照組（ $N = 61$ ）則接受傳統教學。本研究結果顯示，接受補救教學配套的實驗組學生在詞彙和文法句型的表現較佳。本研究為 EFL 低成就學習者所需之補救教學配套，提供一示範模組，此模組可供研究者、課程設計者，以及政策擬定者做為參考。

關鍵詞：成就落差、低成就英語學習者、英語教學介入、補救教學、補救教學計畫

*本文通訊作者：胡翠君，通訊方式：tsuichunhu@gmail.com。

