

Is the Communicative Language Teaching Approach More Effective Than the
Grammar Translation Method at Teaching the *Ba*-Construction in Mandarin
Chinese to American Undergraduate Students?

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ABSTRACT

Extensive research on second language teaching has been conducted on teaching English, other European languages or Chinese as a second language, but no quantitative study exists comparing the effectiveness of Communicative Language Teaching Approach (CLT) with that of Grammar Translation Method (GT) at teaching Chinese as a foreign language (CFL). The present study fills this gap. The purpose of this study is to investigate quantitatively which method is more effective at teaching the *ba*-construction in Mandarin Chinese to American CFL learners, CLT or GT. Sixty American students from introductory Chinese course at the University of Georgia (UGA) were given the opportunity to sign up for one of two classes to learn about the *ba*-construction. During one of the classes, thirty students learned under GT approach; during the other class, the remaining thirty students learned under CLT approach. The students, prior to signing up, were not aware of the method that would be used in their course. All students were tested before and after the course on three linguistic measures: Oral Production, Translation, and Meta-linguistic Awareness based on the *ba*-construction, and were scored on both occasions. A group of thirty Chinese students were also tested on the three measures but post-tested only and classroom teaching was unnecessary. They were included as reference group, not a “typical” control group. One-Way ANCOVA was conducted in SPSS. Pretest scores were entered into data analysis as covariates to control for possible pre-existing differences among the participants. Findings of this study showed that GT is statistically more effective than CLT at developing translation skills regarding the *ba*-construction. But this study produced no evidence regarding the superiority of GT or CLT at developing oral production skills or raising meta-linguistic awareness regarding the *ba*-construction, though both methods did appear to be highly significantly effective from pretests to posttests. This study has rich pedagogical implications and suggests meaningful directions for future studies on CFL instruction.

DEDICATION

I dedicated this dissertation to my parents, Hongru Wang and Shumei Hao. They were my life-long mentors, guiding me in both my life and my study. They brought me up, offering me the best life and education they could. They did all they could to make it possible for me to take the academic path. Most importantly, they taught me how to be a man of integrity. I am blessed to have them as my parents.

I dedicated this dissertation to my husband, Zhongyuan Zhou. He offered me substantial help throughout the whole process of my doctoral studies. He not only provided me with continued financial support, but also offered me academic comments and suggestions. He created a family environment that was as good as possible for me to focus on the writing and ensured me as much time as I needed. Moreover, he offered emotional support to me. At every trying moment, he was there for me, accompanying me, sharing my tears and joys and encouraging me to move on. His enduring love, profound understanding and unyielding support went far beyond words. Without his loving care and strong support, the completion of this dissertation is absolutely impossible. My deep gratitude goes to this great man in my life.

I dedicated this dissertation to my daughter, Baoqing Zhou, who loved me dearly, encouraged me constantly, and helped me timely. Her encouragement and help has always been with me. My daughter is the very sources of my strength and hope during the journey. She is such a blessing to me that I can never thank God enough for giving me such a good daughter. My deep gratitude goes to this wonderful young lady.

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CHAPTER 1: INTRODUCTION

This chapter introduces the background, purpose, and significance of the study, and proposes research questions and hypotheses as well as variables.

Background of the Study

Communicative language teaching approach

Communicative Language Teaching Approach, or the communicative approach, is a language teaching approach that emphasizes interaction as both the means and the ultimate goal of study. Its origin can be traced back to the increased demands for language learning created by a series of concurrent developments in Europe and North America in the 1960s (Mitchell, 1994; Richards & Rodgers, 2001; Savignon, 2000; Whong, 2011). Ever since it was developed, CLT “has been hailed as revolutionary” (Whitley, 1993) to foreign language teaching and learning. Studies on this approach spawned, providing general introduction and origin (Littlewood, 1981; Yalden, 1981; Liao, 1997), reviewing its assumptions, principles and practice (Richards, 1983, 2005; Shi, 1997; Canale & Swain, 1979), examining its advantages and disadvantages (Karavas-Doukas, 1996), proposing theoretical frameworks and discussing its implications for second language teaching and testing (Canale & Swain, 1981; Willems, 1984; Savignon, 1972, 1976), describing curriculum and syllabus design or teachers’ training (Hoekje & Williams, 1992; Savignon, 1987; Swan, 1985; Mangubhai, Marland, Dashwood & Son, 2007), as well as identifying problems and prospects and making suggestions on how to apply it to classroom settings (Brumfit, 1986, 1982; Nunan, 1987; Whitley, 1993; Liao, 2000; Dolle & Willems, 1984).

In the past two decades, more and more Chinese educators made specific studies, exploring the possibility of applying communicative approach to teaching English as a Foreign Language (EFL) context in China and suggesting ways to make a class communicative (Yu, 2001; Hui, 1997; Sun & Cheng, 2002; Hu, 2010; Li, 2011; Liao, 2004). Some American specialists made similar attempts (e.g. Anderson, 1993; Hird, 1995).

However, the majority of these studies focused on principles and practice of CLT approach to second language instruction on *theoretical bases*; only a limited number of studies were found examining the effectiveness of its implementation to actual classroom teaching. For example, in her doctoral study, Spangler (2009) compared the effectiveness of CLT with that of TPRS (Teaching Proficiency through Reading and Storytelling) at helping beginning-level students learning Spanish as a foreign language. Study results from her independent samples *t*-test indicated that students receiving TPRS methodology of instruction statistically outperformed the students receiving CLT methodology of instruction with speaking fluency. A few other studies measured whether beginning foreign language classes are more communicative now than they were 17 years ago by looking at the types and amounts of speaking activities in two beginning foreign language classes (Rollman 1994), whether communicative instruction enhanced postsecondary learning of classical language (Overland, Fields & Noonan, 2011), or what made good communicative English language teaching by observing six undergraduate lessons (Holliday, 1997).

Yet, these studies were primarily geared toward applying communicative approach to teaching English or other European languages as a foreign language. Studies on applying communicative approach to CFL teaching were rare (Chen, 2006).

Grammar translation method

Grammar Translation Method, or the traditional approach, is a method of teaching foreign languages, derived from the classical method of teaching Greek or Latin in the early 1500s when Latin was the most widely-studied foreign language due to its prominence in government, academia, and business. The primary goals of this method were to prepare students to translate classical literature and to develop students' general mental discipline (Richards & Rodgers, 2001). GT was the standard way languages were taught in schools from the 17th to the 19th century. It was first introduced to teach modern languages in public schools in Prussia at the end of eighteenth century (Howatt, 1984; Rivers, 1981), and was the dominant mode of grammar instruction from the late eighteenth to the early twentieth century (Lally, 1998). "Grammar Translation Method was used well into the twentieth century as the primary

method for foreign language instruction in Europe and the United States, but it had received challenges and criticism for many years” (Zimmerman, 1997, p.6) . For example, Hammond (1988) argued against grammatical accuracy hypothesis. He compared test results of second-language students taught by Krashen's Natural Approach with those taught by GT and concluded that there was no advantage in using the traditional method.

GT was challenged by proponents of second language teaching approaches and methods, initially the direct approach and the reading approach, and then, the audio-lingual method (ALM) and the cognitive method. Later, controversial methods including Total Physical Response, the Monitor Model, the Natural Approach, Silent Way, and Community Language Teaching were developed (Lally, 1998; Richards & Rodgers, 2001). GT was criticized due to its insufficiency in developing communicative competence over the past twenty years. Some language specialists and educators maintained that GT was unable to accommodate the needs in second language teaching and thus advocated a shift from GT to communicative, task-oriented approach (e.g. Aili, 1998; Allsopp, 1995; Whyte, 2011).

In recent years, GT is no longer holding a central place in second language instruction as it did and CLT is gaining popularity because it focuses on developing communicative competence. Although GT lost popularity as a method in some foreign language classrooms, it is still considered a good method for individuals who want to be translators and are not concerned with the knowledge of how to speak the target language. It is also used in many EFL settings where students like a teacher-centered method that includes the intensive study and memorization of grammar rules and vocabulary (Sapargul & Sartor, 2010). For instance, many Asian students and nonnative EFL instructors actually prefer GT because it fits their culture mores (Amengual-Pizarro, 2007; Chen, 2003; Savignon & Wang, 2003). Some recent studies showed that GT is an effective method in helping ESL (English as a second language) students understand fully grammar points and reading materials, acquire and retain new vocabulary, and recognize the importance of accuracy for successful writing (e.g. Nam, 2010; Castro, 2010; Kim, 2011).

Combination of CLT and GT

Previous studies conducted on CLT and GT examined the effectiveness of these two approaches in second language instruction and showed that grammar-based and communicative approaches were not opposed to each other but often complementary. It was suggested that, in order to gain better teaching results, it would be better to balance explicit and implicit grammar instruction within meaningful, authentic and communicative context, combine them together and use them flexibly in second language teaching. Guidelines were offered, models were proposed, and lesson plans were created for combining communicative techniques with techniques of grammar translation or infusing the former into the latter in ESL classroom (Kirkpatrick, 1985; Jones, 1995; Weschler, 1997; Zeng, 2004; Li & Song, 2007; Hu 2010; Sapargul & Sartor, 2010).

Methodologically, most of these previous studies used surveys, questionnaires, interviews, and/or classroom observations to collect data, so they yielded only qualitative information. Moreover, these studies were conducted on teaching English or other European languages as a second language, not focused on comparing the effectiveness of CLT with that of GT at CFL teaching. Only one study (He, 1995) was found comparing these two approaches in CFL teaching but it was a qualitative study. As a result, no quantitative study exists comparing the effectiveness of CLT with that of GT at CFL teaching. The present study fills this gap.

Statement of the Problem

While previous studies made on the implementation of CLT and/or GT have shed light on the acquisition of a certain target language, the results of those studies on the teaching of other foreign languages might not apply to the teaching of Chinese for three reasons.

First, Chinese has a unique tone system. Mandarin Chinese is a tonal language that has four basic lexical tones on every stressed syllable. Tones differentiate the meanings of individual characters, which can be either morphemes or words (Chao, 1968; Li & Thompson, 1989; Chandrasekaran, Krishnan & Gandour, 2007). It is commonly thought that Mandarin tones are difficult for American learners to

acquire (Kiriloff, 1969; Bluhme and Burr, 1971; Shen, 1989). Since English and Chinese differ in their pitch patterns, distributions, and functions (Chen, 1974; White, 1981), learning the Chinese tone system has been a major challenge to American CFL learners (Liu, Wang, Perfetti, Brubaker, Wu, et al, 2011). Some second language teaching specialists made a series of acoustic studies on helping American learners to perceive Mandarin tones (Wang, Jongman & Sereno, 1998, 2001, 2003; Wang, Spence, Jongman, & Sereno, 1999). These language specialists believe that “The difficulty in learning Mandarin Chinese is often attributed to the fact that it is a tonal language” (Lundelius, 1992). For example, the third tone proved to be the greatest problem for American and European learners (Liang & Guo, 2008; Chen, 1973), “the low falling aspect of the half third tone being particularly difficult for them to control” (Shi, 2007). Moreover, there is tone sandhi in Chinese. Take the character ‘不’ (meaning ‘not’ in English) and “一” (meaning ‘one’ in English) for example, their tones are changed depending on the tone of the character that follows them. These and other special tone features are hard for CFL learners to acquire.

Second, Chinese has a unique written system in which meanings are conveyed through the graphic shapes of the characters. Learners who have little or no previous exposure to Chinese characters can often deduce the meaning of a character on the basis of their interpretation of the graphic shape of the character. Because of this, it seems that a beginner learning Chinese as a second language (CSL) may well resort to visual impression to recognize Chinese characters. Yet this is not always the case.

“Recognizing Chinese characters sometimes involves a whole graphic unit, and sometimes involves rule-governed decoding strategies (Li & Lee, 2006).” Experimental research provides ample evidence that three elements are involved in the cognitive process of recognizing Chinese characters: visual image, sound, and meaning in a character, and that visual image is always the first element to be stimulated (Li & Lee, 2006). Li & Lee, after explained this necessity, discussed why and how knowledge about the graphic shapes of characters is essential to stimulating the other two elements – sound and meaning – in the cognitive process. They found it important to systematically and selectively introduce the etymologies of certain characters to CSL learners so as to avoid difficulties and confusions caused by polysemous

graphemes, approximate characters, phonetic loan-characters, and mutilated characters. Hence, character learning may pose a challenge to CFL learners.

Third, Chinese has some unique grammatical structures that are not found in other languages. A typical example is the *ba*-construction, the most complex grammatical structure in Chinese. *Ba* takes preverbal position and causes the object-front change in a regular sentence; a *ba*-sentence may convey disposal, causal, or resultative meaning (Wang, 1945; Talmy, 1976; Ye, 2004; Gao, 1997); the complement in the *ba*-construction may indicate a location, a state, a direction, or frequency in terms of the verb-complement relationship in this complex construction. The matrix verb possesses aspectual properties and needs different aspect markers so follows certain rules when it occurs with *ba* (Cheng, 1988; Liu, 1997). The *ba*-construction also manifests topic-prominent features. This construction is unique probably because “no similar construction has been found in any other Language in the world” (Li & Thompson, 1989; Tsao, 1987a, 1987b).

It can be seen, from the above review, that, due to the uniqueness of Chinese language, CFL teaching could be very different from teaching other languages. Specific classroom techniques are required for developing four language skills in using Chinese. Therefore, the fact that results of previous studies in the field of second language acquisition help learners of other languages does not necessarily mean that they help learners of Chinese.

Purpose of the Study

The purpose of this study is to investigate, through quantitative means, which instructional approach is more effective at teaching the *ba*-construction in Mandarin Chinese to American CFL undergraduate students, Communicative Language Teaching Approach or Grammar Translation Method.

Previous studies reviewed in the Background section indicate that CLT and GT have different goals in second language instruction, that their techniques are complementary, and that combination of the techniques of these two methods is likely to produce better teaching effect. This study isolated CLT

from GT and explored which method is more effective in developing what language skills in American CFL undergraduate students.

Significance of the Study

The significance of this study is threefold. First, it provides instructors of Chinese with information on effective methods for teaching the *ba*-construction, the most complex grammatical structure in Mandarin Chinese, to American undergraduate students. They will see which teaching method better facilitates production of *ba*-sentences among native English-speakers. If learners produce more *ba*-sentences with one treatment than with the other, in what aspects of linguistic skills are they more productive? Secondly, this study also contributes to CFL teaching in general. Linguistic competence and communicative competence play key roles in CFL acquisition, a better understanding of what instructional approach facilitates development of what competence is of crucial importance for CFL instruction. Instructors of Chinese may benefit from the findings of this study by making wise decisions to tailor methods to student needs so as to attain better effect in CFL teaching. Thirdly, this study may motivate second language acquisition researchers to pursue research on method-comparison, specifically comparing CLT with GT in CFL instruction and thus provide CFL instructors with valuable information for practical teaching. Therefore, this study has both pedagogical significance and research significance for CFL instruction.

Research Questions

Based on the purpose of this study, the two theoretical frameworks of the study, and the needs of CFL instruction, three research questions were proposed, with each focused on inter-method exploration.

1. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of oral production as shown in Figure 1.1, the Communicative Language Teaching Approach or the Grammar Translation Method?

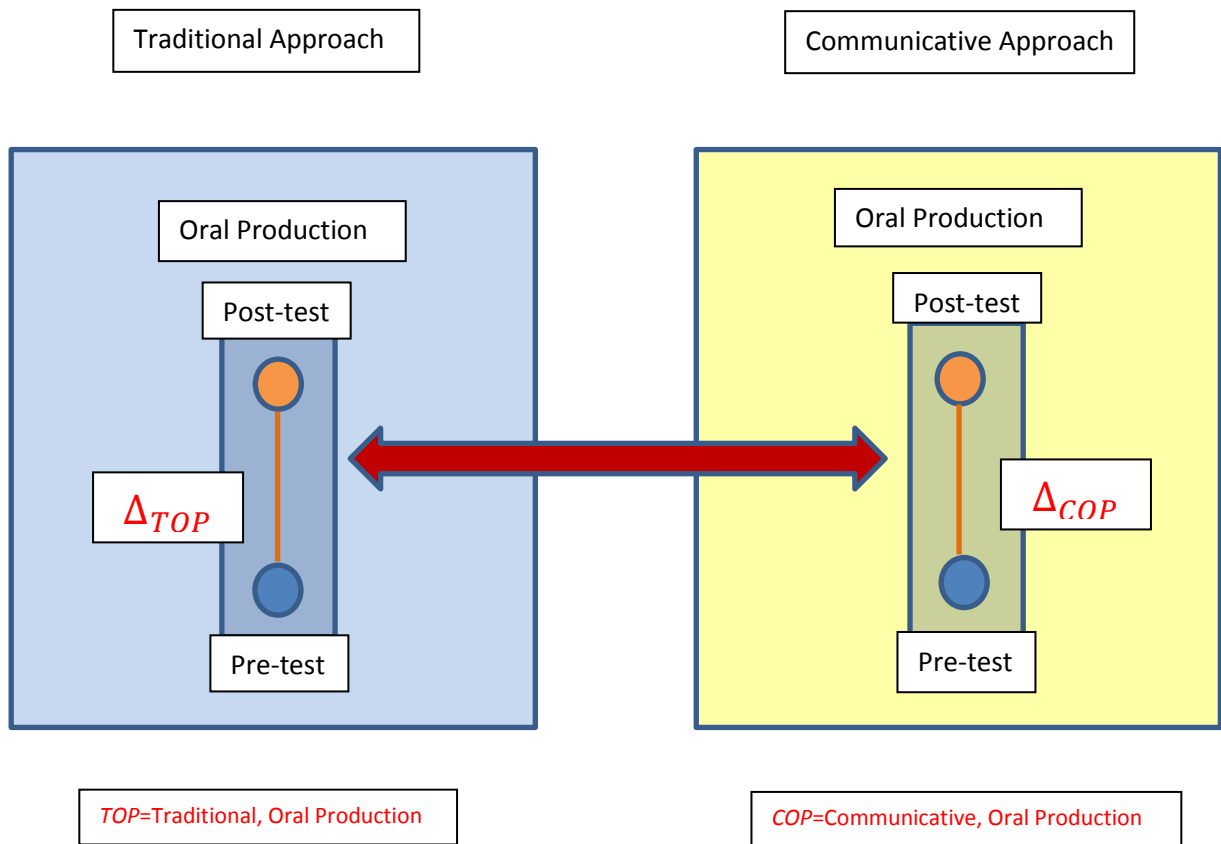


Figure 1.1 Possible Effects of GT and CLT on Oral Production

2. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of translation as shown in Figure 1.2, the Communicative Language Teaching Approach or the Grammar Translation Method?

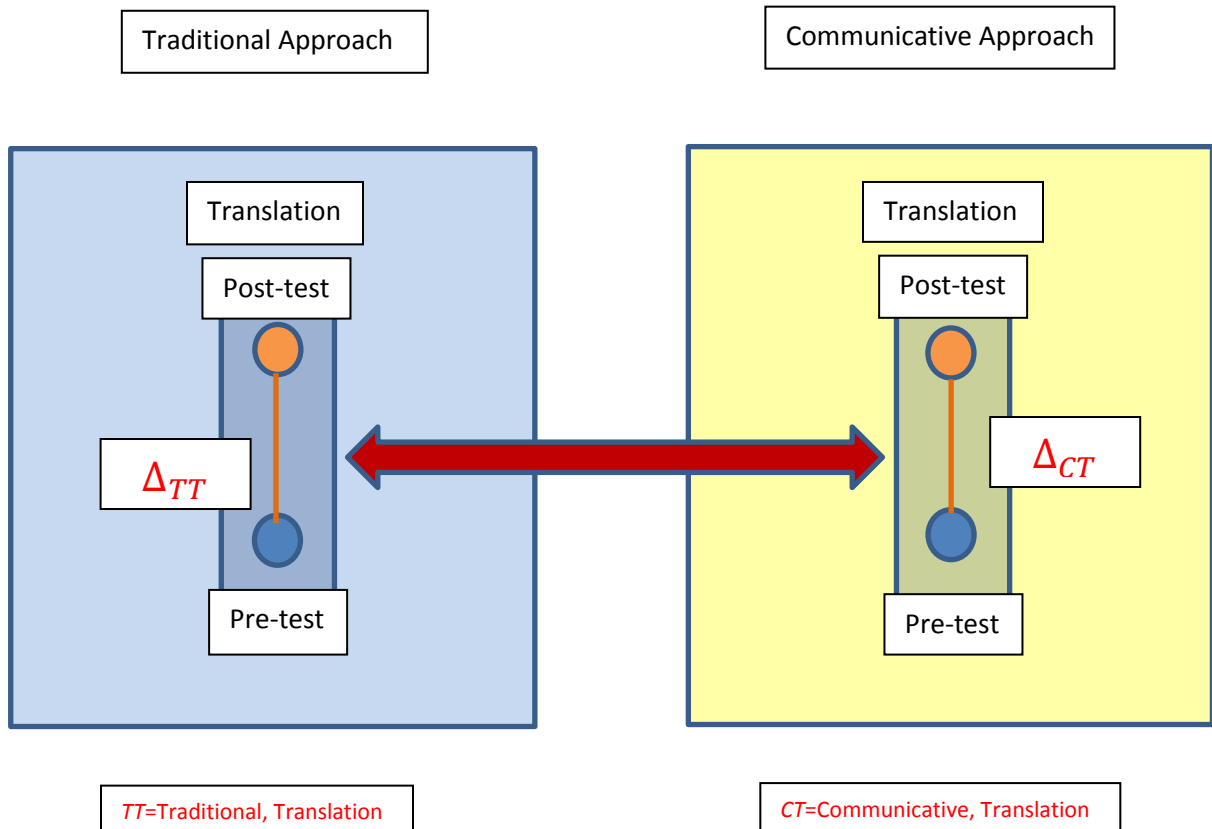


Figure 1.2 Possible Effects of GT and CLT on Translation

3. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of meta-linguistic awareness as shown in Figure 1.3, the Communicative Language Teaching Approach or the Grammar Translation Method?

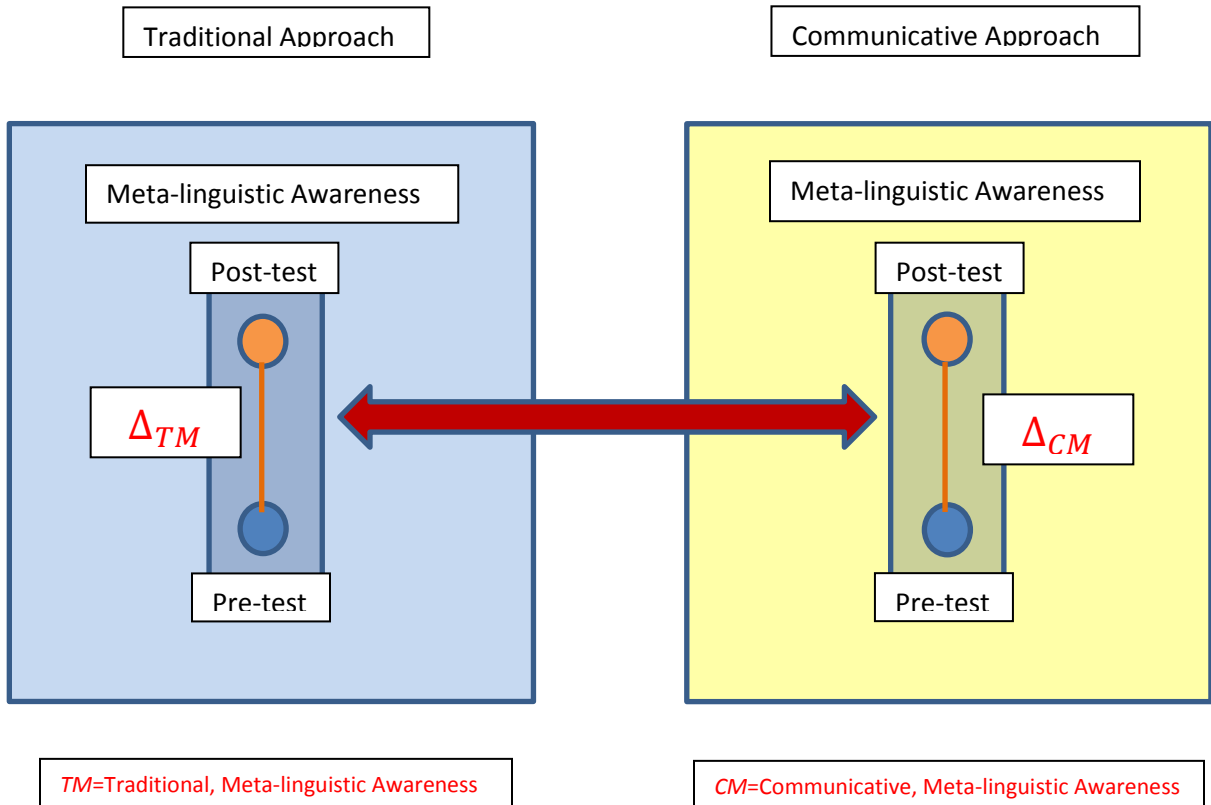


Figure 1.3 Possible Effects of GT and CLT on Meta-linguistic Awareness

Hypotheses

Two hypotheses were proposed in this study:

1. The Grammar Translation Method is more effective than the Communicative Language Teaching Approach at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of translation.
2. The Communicative Language Teaching Approach is more effective than the Grammar Translation Method at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of oral production.

The hypotheses were proposed based on the two theoretical frameworks of this study: Grammar Translation Method and Communicative Language Teaching Approach (See Chapter 2). Statistically, this means that participants in Communicative Group would have more significant test results on Oral Production Experiment than participants in Traditional Group while participants in Traditional Group would have more significant test results on Translation Experiment than participants in Communicative Group. This seems reasonable because communicative teaching is aimed at developing communicative competence like listening and speaking in learners while traditional teaching focuses on linguistic competence like reading and translating. The two hypotheses correspond to the research questions.

Variables

The independent variable for the present study was teaching method with two levels: the Communicative Language Teaching Approach and the Grammar Translation Method. The dependent variables were test scores with three levels: Oral Production posttest scores, Translation posttest scores, and Meta-linguistic Awareness posttest scores. The covariates were pretest scores with three levels: pretest scores on Oral Production, pretest scores on Translation, and pretest scores on Meta-linguistic Awareness. The covariates were used to adjust the posttest scores based on the pretest scores so that the pre-existing group differences could be controlled for.

Summary

Extensive research has been conducted on Communicative Language Teaching Approach and/or Grammar Translation Method in the field of foreign language instruction over the past 30 years and significant results were yielded on implementation of one teaching approach or the other. However, most of previous studies on these two approaches focused on learning and teaching English or other European languages as a second language. Only few studies focused on comparing the effectiveness of CLT with that of GT at CFL teaching. Yet such studies used qualitative means to collect data. As a result, no quantitative study exists comparing the effectiveness of one with that of the other in CFL teaching. The present study is aimed at investigating these two instructional approaches and examining, through quantitative means, which instructional approach is more effective at teaching Chinese as a foreign language to American undergraduate students.

CHAPTER 2: LITERATURE REVIEW

This chapter covers clarification of three terms and literature review of Communicative Language Teaching Approach, Grammar Translation Method, comparison of features of the two teaching methods, some empirical studies comparing CLT with GT, ACTFL's National Standards for Foreign Language Learning, PACE Model, some representative studies on acquisition of the *ba*-construction, and constraints on the *ba*-construction involved in this study.

Clarification of Terms

Three terms are essential to the theoretical frameworks of this study. They are approach, method, and technique. There is a hierarchy about these three terms: Approach > Method > Technique. According to Anthony and Richards & Rodgers (Anthony, 1963; Richards & Rodgers, 2001), "Approach is a set of assumptions dealing with the nature of language teaching and learning. It is axiomatic and describes the nature of the subject matter to be taught. Method is an overall plan for the orderly presentation of language materials, no part of which contradicts, and all of which is based upon, the selected approach. An approach is axiomatic, a method is procedural. A technique is implementational, which actually takes places in the classroom. They are consistent with a methods, and therefore in harmony with an approach as well." Therefore, the term "approach" and the term "method" are interchangeable in this study.

Communicative Language Teaching Approach

Origin and development

The Communicative Language Teaching, also known as Functional Approach, is usually used to refer to a broad approach to the teaching of CSL or CFL that is aimed at communicative competence. Rich theories on CLT have been established (Hymes, 1967, 1972; Savignon, 1976; Canale & Swain, 1980; Canale, 1983; Bachman, 1990; Brown, 2000; Celce-Murcia, Dörnyei & Thurrell, 1997), and lots of studies were made under the theories. CLT has been seen as a response to ALM that can be described

with the principal foreign language learning theory of “habit formation” (Frey, 1968), and as an extension or development of the notional-functional syllabus. CLT owes its origin to two factors: the language needs in Europe and the diversity of linguistic theories. In the 1960s, there was an increased demand for language learning in Western Europe. The advent of the European Common Market led to widespread European migration, and consequently a large population of migrants needed to learn a foreign language for work or for personal reasons (Richards & Rodgers, 2001). With the introduction of comprehensive schools in 1965, a broader range of curriculums were provided to all children without selection either due to financial considerations or academic achievement, so more and more children had opportunity to study foreign languages in secondary schools. In the late 1960s and 1970s, traditional assumptions and teaching methods such as grammar-translation were greatly challenged by schoolchildren who were less academically able and by adult learners who were busy with work. This increased demand put pressure on educators to change their teaching methods. Educators realized that to motivate these students, an approach with a more immediate payoff was necessary. The trend of progressivism in education provided a further pressure for educators to change their methods (Mitchell, 1994). Progressivism holds that active learning is more effective than passive learning (Whong, 2011) and as this idea gained traction in schools there was a general shift towards using techniques where students were more actively involved, such as group work. Foreign language education was no exception to this trend, and teachers sought to find new methods that could better embody this shift in thinking.

The term of Communicative Competence was developed by Hymes (1966, pp114-158) in reaction to of Noam Chomsky’s concept of the linguistic competence of an ideal native speaker:

“Linguistic theory is concerned primarily with an ideal speaker—listener in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitation distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance” (Chomsky, 1965).

Hymes criticized Chomsky's abstract notion on linguistic competence as being too limited and pointed out that Chomsky's rule-governed creativity did not include the social and functional roles of language. He maintained that:

“.....a normal child acquires knowledge of sentences, not only as grammatical, but also as appropriate. He or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner. In short, a child becomes able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others. This competence, moreover, is integral with attitudes, values, and motivations concerning language, its features and uses, and integral with competence for, and attitudes toward, the interrelation of language with the other code of communicative conduct [viz. social interaction] (Hymes 1972: 277-278)

Hymes stated that a normal child acquires knowledge of sentences, not only as grammatical but also as appropriate. To address Chomsky's abstract notion of competence, Hymes undertook ethnographic exploration of communicative competence and include “communicative form and function in general relation to each other” (Leung, 2005). The theory Hymes (1967, 1972) proposed had four elements: possibility--grammaticality; feasibility--semantic acceptability; appropriateness--context sensibility; performance--execution delivery. Thus, communicative competence referred to a language user's grammatical knowledge of syntax, morphology, phonology and the like, as well as social knowledge about how and when to use utterance appropriately.

Campbell and Wales also perceived inadequacy in Chomsky's distinction between *competence* and *performance*. They found that Chomsky's competence associated exclusively with knowledge of grammatical rules and thus failed to consider the appropriateness of social-cultural significance of an utterance in the situational and verbal context in which it is used. To them “by far the most important

linguistic ability is that of being able to produce or understand utterances which are not so much grammatical but, more important, appropriate to the context in which they are made” (Campbell & Wales 1970 p. 247).

Thus communicative competence was developed as a contrast to Chomsky’s linguistic competence (Acar, 2005). Hymes, and Campbell and Wales extended the notion of linguistic competence to include the contextual and sociolinguistic competence. Communicative competence redefined what it meant to “know” a language. In addition to speakers having mastery over the structural elements of language, according to communicative competence they must also be able to use those structural elements appropriately in different social situations (Savignon, 2000). Hymes did not make a concrete formulation of communicative competence, but subsequent authors tied the concept to language teaching, notably Brown H. Douglas, and Canale and Swain.

Brown (Brown, 2000) offered a nice description of the evolution of communicative competence. In the 1970s, research on communicative competence distinguished between linguistic and communicative competence (Hymes, 1967; Paulson, 1974) to highlight the difference between knowledge about language forms and knowledge that enables a person to communicate functionally and interactively. Thirteen years after Hymes proposed his Communicative Competence Theory, Canale and Swain (1980) carried out seminal work on defining communicative competence, proposed a three-component framework for communicative competence, and Canale (1983) later extended the construct to four different components: grammatical competence--words and rules; sociolinguistic competence--appropriateness; discourse competence--cohesion and coherence; strategic competence--appropriate use of communication strategies. Grammatical competence refers to competence in phonology, morphology, syntax, and semantics at sentence level; sociolinguistic competence refers to competence in understanding language use in communication, including topic, role of participants, purpose, and context that all influence choice of style or register; discourse competence refers to competence in understanding cohesion and coherence between units of language larger than a sentence; strategic competence refers to competence in verbal and nonverbal strategies to compensate for inadequacies due to lack of language

ability. Among the four elements, strategic competence occupies a special place in an understanding of communication.

Canale’s model of communicative competence underwent some other modifications over the years. Those newer views were perhaps best captured in Bachman’s (Bachman, 1990) schematization of what he simply called “language competence”. Bachman further developed Canale and Swain’s approach and created a tree-structure for these components, dividing language competence into organizational competence and pragmatic competence and then subdividing them, respectively, as shown in Figure 2.1.

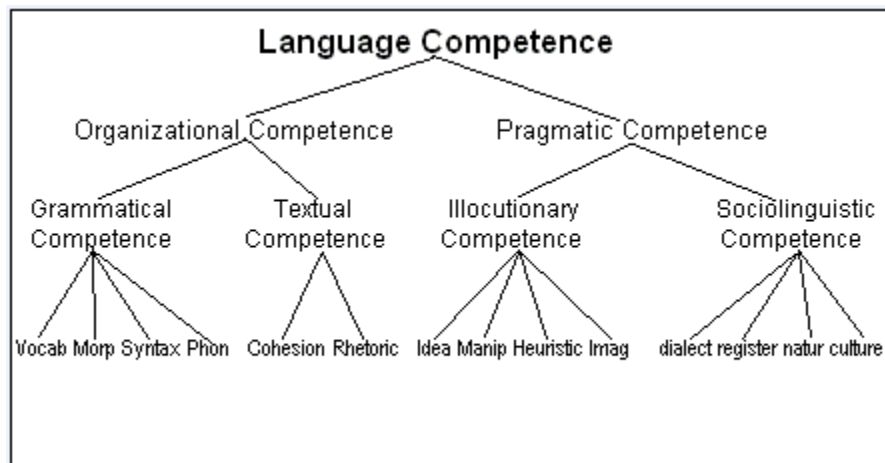


Figure 2.1 Tree Structure of Language Context by Bachman

He placed grammatical and discourse competence under one node, which he appropriately called *organizational competence*: all those rules and systems that dictate what we can do with the forms of language. Canale and Swain’s sociolinguistic competence is now broken down into two separate pragmatic categories: functional aspects of language (illocutionary competence, or, pertaining to sending and receiving intended meanings) and sociolinguistic aspects (which deal with such considerations as politeness, formality, metaphor, register, and culturally related aspects of language). Bachman added strategic competence as a totally separate element of communicative language ability. Here, strategic

competence almost serves as an executive function of making the final decision, among many possible options, on wording, phrasing, and other productive and receptive means for negotiating meaning.

The development of communicative language teaching owes deeply to the Council of Europe that had education as a high priority. To meet the language needs of European immigrants and guest workers, the Council of Europe created new language syllabuses on notional-functional concepts of language use rather than more traditional categories of grammar and vocabulary. In Germany, educators developed materials that allowed learners to choose what they wanted to communicate freely. These materials concentrated on the various different social meanings a given item of grammar could have and were structured in such a way that learners could choose how to progress through the course themselves. The materials were used in teacher training courses and workshops to encourage teachers to change to using a communicative syllabus (Savignon, 2000). Meanwhile, at the University of Illinois, there was a study that investigated the effects of the explicit teaching of learning strategies to language learners. The study encouraged learners to take risks while communicating, and to use constructs other than rote memorized patterns. At the study's conclusion, students who were taught communicatively fared no worse on grammatical tests than students that had been taught with traditional methods, but they performed significantly better in tests of communicative ability. This was the case even for beginners (Richards & Rodgers, 2001; Savignon, 2000).

Features

As is introduced above, CLT is usually characterized as a broad approach to teaching, rather than as a teaching method with a clearly defined set of classroom practices. As such it is most often defined as a list of general principles or features for a second and foreign language teaching. One of the most recognized of these lists is Nunan's (1991) five features:

1. An emphasis on learning to communicate through interaction in the target language.
2. The introduction of authentic texts into the learning situation.

3. The provision of opportunities for learners to focus, not only on language but also on the learning process itself.
4. An enhancement of the learner's own personal experiences as important contributing elements to classroom learning.
5. An attempt to link classroom language learning with language activities outside the classroom.

These five features focus on learners' needs and desires. Learners' communicative needs provide a framework for elaborating program goals with regard to functional competence. The learner's communicative competence is to be developed in authentic context through negotiation and cooperation. Thus a CLT class often takes the form of pair and group work requiring negotiation and cooperation between learners, fluency-based activities that encourage learners to develop their confidence, role-plays in which students practice and develop language functions, as well as judicious use of grammar and pronunciation focused activities. The achievement in learning a foreign language is assessed in terms of how well learners have developed their communicative competence, which can be loosely defined as their ability to apply knowledge of both formal and sociolinguistic aspects of a language with adequate proficiency to communicate rather than helping them develop perfectly grammatical structures or acquire native-like pronunciation.

Grammar Translation Method

Origin and development

Grammar Translation Method originated from the practice of teaching Greek and Latin in the 1500s. The goal of teaching with this method was to prepare students to read and write classical materials and to pass standardized exams (Howatt, 1984; Rivers, 1981). A grammar translation lesson typically consisted of reading selections, two or three long columns of new vocabulary items with native language equivalents, and a test. Students were provided with detailed expressions of grammar in their native language, paradigms to memorize, and bilingual vocabulary lists to learn. Language skill was judged

according to one's ability to analyze the syntactic structure, primarily to conjugate verbs. Tests often consisted of the translation of classical texts.

Grammar Translation Method was first introduced to teach modern languages in public schools in Prussia at the end of the eighteenth century (Coady & Huckin, 1997). It was the standard way languages were taught in schools from the 17th to the 19th century and no other methods gained any significant popularity during this time. It was typically assumed in the 18th-19th century Europe that learning classical literature could develop students' mental discipline so that they could mentally prepared for the world and its challenge. Like courses in classical Latin and Greek, this method used mainly classical works of literature as materials and aimed at developing student's ability in understanding and translating long passages of the classics. It was believed that teaching modern languages was not useful for the development of mental discipline and thus they were left out of the curriculum. When modern languages did begin to appear in school curricula in the 19th century, teachers taught them with the same grammar translation method as was used for teaching classical Latin and Greek (Richards & Rogers, 2001, p.4).

The mainstay of GT classroom materials was the textbook. Textbooks in the 19th century attempted to codify the grammar of the target language into discrete rules for students to learn and memorize. A chapter in a typical grammar translation textbook would begin with a bilingual vocabulary list, after which there would be grammar rules for students to study and sentences for them to translate (Richards & Rogers, 2001, p.4). The teaching of vocabulary was based on definition and etymology throughout the nineteenth century, at least in part because of the prevalent belief that the connection between etymon and derivative should be progressively preserved to avoid degeneration of language. Classes were usually conducted in the students' native language. In grammar translation classes, students were given reading selections, grammar rules were learned deductively. Students learned grammatical rules by rote memory, and then practiced those rules by doing grammar drills, translating sentences between the target language and their native language. Advanced students may be required to translate entire texts word-for-word from the target language. Student linguistic performance was assessed in terms of how well they could memorize the new words, conjugate verbs and analyze grammatical structures.

The dominant mode of language teaching from the late eighteenth to the early twentieth century was the grammar translation method, which was promoted as good mental training and used both explicit and deductive teaching methods (Lally, 1998). However, GT was challenged after the 1900s, initially, by Direct Approach that was developed as a reaction to GT in an attempt to integrate more use of the target language in instruction, and then by Reading Approach that emphasized the grammar only necessary for reading comprehension and fluency was established. During the Second World War, ALM that emphasized the importance of automatization of habits and the role repetition in such automatization (Carroll & Sapon, 1959) evolved.

The major focus of GT tends to be on reading and writing, with relatively little attention placed on speaking and listening or any communicative aspects of the language. GT relies heavily on teaching grammar and practicing translation as its main teaching and learning activities, and skill exercised is reading and only in the context of translation. A high priority is given to accuracy, and the ability to construct correct sentences (Griffiths & Parr, 2001).

Features

The Grammar Translation Method on teaching Chinese exhibits the following features (Richards, 1990):

1. Concentration on intensive reading;
2. Use of translation as a teaching and learning strategy;
3. Use of rote memorization;
4. Teacher's authority and students' passive role;
5. Meticulous emphasis on linguistic details and lack of attention to communicative skills.

According to Richards, with the traditional methods of teaching grammar, new linguistic information is passed on and practiced explicitly. Language classes following this approach adapt various features on direct grammar instruction to the teaching of conversational skills, that is, they attempt to provide focused instruction on the main rules of conversational or discourse-level grammar. Therefore, in

traditional classroom, the students learn vocabulary and grammatical rules rather than develop skills through communication in the target language in real-life language contexts.

CLT Features vs. GT Features

CLT is a task-based teaching approach while GT is a structure-based teaching approach. GT was the method that is traditionally used in teaching Chinese while CLT was not because it is not at all in accordance with the concepts and principles of traditional Chinese teaching, where grammar is taught deductively, accuracy is emphasized, sentences are the basic units of teaching, and reading and writing are the focus, with little attention given to speaking and listening. A comparison between GT and CLT by Rao (1996, 2002) better demonstrates the distinction between these two methods.

Table 2.1 Comparison between GT Features and CLT Features

GT	CLT
Attention to form and structure	Attention to meaning and communication
Emphasis on memorization	Emphasis on using
Teaching without contextualization	Teaching with contextualization
Emphasis on grammatical rules	Avoid providing explicit grammatical rules
Emphasis on translation	Avoid using translation
Emphasis on reading and writing	Emphasis on listening and speaking
Focus on linguistic competence	Focus on communicative competence
Focus on accuracy	Focus on fluency
Use of pattern drills	Peripheral use of drilling
Teacher-centered	Student-centered

The researcher chose CLT and GT as the theoretical frameworks for this study because these two methods are the very two major foreign language instructional approaches that form the background

against which the present study was conducted and through which the purpose of the present study could be fulfilled.

Empirical Studies Comparing CLT and GT

Since 1980, there has been increasing interest in communicative teaching but only a limited number of empirical studies have been conducted comparing the effectiveness of CLT with that of GT.

Zeng (2004) examined how Chinese ESL adult students in Canada perceived the role of grammatical instruction within CLT. Using case study method, she observed the teaching and learning activities in four ESL classes that used CLT and then interviewed fifteen Chinese ESL students and four Canadian ESL teachers. Findings showed that some Chinese ESL students viewed grammatical instruction within CLT as means to help them to realize the functional purpose of grammar knowledge and to achieve communicative competence. Others thought there is no need for grammatical instruction within the context of CLT. Zeng's study discussed how CLT activities facilitated grammatical competence and suggested that it might be better to apply more explicit emphasis or introduce metacognitive strategies to guide Chinese students as they adjust to CLT gradually.

Nam (2010) conducted a comparative case study to investigate pedagogic practices of native English speaking teachers (NESTs) and nonnative English speaking teachers (NNESTs), and the impact of their teaching on English language learning as perceived by secondary students in Korea. The teachers for that study were two NESTs and two NNESTs from two separate middle schools along with six focal students from two middle schools. The six focal students (three in one group) were taught simultaneously by two teachers, a NEST and a NNEST. The major findings of this study were that, due to the teacher-centered nature of one NEST's class, the pressure to succeed on exams, and class size, students were not actively engaged. Even if the teacher managed the class well and provided individual care for students, the overemphasis on traditional grammar methods and the use of first language surpassing second language resulted in a lack of motivation for communicative activities, class interaction was limited and the students were not able to develop critical English skills such as extended responses and general

conversational skills. On the other hand, the other bilingual NNEST class filled the communication gap and helped students interact by effective code switching from L1 to L2. The study also showed that in one of the classes where the NNEST predominantly practiced the GT and geared to enhance students' test performances, students were able to understand fully English grammar points and reading material which were essential to exam preparation. In the other class where the other NNEST effectively used code-switching, allowing students to participate in communicative activities and where the exam preparation was not as intense, the teacher focused more on helping the students to think and to achieve a greater speaking ability.

Sapargul & Sartor (2010) described the Trans-Cultural Comparative Literature Method, an innovative way in which they used literature to teach advanced English as a Foreign Language. The authors explained how their method combined GT and CLT techniques in two lesson plans (one with poetry and the other with a short story) that engaged students with activities that compared and contrasted themes and cultural aspects found in two literary texts: Turkmen literary text (already translated into English) and English literary text. While the method employed activities associated with CLT, it also borrowed from techniques associated with GT by focusing on grammar, vocabulary, and limited translation exercises during cultural comparisons of literary texts. They melt GT techniques with interesting cultural activities to promote meaningful communication among EFL learners and inspired them to apply their critical thinking skills outside classroom.

Morett (2007) investigated the effectiveness of the grammatical approach and the communicative method in her doctoral study. She taught a mini-lesson in Spanish vocabulary to undergraduates using two different teaching methodologies. She presented one experimental group a video lesson featured essential GT components, using verbal stimuli and explicit instructions, whereas the other experimental group the same video lesson featured CLT tenets, using visual stimuli and implicit instructions. She conducted between-participants analysis of variance and observed significant improvement in both of the comparison groups in learning the target language over the baseline measure set by the control group, but found no significant differences between the two treatment groups. In her follow-up experiments, there

were no significant differences between any of the groups. A subset of participants who underwent a neuroimaging procedure while performing the experimental tasks showed higher overall cerebral blood flow velocities under the condition based on GT compared to the condition based on CLT.

He (1995) conducted a comparative case study to examine how native speakers of English struck a balance between linguistic knowledge and communicative competence in CSL learning. Three college students of beginning Chinese were involved. Data were gathered through classroom observations, oral and written coursework, and an interview concerning Chinese language study, and analyzed on the basis of discourse patterns, error patterns, and student attitudes. It was found that the three students represented three distinct learner types: Student A was strong in grammar and other learned language knowledge, but weak in communication. Student B was strong in communication but weak in language knowledge, and Student C developed language knowledge and communicative competence evenly. The conclusion is: two independent means existed in learning Chinese as a second language: linguistic knowledge and communicative competence, and they should be consciously balanced. The author believed that these two aspects were equally important but that they play different, complementary roles. One was needed more in certain situations and tasks and the other is useful in others. Effective college second language instruction should provide the students with both aspects of language competence.

Of these five comparison studies, four adopted qualitative methodologies. Zeng's was not a method-comparison study, rather a perspective-comparison study on CLT and GT. She adopted direct classroom observations and interviews. The primary data in Nam's study consisted of interviews with the teachers, classroom observations, audio and video-taped classes of the teachers as well as interviews with the students. Sapargul & Sartor employed activities associated with CLT and GT. He gathered data through classroom observations, oral and written coursework, and an interview. Morett's study was quantitative, but it was on teaching Spanish, not Chinese, as a second language. Only He's study focused on comparing CLT and GT in teaching Chinese as a second language, yet his study was qualitative.

To the researcher's knowledge, there has been no quantitative study comparing Communicative Language Teaching Approach with Grammar Translation Method within one study at teaching CFL to

American undergraduate students. This situation calls for studies on the two instructional approaches to identify, through quantitative means, which of the two instructional approaches is more effective at teaching CFL to American undergraduate students and how well each approach works and in developing what language skill(s).

ACTFL's NSFL

NSFL (Standards for Foreign Language Learning in the 21st Century), first published in 1996, was the guiding principle for teaching foreign languages in the U.S. NSFL revolved around “Five C’s”: communication, cultures, connections, comparisons, and communities, with communication holding the top and central place, as shown in Figure 2.2.



Figure 2.2 ACTFL's Standards for Foreign Language Learning.

Each “C” has sub-categories that serve as guides to creating language curricula and assessing language acquisition. The sub-category for communication reads:

COMMUNICATION

Communicate in Languages Other Than English

- **Standard 1.1:** Students engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions.
- **Standard 1.2:** Students understand and interpret written and spoken language on a variety of topics.
- **Standard 1.3:** Students present information, concepts, and ideas to an audience of listeners or readers on a variety of topics.

The communication principle implies that successful language students are able to communicate with language for real purposes (Lear & Abbott, 2008). Given the admitted importance of communication as a paramount goal in foreign language instruction, the most favored method is, of course, CLT.

PACE Model

PACE is an acronym for the four-step instructional technique that Donato and Adair-Hauck (Donato & Adair-Hauck, 1994; Adair-Hauck, 2007; Adair-Hauck & Donato, 2002) developed for integrating focus on form in the context of a story-based unit of study. It is a technique that is aligned with CLT. The acronym PACE stands for Presentation, Attention, Co-Construct and Extension. The following is a focused review of the four steps.

P: Presentation of meaningful language

This first step represents the “whole” language being presented in a thematic way. With this whole language approach, authentic teaching materials are used, which range from an interesting story, a TPR lesson, an authentic listening segment, an authentic document, or a demonstration of a real-life authentic task, such as playing a sport, making a sandwich, or conducting a science experiment to materials from a textbook chapter (narratives, dialogues, or stories). Anything was fine as long as it captures students’ interest and is in the learners’ actual Zone of Proximal Development (ZPD) (Vygotsky, 1987). Comprehensive understanding of the authentic materials is the focus of this phase. The teacher presents the story orally to students for them to understand through listening rather than jumping at

explanation of the new words or new language points in the story. It is for the teacher to make sure that the story and target structure are appropriate to the learners' actual and potential levels of development. Teaching at this phase is characterized by student-teacher interaction, group activities, and inquires. The teacher's role is to facilitate student comprehension of new elements of the target language in meaningful contexts and the goal is to enable learners to stretch their language abilities by comprehending new elements of the target language in meaningful contexts through the mediation of the teacher during storytelling. Therefore, the focus is on meaning.

A: Attention

The second step focuses learner attention on the target form of the language used during the Presentation phase. The purpose in this phase is to ensure that learners are focused on the grammatical element chosen for discussion. The teacher highlights the grammatical feature in the story by using such teaching aids as overhead transparencies or PowerPoint slides and engages students' participation by asking questions about patterns found in the text or about words and phrases repeated in a story. In addition to achieving instructional objectives, the teacher needs to teach structures to which students show particular interest. The main idea of this phase is to establish joint attention between teacher and students in order for learning to occur. Therefore, the focus is on form.

C: Co-construct

Co-construction involves collaboration between the teacher and the students to reflect on, hypothesize about, and create understandings about the form, meaning, and function of the new structure in question. Co-construction is not just learning, but facilitation of the students own realization of the target structure. In this phase, the teacher assists students in gaining a deeper understanding of the target structure and discussing it in a meaningful context. A typical way to co-construct grammatical explanation is asking questions. The teacher elicits students' observations and understandings by asking clear and meaningful questions on the story told in Presentation phase and responds with their own

observations. Teachers can be conversation partners and offer their own understanding. The purpose of the conversation is neither deductive nor inductive, rather, to move students to understand how grammar functions in spoken and written texts. The use of target language is possible if the grammatical conversation is simplified.

E: Extension activities

This phase provides learners with the opportunity to use target language to communicate through authentic text. Learners are to use their new grammar skill in creative and interesting ways while at the same time integrate it into existing knowledge. Extension activities should be interesting, be related to the theme of the lesson in some way, and, most importantly, allow for creative self-expression. They can be information-gap activities, class surveys, out-of-class projects, or simulations of real-life situations. The possibilities are endless, as long as the learners have the chance to try to use the target form in ways that they see as useful, meaningful, and connected to the overarching theme of the lesson. The extension activities can address cultural perspectives embodied in the story (Adair-Hauck & Donato, 2002; West & Donato, 1995), bring learners into contact with target language members of the community for further investigations of the story's country of origin, or link the story's theme to an academic subject area. The extension activities phase closes the circle of the PACE lesson and it is back to meaning. Figure 2.3 shows the circle of the four phases in communicative language teaching.

It can be seen from the above presentation that the PACE Model reflects the framework of the communication goal area, which advocates that learners be engaged in cognitively challenging activities that encourage them to use communication strategies, such as guessing intelligently, deriving meaning from context, asking for and providing clarification, making and checking hypotheses, and making inferences, predictions, and generalizations. It is seen as a unit of study that is carried out in multiple lessons over several days in that it allows learners to develop cultural understandings, rich vocabulary, and modes of communication apart from grammar teaching. This approach contrasts sharply with deductive teacher explanation of grammar and inductive approaches that assume that all structures can be

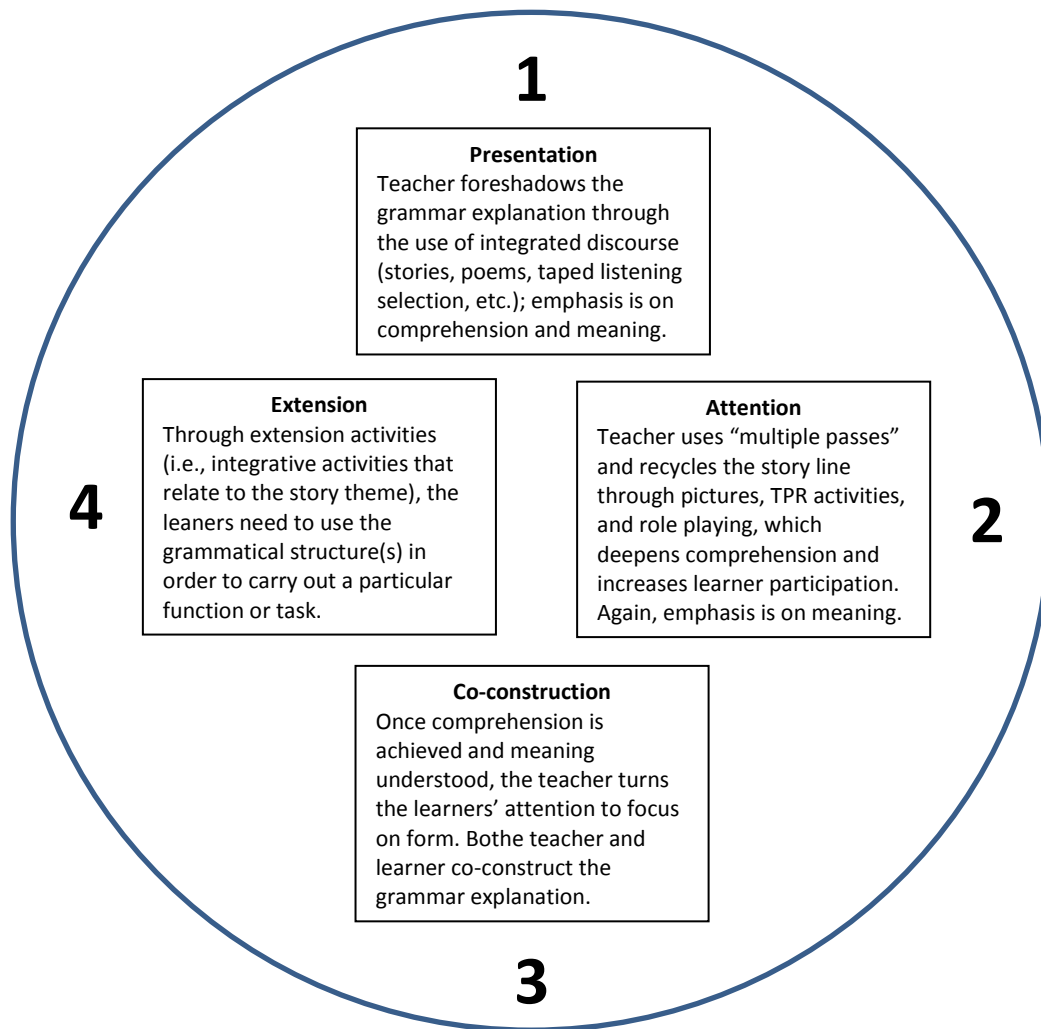


Figure 2.3 PACE: A Model to Focus on Form¹

analyzed by students on their own, solely on the basis of input they received. Moreover, all of the classroom activities described encourage functional and interactional use of language by giving learners opportunities to share information, ask questions, and solve problems collaboratively (Shrum & Glisan, 2009). In this study, treatment lesson for one comparison group follows PACE Model.

¹ Source: From “PACE: A Model to Focus on Form” by Donato and Adair-Hauck (Donato & Adair-Hauck, 1994). Paper presented at the annual meeting of the American Council on the Teaching of Foreign Languages.

Some Representative Studies on the *Ba*-construction

The *ba*-construction is the most complex grammatical structure in Mandarin Chinese and has been one of the most widely discussed topics in the literature on CSL/CFL teaching. The complex nature of this construction is revealed in a number of linguistic dimensions.

One dimension is disposability. Wang (1945) first proposed the theory of “disposal”. In his theory, a *ba*-sentence is in the form of *X ba Y Z*. The disposal form states how a person is handled, manipulated, or dealt with, how something is disposed of, or how an affair is conducted. Since it is especially designed for disposing, the disposal form cannot be used unless the action possesses the quality of disposal. Chao (1968, p. 344) stressed that “The meaning of ‘disposal’, unlike taken in an abstract sense, will hardly be wide enough to apply to all cases.” For example, verbs like *you* (to have), *shi* (to be), *xiang* (to resemble), and certain motion verbs like *lai* (to come), *qu* (to go), etc., as a rule, do not take pre-transitive.

A second dimension is object-front feature. Cheung (1973) illustrated this feature. In his theory, the basic pattern of word order in a Modern Mandarin Chinese sentence is 2.1.1a, thus the semantic distinction between 2.1.1b and 2.1.1c arises from the selected word order.

2.1.1. a. Subject – Verb – Object

b. *Laohu chi shizi*

(The tiger eats the lion.)

c. *Shizi chi laohu.*

(The lion eats the tiger.)

There are also sentences, in which the objects are placed before the verbs, preceded by the element *ba* as in 2.1.2.a.

2.1.2. a. Subject – *ba* – Object – Verb

b. *Laohu ba shizi chi le.*

(The tiger has eaten the lion.)

c. *Shizi ba laohu chi le.*

(The lion has eaten the tiger.)

There is no glaring semantic difference between 2.1.1b, 2.1.1c and 2.1.2b, 2.1.2c, except for the switch on focus on objects when the *ba*-construction is used. The major argument is to treat *ba* as taking the object and putting it in preverbal position. This feature of the *ba*-construction is defined as “object-fronting model” by Gao (1997) and had been addressed in some other *ba*-construction analyses (Chao, 1968; Huang, 1982; Rhys, 1996; Tian, 2006; Tsao, 1987a, 1987b). Cheung pointed out that what makes this form unique is that the proposing process is not available for all direct objects under all conditions. Certain restrictions, depending upon semantic features and syntactic characteristics, are imposed on both verbs and objects involved in the construction of a *ba*-sentence.

The definiteness of *ba*-NP (the object of *ba* and the matrix verb), which can be counted as a third dimension, is one of the constraints. This constraint requires that the *ba*-NP must be an NP with definite reference (Hashimoto, 1971) and that indefinite *ba*-NP must be highly restricted (Li, 1974). The *ba*-NP always denotes a definite or specific thing or person (Tiee, 1990) that has a specific interpretation. The restrictions imposed on *ba*-NP are illustrated with the following examples (Liu, 1997):

- 2.2. a. *Ta song-le hua gei wo.*
 he give-ASP flowers to me
 (He gave me flowers.)
- b. *Ta ba hua song gei wo.*
 he BA flowers give to me
 (He gave me the flowers.)

In 2.2a, the direct object *hua* ‘flower’ is indefinite, bare, or possessive and is mostly likely interpreted non-specifically. However, in 2.2b, the same *ba*-NP must be interpreted specifically. However, the definiteness or indefiniteness of *ba*-NP is not always rule-governed; sometimes, it also depends on the language context. Chao (1968) observed the definite reference of *ba*-NP, “by the use of the pre-transitive, an object is moved to farther ahead and is made more suggestive of a definite reference” (p. 77) whereas “the object in an ordinary V-O construction has indefinite reference unless it has specific definite modifiers” (p. 343).

2.3. a. *Ta zuotian xie-wanle yi feng xin le.*

(He finished writing a letter yesterday.)

b. *Ta zuotian ba nei feng xin xie-wan le.*

(He finished writing that letter yesterday.)

Compare sentences 2.3a with 2.3b, we find that *xin* (letter) in 2.3a is an indefinite reference while *xin* (letter) in 2.3b is a definite reference. The advanced position of the object has a stronger effect than the presence of an indefinite demonstrative *yi feng* in deciding the definiteness of reference.

The most noteworthy feature of the *ba*-construction is the poly-syllabicity of verbal expression (Chao, 1968). This poly-syllabicity may come from

1) a verb plus a suffix or a complement, as in

2.4. a. *ba dongxi peng zhe* (holding the thing)

b. *ba shiqing jiang mingbai* (have clarified matters)

2) a verb with its adverbial modifier, as in

c. *ba jiu bu ting de he* (drink wine continually)

3) a verb that is itself poly-syllabic, as in

d. *ni dei xian ba qingxing diaocha...*

(You must first investigate the conditions...)

4) a verb with an object, which can be of any of the following category

Cognate Objects: e. *ba yifu yun yi yun* (give the clothes an ironing) (no. of times)

f. *ba xiuzi fang san cun* (let the sleeves out 3 inches) (extent)

g. *ba shui zhu le ban tian* (have boiled the water a good time) (duration)

Indirect Object: h. *ba shiqing dou gaosu le ta* (have told him everything)

Although the verbal expression, including the complement, often takes the first object as its object, the verb alone cannot do so:

2.4. i. *han ya le sangzi* (has shouted one's throat hoarse)

j. *ba sangzi han ya le* (has shouted one's throat hoarse)

k. **han sangzi* (* to shout one's throat)

While 2.4i and 2.4j are grammatical, 2.4k is not.

The complex constraints on the *ba*-VP are classified into six types in Wang (Wang, 1945) and divided into thirteen cases under five classes in Lü (1948). Then Liu (1997) systematically reviewed the fundamental properties of the *ba*-construction and addressed constraints on both *ba*-NP and *ba*-VP. He specified nine syntactic environments (Appendix A) for the *ba*-VP and grouped them according to structural properties of the predicate:

- 2.5. a. V + resultative verb complement
- b. V + *de* (resultative)
- c. V + retained object
- d. V + perfective marker *-le*
- e. V + PP (dative or locative)
- f. V + quantified phrase
- g. V + *yi* + V (the tentative construction)
- h. V + durative marker *-zhe*
- i. Adv + V

2.5a and 2.5b represent the most common environments where *ba* occurs in a resultative context, which either contains a resultative verb complement or the resultative clitic *de*. 2.5c refers to a sentence where the verb is followed by an object. 2.5d refers to an environment where the only element following the verb is the perfective marker *-le*. 2.5e concerns sentences with an indirect object or a locative phrase. 2.5f refers to sentences that include a quantified phrase in the verb. The quantified phrase can express (a) duration, (b) frequency, or (c) a part-whole relation. 2.5g refers to the tentative construction, where the verb is reduplicated, and in between the two verbs *yi* 'one' may be optionally inserted. It describes a bounded event of short duration, meaning doing something 'a little bit' (Li & Thompsom, 1989). 2.5h refers to sentences that contain *-zhe*, which is the durative aspect marker (Li & Thompsom, 1989). *-zhe* basically represents a continuous and stable situation without regard to endpoints. With *ba*, it is used to

bring about a state which is durative. 2.5i refers to a sentence in which the predicate contains a preverbal adverbial but nothing after the verb.

This is just a brief review of the complex nature of this unique construction and it is far from being exhaustive. The uniqueness of the *ba*-construction has been noted by many linguists in their observations and descriptions. Over the past sixty years, this complex construction was examined from many different perspectives: disposability/transitivity (e.g. Wang, 1945; Chao, 1968; Teng, 1971; Thompson, 1973; Hopper & Thompson, 1980; Sun, 1995; Li & Thompson, 1989), causativity/resultativity (e.g. Talmy, 1976; Lei, 2008; Ye, 2004; Hashimoto, 1964; Gao, 1997; Ding, 2000; Ziegeler, 2000), topic-comment (e.g. Li & Thompson, 1989; Tsao, 1987a, 1987b), and aspectual-event (e.g. Cheng, 1988; Yong, 1993; Liu, 1997; Rhys, 1996; Tian 2006). Previous studies like these were classified into three linguistic categories: functional, syntactic, and semantic. They emphasized different aspects of the *ba*-construction and solved different problems related to it (Du, 2004) but mostly focused on the acquisition of the *ba*-construction.

Unlike the previous studies, this study focused on method-comparison at teaching the *ba*-construction rather than the acquisition of the *ba*-construction. This study isolated CLT features from GT features in order to compare their respective effectiveness through assessing the test performance of the American undergraduate students in two comparison groups that were taught using the two different teaching methods. The *ba*-construction was used as the basis of measurement. Therefore, the *ba*-construction in this study is instrument-oriented rather than focus-oriented.

The *ba*-construction was selected as measurement basis of this study for two reasons. First, it is the most complex grammatical structure in Chinese in terms of syntactic structure, semantic implication, and syllabicity restriction. As a result, it has no counterpart in other languages. Second, due to its complexity, this construction has been a big challenge to CFL learners. Moreover, its instruction is involved through the whole process of Chinese learning. Many CSL/CFL Chinese learners find it hard yet unavoidable at beginning level, intermediate level, as well as advanced level of Chinese acquisition.

Therefore, using the *ba*-construction as the measurement may have significant pedagogical implications to CFL instruction.

***Ba*-Constraints in This Study**

Three constraints of the *ba*-construction were selected as the basis of the measurement in this study (2.6). The *ba*-VPs in 2.6a and 2.6b are two of the nine environments (2.5d and 2.5e) in Liu's (1997) review in the form of basic sentence structures, and 2.6c is a typical case to which the "disposal" meaning that characterizes the *ba*-construction does not apply Chao (1968, p. 344).

- 2.6. a. S + *ba* + O + V + 了
- b. S + *ba* + O + V + Locative
- c. S + (~~think/want~~) *ba* + O + V

One consideration for selecting the three constraints in 2.6 was that they are the most commonly used structures of the *ba*-construction in Modern Chinese. Actually, 2.6a and 2.6b are two of the seven basic *ba*-structures under Grammar section 把 (*ba*)-construction in *Integrated Chinese Level 1*, the textbook that the participants of this study were using. According to their Chinese 1001 Syllabus, the participants were going to learn the *ba*-construction in a couple of weeks by the time the data for this study was collected. Another consideration is that these two structures have high frequency of appearance in Chinese language. Lü (2008 p.344) checked the frequency of the *ba*-construction in the materials of 53 thousands characters (Appendix B) and found that, of the 1094 sentences, Structure 2.6a ranks top, taking up 23.3% (255/1094), Structure 2.6b ranks the third, taking up 11.5% (126/1094), contrasted to the percentages of the rest structures that take up 8.9%, 2.7%, or 0.2%, respectively. Additionally, the researcher found that 2.6a and 2.6b are the most appropriate for designing actions in the form of PowerPoint slides and most convenient for indicating a visual result of the action or a visible location of an object.

Based on the constraints (2.6) selected for the measurement of this study, three grammatical points concerning the *ba*-construction were taught to the participants in the treatment lesson (See 2.7, 2.8, and 2.9). First, the *ba*-construction is an *object-front* structure (Cheung 1973; Gao, 1997; Tian, 2006).

The basic *ba*-construction involved in this study is generalized as follows:

S + *ba* + O + V + Complement

As illustrated in 2.7, whereas an English sentence like 2.7a can only have SVO order, its Chinese equivalent may appear in at least two forms. 2.7b has SVO order with the object *kele* ‘coke’ following the verb *he* ‘drink’ while 2.7c has SOV order, with the object *kele* ‘coke’ in the regular transitive sentence moved to the preverbal position and preceded by *ba*. Sentence 2.7c is a typical example of the Chinese *ba*-construction.

2.7. a. He drank the coke.

b. *Ta he le kele.*

he drank ASP coke

(He drank the coke.)

c. *Ta ba kele he le.*

he BA kele drank ASP

(He drank the coke.)

Second, in general, a *ba*-sentence highlights the subject’s ‘disposal of’ or ‘impact’ upon the object (Wang, 1945; Thompson, 1973; Ding, 2000), with the result of the disposal or impact indicated by the element following the verb. In 2.7c, the subject *Ta* (He) exerts an impact on the coke through the action of *he* (drink), of which the result is: There is no coke.

Third, the verb in the *ba*-construction cannot stand alone. It must be followed by certain complement (an adjective, an adverb, a prepositional phrase, or an aspect marker, etc.), indicating a result, direction, frequency, or influence of the action expressed by the main verb in the construction (Wang, 1945; Lü, 1948; Chao, 1968; Liu, 1997). For example, *-le* in 2.7c serves as a perfective marker, indicating completion of an action.

- 2.8. a. He put the cup on the table.
 b. *Ta ba beizi fang zai zhuozi shang.*
 he BA cup put at table on
 (He put the cup on the table.)

In 2.8b, the prepositional phrase *zai zhuozi shang* (on the table) serves as the complement of the verb *fang* (put), indicating location. In this sentence, the subject *ta* (he) exerts an impact on the *beizi* (cup) through the action of *fang* (put), which is the transfer of location of the cup.

The complements in 2.7c and 2.8b are the aspect marker *-le* (了) and a locative phrase *zai zhuozi shang*, respectively. The occurrence of the resultative verb complement (RVC) *-le* with *ba* is obligatory in sentence 2.7c and the verb in 2.8b has to be followed by the locative phrase, which satisfies the complexity constraint (Yong, 1993).

An additional grammatical point is: emotion verbs like 喜欢 (like) and 想 (want to; would like to) cannot be used in the *ba*-construction in Modern Chinese.

- 2.9.1. a. I like watching movies.
 b. *Wo xihuan kan dianying.*
 I like watch movies
 (I like watching movies.)
 c. *Wo xihuan ba dianying kan.*
 I ~~like~~-BA movies watch
 (I like watching movies.)

While 2.9.1b and 2.9.2b are grammatically correct, 2.9.1c and 2.9.2c are not because *xihuan* (like) and *xing* (want to) are emotional verbs that are not supposed to appear in *ba*-sentences.

- 2.9.2. a. I want to play basketball.
 b. *Wo xiang da lanqiu.*

I want to play basketball

(I want to play basketball.)

c. *Wo xiang ba lanqiu da.*

I ~~want to~~-BA basketball play

(I want to play basketball.)

Based on the three grammatical points taught to the participants, the measurement focused on testing presence or absence of 把 or 了 ($\pm ba$ & $\pm le$), object-front feature, sentence-final position of the perfective particle *-le*, and the locative phrase in the *ba*-sentences the participants produced across the three experiments.

Summary

The theoretical frameworks for the present study were CLT and GT. These two instructional approaches, developed in response to different pedagogical needs at different times, were characterized by different goals, different materials, and different methods in teaching second or foreign languages. CLT was aimed at developing communicative competence, whereas GT focused on developing grammar competence. Both approaches were studied extensively and either was credited with pedagogical merits or criticized for teaching defects. PACE Model emerged as a most suitable procedure in developing communicative competence because it is aligned with CLT. CLT is currently the most favored method for teaching foreign languages because communication is expounded in ACTFL's National Standards for Foreign Language Learning as a paramount goal. The *ba*-construction is the most complex structure in Mandarin Chinese and has been a big challenge to CFL learners. Based on a focused review of some representative studies on the *ba*-construction, three constraints of the *ba*-construction were selected as the basis of the measurement in this method-comparison study.

CHAPTER 3: METHODS

This chapter deals with the research methods of the study. It starts with an overview of the research design, and then goes on with participant recruitment, group signing-up, sample description, treatment presentation, measure explanation, and scoring criteria. After that, it introduces data collection procedure, which includes pretests, group assignment, treatment administration, and posttests. It ends with statistical model summary.

Research Design

Figure 3.1 presents an overview of the research design.

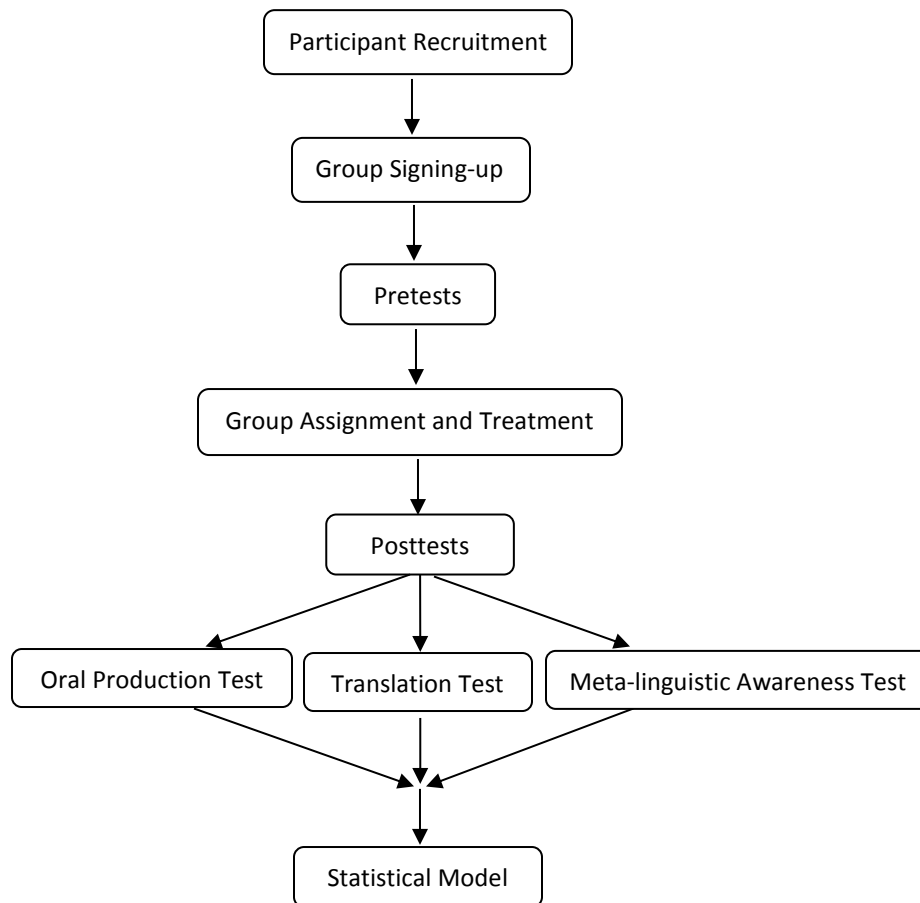


Figure 3.1 Overview of the Research Design

Participants Recruitment

Participants of this study were recruited from University of Georgia (UGA). The American participants were CFL students in Chinese 1001 classes in the Department of Comparative Literature, Franklin College of Arts and Sciences. The Chinese participants were undergraduate students or graduate students from different departments of UGA. All participants were recruited through word-of-mouth and flyers. The researcher first distributed *Recruitment Flyer for Native English Speakers* (Appendix C) to the students in Chinese 1001 classes and *Recruitment Flyer for Native Chinese Speakers* (Appendix D) to the Chinese students in UGA and had interested participants contact her directly. Then with permission of the Chinese teachers, the researcher made use of the ten minutes before the class was over to outline the general aspects of the study to the potential participants. They were informed of the nature of the study, some treatment they were to receive, tests they were to take, and time it would take. Students participated in this study on volunteer basis.

Group Signing-up

The researcher distributed printed copies of signing-up sheets to different Chinese 1001 classes in the Department of Comparative Literature, UGA. Potential participants were offered four time slots, two for Traditional Group and two for Communicative Group. Of the four data collection sessions, Traditional Group took one morning session and one afternoon session, Communicative Group took one morning session and one afternoon session. They were asked to sign up for whichever of the four given time slots based on their schedule convenience. The participants, prior to signing up, were not aware of which treatment group they were would be in or what method would be used in the treatment lesson.

Sample Description

Three groups of students participated in this study: one reference group and two comparison groups. The reference group consisted of 30 native Chinese speakers and the comparison groups consisted

of 60 native English speakers. All the 90 participants were above eighteen years old. Prior to the study, all interested participants were asked to read and sign the Informed Consent Statement (Appendix E) approved by Human Subject Committee of Lawrence (HSCL). They were then asked to complete a language background questionnaire used to collect information on the characteristics of the participants.

Characteristics of comparison groups

Participants in comparison groups were American undergraduates with different major backgrounds in UGA. Thirty-five were male and twenty-five were female. The age range was 18-25 and the mean age was 18. They were in their first semester learning Chinese in classroom setting in the Chinese1001 program by the time they were recruited. Students who perceived English as their first language were welcome to participate in this study. The American participants were asked to complete the *Language Background Questionnaire for Native English Speakers*² (Appendix F). The questionnaire asked them to list three languages they knew in order of acquisition and proficiency, and the ages at which they were first exposed to each language. Table 3.1 presents the distribution of the American participants’ ages at which they were first exposed to Mandarin Chinese.

Table 3.1 Distribution of American Participants’ Ages of First Exposure to Mandarin Chinese

Group	Age													
	Birth	1	3	4	13	15	16	18	19	20	21	24	25	Others
Traditional	3	3	1	1	1	1	1	9	4	2	1	0	0	3 ³
Communicative	1	0	1	0	0	2	1	13	5	2	0	1	1	3 ⁴

In Table 3.1, “Birth” refers to the time at which the student was born. It can be seen from Table3.1 that eight students in Traditional Group and two students in Communicative Group were first exposed to Mandarin Chinese from birth to 4 years old, three students in both groups were first exposed

² The term “Native English Speakers” refers to participants who perceived English as their first language.

³ One student was exposed to Cantonese at birth; two did not specify ages for first exposure to Mandarin Chinese.

⁴ One student was exposed to Fuzhounese at birth, one to Cantonese at age 1, and one to Hmong at age 14.

to Mandarin Chinese between 13 to 16 years old, and sixteen students in Traditional Group and twenty-two students in Communicative Group were first exposed to Mandarin Chinese at and after 18 years old. Table 3.1 presented the language background of fifty-four American students. Among the remaining six students, two in the Traditional Groups did not provide the exact ages at which they were first exposed to Mandarin Chinese and four were not exposed to Mandarin Chinese but to different Chinese dialects at early ages. Please refer to footnotes 3 and 4.

With regard to English, fifty-five American participants indicated that they were first exposed to English before age 5. In terms of proficiency order, fifty-seven participants listed English as their first language, which means ninety-five percent of the American students confirmed that English was their first language. The remaining three students viewed English as their second language. At the end of the questionnaire, participants were asked to rate their proficiency in each language on a scale of 0-10, 10 being native fluency. Table 3.2 provides the American students' self-rated scores of their English⁵ proficiency.

Table 3.2 Distribution of Self-Rated English Proficiency Score by American Participants

Group	Score			
	10	9	8	7
Traditional	23	2	4	1
Communicative	25	2	2	1

Table 3.2 shows that forty-eight of the American students gave themselves a perfect score of their English, fifty-eight rated their English proficiency between 8-10, which means about ninety-seven percent of the participants thought their English proficiency was somewhere between 8-10. The table also shows that none of the American participants gave themselves a score below 7.

⁵ The word "English" here refers to Standard English, which means the standard dialect in the United States called Standard American English (SAE), which includes all the varieties of SAE that are spoken with northern accents, southern accents, coastal New England accents, etc., but are still considered standard.

American participants also rated their proficiency in Chinese on a scale of 0-10, 10 being native fluency. Table 3.3 summarizes the information of the American students' self-identification of their proficiency in Mandarin Chinese.

Table 3.3 Distribution of Self-Rated Chinese Proficiency Score by American Participants

Group	Score								
	10	6	5	4	3	2	1	Dialect	Others
Traditional	1	1	3	6	1	5	2	1	10
Communicative	0	1	1	6	4	8	3	2	5

Table 3.3 shows that fourteen students in Traditional Group and twenty-one students in Communicative Group rated their Chinese proficiency below or equal to 4 points, eighteen in Traditional Group and twenty-three in Communicative Group gave themselves a score below or equal to 6 points, and three rated their proficiency in Chinese dialects. Fifteen participants in "Others" column did not list Mandarin Chinese as their foreign language. The two groups are equal in number and the ratios of male students to female students are pretty close. Table 3.4 summarizes the major characteristics of the native English speakers' language background based on the questionnaires they filled out.

Table 3.4 Characteristics of Native English Speakers

Group	Participant #	Male	Female	Age range	Mean age	Other languages	Dialects
Traditional	30	17	13	18-21	18	8 ^a	2 ^c
Communicative	30	18	12	18-25	19	9 ^b	1 ^d

a includes Spanish, French, German, Latin, Korean, Vietnamese, Chinese, Greek, Cambodian, Burmese, or Tamil.

b includes Spanish, French, German, Latin, Korean, Vietnamese, Hmong, or Chinese.

c refers to Cantonese.

d includes Cantonese and Fuzhounese.

As presented in Table 3.4, the participants in both comparison groups had rich language backgrounds. According to further information they put on the language questionnaires, twenty-one in

Traditional Group and twenty-five in Communicative Group claimed to have been exposed to a third language, two in Traditional Group were exposed to a fourth language. Only one in Traditional Group claimed to have known no language other than English.

Characteristics of reference group

Participants in the reference group were Chinese undergraduate students or graduate students with different major backgrounds in UGA. Thirteen were male and seventeen were female. Twenty-six were from fifteen provinces of Mainland China and four were from Taiwan. The age range in this group was 22-32 and the mean age was 25.5. All the Chinese participants confirmed Chinese as their first language and none of them was Chinese language teachers or linguists.

As Du (2204) noted, native speakers of Standard Chinese are not linguistically homogeneous. By definition, Standard Chinese, known in Mainland China as *Putonghua* (the common language), and in Taiwan as *Guoyu* (the national language), is based on the grammar and pronunciation of northern dialect spoken around the Beijing area (Norman, 1988). Ideally, native speakers should be recruited from Chinese speakers originally from this area. But since all educated Chinese speakers can speak some type of Standard Chinese, Chinese teachers who are teaching in the US are from many parts of Mainland China and Taiwan. So students who learn Chinese in the US get input from all these people. If only native speakers from the Beijing area had been included in this study, it would not have been fair to compare students' language with that of such a group of "ideal" speakers of Chinese from one particular region, and since there is variation even within Beijing, limiting selection would not have assured uniformity.

Therefore the criterion for recruiting native Chinese speakers was simply self-identification. Potential participants who spoke Mandarin Chinese were welcome to participate in this study. Prior to the data collection, Chinese participants were asked to complete the *Language Background Questionnaire for Native Chinese Speakers* (Appendix G). The questionnaire asked whether Chinese was their first

language and at what age they were first exposed to Standard Chinese⁶. At the end of the questionnaire, they were asked to rate their proficiency in Standard Chinese on a scale of 0-10, 10 being native fluency. All the native Chinese speakers confirmed that Chinese was their first language. Table 3.5 summarizes the major information of the native Chinese speakers' language background.

Table 3.5 Language Background of Native Chinese Speakers

Self-Rated Proficiency Score in Standard Chinese						
Score	10	9	8	5	4	No rating
No. Students	15	6	4	1	1	3
Age of First Exposure to Standard Chinese						
Age	Birth	1	2	3	6	7
No. Students	17	3	3	2	3	2
Age of Years of Speaking Chinese						
Year	13	20-21	22-27	30		
No. Students	1	2	26	1		

In this table, “Score” is the proficiency score that the Chinese participants gave themselves, “Age” is the age when the native Chinese speakers were first exposed to Standard Chinese, “Year” is the number of years they were speaking Chinese, and “No. Students” is the number of participants who provided related information in the three aspects of their language backgrounds. The first section of Table 3.5 shows that twenty-five Chinese students gave themselves a proficiency score between 8 and 10. The one who rated 5 on her Chinese proficiency had a Huainan dialect language background, the one who rated 4 on his Chinese proficiency was from Qinghai Province, and three did not do the rating for reasons we do not know. The second section shows that twenty-five Chinese students were first exposed to Mandarin Chinese from birth to 3 years old. The third section shows that twenty-six Chinese students had been spoken Chinese for 22-27 years before participating in this study.

⁶ The term “Standard Chinese” refers to either *Putonghua* (the common language) spoken in Mainland China or *Guoyu* (the national language) spoken in Taiwan.

The problem with self-identification is that it is subjective. Different students might have different perceptions of their own language proficiency in Standard Chinese. Therefore, the language background information collected through the questionnaires might not be free from possible influence of subjectivity on the part of the participants. Table 3.6 summarizes the characteristics of the native Chinese speakers' language background. The term "Reference" stands for Reference Group and the term "Dialects" refers to some dialects spoken in Mainland China or in Taiwan.

Table 3.6 Characteristics of Native Chinese Speakers

Group	No. Student	Male	Female	Age range	Mean age	Dialects
Reference	30	13	17	22-32	25	7 ^a

a includes Chongqing, HAKKA, Huaihua, Shandong, Sichuan, Taiwanese, or Wuxi.

Reasons for including native Chinese speakers

The native Chinese speaker group is not, in any sense, a typical control group. It is used as a reference group. The primary reason for the researcher to include Chinese participants in this study was to evaluate the test items the researcher created to assess the participants' performance or competence on three measures. Methodologically, it was important to ensure that the test items used in the three measures would successfully elicit a consistently high percentage of the *ba*-construction. The native Chinese speakers' performance on the three measures would provide reliable information on how well the test items could facilitate the oral production of *ba*-sentences. For example, how well the test situations created for the Oral Production Test would elicit *ba*-construction from the participants in describing the situations with Chinese sentences. Similarly, how well the Translation items would do the job. If the Chinese students performed the same tasks as American students did and produced *ba*-sentences with sufficient quantity and quality on all the three measures, possible threat to the validity of the test items would be reduced. Du (2004) included a native Chinese speaker group in her acquisition study out of similar consideration.

Treatment

Two different instructional approaches were used as treatment: Grammar Translation Method and Communicative Language Teaching Approach. The two comparison groups were treated alike in terms of teaching material, class time and environment, but differently in terms of methods, one with GT and the other with CLT, based on the features presented in Table 2.1.

Material The teaching material was a dialogue entitled *Moving--Putting the Room in Order* (Appendix H & Appendix I), which is about a college student moving into a new apartment and his friend coming to help him. The dialogue was created to represent the features of the authentic teaching materials required of a PACE Model lesson. The dialogue is a demonstration of undergraduate students' real-life experience, moving, and is in the learners' actual ZPD (Vygotsky, 1987) because the length and difficulty level were tailored specifically to the proficiency level of the students from Chinese 1001 classes in UGA. The *ba*-construction is the new grammar element, which the students were going to learn in a couple of weeks to come according to their course syllabus for Chinese 1001. This means the language knowledge in the dialogue is a little bit more advanced than their actual repertoire. The teaching material consists of four parts: Dialogue, Vocabulary, Grammar, and Exercises. The first three parts are exactly the same for the lessons taught to both groups. But the exercises are different. For the Traditional Group, the exercises were designed based on the features of GT, but for the Communicative Group, the exercises were designed based on the features of CLT.

Time and Environment Each group took a 50-minute lesson in the same lab. Testing time was controlled so that participants were tested at roughly the same time of the day but not at strange hours. The environment was arranged such that the participants were free from distraction, interruption, and abnormal room temperature. Individual conditions of the participants were taken into consideration so that the accuracy of data would not be compromised by participants' poor health, fatigue, or emotional strain.

Tests After taking the 50-minute lesson, participants in both groups took the same posttests on Oral Production, Translation, and Meta-linguistic Awareness. Clear instructions to the tasks were given and time limit was appropriately set. Each group had the same time constraint.

Traditional group

For treatment to the Traditional Group, the lesson followed the principles of Grammar Translation Method as closely as possible, with teacher as the center of class, lecture as the main mode of teaching, and linguistic competence in reading and translating as the goal in teaching. Minimum language context was created for students to communicate. There was minimum target language interaction between teacher and students and minimum group activity or discussion. Oral communication was not encouraged, attention was given to form and structure, and emphasis was on grammatical rules and memorization of the *ba*-construction and the constraints on using it. The basic teaching steps were as follows:

- New Words -- Class started with the teacher going over the list of bilingual vocabulary, explaining the meaning of the new words in English one by one. Students were asked to read the new words after the teacher.
- Grammar -- Then the teacher introduced the *ba*-construction by writing the structure on the white board and explained in great details the word order, the disposal meaning, and the complements. Next, the teacher provided explicit grammatical rules for the constraints involved in this study with sample sentences. After that, the students were asked to do substitute exercises on pattern drills of the construction and the teacher corrected their mistakes if the students made any. The focus was on accuracy.
- Text -- The teacher read the dialogue sentence by sentence to the class and explained the meaning of the dialogue word by word, emphasizing the new words and the new grammatical structure.

- Exercises -- The teacher assigned students paper-pencil assignments, asking them to translate some Chinese sentences with the *ba*-construction into English and some English sentences into Chinese using the *ba*-construction. Then the teacher asked students to correct mistakes in the Chinese sentences given.

Communicative group

For treatment to the Communicative Group, the class followed the principles of Communicative Language Teaching Approach as closely as possible. Attention was given to meaning and communication, with students as the center of class, student-student interaction and student-teacher interaction as the main modes of learning, and understanding and communicating with the new knowledge as the goal of learning. The students were encouraged to explore new knowledge under the teacher's guidance and engaged in group activities like pair discussion, group discussion, and class discussion. They had picture handouts to refer to and the teacher was there to facilitate them any time they needed help in understanding material or expressing themselves in the target language. During the whole learning process, the four steps of Pace Model were followed as closely as possible:

- Presentation of dialogue -- Class started with teacher presenting the complete dialogue to the class, students were allowed sufficient time to get a comprehensive understanding of the dialogue, and encouraged to share their understanding in groups. During this phase, the teacher helped the students understand the meaning of the dialogue rather than jumped at explanation of the grammar element of the *ba*-construction.
- Attention on the *ba*-construction -- The students were asked to answer questions like “Anything new you noticed in the dialogue?”, “What caught your attention?”, or “What patterns have you found in the dialogue?” By doing this, they were encouraged to identify the new grammar element and thus their attention was drawn to the *ba*-construction, the target form in the dialogue. At this point of time, the teacher highlighted the *ba*-constraints in the dialogue to ensure that the students focused on this target structure for discussion.

- Co-construct understanding of the *ba*-construction -- The students were engaged into discussion about the form, meaning, and function of the *ba*-construction while the teacher moved around in the room, eliciting students' observations and understandings by asking clear and meaningful questions, offering help whenever the students needed and assisted students in gaining a deeper understanding of the target structure and discussing it in a meaningful context. Also the teacher acted as a conversation partner to a couple of students who were interested in having a conversation in Chinese, using the new grammar element.
- Extensive practice -- The students were paired up and given a picture sheet (Appendix J) with some colored pictures of furniture on it. Then they were asked to make up dialogues based on the pictures given and do role-playing with partners. They were especially encouraged to talk about their real-life experiences of moving into a new apartment with their partners, encouraged to use the new grammar element in creative and interesting ways and to express themselves freely. No patterns drills or translation exercises but primarily oral assignments focused on oral communication in ways that they saw as useful, meaningful, and connected to the moving theme of the lesson.

Measures

Three experiments were created and used as measures of this study to assess the effectiveness of CLT versus that of GT. They were an elicited Oral Production Experiment, a Translation Experiment, and a Meta-linguistic Awareness Experiment. Oral Production Experiment tested whether or not the participants produced the *ba*-sentences in describing the actions on the PowerPoint slides (Appendix K). Translation Experiment tested whether or not the participants used the *ba*-construction in translating English sentences (Appendix L) into Chinese. Meta-linguistic Awareness Experiment was a grammaticality experiment. It tested whether or not the participants could pick out the grammatically and semantically correct sentence with the *ba*-construction from the choices given (Appendix M). It was

meant to provide the students an opportunity to exhibit their meta-linguistic knowledge on the individual constraints on the *ba*-construction, including the object-front word order, the position of aspect marker *-le* and a locative phrase as verbal complement. Constraint 2.6c on the *ba*-construction was purposefully included in Translation Experiment and Meta-linguistic Awareness Experiment but not in Oral Production Experiment because it is hard to design visual scenes to represent real-life situations where an emotional verb is obligatory.

Oral Production Experiment

This was a performance-based assessment designed to assess the participants' oral communicative performance after the treatment lesson so as to determine whether the communicative approach is more effective than the traditional approach in developing communicative ability in CFL learners. The purpose was to elicit *ba*-sentences with *-le* or a locative prepositional phrase at the sentence-final position. Therefore, creating language contexts that strongly favor the *ba*-construction was crucial for this experiment.

To achieve this, the researcher created twelve real-life contexts and presented them on twelve PowerPoint slides (Appendix J). Each slide consisted of three sub-slides that exhibited three scenes. The three scenes on one slide were connected together to show a completed action and a result brought about by the action, but the scenes on each of the twelve slides were independent to one another. For example, in one set of scenes, "Shutting down the Computer", the first scene was a computer sitting on a computer desk, the second scene was a student bending over the computer desk with one hand on the mouse, and the third scene was the same computer in the first scene but with the screen black. Figure 3.2 exhibits the "Shutting down the Computer" scenes.



Figure 3.2 Oral Production Experiment Model 1 Shutting down the Computer

The participants were expected to use *ba*-sentences to describe the action presented through the three scenes on this PPT slide though they were not reminded to do that prior to the experiment. The researcher would like to see 1) whether the participants used *ba*-sentences in their description, and 2) whether they used grammatically and semantically correct *ba*-sentences to fulfill this language task. If the participants failed to use *ba* in describing the scenes that require *ba*-sentences in the standard structures illustrated in 2.6, their sentences would be grammatically wrong or their statement would sound rather awkward though understandable to native Chinese speakers. Therefore, this task of describing the action could not be achieved by not using the *ba*-construction.

Another set of scenes were about “Putting a Picture on the Wall”. While the item design and presentation of the language context were exactly the same as in “Shutting down the Computer”, the syntax focus was different. The previous context was designed to elicit a *ba*-sentence with *-le*, but this context was designed to elicit a *ba*-sentence with a locative verbal complement. Figure 3.3 exhibits the “Putting a Picture on the Wall” scenes.

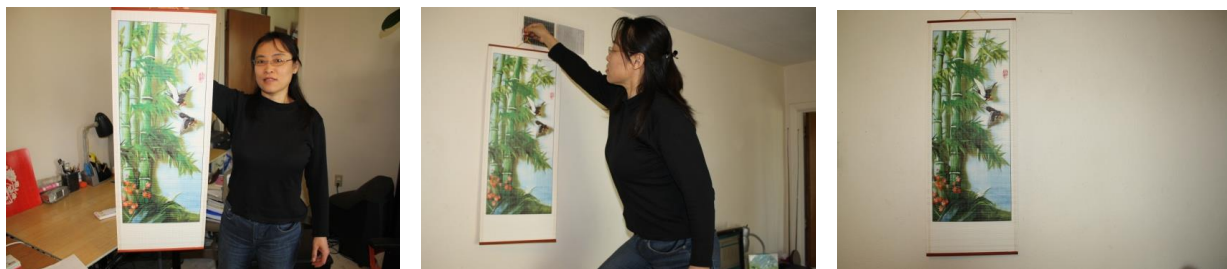


Figure 3.3 Oral Production Experiment Model 2 Putting a Picture on the Wall

As can be seen from the sample slides above, the actions were designed in real-life contexts such that they strongly favored production of the *ba*-construction. Despite this fact, there might be extraneous variables that played an unfavorable part in eliciting the *ba*-construction from the participants. For example, unfamiliar scenes, too many actions, and new characters, all might distract the participants from focusing on the task at hand. To prevent such experimental biases, everyday-life scenes familiar to undergraduate students were deliberately selected, actions on the slides were strictly controlled by providing the participants with a clear clue to each set of slides as to what actions to focus on, and only one person was acting in the scenes. Also, the language used to describe the slides was controlled by providing Chinese characters of the objects and actions with pinyin on top. All these were to ensure that the participants focused on the target language items as much as possible, rather than on something unrelated to the Oral Production Experiment.

Altogether, fifteen PPT slides were used to prompt the production of the *ba*-construction in the Oral Production Experiment. Slide 1 was Directions slide. It asked the participants to describe each set of slides with one Chinese sentence but did not specifically require them to use the *ba*-construction in the experiment. This was to see whether they could remember to use this construction in their language. The remaining fourteen slides were broken into two parts: eight slides in Part I and six slides in Part II. Part I consisted of three sections: Model 1 and Answer to Model 1, Practice 1, and five target slides. Similarly, Part II had three sections: a model slide followed by an answer slide to the model slide, a practice slide, and then three target slides. Five of the eight target sets were designed to elicit *ba* with RVCs (Resultative Verb Complement), and the remaining three were designed to elicit *ba* with a locative complement. This was the experiment for the posttest.

For the pretest, the experiment was different in two aspects. One was that the pretest did not have the two model slides, and accordingly, nor two answer slides. Since the purpose of including the pretest to this study was to control for the possible pre-existing differences in the participants' Chinese proficiency, the pretest was administered before the treatment, which means the participants were pretested on the *ba*-

construction before they were taught. Therefore, the pretest had only eleven PPT slides. A second difference was that the pretest slides were in reverse order to those in the posttest. This was to prevent possible memory effect on the test items. All the PPT slides were created by the researcher in real-life contexts.

Translation Experiment

This was a performance-based assessment designed to assess the participants' translation performance after the treatment so as to determine whether GT is more effective than CLT in developing translation skills in CFL learners. It was a paper-pencil test administered to examine whether or not the participants would employ the *ba*-construction in translating the English sentences into Chinese. Eight test items (Appendix L) were designed and three constraints on the *ba*-construction were tested, with four items on *ba* with RVCs, two on *ba* with a locative complement, and two on emotional verbs with *ba*. All sentences were given in English. Chinese equivalents of the key verbs and nouns were provided in brackets to ensure that the participants were not hindered by new Chinese vocabulary. Participants were to translate the given sentences into correct Chinese.

This was the Translation Experiment for the posttest. The pretest was different from the posttest in terms of questions but similar to the posttest in terms of test format, question types, number of test items, and level of difficulty.

Meta-linguistic Awareness Experiment

This was a competence-based assessment designed to tap into the meta-linguistic knowledge of the students about the *ba*-construction. The researcher of this study would like to see if the participants could recognize whether or not certain phrases were grammatically correct after the treatment lesson. This experiment included eight Meta-linguistic Awareness items (Appendix M). Each question had three answer choices but only one of them was correct. The participants were asked to pick out one correct answer from the three choices for each question. All the question stems were in English but the choices

were given in Chinese characters with pinyin on top of each character to make sure that participants were not hindered by unlearned Chinese characters.

This was the Meta-linguistic Awareness Experiment for the posttest. Like Translation Experiment, the pretest of the Meta-linguistic Awareness Experiment was different from the posttest in terms of questions but similar to the posttest in terms of test format, question types, number of test items, and level of difficulty.

Scoring

The researcher created scoring criteria for each of the three tests. A participant's performance was graded on a 100-point scale. A perfect score for each test was 100 points. Points were distributed according to the level of difficulty of the test items involved. For example, a sentence with a locative phrase as the verbal complement was worth four more points than a sentence with a perfective *-le* as the verbal complement and six points more than a sentence without verbal complement. To gain a perfect score in Production Experiment, a participant should describe all the eight target sets of slides, using grammatically and semantically correct *ba*-sentences and actually said the sentences fluently with correct pronunciation and tones. To gain a perfect score in Translation Experiment, a participant should put all the eight English sentences into grammatically and semantically correct Chinese sentences. To gain a perfect score in Meta-linguistic Awareness Experiment, a participant should pick out the correct answer from the given choices in each of the eight test items. For each experiment, a total score was calculated for every participant and the scores of all the participants were summed up to make the total score for each group. So there were six total scores, three on pretests for each of the comparison groups and three on posttests for each of the comparison groups. The researcher graded all the recordings and test papers of the participants. To ensure the accuracy of the grading, she double-checked her grading at three different times within a period of one semester.

Data Collection

Data collection of American participants started in a language lab in Gilbert Building at UGA, on October 18, 2011 and completed on November 2, 2011. There were four sessions and each session lasted about two hours and a half. All three experiments were conducted in one session. A session followed the procedures of pretest--group assignment--treatment--posttest, as diagrammed in Figure 3.1. Data collection of Chinese participants started on November 20, 2011 and completed in August 12, 2012.

Pretest

Prior to the treatments, all participants were asked to take the pretests on three different linguistic tasks: Oral Production, Translation, and Meta-linguistic Awareness. The purpose of including pretests in the research design was to control for possible pre-existing differences among the participants in their Chinese proficiency so as to get more valid test results. This would be explained in Chapter 4.

Group assignment

Right after the pretests, the thirty native Chinese speakers were assigned to reference group and the sixty native English speakers were assigned to one of the two comparison groups: Traditional Group or Communicative Group, based on the time slots they marked on the signing-up sheets. The two comparison groups were equal in number of participants.

Treatment administration

Two different types of treatment were administered to the comparison groups. Participants in the Traditional Group were taught the *ba*-construction under the GT approach while participants in the Communicative Group were taught the same construction under the CLT approach. They had not learned the *ba*-construction in their Chinese 1001 classes before the data collection started but they were to learn this construction in a couple of weeks to come. Each type of treatments was designed to characterize the features of the corresponding approach. The researcher wanted to know which group performed better on

the linguistic tasks after the treatments so as to compare the effectiveness of the two teaching methods. Both lessons were video-taped. The researcher and her dissertation committee were the only persons who had access to the audio recordings and the tapes were erased upon completion of this doctoral dissertation.

Posttest

After the treatment lessons, the participants were asked to take posttests on three different linguistic tasks: Oral Production, Translation, and Meta-linguistic Awareness. The Oral Production Experiment preceded the Translation Experiment and followed by the Meta-linguistic Awareness Experiment in both pretests and posttests. For the Oral Production Experiment, each participant's oral response was audio-taped. The researcher and her dissertation committee were the only persons who had access to the audio recordings and the tapes were erased upon completion of this doctoral dissertation. Both written experiments were conducted in group. Test scores were collected and used as data for this study. Chinese participants did not take the pretests nor received the treatment but took the posttests only.

Statistical Model

Analysis of Covariance (ANCOVA) was used for the data analysis. ANCOVA was conducted to calculate the mean scores of the comparison groups from both pretests and posttests. Teaching method with two levels, the Grammar Translation Method and the Communicative Language Teaching Approach, was entered as the independent variable. Test scores with three levels: Oral Production, Translation and Meta-linguistic Awareness were entered as the dependent variables. Pretest scores with three levels: Oral Production, Translation, and Meta-linguistic Awareness were entered as the covariates. Statistical software IBM SPSS version 21 was used. All the analyses were conducted using $\alpha = 0.05$. GLM procedure was followed in generating the results. Test results were presented and interpreted in Chapter 4 and discussed in Chapter 5.

Summary

Sixty American students from introductory Chinese course at UGA were recruited on volunteer basis as participants of this study. They were given the opportunity to sign up for one of two classes to learn about the Chinese *ba*-construction. During one of the classes, thirty students learned under GT approach; during the other class, the remaining thirty students learned under CLT approach. The students, prior to signing up, were not aware of the comparison group they would be in or the method that would be used in their course. All students were tested before and after the course on three measures: Oral Production, Translation, and Meta-linguistic Awareness based on the *ba*-construction, and were scored on both occasions. A group of thirty Chinese students from the other UGA departments were tested on all the three measures but post-tested only and classroom teaching was unnecessary. They were included as reference group, not control group. One-Way ANCOVA was conducted in SPSS. The significance level was set at 0.05. Pretest scores were entered into data analysis as covariates to control for possible pre-existing differences among participants.

CHAPTER 4: RESULTS

This chapter deals with data analysis and test results interpretation. First, data summary statistics were presented in the mean tables; then the general model was explained, statistical tests were introduced and null hypothesis was introduced. After that, data analysis was conducted in three separate statistical models: Oral Production, Translation and Meta-linguistic Awareness; null hypothesis significance testing was examined; test results were interpreted and reported with regard to research questions. Finally, statistical summaries of native Chinese speakers were presented and item validity was addressed.

Data Summary

Table 4.1 presents the total number of the American students who participated in this study and distributions of the genders of the students across the two teaching methods. The bottom number in the table represents the number of students in each comparison group. The top number and bottom number in each cell of the table represent the number and percent of males and females in each group, respectively. This table indicates that females were slightly less common than males in both groups, but the distribution of females across the two methods was similar (40% female in Communicative Group and 43% female in Traditional Group).

Table 4.1 Distribution of Gender by Teaching Method

Gender	Communicative	Traditional	Total
Female	12 40.00%	13 43.33%	25
Male	18 60.00%	17 56.67%	35
Total	30	30	60

Tables 4.2-4.4 provide three statistical summaries of the test scores. These summaries are for Oral Production, Translation and Meta-linguistic Awareness. Each table provides a summary according to the

method and the test⁷. Summary statistics include the average of 60 individuals (Mean); the standard deviation of test scores (Std Dev), which is a measure of how different the scores are from one another; the minimum score of all 60 students who took the test, the median test score (by definition, half the individuals score higher than the median and half score lower), and the maximum score of all 60 students who took the test.

Table 4.2 Summary Statistics for Oral Production

Method	Test	Mean	Std Dev	Minimum	Median	Maximum
Communicative	Pretest	57.57	17.14	23.0	55.0	90.0
	Posttest	80.10	9.80	44.0	80.0	97.0
Traditional	Pretest	60.83	17.29	33.0	61.0	95.0
	Posttest	83.10	8.81	62.0	84.0	98.0

Table 4.3 Summary Statistics for Translation

Method	Test	Mean	Std Dev	Minimum	Median	Maximum
Communicative	Pretest	70.10	13.38	51.0	66.0	94.0
	Posttest	83.90	10.20	60.0	86.0	98.0
Traditional	Pretest	72.20	13.55	50.0	73.5	98.0
	Posttest	92.57	7.36	65.0	94.0	100.0

Table 4.4 Summary Statistics for Meta-linguistic Awareness

Method	Test	Mean	Std Dev	Minimum	Median	Maximum
Communicative	Pretest	68.53	27.68	20.0	76.0	100.0
	Posttest	96.40	7.13	76.0	100.0	100.0
Traditional	Pretest	82.80	22.46	32.0	89.0	100.0
	Posttest	99.60	2.19	88.0	100.0	100.0

A general pattern was revealed about the test scores in these three statistical summary tables, that is, the students' scores increased dramatically from Pretests to Posttests with all three measures. This indicates that both teaching methods led to statistically and practically significant gains for the students in

⁷ "Test" refers to Pretests and Posttests on three measures: Oral Production, Translation, and Meta-linguistic Awareness.

all areas. For example, the net increase of the combined mean score was 19.82 for Traditional Group and 21.40 for Communicative Group. A more dramatic mean increase was 27.87 on Meta-linguistic Awareness measure in Communicative Group. Examination of the summary statistics in Tables 4.4 reveals two important facts about the variability in the score data: (1) the variability among test scores (as demonstrated by standard deviations) is much smaller for Posttest scores than Pretest scores, and (2) there is very little variability among Posttest scores for Meta-linguistic Awareness questions. In the second case, the lack of variability is extreme. The researcher would like to explore, through quantitative means, whether one method would be more effective than the other after the classroom session or both methods would be equally effective in all areas.

General Explanation of Model

It is possible to make all of these comparisons with ANOVA (Analysis of Variance), but a more statistically superior approach is to use ANCOVA (Analysis of Covariance) because this model has two advantages over ANOVA: 1) To eliminate confounds, 2) To reduce within-group error variance.

First, in any experiment, there may be unmeasured variables that are not part of the main experimental manipulation, but vary systematically with the experimental manipulation, and thus confound the results. If any variables are known (or thought) to influence the dependent variable being measured, then ANCOVA is ideally suited to remove the bias of these variables. Once a possible confounding variable has been identified, it can be measured and entered into the analysis as a covariate (Field, Miles, & Field, 2012).

Secondly, in ANOVA we assess the effect of an experiment by comparing the amount of variability in the data that the experiment can explain against the variability that it cannot explain. In other words, basic ANOVA shows that the total variance (SS_T) in the dependent variable can be partitioned into treatment variance (SS_M) and error or unexplained variance (SS_R), shown in formula (1):

$$SS_T = SS_M + SS_R \quad (1)$$

where, SS_T = total sum of squares, SS_M = sum of squares for treatment, SS_R = sum of squares for error. But ANOVA can be extended into ANCOVA by including one or more continuous variables, termed *covariates* that are not part of the main experimental manipulation, but have an influence on the dependent variable. Figure 4.1 illustrates this superiority.

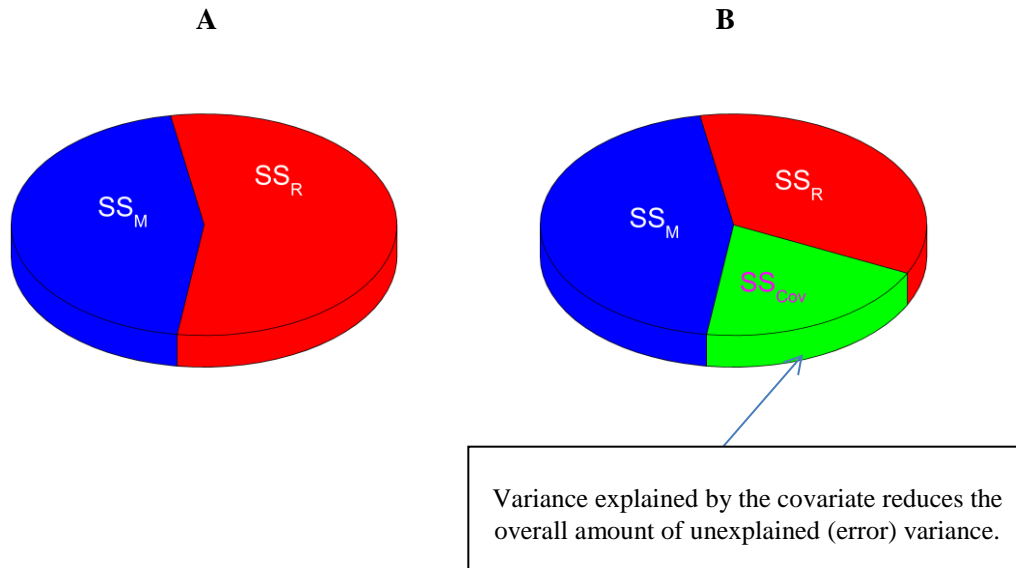


Figure 4.1 Accounting for Variance in ANOVA vs. in ANCOVA

Figure 4.1 shows how variance is accounted for in ANOVA with no covariate (A) contrasting to in ANCOVA with a covariate SS_{cov} (B). As illustrated in this figure, ANCOVA can help explain some of the variance that was previously unexplained (SS_R) in terms of covariates, thus reduces the error variance and allows us to more accurately assess the effect of the experimental manipulation (SS_M) (Field, 2009). Thus ANCOVA tests whether manipulated factors (IVs) have a significant effect on the DV after removing--or *partialing out*--the variance accounted for by the covariates. In this sense, ANCOVA is like ANOVA on the values of the dependent variable, *after* removing the variance accounted for by the covariates, rather than on the original values. That is why ANCOVA was used as the statistical model of this study.

The purpose of this study is to learn how the applications of two instructional methods affect the students' scores on the three measures with regard to the Chinese *ba*-construction. However, there were factors other than method that might influence the students' scores. Some possible influences on students' scores might be test-taking skills, learning styles, and/or differences in language proficiency. If these variables are measured, then it is possible to control for the influence they have on the treatment results by including them in the model. Pre-existing differences in Chinese language proficiency among the participants was believed to be such a variable that might confound the results, lead to inaccurate assessment, and constitute threat to validity of the test results.

Actually, information from *Language Background Questionnaire for Native English Speakers* (Appendix F) revealed that, prior to participating in this study, some American participants had never been exposed to Chinese at all but some were exposed to Chinese to different extents (Table 3.1). Also, the self-rated scores of the participants on their own Chinese proficiency vary on a 0-10 scale (Table 3.2). To obtain more accurate test results, it was necessary to control for the impact of the pre-existing differences among the participants. With ANCOVA, pretests on three measures were included as covariates in the research design and entered into data analysis in SPSS in hope of reducing error variance and increasing statistical power in comparing the effectiveness of the two teaching methods.

This model would predict an individual's score on the basis of (1) whether the individual was in the Communicative or Traditional approach group, (2) whether the score in question was a Pretest or a Posttest score. In the analysis of ANCOVA, each term is tested separately for a statistically significant effect on the test score, and each has a different meaning with regard to the research questions. If the teaching method has a statistically significant effect on score, this means that one group tended to do better than the other after controlling for the variance accounted for by the covariates, but this does not completely answer any of the research questions. We need to conduct *Post Hoc* test to know which method is more effective. If the teaching method has no statistically significant effect on score, a follow-up *Post Hoc* test helps to indicate why.

Explanation of Statistical Tests

For the statistical models relating teaching method and Pretests to Oral Production, Translation, Meta-linguistic Awareness, each of the two terms will be tested to determine whether or not it has a statistically significant effect. Both terms are tested using an F-test. The *F*-ratio in ANCOVA compares the amount of variance explained by the experimental manipulation (SS_M) against the variance that it cannot explain (SS_R), shown in formula (2):

$$F = \frac{SS_M/(k - 1)}{SS_R/(n - k)} \quad (2)$$

where k = the number of populations, and N = total sample size. That means the differences among the average scores for students in different teaching groups are compared to the differences within each of these groups of students. If the differences between the groups are much larger than the differences among the individual students, the *F* statistic will be large; if the differences between the groups are not much larger than the differences among the individual students, the *F* statistic will be small.

Once the *F* statistic is calculated, the decision of whether it is “large” or not (and therefore whether the effects of the various model terms are significant or not) is determined by a *P*-value, level of significance. The *P*-value is the probability that the effect of a model term would be as large as it was in this particular sample of individuals, if there really would be no effect of that model term in the general population. For example, for evaluating the effect of method, the *P*-value would assume there is no true difference in Communicative and Traditional scores in the population, and would be calculated as the probability of such a population producing a random sample with a difference between Communicative and Traditional scores as large as or larger than the difference found in our particular sample. By convention, the cutoff for indication of statistical significance is a *P*-value of 0.05 or smaller. This means there is less than a 5% chance of “mistakenly” claiming there is a significant effect a particular term in the situation where there is no effect. The level of significance in this study is set at 0.05.

Null Hypothesis

ANCOVA tests whether the sample means and the population means are the same. The null hypothesis is: the means are the same, or the method does not make difference (1). If the method doesn't make a difference, the true population means of the groups would be the same. That means the true population means of the group that received CLT teaching would be the same as that of the group that received GT teaching. In that case, the null hypothesis would be accepted.

$$(1) H_0: \mu_1 = \mu_2 = \mu_3$$

$$(2) H_A: \mu_1 \neq \mu_2 \neq \mu_3$$

The alternative hypothesis is: the means are not equal, or the method does make a difference (2). If the means are not equal, that means the different treatments the participants received actually have some type of impact upon how they performed on the experiments, or one method is more effective than the other. If the alternative hypothesis were correct, that means the true population means would not be the same. In that case, the null hypothesis would be rejected. The F statistics tests the null hypothesis against the alternative hypothesis. Intuitively, the F-statistic is ratio of the between-group variance and the within-group variance.

$$F = \frac{\textit{explained variance}}{\textit{unexplained variance}} \quad (3)$$

As formula (3) shows, the smaller the unexplained variance is, the larger the probability for statistical differences of the independent variable upon the dependent variable. If the numerator is big, or F value is big, it means the variation in the data is due mostly to the differences between the actual means and less to the variation within the means. That would make us believe there is a difference in the true population means and the null hypothesis would probably be rejected. If the denominator is big, or F value is small, it means that there is lower possibility that the null hypothesis is correct. So that means that the variation within each of the samples is a bigger percentage of the total variation versus that of the

variation between the samples. That would make us believe that any variation we have seen in the means was probably just random. That would make it harder to reject the null hypothesis (Salman Khan, 2013).

Data Analysis

In order to gain a complete understanding of how the teaching methods used affects the Oral Production, Translation and Meta-linguistic Awareness scores of the students, there are multiple ways in which test scores should be compared. The scores of each of the two groups of students should be compared both after the classroom teaching (to learn whether or not the groups were different after the lessons) and before the classroom teaching (to learn whether or not the groups were different prior to the lessons). The change in scores should also be compared, to learn whether one method leads to more improvement in Oral Production, Translation and/or Meta-linguistic Awareness.

To determine whether teaching method affect test scores, separate statistical models are applied to Oral Production, Translation and Meta-linguistic Awareness scores. The researcher started with Oral Production Model, moved on to Translation Model, and then Meta-linguistic Awareness Model, testing each model for statistical significance.

Oral Production Model

Table 4.5 provides the results of statistical tests from Oral Production Model. Note that numerator degrees of freedom are related to the number of levels of group (for example, method has two levels, Communicative and Traditional, and therefore just one degree of freedom) and denominator degrees of freedom are related to the number of observations in the sample.

Table 4.5 Statistical Tests for Oral Production Scores

Effect	Num DF	Den DF	F Statistic	P-Value	Partial η^2	Observed Power
Pretest	1	57	5.337	0.025	0.086	0.622
Method	1	57	1.133	0.292	0.019	0.182

The results of this model indicate that, the covariate, Pretest scores, was significantly related to the participant's posttest performance, $F_{(1,57)} = 5.34, p < 0.05$, partial $\eta^2 = 0.086$. But there was no significant effect of method on levels of posttest performance after controlling for the effect of participant's pre-existing proficiency, $F_{(1,57)} = 1.133, p > 0.05$, partial $\eta^2 = 0.019$. Based on the degrees of freedom of the F test, looking at the critical values of F distribution table (Pedhazur, 1997) at $\alpha = 0.05$, the critical F value for Oral Production Model results was $F_{critical} = 4.01$, greater than $F_{actual} = 1.133$ in this model.

Post Hoc analysis revealed no statistical evidence that one teaching method provides students with more advantage over the other teaching method. Table 4.6 provides the *Post Hoc* results of statistical tests for Oral Production measure:

Table 4.6 Post-Hoc Comparisons of Teaching Methods for Oral Production Model §

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
C	T	-2.483	2.332	.292	-7.152	2.187
T	C	2.483	2.332	.292	-2.187	7.152

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

§ Pairwise Comparisons. Dependent Variable: Oral Production Posttest

As presented in Table 4.6, the *Post Hoc* analysis was performed with a Bonferroni adjustment, and the post-treatment performances were not statistically significantly greater in Traditional Group (82.84 ± 1.65) than Communicative Group (80.36 ± 1.65). Bonferroni *Post Hoc* analysis revealed the difference 2.483 (95% CI, -2.187 to 7.152), which was statistically non-significant ($p > 0.05$).

Although the average Oral Production score of the Traditional Group is estimated to be 2.483 points higher than the average Oral Production score of the Communicative Group, examination of Table 4.2 reveals that 1) the two groups were different at both Pretest and Posttest, 2) the improvement from

Pretest to Posttest was similar (22.27 and 22.53, respectively). Therefore, there is no evidence that the two methods provide the students with different benefits. Figure 4.2 graphically shows this information.

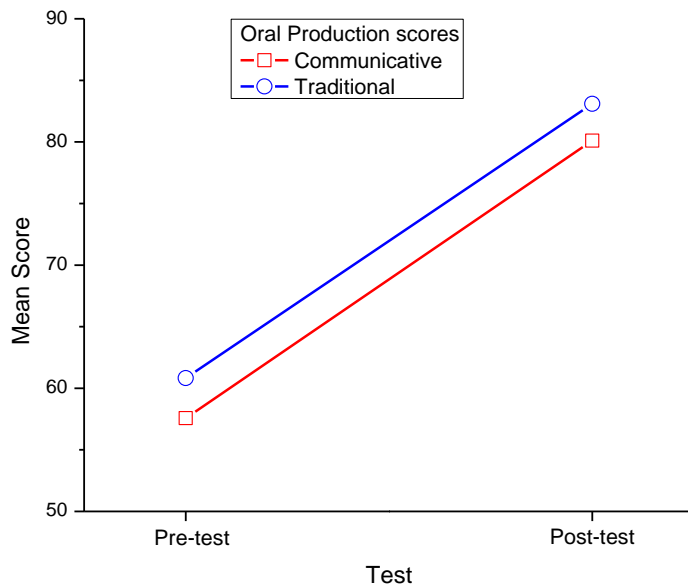


Figure 4.2 Mean Score for Oral Production Model⁸

Figure 4.2 shows that the mean scores in both groups were improved dramatically from Pretest to Posttest, and one group scored higher than the other on both occasions. This provides evidence that both of the two methods are effective, but it does not provide evidence that either method is better than the other. While one of the groups does perform better, it performs equally better on both the Pretest and the Posttest, and so it is NOT due to the teaching method.

Translation Model

Table 4.7 provides the results of statistical tests from Translation Model. This table shows that the covariate, Pretest scores, was significantly related to the participant's posttest performance, $F_{(1, 57)} =$

⁸The term "Traditional" in Figures 4.2-4.4 specifically refers to Grammar Translation in this study. Similarly, the term "Communicative" specifically refers to Communicative Language Teaching Approach.

16.61, $p < 0.0005$, partial $\eta^2 = 0.226$. There was also a significant effect of method on levels of posttest performance after controlling for the effect of participant's pre-existing proficiency, $F_{(1, 57)} = 15.328$, $p < 0.0005$, partial $\eta^2 = 0.212$. Based on the degrees of freedom of the F test, looking at the critical values of F distribution table (Pedhazur, 1997) at $\alpha = 0.05$, the critical F value for Translation Model results was $F_{\text{critical}} = 4.01$, smaller than $F_{\text{actual}} = 15.328$ in this model.

Table 4.7 Statistical Tests for Translation Scores

Effect	Num DF	Den DF	F Statistic	P-Value	Partial η^2	Observed Power
Pretest	1	57	16.610	<0.0005	0.226	0.980
Method	1	57	15.328	<0.0005	0.212	0.971

The analysis revealed statistical evidence that one group's average score changed from pretest to posttest more dramatically than the other group's average score. In other words, the significant method effect implies that now that we know there is a statistically significant difference between the adjusted means, we will want to know where the differences lie. But Table 4.7 does not provide the information of which of the two groups did better. This is reported in the Pairwise Comparisons table. Therefore, pairwise comparison was needed to determine the reason for the significant method effect. Table 4.8 provides the *Post Hoc* results of statistical tests for this significance.

Table 4.8 Post-Hoc Comparisons of Teaching Methods for Translation Model §

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
C	T	-8.008*	2.045	.000	-12.103	-3.912
T	C	8.008*	2.045	.000	3.912	12.103

Based on estimated marginal means. *. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

§ Pairwise Comparisons. Dependent Variable: Translation Posttest

As presented in Table 4.8, the *Post Hoc* analysis was performed with a Bonferroni adjustment. This post-hoc test presented in the above table provides both confidence intervals for the differences between the group means and whether the differences are statistically significant. Notice that the standard errors are the same for groups that have the same number of participants. This is because SPSS uses the overall error term in its calculations, not the individual error terms for each group. With two groups there were two combinations of group differences. This is because the data is repeated twice for each group combination (Group C vs. Group T and then the reverse, Group T vs. Group C). *Post Hoc* analysis revealed statistically significant evidence that one teaching method provides students with more advantages over the other teaching method, as $p < 0.0005$, which is much less than 0.05. The adjusted mean difference of performance score is 92.24 ± 1.44 in Traditional Group and 84.23 ± 1.44 in Communicative Group, a means difference of 8.008 (95% CI, 3.912 to 12.103), which was statistically significant ($p < 0.0005$). Figure 4.3 graphically shows this significance.

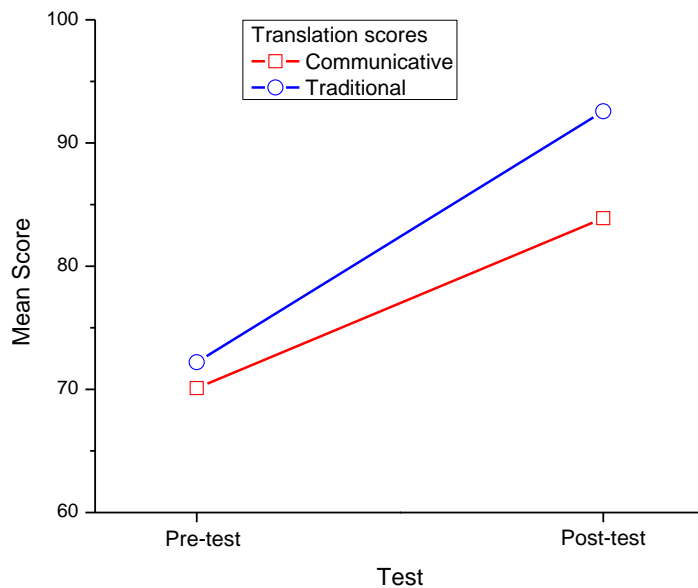


Figure 4.3 Mean Score for Translation Model

Figure 4.3 shows that 1) mean scores of Traditional Group were higher than those of Communicative Group on Posttest; 2) mean scores of the two groups were close at the time of the Pretest. This provides evidence that, while both groups improved dramatically on the Pretest and the Posttest, Traditional Group outperformed the Communicative Group on Translation Posttest following the teaching. That means, while both of the two methods are effective, GT is better than CLT as indicated by the position of the blue line that represents the Traditional Group taught under traditional teaching method. Note also that there was sufficient statistical power to detect such significant effects (i.e., the power statistics of 0.97 was above the cutoff standard of 0.80 in the field of second language acquisition). Additional information on Table 4.3 shows that Posttest Translation scores are, on average, 20.37 points higher than Pretest scores.

Meta-linguistic Awareness Model

Table 4.9 provides the results of statistical tests from Meta-linguistic Awareness Model. The results of this model indicate that the covariate, pretest scores, was significantly related to the participant's Posttest performance, $F_{(1, 57)} = 8.228$, $p < 0.05$, partial $\eta^2 = 0.126$. But there was not significant effect of method on levels of posttest performance after controlling for the effect of participant's pre-existing proficiency, $F_{(1, 57)} = 2.562$, $p > 0.05$, partial $\eta^2 = 0.043$.

Table 4.9 Statistical Tests for Meta-linguistic Awareness Scores

Effect	Num DF	Den DF	F Statistic	P-Value	Partial η^2	Observed Power
Pretest	1	57	8.228	<0.006	0.126	0.805
Method	1	57	2.562	<0.115	0.043	0.350

Table 4.10 provides the *Post Hoc* results of statistical tests for this measure. This post-hoc test presented in the table below provides both confidence intervals for the differences between the group means and whether the differences are statistically significant. *Post Hoc* analysis revealed no statistical

evidence that either teaching method provides students with an advantage over the other teaching method, as $p = 0.115$, which is greater than 0.05.

Table 4.10 Post-Hoc Comparisons of Teaching Methods for Meta-linguistic Awareness Model [§]

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
					Lower Bound	Upper Bound
C	T	-2.139	1.337	.115	-4.816	.537
T	C	2.139	1.337	.115	-.537	4.816

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

§ Pairwise Comparisons. Dependent Variable: Meta-linguistic Awareness Posttest

As presented in Table 4.10, the *Post Hoc* analysis was performed with a Bonferroni adjustment. Notice that the standard errors are the same for groups that have the same number of participants. This is because SPSS uses the overall error term in its calculations, not the individual error terms for each group. This table provides different options for the researcher to report her data and she prefers estimates over descriptive statistics.

With two groups there were two combinations of group differences. This is because the data is repeated twice for each group combination (Group C vs. Group T and then the reverse, Group T vs. Group C). The adjusted mean difference of performance score is 99.07 ± 0.93 in Traditional Group and 96.93 ± 0.93 in Communicative Group, a means difference of 2.139 (95% CI, -0.537 to 4.816), which was statistically non-significant ($p = 0.115$). Figure 4.4 graphically shows this information.

Figure 4.4 indicates that Communicative Group did not do as well as Traditional Group on the pretest (68.53 compared to 82.80, see Table 4.4). Despite the fact that Communicative Group had greater improvement (27.87points) than Traditional Group (16.80 points) after the teaching, the mean scores of the two groups were almost the same by the time they took the posttests (96.40 compared to 99.60, see Table 4.4). This means that the net mean score increase in Communicative Group was greater than that in the Traditional Group. This may show that CLT was more effective than GT, but does not provide

statistical evidence that the CLT was truly better than GT, because one of the groups started out with more knowledge. The difference was not due to method.

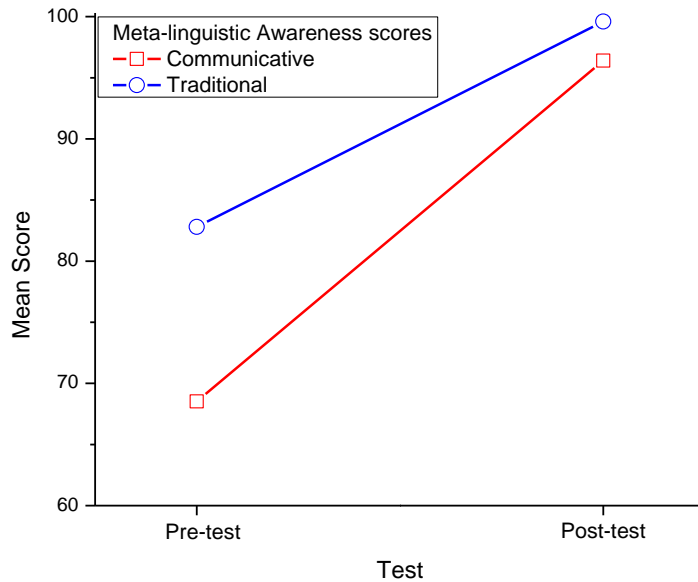


Figure 4.4 Mean Score for Meta-linguistic Awareness Model

Null Hypothesis Significance Testing

For the Oral Production Model, there was no statistically significant effect between the means of the two comparison groups: $F_{1,57} = 1.133$, $p > 0.05$), and $F_{critical} = 4.01$, greater than $F_{actual} = 1.133$, therefore, the null hypothesis for the significance test was accepted.

For the Translation Model, there was a statistically significant effect between the means of the two comparison groups: $F_{1,57} = 15.328$, $p < 0.0005$), and $F_{critical} = 4.01$, smaller than $F_{actual} = 15.328$, therefore, the null hypothesis for the significance test was rejected and the alternative hypothesis was accepted.

For the Meta-linguistic Awareness Model, there was no statistically significant effect between the means of the two comparison groups: $F_{1,57} = 2.562$, $p > 0.05$), and $F_{\text{critical}} = 4.01$, greater than $F_{\text{actual}} = 2.562$, therefore, the null hypothesis was accepted.

Relating Results to Research Questions

The test results presented above with the three models addressed the research questions proposed in this study:

1. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of oral production, the Communicative Language Teaching Approach or the Grammar Translation Method?
2. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of translation, the Communicative Language Teaching Approach or the Grammar Translation Method?
3. Which method is more effective at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of meta-linguistic awareness, the Communicative Language Teaching Approach or the Grammar Translation Method?

Oral Production Model corresponds to research question #1. With regard to method effect at teaching Oral Production, the test results from this measure in SPSS indicate that one method is not statistically significantly more effective than the other at teaching the American students the *ba*-construction, though both methods do appear to be highly significantly effective after the class sessions.

Translation Model corresponds to research question #2. With regard to method effect at teaching translation, the test results from this measure in SPSS indicate that GT is statistically significantly more effective than CLT at developing translation skills of the *ba*-construction in the American students, as the p-value was far less than the cutoff of 0.05, and both methods do appear to be highly significantly effective after the class session.

Meta-linguistic Awareness Model corresponds to research question #3. With regard to method effect at raising learners' meta-linguistic awareness, the test results from this measure in SPSS indicate that one method is not statistically significantly more effective than the other, though both methods do appear to be highly significantly effective.

Statistical Summaries of Native Chinese Speakers

Table 4.11 provides statistical summaries of the test scores of the Chinese students. These summaries are for Oral Production, Translation and Meta-linguistic Awareness. Each cell in the table provides a summary according the measure on the Posttest⁹, with the combined mean at the bottom. Summary statistics include the average of 30 individuals (Mean); the standard deviation of test scores (Std Dev), which is a measure of how different the scores are from one another; the minimum score of all 30 students who took the test, the median test score (by definition, half the individuals score higher than the median and half score lower), and the maximum score of all 30 students who took the test.

Table 4.11 Statistics on Posttests for Native Chinese Speakers

Number	Posttest	Mean	Std Dev	Minimum	Median	Maximum
30	Oral Production	95.07	4.95	80.0	98.0	100.0
30	Translation	92.13	6.47	75.0	94.0	99.0
30	Meta-linguistic Awareness	99.60	2.19	88.0	100.0	100.0
30	Three-Combined	95.60	3.13	88.0	96.50	99.0

Table 4.11 indicates that the Chinese students in the reference group scored high on all the three measures, on average, 95.07 for Oral Production, 92.13 for Translation and 99.60 for Meta-linguistic Awareness. The combined mean score for this reference group is 95.60 on a 100-point scale. Since the native Chinese speakers 1) did not receive any treatment, 2) took exactly the same Posttest on the three measures, 3) the Pretests have similar test construct, difficulty level and types of questions to those of the

⁹ Chinese students took the posttests only because they made up the reference group, not a control group.

Posttest though they have different questions, it is statistically justifiable to use the Chinese students' test scores as a measure to assess the reliability and validity of the test items. The summary statistics in Table 4.11 indicates that the language contexts created for the Oral Production Experiment did elicit the *ba*-construction from the native Chinese speakers. Similarly, the questions on the Translation Experiment did facilitate production of the *ba*-sentences from native Chinese speakers. The fact that the native Chinese speakers produced a consistently high percentage of the *ba*-sentences on the two linguistic tasks provided evidence for reliability and validity for the test items on Oral Production and Translation measures. The fact that the Chinese participants received high scores on the Meta-linguistic Awareness Experiment provided evidence to the validity for the test items of this measure.

Summary

ANCOVA was conducted in three separate models to determine the effectiveness of two different instructional approaches on the post-treatment performance after controlling for possible pre-existing differences among the participants in their Chinese proficiency. The results obtained from data analysis with the three models were compared and discussed. Both instructional approaches led to statistically and practically significant gains for the students in all areas. With regard to comparative teaching effect, statistically significant differences were found in Traditional Group with Translation measure, as the P-values were less than the cutoff of 0.05. No statistically significant differences were found to exist between the comparison groups with regard to Oral Production or Meta-linguistic Awareness, as the P-values were not less than the cutoff of 0.05. Based on these test results, the alternative hypothesis was accepted for Translation measure and the null hypothesis was accepted for the other two measures. Further, the meaning of being statistically significant was explained with regard to the nature of ANCOVA model. Mean score increase alone does not account for significant results. For a test to be statistically significant, both the between-group and within-group differences on Pretest and Posttest need to be taken into consideration.

CHAPTER 5: DISCUSSION

This chapter focuses on the discussion of results. It first relates the results to research hypotheses, then explains the significance of using ANCOVA model for the data analysis, after that, discusses the findings in relation to literature, presents contributions of this study, discusses pedagogical implications, analyzes the limitations of this study, provides suggestions for future studies, and finally, draws conclusion of this study.

Relating Results to Research Hypotheses

Test results from Translation Model showed that, after adjustment for pre-existing differences among the participants, there were statistically significant differences in post-treatment performance between the two comparison groups ($F_{1,57} = 15.328$, $p < 0.0005$, partial $\eta^2 = 0.212$). Follow-up *Post Hoc* analysis indicates that GT was more effective than CLT in developing translation skills of the *ba*-construction in American CFL undergraduate students. The test results with Oral Production Model show that, after adjustment for pre-existing differences, no statistically difference was found between the two instructional approaches on Oral Production measure ($F_{1,57} = 1.133$, $p > 0.05$, partial $\eta^2 = 0.019$). These test results addressed the two hypotheses proposed in the present study:

1. The Grammar Translation Method is more effective than the Communicative Language Teaching Approach at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of translation.
2. The Communicative Language Teaching Approach is more effective than the Grammar Translation Method at teaching the *ba*-construction in Mandarin Chinese as a foreign language to native English speakers in terms of oral production.

With regard to the results from Translation Model, since $F_{\text{actual}} = 15.328$, greater than $F_{\text{critical}} = 4.01$, the null hypothesis was rejected, therefore, Hypothesis #1 was supported. With regard to results

from Oral Production Model, since $F_{\text{actual}} = 1.133$, smaller than $F_{\text{critical}} = 4.01$, the null hypothesis was accepted, therefore, Hypothesis #2 was not supported.

Why ANCOVA over ANOVA?

The necessity of using ANCOVA was resulted from the fact that participants in this study were recruited and assigned to comparison groups through their signing-up based on their schedule convenience. They did not receive any treatment before taking the Pretests nor were they equally split into two groups based on their pretest scores, so their pretest scores revealed pre-existing differences in their Chinese proficiency. ANCOVA was used as the statistical model because, on one hand, it could help eliminate the biases of the confounding variables; on the other hand, it could help control for the pre-existing differences on the dependent variable by including the covariate, thus allow more valid test results. In order to make it clear how the covariate has adjusted the original posttest group means and allow the researcher to get more valid measure of effect of the experimental manipulation, ANOVA was run to analyze the data used in this research, then ANOVA tables were presented together with ANCOVA tables, and the changes in significance level, treatment effect and error variance on the two different models were interpreted and compared.

Table 5.1 ANOVA Table for Translation Data [§]

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	1126.667 ^a	1	1126.667	14.237	.000	.197	.960
Intercept	467107.267	1	467107.267	5902.359	.000	.990	1.000
Group	1126.667	1	1126.667	14.237	.000	.197	.960
Error	4590.067	58	79.139				
Total	472824.000	60					
Corrected Total	5716.733	59					

a. R Squared = .197 (Adjusted R Squared = .183)

b. Computed using alpha = .05

§ Tests of Between-Subjects Effects. Dependent Variable: Translation Posttest

Table 5.1 shows the ANOVA test results for Translation data when the covariate is not included. It indicates that the amount of variation accounted for by the model (SS_M) is 1126.67 units (corrected model) and that the error variance (SS_R) is 4590.07 units. These values are original in the sense that they do not include any adjustments made by the use of a covariate in the analysis.

Table 5.2 shows the ANCOVA table with the covariate included. Compare this to the above summary table when the covariate was not included. The format of the ANCOVA table is largely the same as without the covariate, except that there is an additional row of information about the covariate (Trans_Pre). Looking first at the significance value, it is clear that the covariate significantly predicts the dependent variable because the significance value is ($p < 0.0005$) less than the cutoff of 0.05. Therefore, the participant's posttest performance is influenced by their pre-existing differences.

Table 5.2 ANCOVA Table for Translation Data [§]

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	2162.415 ^a	2	1081.207	17.339	.000	.378	1.000
Intercept	8717.807	1	8717.807	139.806	.000	.710	1.000
Trans_Pre	1035.748	1	1035.748	16.610	.000	.226	.980
Group	955.795	1	955.795	15.328	.000	.212	.971
Error	3554.318	57	62.356				
Total	472824.000	60					
Corrected Total	5716.733	59					

a. R Squared = .378 (Adjusted R Squared = .356)

b. Computed using alpha = .05

§ Tests of Between-Subjects Effects. Dependent Variable: Translation Posttest

What is more interesting is that the amount of variation accounted for by the model (SS_M) has increased to 2162.42 units (corrected model) of which method accounts for 955.80 units. Most important, the large amount of variation in test performance that is accounted for by the covariate has meant that the unexplained variance (SS_R) has been reduced to 3554.32 units. Notice that SS_T has not changed, all that has changed is how that total variation is explained.

Also note that when the effect of the participant's Pretest score is removed, the effect size of the method changed (from partial $\eta^2 = 0.197$ to partial $\eta^2 = 0.212$). ANOVA tests to see whether the group means we are comparing are different from one another. It does not indicate how different means are from one another. Effect size helps to estimate how large any difference we find may be. The effect size for a one-way ANOVA is Eta-squared, which is the proportion of variance associated with or accounted for by each of the main effects, interactions, and error in an ANOVA study (Tabachnick & Fidell, 2001; Thompson, 2006). Formulaically, η^2 or η^2 is defined as follows:

$$\eta^2 = \frac{SS_{effect}}{SS_{total}} \quad (5.1)$$

Partial eta squared (partial η^2) assesses the proportion of variance that a variable explains and that is not explained by other variables in the analysis. Formulaically, partial η^2 or partial η^2 , is defined as follows:

$$\eta_{partial}^2 = \frac{SS_{effect}}{SS_{total} + SS_{error}} \quad (5.2)$$

The effect size for this study is measured with Formula 5.2:

$$Partial \eta_{ANOVA}^2 = \frac{1126.67}{1126.67 + 4590.07} = 0.197 \quad (5.3)$$

$$Partial \eta_{ANCOVA}^2 = \frac{955.80}{955.80 + 3554.32} = 0.212 \quad (5.4)$$

The calculation shows the original effect size was 0.197 while the adjusted effect size was 0.212, a greater effect size for the ANCOVA model. Moreover, the statistical power of the test increased from 0.960 to 0.971. This model comparison illustrates how ANCOVA helped the researcher to exert stricter experimental control by taking account of confounding variables to give a more valid measure of effect of the experimental manipulation.

Table 5.3 shows the ANOVA table for Meta-linguistic Awareness data when the covariate is not included. Looking first at the significance value, it is clear that the independent variable significantly predicts the dependent variable because the significance value is (0.022) less than the cutoff of 0.05. The amount of variation accounted for by the model (SS_M) is 153.60 units (corrected model) and that the error variance (SS_R) is 1614.40 units. These values are original in the sense that they do not include any adjustments made by the use of a covariate in the analysis.

Table 5.3 ANOVA Table for Meta-linguistic Awareness Data §

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	153.600 ^a	1	153.600	5.518	.022	.087	.637
Intercept	576240.000	1	576240.000	20702.379	.000	.997	1.000
Group	153.600	1	153.600	5.518	.022	.087	.637
Error	1614.400	58	27.834				
Total	578008.000	60					
Corrected Total	1768.000	59					

a. R Squared = .087 (Adjusted R Squared = .071)

b. Computed using alpha = .05

§ Tests of Between-Subjects Effects. Dependent Variable: Meta-linguistic Awareness Posttest

Table 5.4 shows the ANCOVA table with the covariate included. Compare this to the above summary table when the covariate was not included. Again, the format of the ANCOVA table is largely the same as without the covariate, except that there is an additional row of information about the covariate (Melta-ling_Pre). Looking first at the significance value, it is clear that the covariate significantly predicts the dependent variable because the significance value is (0.006) less than the cutoff of 0.05. Therefore, the participant's posttest performance is influenced by their pre-existing differences.

Table 5.4 ANCOVA Table for Meta-linguistic Awareness Data §

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power ^b
Corrected Model	357.247 ^a	2	178.623	7.217	.002	.202	.922
Intercept	49592.771	1	49592.771	2003.744	.000	.972	1.000
Meta-ling_Pre	203.647	1	203.647	8.228	.006	.126	.805
Group	63.398	1	63.398	2.562	.115	.043	.350
Error	1410.753	57	24.750				
Total	578008.000	60					
Corrected Total	1768.000	59					

a. R Squared = .202 (Adjusted R Squared = .174)

b. Computed using alpha = .05

§ Tests of Between-Subjects Effects. Dependent Variable: Meta-linguistic Awareness Posttest

Notice how the effect of the method has changed compared to the original value when the effect of the participant's Pretest score is removed. The model becomes non-significant (p-value is 0.115 which is greater than 0.05). The amount of variation accounted for by the model (SS_M) has increased to 357.25 units (corrected model) of which the method accounts for 63.40 units. Most important, the large amount of variation in test performance that is accounted for by the covariate has meant that the unexplained variance (SS_R) has been reduced to 1410.75 units. These new values represent the adjusted means (i.e., the original means adjusted for the covariate). Notice that the SS_T has not changed. All that has changed is how that total variation is explained.

Again, this illustrates how ANCOVA can help to exert stricter experimental control by taking account of the confounding variables to give us a more valid measure of effect of the experimental manipulation. Without taking account of the participant's pre-existing proficiency, we would have concluded that method had effect on Meta-linguistic Awareness performance.

Also note that when the effect of the participant's Pretest score is removed, the effect of the method changed (from partial $\eta^2 = 0.087$ to partial $\eta^2 = 0.043$). The effect size for this study is measured with Formula 5.2:

$$Partial \eta^2_{ANOVA} = \frac{153.60}{153.60 + 1614.40} = 0.087 \quad (5.5)$$

$$Partial \eta^2_{ANCOVA} = \frac{63.40}{63.40 + 1410.75} = 0.043 \quad (5.6)$$

The calculation shows the original effect size was 0.087 while the adjusted effect size was 0.043, a smaller effect size for the ANCOVA model. Moreover, the statistical power of the test decreased from 0.64 to 0.35.

The model comparison, specifically, the comparison of original means and adjusted means of treatment effect and error variance, proved 1) pre-existing differences in Chinese proficiency among the participants did impact their performance on the experiments; 2) ANCOVA did have the claimed advantages over ANOVA and allowed more accurate test results for this study.

Discussion of Results in Relation to Literature

The findings in this study indicate that the comparison group taught under GT outperformed the comparison group taught under CLT in the Translation task. This result can be accounted for by the features of GT that focuses primarily on developing learner's ability in reading and writing. Thus, this study provided quantitative evidence for the advantages of GT over CLT in teaching how to translate the *ba*-construction in Mandarin Chinese to American CFL undergraduate students.

Surprisingly, no quantitative evidence was found to indicate that Communicative Group did better than Traditional Group on Oral Production Experiment. As is reviewed in Chapter 2, the primary goal of CLT is achieving communicative competence. Essential instructional features of this approach include students as center of the class, interaction as the main mode of learning and group discussion as major class activities. On the contrary, with GT, teacher is the center of class, lecture is the main mode of teaching, and linguistic competence in reading and translating is the goal. During the data collection process, the treatment sessions were controlled as strictly as possible to represent the different features of

the two methods. Considering the striking differences in instructional focuses of the two methods, and considering the strikingly different treatments of the two groups, it is unlikely that Communicative Group did no better than Traditional Group in developing oral communication skills. CLT should, at least, have some advantages over GT in developing communicative competence. A closer examination of the data collection process reveals some possible factors that might have caused this result. These possible causes are addressed in the section of Limitations of the Study.

Meta-linguistic awareness, unlike oral production and translation, is not a language skill. This experiment was used just as an evaluation format to tap into the students' meta-linguistic knowledge of the *ba*-construction. The findings of this study showed that there were no statistically significant differences between the two comparison groups in recognizing whether certain sentences are grammatically correct or not after the teaching session. Therefore, from the findings of this study, we did not know which method produced more valid and reliable results in terms of the participants' meta-linguistic awareness of the *ba*-construction in Mandarin Chinese.

The pretest results differences for Meta-linguistic Awareness are very large (Table 4.4)--a mean difference of 14 points between the two groups, standard deviation of 27 points for Communicative Group, and a difference of almost 3 standard errors for a number of 30 means in this group. Three possible reasons might account for the differences.

The first reason could be the pre-existing differences in Chinese proficiency among the participants. The language background questionnaires indicate that the American students were exposed to Mandarin Chinese at different times of their lives and to different extents. Eight students in Traditional Group but only two students in Communicative Group were exposed to Mandarin Chinese before age 4, and sixteen students in Traditional Group but twenty-two students in Communicative Group were exposed to Mandarin Chinese after age 18 (see Table 3.1). Further information indicates that the percentages at which they used Mandarin Chinese varied too. Also, the results of the language questionnaire show that the American students varied greatly in their Chinese proficiency before the tests. Fourteen students in Traditional Group but twenty-one students in Communicative Group gave

themselves a score between 1 and 4, while five students in Traditional Group but two students in Communicative Group gave themselves a score from 5 to 10 (see Table 3.3).

Another reason could be the nature of the tests. Oral Production Test and Translation Test are performance tests. In order to answer the questions, the students had to produce their own Chinese sentences. But with Meta-linguistic Awareness Experiment, the students were given the sentences and they just needed to pick out one sentence that they thought was the correct answer. That requires much less effort and thus could be much easier for them to get a high score.

Still another reason could be the result of learning from test. Since the three tests were administered in the order of Oral Production—Translation—Meta-linguistic Awareness, and since all the three tests were based on the same target grammar, by the time the students took the Meta-linguistic Awareness Test, they had become aware of the three *ba*-constraints and therefore, the scores for this third test were higher.

Contributions of the Study

The present study hopes to have contributed to CFL instruction in two ways. With the significant results, it provides quantitative evidence that GT has advantages over CLT in developing translation competence in American CEL students regarding the *ba*-construction in Mandarin Chinese. Previous studies focused on individual method exploration but did not compare the effectiveness of the two teaching methods within one study on CFL teaching. Moreover, previous studies provided only qualitative evidence, focusing on participants' perceptions of the advantages of one method or those of the other (See Chapter 1 and Chapter 2).

In a second way, it provides a framework for comparative studies on the effectiveness of CLT and GT in CFL instruction. Comparison of methodology studies are extremely difficult to conduct due to the tremendous overlap in classroom methods and the difficulties in controlling confounding factors (Ke, 2005). This study contributes to the literature of CFL instruction by providing a feasible framework for comparing instructional effectiveness of two teaching methods. Instead of examining the theoretical

strengths and weaknesses of the two methods, this study statistically tested the method differences through implementing them in actual classroom setting, hence, moved the method-comparison in CFL instruction out of theoretical framework into practical language context. Language specialists may use this framework to explore effectiveness of the two methods in teaching other linguistic features in Chinese, or reading and discourse.

Pedagogical Implications of the Study

The findings of this study have several pedagogical implications to CFL instruction. Instructors and researchers of Chinese may benefit from these findings.

First, it provides instructors of Chinese with information on an effective method for teaching how to translate sentences with the *ba*-construction. The *ba*-construction is the most complex grammatical structure in Mandarin Chinese and has been a big challenge to CFL learners. This study provides quantitative evidence that GT is more effective than CLT in helping American CFL undergraduate students develop skills in translating *ba*-sentences in Mandarin Chinese. Instructors of Chinese, while designing their lesson plans on the *ba*-topic, may benefit from this study by employing the essential teaching techniques used for Traditional Group and thus help students translate *ba*-sentences in an easier and more efficient way, provided that the pedagogical focus of those lessons is to learn how to translate the *ba*-construction.

Secondly, this study provides instructors of Chinese with quantitative evidence that GT is a powerful method in developing translation skills in American CFL undergraduate students. If instructors of Chinese want to help CFL beginners develop ability in translation, they may use grammar-translation techniques in classroom teaching. If they want to improve students' proficiency in translation, they may well adjust their teaching to focus on grammatical accuracy. Therefore, this more goal-oriented selection of methods will help CFL instructors to obtain desirable teaching effect.

Thirdly, this study suggests a direction for CFL research. CFL acquisition researchers may be motivated to make method-comparison studies and explore the effectiveness of the two instructional

approaches. There is no universal approach for language instruction. CLT has its advantages over GT in developing communicative competence (qualitative data from previous studies proved this); GT has its advantages over CLT in developing translation skills (the quantitative evidence of this study suggests this). Therefore, both CLT and GT have beneficial effects in CFL acquisition. Language specialists should focus their studies on what instructional approach is more effective for developing what language skills in CFL learners. Their studies in this direction will surely be more beneficial to CFL learners.

Limitations of the Study

Three types of limitations of the current study are discussed in this section: limitations to the Oral Production Experiment, limitations to Meta-linguistic Awareness Experiment, and limitations to this study as a whole. Limitations to the Oral Production Experiment are discussed first.

Limited treatment time might be the principal cause that led to the non-significant effect for Oral Production Experiment. The treatment lesson for the comparison groups lasted only fifty minutes. Understanding the new material, identifying and learning the new grammar element, and doing exercises were all accomplished within this fifty minute period. With such a short intervention, it is hard to obtain a significant difference between the two groups, given that instructional effect on oral production is a function of time. Language acquisition is an accumulating process and time is an important contributing factor. From the perspective of acquisition, a learner's language proficiency is the result of continued exposure to the target language (Ke, 2005) and constant practice. There is a positive correlation between the duration of the target language learning and the performance on the linguistic features in question (Polio, 1995). This is particularly true with developing communicative competence. Therefore, limited treatment time could have been a principal cause for the absence of statistical differences between the comparison groups.

A second cause may be related to sample size. The sample size in this study was carefully calculated based on statistical considerations, thus it meets statistical requirement for a quantitative experiment. Statistically, increasing sample size may increase the chances of getting more precise test

results, and thus increase the chances of finding differences between the two groups. The larger the population size, the higher the degree of precision (Menil & Ye, 2012). In this sense, the sample size might have been a contributing factor to the results of Oral Production Experiment. With examination of the above possible causes, the non-significant result on Oral Production measure does not seem that surprising now.

Regarding the results of Meta-linguistic Awareness Experiment, lack of variability in Meta-linguistic Awareness scores might have impacted the results. All statistical models rely on variability among subjects in order to determine when a treatment results in a statistically significant change. But there was an extreme lack of variability for Meta-linguistic Awareness Posttest, for example, almost all Traditional students received a perfect score on the Posttest for Meta-linguistic Awareness. Because the vast majority of students are scoring 100 points on the Posttest, it was impossible to determine a statistically significant difference between the students who learned from the Communicative approach or the Traditional approach.

As to limitations to this study as whole, several factors need to be taken into consideration. Since the data of this study were collected from sixty freshmen in UGA, the findings of this study could have been limited by regional nature and proficiency level of the participants, as well as by the sample size. The conclusion drawn, in turn, could hardly be totally free from these limitations. Therefore, one should be careful to generalize the results from this sample to wider situations. For example, it is not advisable to generalize the results to junior students at University of Kansas, or to pupils in an American elementary school, or to CFL learners at intermediate- or advanced level.

Suggestions for Future Studies

This study suggests several directions for future studies. Although the test results showed statistically significant differences between traditional method and communicative approach in developing translation skills, no statistical differences were found to exist between the two approaches in developing communicative competence. The absence of communicative advantages in teaching

communication might have been caused by the limitations of this study, for example, limited treatment time. Future studies in this direction may be aimed at designing studies with these limitations under control.

First, future studies may extend treatment time. The current study was a cross-sectional study that sampled the participants twice, once before the treatment and once after the treatment. Future longitudinal studies may extend treatment time and keep track of the same groups of individual learners over a period of several months of their target language study. Data collection may be done at three different time points along the course of one semester. If conditions permitted, a repeated research design with Pre-and Posttests may be created, participants may be tested three times with an interval of one month in-between, and treated before each test. There may not be mean differences between two groups after the first month and a little mean difference after the second month, but obvious mean difference can be expected after the third month. With longer treatment time, there might be statistically significant differences favoring CLT in Oral Production Test.

Second, future studies may examine gender difference. The current study is a method-comparison study with method as the only independent variable. Future studies may include gender as a second independent variable and examine whether one method is more effective at teaching CEL to males than females, and thus use specific teaching techniques to develop specific skills and gaining better teaching effect in terms of gender. In order to attain this goal, future studies may need to increase sample size. The current study had sixty participants and there were only twelve or thirteen female students in one or the other comparison group. That made it hard to get statistically reliable results on gender difference examination. Sample size calculation is one of the keys to the success of an experiment, the larger the variance, the larger the sample size requirement (Luh & Guo, 2011). Future studies may have larger sample size, for example, sixty students in each group, thirty males and thirty female, or more.

Third, add teaching content. The three measures in the current study were created based on three *ba*-constraints. From the perspective of assessment, the teaching materials are sufficient for assessing language proficiency of beginning CFL learners. However, with extended treatment time and repeated

research design, future studies surely need to enlarge the width and depth of teaching content to include more linguistic features, more subject topics, or more difficulty levels (beginning, intermediate and advanced). That may increase score variability in data. By adding content and increasing sample size, CLT may prove to be more effective than GT in developing communicative competence.

Fourth, with two independent variables, future studies may use a 2x2 mixed factorial design that includes both between- and within-subjects variables. Participants are given a Pretest first and assigned to two groups based on their Pretest scores and males and females are assigned in the same way so that the two comparison groups are equivalent in language proficiency prior to receiving treatment. After treatment for one month, the participants are given a second test and tested a third time after treatment for another month. Data can be analyzed using a repeated-measure ANOVA. The researcher may examine (1) changes in participants' mean scores on language performance at three different occasions, (2) differences in participants' mean scores on language performance under three different treatments, or (3) changes and differences in terms of gender. This mixed effects model, known as a *split plot* design or referred to as repeated-measures design (McCulloch, 2005), compares the effects of the two teaching methods across the individuals, and the change from Pretest to Posttests within the individuals, thus may yield more information for CFL instruction.

Conclusion

This study quantitatively investigates the effectiveness of Grammar Translation Method and Communicative Language Teaching Approach at teaching the *ba*-construction in Mandarin Chinese to American CFL undergraduate students. Sixty participants were equally split into two comparison groups. One group was taught with GT and the other group with CLT in learning the *ba*-construction. Both groups were tested on three different linguistic tasks: Oral Production, Translation, and Meta-linguistic Awareness. One-Way ANCOVA was used as statistical model for data analysis. Results were generated through GLM procedure. Findings of this study showed that GT is statistically more effective than CLT at developing translation skills regarding the *ba*-construction. But this study produced no evidence regarding

the superiority of GT or CLT at developing oral production skills or raising meta-linguistic awareness regarding the *ba*-construction, though both methods do appear to be highly significantly effective from pretests to posttests. This study has rich pedagogical implications and suggests meaningful directions for future studies on CFL instruction.

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Appendix A: Liu's Nine Environments for the *ba*-VP with Examples (Liu, 1997)

Environment	Example	Explanation
1. V + resultative verb complement (RVC)	Ni dei ba maojin jian <u>qilai</u> . you have-to BA towel pick RVC (up) You have to pick up the towel.	<i>Qilai</i> is the RVC, indicating the result of the action.
2. V + <i>de</i> (resultative)	Ta ba wo ku <u>de hen shangxin</u> . she BA I cry DE very sad I became sad as the result of her cry.	<i>de hen shangxin</i> 'very sad' indicates the result of her crying.
3. V + retained object	Wo <i>ba</i> xiangjiao bo le <u>pi</u> . I BA banana peel ASP skin I peeled the banana.	<i>Pi</i> 'skin' after the verb is the object.
4. V + perfective marker- <i>le</i>	Ta ba yao tun <u>le</u> . she BA medicine swallow ASP She swallowed the medicine.	- <i>Le</i> is the perfective aspect marker.
5. V + PP (dative or locative)	Ta ba beizi fang <u>zai zhuozi shang</u> . she BA cup put at table on She put the cup on the table.	<i>Zai zhuozi shang</i> 'on the table' is a PP
6. V + quantified phrase	Wo ba zhe ben shu kan le <u>liang bian</u> . I BA this-CL book read ASP two times I read this book twice.	<i>Liang bian</i> 'twice' is a quantifying phrase.
7. V + <i>yi</i> + V	Ba jiaozi <u>chang-(yi)-chang</u> . Ba dumpling taste-one-taste Try a dumpling (to see if it's fully cooked and ready to serve).	<i>Chang-(yi)-chang</i> 'taste-one-taste' is the tentative construction indicating a short duration, doing something "a little bit".
8. V + durative maker- <i>zhe</i> (irrealis)	Qing ba shu bang wo na <u>zhe</u> . please BA book help I hold DUR Please hold the book for me.	- <i>Zhe</i> is the durative aspect marker.
9. Adv + V	Buyao ba shu <u>man</u> wuzi reng. don't BA book whole room throw Don't throw the books all over the room.	An adverbial <i>man</i> 'whole' is before the verb, but nothing is after the verb.

Appendix B: Ba-Construction Frequency Table Based on Classifications of Its Semantic Meanings

Semantic Meanings	Syntactic Patterns and Examples	Number	Frequency
(1) Sth. definite location move or relation transfer	S + ba + N ₁ + V + 在 + N ₂ He put the book on the table.	126	11.5%
	S + ba + N ₁ + V + 到 + N ₂ He put the box inside.	98	8.9%
	S + ba + N ₁ + V + 给 + N ₂ All the students turned the exercises books to the teacher.	55	5.0%
	S + ba + N ₁ + V + 向/人 + N ₂ Lead China to brightness.	26	2.3%
	Total	305	27.8%
(2) Sth. definite has certain result due to its action	S + ba + N + V + RC I woke him up.	255	23.3%
	S + ba + N + V + (RC) + 来/去 He has brought the dictionary back to his dorm.	218	19.9%
	S + ba + N + V + 得 + VP/AP We cleaned the classroom clean.	39	3.5%
	S + ba + N + V + O He told all the people the good news.	34	3.1%
	Total	546	49.8%
(3) Action relates with sth. definite or in certain manner	S + ba + N + V + (了/一) + V I'll tell you about it.	30	2.7%
	S + ba + N + V + 着 Out of fear, she had her eyes closed.	3	0.2%
	S + ba + N + 一 + V He tossed his head and left.	31	2.8%
	S + ba + N + AV Don't scatter things around!	16	1.4%
	S + ba + N + V + M He counted the cash one more time.	21	1.1%
	Total	101	8.4%
(4) Take sth. definite for sth. else or make sth, definite change so that it equals to sth. else in quality or nature	S + ba + N ₁ + V + 成/做 + N ₂ The teacher took us for children.	69	6.3%
(5) Ba-construction expressing sth. unexpected	S + ba + N ₁ + V + 了 (I beat him.)	40	3.6%
	S + ba + N ₁ + 给 + V + 其他 The wind blown down the tree.	13	1.1%
	S + ba + N + (doer) + V + 其他 These days people are worried to such an extent.	3	0.2%
	Total	56	5.1%
(6) Causative <i>ba</i>	S + ba + N + (doer) + V + 其他 Please to go line up your men.	9	0.8%
	S + (non-living things) + ba + N + V + 其他 Thunderstorm woke people from their dreams.	8	0.7%
	Total	17	1.5%

吕文华 *Duiwai Waiyu Jiaoxue Yufa Tansuo* 《对外汉语教学语法探索》 BEIJING LANGUAGE AND CULTURE UNIVERSITY PRESS, 2008 pp. 344-345

Appendix C: Recruitment Flyer for Native English Speakers

RESEARCH PARTICIPANTS NEEDED

- PURPOSE:** Learning about two different instructional approaches on teaching Mandarin Chinese to English native speakers as a second language
- PROCEDURES:** Fill out a questionnaire, view some PowerPoint slides and describe them in Chinese, then complete a short written test. Have a short lesson on Chinese, 1 to 2 weeks later, describe the same PowerPoint slides again, and take another short written test.
- TIME NEEDED:** About one hour and a half in total
- ELIGIBILITY:** Participants have to be native English speakers, learning Mandarin Chinese
- BENEFITS:** You will learn something you don't know about Mandarin Chinese
- COMPENSATION:** Participants will be treated with Chinese snacks and drinks
- LOCATION:** Room116, Gilbert Hall, University of Georgia
- CONTACT:** Jun Wang
E-mail: junwang0001@yahoo.com
Telephone: (785) 979-2550

Appendix D: Recruitment Flyer for Native Chinese Speakers

RESEARCH PARTICIPANTS NEEDED

- PURPOSE:** Learning about two different instructional approaches on teaching Mandarin Chinese to native English speakers as a foreign language
- PROCEDURES:** Fill out a questionnaire, view some PowerPoint slides and describe them in Chinese, then complete a short written test.
- TIME NEEDED:** About half an hour
- ELIGIBILITY:** Participants have to be native Chinese speakers who speak Mandarin Chinese
- BENEFITS:** You will learn something on how to work with your participants for your thesis
- COMPENSATION:** Participants will be treated with Chinese snacks and drinks
- LOCATION:** University of Georgia
- CONTACT:** Jun Wang
E-mail: junwang0001@yahoo.com
Telephone: (785) 979-2550

Appendix E: Informed Consent Statement

Approved by the Human Participants Committee University of Kansas,
Lawrence Campus (HSCL). Approval expires one year from 3/22/2011.
HSCL #19238

The Department of Curriculum and Teaching of School of Education at the University of Kansas supports the practice of protection for human participants participating in research. The following information is provided for you to decide whether you wish to participate in the present study. Your participation is solicited voluntarily. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you withdraw from this study, it will not affect your relationship with this unit.

We are interested in learning about two different instructional approaches on teaching Mandarin Chinese to native English-speakers as a second language. All participants will first fill out a language questionnaire, then the native English-speakers will view some PowerPoint slides and describe them in Chinese, and then complete a short written test. After that, you will be assigned to one of the two comparison groups and given a short lesson on Chinese. Three to five weeks later, you will describe the PowerPoint slides again and take another short written test. It will involve three 20-40 minute meetings. This will take no more than one hour and a half in total. The native Chinese-speakers will describe the same PowerPoint slides in Chinese as the native English-speakers do and take two short written tests. It will involve one 30-40 minute meeting.

The researcher does not anticipate any risks for this study. The researcher and her dissertation committee will be the only persons who will have access to the audio recordings of the sentences you are to produce and the tapes will be erased upon completion of my doctoral dissertation. Although participation in our study will not directly benefit you, we believe that the information will be useful to native English-speakers who take Mandarin Chinese as a second language and to instructors who teach Mandarin Chinese as a second language.

We assure you that your name will not be associated in any way with the research findings. All participants will be assigned pseudonyms. The researcher will not release any of your personal information without your permission. You may feel free to ask the researcher questions concerning the present study before participating.

If you would like additional information concerning this study before or after it is complete, please feel free to contact me by phone (785) 979-2550 or via email junwang@ku.edu. You may also contact my supervisor, Dr. Manuela Gonzalez-Bueno by mgbueno@ku.edu.

I have read this Informed Consent Statement. I have had the opportunity to ask, and I have received answers to, any questions I had regarding the study. I understand that if I have any additional questions about my rights as a research participant, I may call (785) 864-7429 or (785) 864-7385 or write the Human Participants Committee Lawrence Campus (HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email irb@ku.edu.

I agree to take part in this study as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Informed Consent Statement.

Type/Print Participant's Name

Date

Participant's Signature

Appendix F: Language Background Questionnaire for Native English Speakers

First Name _____ Middle Name _____ Last Name _____

Age ____ Male Female Place of Birth _____

1. Please list three languages you know in order of acquisition:

2. Please list three languages you know in order of proficiency:

3. Please list the age at which you were exposed to each language:

4. Please list the percentage of time you were on average exposed to each language:

Language: _____

Percentage: _____

5. Years and months you spent in each language where it is spoken:

A country _____

A family _____

A school and/or working environment _____

6. On a scale from one to ten, what is your level of proficiency in each language?

Languages: _____

Skills: Speaking Reading Understanding Writing

7. On a scale from zero to ten, with ten as native fluency, how much of the following factors contribute to your Chinese learning?

Instructor Lecturing Language Lab Interacting with Friends Listening to Radio/Watching TV

Percentage: _____

8. What is your first language?

Appendix G: Language Background Questionnaire for Native Chinese Speakers

Name _____ Age _____ Gender: M F

Birthplace: City (County) _____ Province _____ Country _____

1. Is Chinese your first language? Yes No

2. At what age were you first exposed to Standard Chinese (either *Putonghua* or *Guoyu*)? _____

3. What dialect did you speak at home before starting elementary school? _____

4. Did you speak Chinese throughout your school years?

Yes. Did you speak Chinese just at school, only out of school or both?

a. At school b. Out of school c. Both at school and out of school

No. What dialect did you speak? When did you start speaking it? What percentage?

Dialect _____ Starting Time _____ Percentage _____

5. Did you work anywhere after you graduated from college?

Yes. Did you use Chinese as your working language?

If not Chinese, what language did you use? _____

6. Are you still speaking Chinese in the United States?

Yes. What percentage? _____

No. What language are you speaking? _____

7. How many years did you speak Chinese before coming to the United States? _____

8. On a scale from zero to ten, with ten being native proficiency, what number represents your proficiency in Standard Chinese?

9. Are you a UGA (University of Georgia) undergraduate or postgraduate student?

Undergraduate Graduate

Major _____ Department _____ School _____

Thank you very much for your participation in the research!

Appendix H: Treatment Material for Communicative Group

Duì huà Bān jiā Zhěnglǐ fángjiān

对话：搬家—整理房间

Lǐ Yǒu: Wáng Péng, nǐ hǎo!

李 友： 王 朋， 你好！

Wáng Péng: Nǐ hǎo! Wǒ lái bang nǐ zhěnglǐ fángjiān.

王 朋： 你好！ 我 来 帮 你 整 理 房 间。

Lǐ Yǒu: Hǎo, qǐng nǐ bǎ diànnǎo fàng zài zhuōzi shàng,

李 友： 好， 请 你 把 电 脑 放 在 桌 子 上，

bǎ zhàopiàn tiē zài bīngxiāng shàng, bǎ huà guà zài qiáng shàng,

把 照 片 贴 在 冰 箱 上， 把 画 挂 在 墙 上，

bǎ shū fàng zài shūbāo lǐ.

把 书 放 在 书 包 里。

(过了一会，王朋渴了。)

Wáng Péng: Nǐ yǒu kělè ma?

王 朋： 你 有 可 乐 吗？

Lǐ Yǒu: Wǒ bǎ kělè hē le. Nǐ xiǎng hē kāfēi ma?

李 友： 我 把 可 乐 喝 了。 你 想 喝 咖 啡 吗？

Wáng Péng: Bù xiǎng, xièxiè!

王 朋： 不 想， 谢 谢！

English Version Dialogue: Moving--Putting the Room in Order

Lǐ Yǒu: Hi, Wáng Péng!

Wáng Péng: Hi, I come to help you put the room in order.

Lǐ Yǒu: Good! Please put the computer on the table, post the photo on the refrigerator, hang up the painting on the wall, and put the books into the schoolbag.

(After a while, Wáng Péng feels thirsty.)

Wáng Péng: Do you have coke?

Lǐ Yǒu: I have drunk the coke. Do you want to drink coffee?

Wáng Péng: No, thank you!

VOCABULARY

来	lái	v. to come
帮	bāng	v. to help
整理	zhěnglǐ	v. to put in order
把	bǎ	prep. (introducing the object of an action verb)
桌子	zhuōzi	n. table
贴	tiē	v. to post; to paste
冰箱	bīngxiāng	n. refrigerator

画	huà	n. painting
挂	guà	v. to hang up
墙	qiáng	n. wall
放	fàng	v. to put; to place
书包	shūbāo	n. schoolbag
喝	hē	v. to drink

Grammar: 把 (bǎ) Construction (I)

Sentences with 把 (bǎ) are common in Chinese. The basic construction is as follows:

Subject + 把 + Object + Verb + Complement (了 (le)/Location)

In the 把 (bǎ) construction, what follows 把 (bǎ) and precedes the verb serves as the object of both 把 (bǎ) and the verb. In general, a 把 (bǎ) sentence highlights the subject's disposal of or impact upon the object, with the result of the disposal or impact indicated by the element following the verb.

1. Subject + 把 (bǎ) + Object + Verb + 了 (le)

我 把 可乐 喝 了。
Wǒ bǎ kělè hē le.
(I have drunk the coke.)

The particle 了 (le) serves as the complement, indicating a completed action. It takes the sentence-final position. In this sentence, the subject 我 (wǒ) exerts an impact on the coke through the action of 喝 (hē), of which the result is: There is no more coke.

2. Subject + 把 (bǎ) + Object + Verb + Location

他 把 书 放 在 桌子 上。
Tā bǎ shū fàng zài zhuōzi shàng.
(He put the book on the table.)

“在桌子上” (on the table) serves as the complement, indicating the location. It takes the sentence-final position. In this sentence, the subject 他 (tā) exerts an impact on the book through the action of 放 (fàng), of which the result is: The book is on the table now.

The above two structures suggest what the subject does to the object, and the result is indicated by the resultative complement 了 (le) or the resultative complement Location.

3. Emotion verbs like “喜欢” (like) and “想” (want to; would like to) cannot be used in the 把 (bǎ) construction.

- 我喜欢把电影看。
- 我想把球打。

Exercises

A. Practice the dialogue in pairs, using the characters given to replace the numbers:

1. 把(bǎ)
2. 画(huà)
3. 照片(zhàopiàn)
4. 在书包里(zài shūbāo lǐ)
5. 把(bǎ)
6. 了(le)
7. 咖啡(kāfēi)

Lǐ Yǒu: Wáng Péng, nǐ hǎo!

李友: 王朋, 你好!

Wáng Péng: Nǐ hǎo! Wǒ lái bāng nǐ zhěnglǐ fángjiān.

王朋: 你好! 我来帮你整理房间。

Lǐ Yǒu Hǎo, qǐng nǐ diànnǎo fàng zài zhuōzi shàng,

李友: 好, 请你 1 电脑放在桌子上,

bǎ tiē zài bīngxiāng shàng, bǎ guà zài

把 2 贴在冰箱上, 把 3 挂在

qiáng shàng, bǎ shū fàng zài shūbāo lǐ.

墙上, 把书放 4。

(过了一会, 王鹏渴了。)

Wáng Péng: Nǐ yǒu kělè ma?

王朋: 你有可乐吗?

Lǐ Yǒu: Wǒ kělè hē . Nǐ xiǎng hē ma?

李友: 我 5 可乐喝 6。你想喝 7 吗?

Wáng Péng: Bù xiǎng, xièxiè!

王朋: 不想, 谢谢!

B. Practice the dialogue in pairs.

1. Drinking the juice

Shéi bǎ nà píng guǒzhī hē le?

A: 谁把那瓶果汁喝了?

Wǒ bǎ nà píng guǒzhī hē le.

B: 我把那瓶果汁喝了。

2. Closing the window

Shéi bǎ chuānghù guān le?

A: 谁把窗户关了?

Dìdì bǎ chuānghù guān le.

B: 弟弟把窗户关了。

3. Like American food

Mèimèi xǔān chī měiguó cài ma?

A: 妹妹 喜欢吃 美国 菜 吗?

Mèimèi xǔān chī měiguó cài.

B: 妹妹 喜欢吃 美国 菜。

4. Posting birthday card

Tā bǎ shēngrì kǎ tiē zài nǎr?

A: 他 把 生日 卡 贴在 哪儿?

Tā bǎ shēngrì kǎ tiē zài qiáng shàng.

B: 他 把 生日 卡 贴在 墙 上 。

5. Placing student ID

Gēgē bǎ xuéshēngzhèng fàng zài nǎr?

A: 哥哥 把 学 生 证 放在 哪儿?

Gēgē bǎ xuéshēngzhèng fàng zài shūbāo lǐ.

B: 哥哥 把 学 生 证 放在 书 包 里 。

C. Make up a dialogue, using the pictures given, and do role-playing with your partner.

Appendix I: Treatment Material for Traditional Group

Duì huà Bān jiā Zhěnglǐ fāngjiān

对话：搬家—整理房间

Lǐ Yǒu: Wáng Péng, nǐ hǎo!

李 友：王 朋，你好！

Wáng Péng: Nǐ hǎo! Wǒ lái bāng nǐ zhěnglǐ fāngjiān.

王 朋：你好！我来帮你整理房间。

Lǐ Yǒu: Hǎo, qǐng nǐ bǎ diànnǎo fàng zài zhuōzi shàng,

李 友：好，请你把电脑放在桌子上，

bǎ zhàopiàn tiē zài bīngxiāng shàng, bǎ huà guà zài qiáng shàng,

把照片贴在冰箱上，把画挂在墙上，

bǎ shū fàng zài shūbāo lǐ.

把书放在书包里。

(过了一会，王朋渴了。)

Wáng Péng: Nǐ yǒu kělè ma?

王 朋：你有可乐吗？

Lǐ Yǒu: Wǒ bǎ kělè hē le. Nǐ xiǎng hē kāfēi ma?

李 友：我把可乐喝了。你想喝咖啡吗？

Wáng Péng: Bù xiǎng, xièxiè!

王 朋：不想，谢谢！

English Version Dialogue: Moving--Putting the Room in Order

Lǐ Yǒu: Hi, Wáng Péng!

Wáng Péng: Hi, I come to help you put the room in order.

Lǐ Yǒu: Good! Please put the computer on the table, post the photo on the refrigerator, hang up the painting on the wall, and put the books into the schoolbag.

(After a while, Wáng Péng feels thirsty.)

Wáng Péng: Do you have coke?

Lǐ Yǒu: I have drunk the coke. Do you want to drink coffee?

Wáng Péng: No, thank you!

VOCABULARY

来	lái	v. to come
帮	bāng	v. to help
整理	zhěnglǐ	v. to put in order
把	bǎ	prep. (introducing the object of an action verb)
桌子	zhuōzi	n. table
贴	tiē	v. to post; to paste

冰箱	bīngxiāng	n. refrigerator
画	huà	n. painting
挂	guà	v. to hang up
墙	qiáng	n. wall
放	fàng	v. to put; to place
书包	shūbāo	n. schoolbag
喝	hē	v. to drink

Grammar: 把 (bǎ) Construction (I)

Sentences with 把 (bǎ) are common in Chinese. The basic construction is as follows:

Subject + 把 + Object + Verb + Complement { 了 (le)/Location }

In the 把 (bǎ) construction, what follows 把 (bǎ) and precedes the verb serves as the object of both 把 (bǎ) and the verb. In general, a 把 (bǎ) sentence highlights the subject's disposal of or impact upon the object, with the result of the disposal or impact indicated by the element following the verb.

6. Subject + 把 (bǎ) + Object + Verb + 了 (le)

我 把 可乐 喝 了。

Wǒ bǎ kělè hē le.

(I have drunk the coke.)

The particle 了 (le) serves as the complement, indicating a completed action. It takes the sentence-final position. In this sentence, the subject 我 (wǒ) exerts an impact on the coke through the action of 喝 (hē), of which the result is: There is no more coke.

7. Subject + 把 (bǎ) + Object + Verb + Location

他 把 书 放 在 桌子 上。

Tā bǎ shū fàng zài zhuōzi shàng.

(He put the book on the table.)

“在桌子上” (on the table) serves as the complement, indicating the location. It takes the sentence-final position. In this sentence, the subject 他 (tā) exerts an impact on the book through the action of 放 (fàng), of which the result is: The book is on the table now.

The above two structures suggest what the subject does to the object, and the result is indicated by the resultative complement 了 (le) or the resultative complement Location.

8. Emotion verbs like “喜欢” (like) and “想” (want to; would like to) cannot be used in the 把 (bǎ) construction.

c. 我 喜欢 把 电影 看。

d. 我 想 把 球 打。

Exercises

A. Choose the best answer for each of the following sentences:

1. I drank that bottle of juice.

Wǒ bǎ nà píng guǒzhī hē le.

A. 我把那瓶果汁喝了。

Wǒ nà píng guǒzhī bǎ hē le.

B. 我那瓶果汁把喝了。

Wǒ hē nà píng guǒzhī bǎ le.

C. 我喝那瓶果汁把了。

2. He closed the window.

Tā bǎ chuānghù guān.

A. 他把窗户关。

Tā bǎ chuānghù guān le.

C. 他把窗户关了。

Tā guān chuānghù bǎ le.

D. 他关窗户把了。

3. She likes American food.

Tā bǎ xǐhuān chī měiguó cài.

A. 她把喜欢吃美国菜。

Tā xǐhuān chī měiguó cài.

B. 她喜欢吃美国菜。

Tā xǐhuān bǎ měiguó cài chī.

C. 她喜欢把美国菜吃。

4. He put his birthday card on the wall.

Tā bǎ shēngrì kǎ tiē zài qiáng shàng.

A. 他把生日卡贴在墙上。

Zài qiáng shàng tā bǎ shēngrì kǎ tiē.

B. 在墙上他把生日卡贴。

Tā zài qiáng shàng bǎ shēngrì kǎ tiē.

C. 他在墙上把生日卡贴。

5. He wants to listen to English songs.

Tā bǎ xiǎng tīng yīngwén gē.

A. 他把想听英文歌。

Tā xiǎng bǎ tīng yīngwén gē.

B. 他想把听英文歌。

Tā xiǎng tīng yīngwén gē.

B. 他想听英文歌。

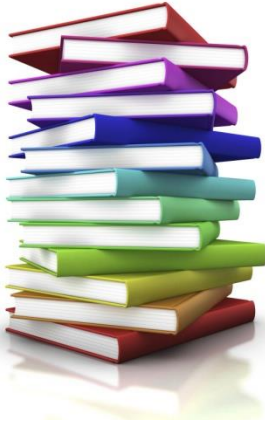
B. Translate the following English sentences into Chinese, using “把” where is necessary:

1. He has drunk (喝) the water (水) .
2. She cooked (做) the dish (菜) .
3. He put (放) his photo (照片) on the table (在桌子上) .
4. She likes (喜欢) dancing (跳舞) .
5. She put (放) her student ID (学生证) in her bag (在包里)
6. He wants (想) to read (看书) .

C. Correct the mistakes in the following sentences if there is any:

1. 他把门关。
2. 他把窗户关了。
3. 我把中国菜喜欢吃。
4. 在桌子上我把电脑放。
5. 她想把可乐喝。

Appendix J: Picture Sheet for Communicative Group Treatment



Appendix K: PowerPoint Slides for Oral Production Experiment

Directions

- Try to describe each picture set in one Chinese sentence.
- For each of the two sections, watch the model slide first and listen to the answer.
- After that, practice, using the practice slide.
- Then you are ready to start your recording.

Mode 1: 关电脑



guān diàn nǎo
关 电脑
shut down computer

Answer to Model 1



Tā bǎ diàn nǎo guān le
她把电脑关了

Practice 1: 吃鸡蛋



chī jī dàn
吃 鸡蛋
eat egg

浇花



jiāo huā
浇 花
water flower

煮饺子



zhǔ jiǎo zi
煮 饺子
boil dumplings

关电视



guān diàn shì
关 电视
shut down TV

做菜



zuò cài
做 菜
make dish

喝果汁



hē guǒzhī
喝 果汁
drink fruit juice

Model 2: 放花瓶



fàng huā píng chuāng tái
放 花瓶 窗台
place vase windowsill

Answer to Model 2



Tā bǎ huāpíng fàng zài chuāngtái shàng
她把花瓶放在窗台上

Practice 2: 挂画



guà huà qiáng
挂 画 墙
hang up picture wall

停车



tíng chē tíng chē chǎng
停 车 停 车 场
park car parking lot

放书



fàng shū shūbao
放 书 书 包
put/place book schoolbag

贴照片



tiē zhàopiàn bīng xiāng
贴 照片 冰 箱
post photo refrigerator

Appendix L: Translation Posttest Task

Translate the following English sentences into Chinese using “把” where is necessary:

1. He has drunk (喝) the coke (可乐) .
2. She has eaten (吃) the dish (菜) .
3. I want to (想) sing (唱歌) .
4. She put (放) the money (钱) in her purse (在钱包里) .
5. He turned off (关) the TV (电视) .
6. She likes (喜欢) to read (看书) .
7. He put (放) the student ID (学生证) on the book (在书上) .
8. She cooked (做) supper (晚饭) .

Appendix M: Meta-linguistic Awareness Posttest Task

Choose the best answer for each of the following sentences:

1. He has drunk the coffee.
tā hē kāfēi bǎ le
A. 他 喝 咖啡 把了
tā bǎ kāfēi hē le
B. 他把 咖啡 喝了
tā kāfēi bǎ hē le
C. 他 咖啡 把 喝了

2. I want to sleep.
wǒ bǎ shuìjiào xiǎng le
A. 我把 睡觉 想了
wǒ shuìjiào xiǎng le
B. 我 睡 觉 想 了
wǒ xiǎng shuìjiào le
C. 我 想 睡 觉 了

3. He has put the photo on the refrigerator.
tā zài bīngxiāng shàng bǎ zhàopiàn tiē
A. 他在 冰 箱 上 把 照片 贴
tā bǎ zhàopiàn tiē zài bīngxiāng shàng
B. 他把 照片 贴 在 冰 箱 上
zài bīngxiāng shàng tā bǎ zhàopiàn tiē
C. 在 冰 箱 上 他 把 照片 贴

4. She is done with the exercises.
tā bǎ liànxí zuò le
A. 她把 练习 做了
tā bǎ liànxí zuò
B. 她把 练习 做
tā bǎ zuò le liànxí
C. 她把 做了 练习

5. He parked his car in the garage.
tā bǎ chē tíng zài chēkù lǐ
A. 他 把 车 停 在 车 库 里
tā zài chēkù lǐ bǎ chē tíng
B. 他在 车 库 里 把 车 停
zài chēkù lǐ tā bǎ chē tíng
C. 在 车 库 里 他 把 车 停

6. He ate the cake.

tā bǎ dànɡāo chī

A. 他把蛋糕吃

tā bǎ chī le dànɡāo

B. 他把吃了蛋糕

tā bǎ dànɡāo chī le

C. 他把蛋糕吃了

7. She opened the window.

tā bǎ chuānghù dǎ kāi le

A. 她把窗户打开了

tā dǎ kāi bǎ chuānghù le

B. 她打开把窗户了

tā chuānghù dǎ kāi bǎ le

C. 她窗户打开把了

8. He likes playing tennis ball.

tā bǎ wǎngqiú xǐhuān dǎ

A. 他把网球喜欢打

tā xǐhuān dǎ wǎngqiú

B. 他喜欢打网球

tā bǎ dǎ wǎngqiú xǐhuān le

C. 他把打网球喜欢了