

AN INVESTIGATION OF ERROR CORRECTION IN THE ZONE OF PROXIMAL
DEVELOPMENT: ORAL INTERACTION WITH BEGINNING LEARNERS OF CHINESE
AS A FOREIGN LANGUAGE

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Submitted to the Graduate Faculty of
the School of Education in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

University of Pittsburgh

2006

UNIVERSITY OF PITTSBURGH

SCHOOL OF EDUCATION

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While most researchers acknowledge that error correction (EC) is most effective in meaningful contexts, few studies have addressed collaborative EC or longitudinal language development during oral conversations – especially conversations where new knowledge is continually integrated. By observing how the tutor helped two college-age *beginning* students of Chinese learn *three* inter-related and chronologically-offset target grammatical structures (TG) during nine weeks of hourly one-on-one tutorial sessions, the study investigated: (a) the *types* of assistance the tutor provided in spoken conversation; (b) *changes* in this assistance within and across sessions; and (c) *how* errors towards TG were eliminated.

Analysis of protocols (transcripts marked up with visual cues), learners' questionnaires, and graphs revealed that: (a) the tutor provided two types of contingent assistance: regulation in participation (RinP), and EC on emergent errors; (b) EC was effective and its explicitness depended only on the learner's Zone of Proximal Development – same finding for RinP; (c) during the goals-oriented activity, language, serving both social (active and accurate meaning-exchange) and cognitive (tutor's EC and RinP, and learners' meta-comments) functions, was responsible for learners' transformation from other-regulation to self-regulation – language serving a cognitive function on an inter-personal level gradually became intra-personal; (d) RinP was instrumental in transferring not only the responsibility for participation (elaboration, initiation, and elicitation of TG) but also, through EC consequent to elicitation of TG, the responsibility for grammar-accuracy; and,

(e) TG lacking an English counterpart required not only learners' cognitive understanding of the TG form but also where (which contexts) to use it – here, RinP efficiently co-constructed contexts for elicitation of TG and its differentiation, through EC.

In line with Vygostkian principles, the tutor's collaborative RinP improved learners' participation while the collaborative EC improved the learners' grammar accuracy within that improving participation. Implications include: (a) grammar accuracy is not an end-product but depended on not only task-difficulty and subject-matter but also degree to which similar TG were differentiated; and, (b) all errors, salient and not, must be corrected from the beginning – ignoring errors deemed “unimportant” was myopic.

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PREFACE

“A plant only gives fruit under the ideal conditions”

As a long-time language teacher of Chinese and only recently its researcher, I have had opportunities to learn from and teach with some of the top scholars, who have guided, assisted, and challenged me. Above all, I am forever thankful to Professor Zhi-yi Sun, who, as my adviser and mentor in college, not only guided my understanding of the similarities and differences among grammar of several diverse languages but also boosted my fledgling confidence – challenging me to be his lead teacher. He instilled in me the belief that I could accomplish anything with hard work – a belief I still hold dear.

On my arrival in the US, I was blessed to meet and have Glenn Frankenfield as my boss. His background in linguistics shaped my thinking and influenced my decision to later pursue a PhD in this field. Over the past 10 years, he has been very generous in guidance and encouragement – I am grateful for his many comments on this manuscript.

At the University of Pittsburgh, my life changed fundamentally: I started working for Dr. Dayle Barnes and started my PhD under the direction of Dr. Richard Donato. It was fate that I *studied* under Dr. Donato – the Socio-cultural Theory expert – and *taught* for Dr. Barnes – with his emphasis on teacher-learner dyad conversation in the classroom. I fondly remember learning teaching theories and methodologies from Dr. Donato and being able to apply and evaluate them in the environment of my classroom – thereby profoundly changing my interpretation of teaching language.

That is, it is one thing to learn theory and another to learn it through applying it in a classroom, first-hand. To Dr. Donato – my advisor and mentor – I owe not only my solid theoretical background and critical-thinking skills but also my preparation as a teacher-researcher. I am also thankful to him for having introduced me to his colleagues, my dissertation

committee, Dr. Jian-hua Bai, Dr. Dan Dewey, and, Dr. Amanda Godley. Thank you *all* for guiding me!

Before writing my dissertation proposal, I accepted an offer to teach Chinese at Princeton University which has been fortuitous for me both as a *teacher of Chinese* and as a *researcher of teaching Chinese*. It was Dr. Link, the eminent scholar of Chinese, who taught me how to effectively teach Chinese to Americans, and also the advantages of the cumulative approach. Dr. Chih-ping Chou, through his direction and both constructive and sincere criticism has given me the confidence and strength to teach *all* levels of language classes. In addition, I want to thank him for supporting my PhD and the prudence to establish the Individual [Tutorial] Sessions – which made the goal-oriented, oral conversation, at the heart of this study, possible.

Also at Princeton, I learned first hand, from both Dr. Chou and Dr. Link, that “challenge & assist” truly works – and that is, I think, what inspired me to regulate my students' participation. And, I learned from my very motivated and earnest students – four of whom participated in this study – that when a learner's participation is regulated within his or her ZPD, this improving participation creates an environment optimal for error correction and, consequently, language learning – even for beginning learners who, initially, could *not* participate.

Finally, I want to thank my mother-in-law, Dr. Martha Grey, for dressing me (and my teeth) for success; my god-parents, Nancy and James Warters, for supporting and believing in me; and, last but not least, my husband, Filip, for his support and intriguing questions.

1. INTRODUCTION

In this chapter, an introduction to this study will be first provided. Second, the statement of the research problem will be presented. Third, the rationale for the theoretical framework and focus of the study will be described. Fourth, the significance of the study will be provided. Finally, the researcher will outline how the Research Questions will be answered in this dissertation.

1.1. INTRODUCTION

Since the 1950s, error correction has been examined under different terms: as negative evidence by linguists (e.g., White, 1989), as repair by discourse analysts (e.g., Kasper, 1985), as negative feedback by psychologists (e.g., Annett, 1969), as corrective feedback by second language teachers (e.g., Fanselow, 1977), and as focus-on-form in more recent work by the second language acquisition (SLA) researchers (e.g., Doughty & Williams, 1998; Lightbown & Spada, 1990; Long, 1991; Long, Inagaki & Oretaga, 1998; Nassaji, 1999). All these different terms (in this study, the term ‘error correction’ will be used alternately with negative feedback/corrective feedback) have dealt with the same, very practical issue of what to do when students make errors in classrooms that are intended to lead to communicative competence (Lyster & Ranta, 1997). The fundamental question has always been: does error correction lead to second language (L2) learning (Aljaafreh & Lantolf, 1994)?

Some current studies on the effectiveness of error correction have shown that adult learners in the L2 classroom not only can and do use negative feedback to learn specific linguistic generalizations but also narrow the application of grammatical rules correctly. In these studies, explicit error correction has been proved to promote native-like speech and eradicate

errors in the functional use of linguistic forms by nonnative speakers (Carroll, Roberge, & Swain, 1992; Carrol & Swain, 1993; Herron & Tomasello, 1988; Lightbown & Spada, 1990; Spada & Lightbown, 1993; Swain & Lapkin, 1995; Trahey & White, 1993; White, 1991).

Some other studies have focused on implicit error correction, such as the recast (Doughty, 1991; Doughty & Varela, 1998; Ellis, Tanaka, & Yanazaki 1994; Long, Inagaki, & Ortega, 1998) and the negotiation of form (i.e., clarification requests, confirmation, etc.) during teacher-learner discourse (Doughty & Williams, 1998; Mackey & Philp, 1998; Nobuyoshi & Ellis, 1993; Lyster, 1998; Lyster & Ranta, 1997; Muranoi, 1996; Williams & Evan, 1998; Long & Robinson, 1998). The results have demonstrated that implicit negative feedback during communicative interaction may be more beneficial than just positive feedback (e.g., comprehensible input and interaction through negotiation of meaning) in facilitating an increase in production of targeted higher-level morpho-syntactic forms (Mackey & Philp, 1998).

According to the aforementioned studies, error correction (explicit and/or implicit) has been particularly helpful in promoting accuracy in SLA when it was provided in a classroom that primarily focuses on meaning and communication (Williams, 1999). During communicative interaction, negative feedback (or error correction) has drawn the learners' attention to the form and makes linguistic rules in the input more salient. More importantly, negative feedback facilitates cognitive comparison between the deviant and target linguistic form in ways that allow the learners to re-analyze and modify their non-target output during hypothesis testing (Pica, et al., 1989; Swain, 1993, 1995), which finally leads to L2 development (Lyster, 1998; Lyster & Ranta, 1997; Mackey & Philp, 1998; Van den Branden, 1997).

While findings from the aforementioned experimental and cross-sectional research have confirmed the importance of the social aspect of error correction in a learner's language

development, they tell us little about how error correction from the teacher during social interaction is related to a learner's internal cognitive understanding and functional use of the target language rules. Specifically, the previous studies have not addressed whether and how the L2 teacher, during communicative interaction, tailors the error correction to the student's individual level of linguistic development. Neither have they investigated how the individual learner reacts to and uses the teacher's error correction to facilitate correcting their own errors during oral communication. No clear link has been established between the specific corrective procedure and its learning outcome (Aljaafreh & Lantolf, 1994).

The majority of the current SLA research on error correction has either unitarily measured the quantity of the teacher's corrective types and corrective moves (toward learners' grammar errors in oral production) or vigorously debated the effectiveness of one type of corrective feedback over another (i.e., explicit correction vs. recast vs. negotiation of form). The effectiveness of error correction has been mostly manifested by measuring learners' follow-up or final test scores of using certain grammatical structures. Few studies have acknowledged the potential collaborative and constructive learning process created between the teacher and learner during the negotiated interaction (Adair-Hauck & Donato, 1994; Aljaafreh & Lantolf, 1994). The critical issue of how the teacher's error correction during communicative interaction with the learner evolves into self-correction and language development has neither been clearly explained theoretically nor thoroughly investigated empirically in SLA.

1.2. THE USE OF THEORY

Vygotsky's sociocultural theory, genetic approach and his concept of Zone of Proximal Development provide an ideal theoretical framework for this study, which is to explore error

correction and the learning process as they unfold during the dialogic activity collaboratively constructed between tutor-learner dyads.

According to Vygotsky (1978, 1986), human cognitive development is concerned with consciousness and self-regulatory mechanisms, the origin of which lies in social interaction between individuals on the inter-psychological level before it is transformed into the individual on the intra-psychological level. His account of the social interaction and higher mental function emphasizes the mediating function of socio-culturally constructed artifacts or symbolic tools (such as language) and the crucial role of the more expert members (tutor) in assisting the novice (learner). To Vygotsky, it is precisely during the dynamic face-to-face communication or dialogic activity that an expert guides a novice's participation in completion of a task by offering real-time assistance. By observing, participating and interacting with the expert, in the goal-oriented and semiotic mediated activity, a novice, by carrying out other-regulatory functions, gradually appropriates the semiotic process until self-regulation or independent mental functioning is achieved (Wertsch, 1985).

Vygotsky used the metaphor of “the zone of proximal development (ZPD)” to characterize the role of expert-novice interaction in language development. To him, ZPD was a “construction zone,” where language, used as a mediational means, was appropriated by a novice in collaboration with experts. Thus, language served to regulate first others and then the learners themselves. Of importance is not the successful completion of the linguistic task but “the higher cognitive process that emerges as a result of the interaction” (Lantolf & Appel, 1994, cited in Anton, 1999).

In recent years, the social concept of learning and its contribution to cognitive development has been described in terms of: collaborative scaffolding (Bruner, 1987; Donato,

1994; De Guerrero & Villamil, 2000), assisted performance (Tharp & Gallimore, 1988), cognitive apprenticeship (Rogoff, 1990, 1995, 2003) and negotiated corrective feedback (Anton, 1999; Aljaafreh & Lantolf, 1994; Nassaji & Swain, 2000). These researchers perceive effective assistance or intervention as a graduated and contingent process; a way through which an expert, together with a novice, discovers the ZPD of the novice and determines first, if help is required and second, if it is, to seek its appropriate level. Thus, discovering the potential developmental level of the novice and providing appropriate level of help accordingly (during the unfolding dialogic activity) is the core of Vygotsky's ZPD.

In this study, the novice's macro-development was observed through micro-analysis of expert-novice dyads' discourse. In other words, it was by observing the step-by-step collaborative assistance or intervention that the immediate and subsequent improvement/language development were revealed.

1.3. THE PURPOSE STATEMENT

The purpose of this dissertation was to conduct a longitudinal study to investigate the process of error correction and its effect on the learner's self-regulation and functional use of three grammatical structures as they unfold during dialogic interaction, collaboratively constructed between the tutor and L2 learners (Aljaafreh & Lantolf, 1994) in learning Chinese as a foreign language. By observing oral discourse between tutor-learner dyads and negotiated error correction embedded in it, this study attempted to expose the process of negotiated error correction and language development in oral communication in terms of: a) how the tutor's error correction assists the learner's self-regulated error correction and functional use of the grammatical structures; b) how the tutor's error correction of L2 learners' grammatical errors changes over time in the immediate and subsequent conversational activities; and c) how the L2

learners' understanding, and participation in the tutor-regulated and self-regulated correction change in the immediate and subsequent conversations; and d) how the learner's functional use of grammar structures develops or whether errors recur over time.

1.4. SIGNIFICANCE OF THE STUDY

By investigating negotiated error correction between tutor and learner during oral communication within the sociocultural framework and the construct of ZPD, the researcher will contribute to the field of second and foreign language teaching and learning in two ways.

First, from the perspective that error correction should be negotiated, Aljaafreh and Lantolf (1994), and Nassaji and Swain (2000) have made the initial attempt to document how the error correction in written settings negotiated between the tutor and advanced ESL learner affects learning of L2 grammatical structures. However, no comparable research on the negotiation of error correction during oral interaction exists. Even less is documented in the field of L2 and especially in teaching Chinese as a foreign language. By investigating the process of negotiated error correction during communicative interaction in speaking tutorials (oral setting) and with beginning native English-speaking learners of Chinese, this study has attempted to fill in this gap.

Second, this study is crucial to second and foreign language educators and practitioners because its focuses have been on the collaborative process in teaching and learning. Through micro-analysis of negotiated error correction, embedded in the tutor-learner oral communication, the details of error correction or step-by-step assistance from the tutor and the subsequent, everyday developments of the learner's language during the communicative interaction have been revealed (Takahashi, 1998). Diverging from current second language research, which exclusively emphasizes the teacher's universal error correction and the learner's immediate

follow-up oral production, this study has attempted to demonstrate the processes of: a) how a teacher adapts corrective feedback to each individual learner; b) how the learner's self-regulation or accurate use of linguistic forms during negotiation of meaning emerges and develops (Brooks, 1993; Donato, 1994; Lantolf & Appel, 1994; Lantolf & Pavlenko, 1995); and c) how the learner's error recurrence changes over time. Because this study has emphasized the negotiated error correction process, individual differences, and long-term language development, it contributes to sociocultural theory and its application to second and foreign language teaching.

In the next chapter (Chapter Two, p. 9), the researcher will present a brief historical overview of the literature of error correction and discuss the current error correction issues in oral communication, then the theoretical and empirical studies will be cited and their shortcomings discussed. Finally, the researcher will develop the theoretical foundations – Vygotskian sociocultural theory – of the notion of Zone of Proximal Development and its relevance to oral error correction and L2 learning.

Chapter Three (p. 38) will outline the general research methodology used in this study and describe the research procedures, emphasizing longitudinal analysis. That is, the researcher will present a) the data collection techniques; b) which grammatical structures were studied and reasons for their selection, c) method of data coding and how certain published scales were adapted in this study, d) data display, and, finally, e) data analysis.

Thereafter, the presentation will follow the answers to the Three Research Questions (p. 35). That is, Chapter Four (p. 59) will first clarify and then answer the first part of the First Research Question and, to answer the second part, provide a general overview of the findings related to the tutor's two types of assistance in the oral conversation. Chapter Five (p. 100) will answer the Second Research Question and demonstrate that the learner's improving participation

was instrumental in enabling the transfer of grammatical knowledge from the tutor to the learner. Chapter Six (p. 205) will answer the Third Research Question by considering the finer details of the reasons for the learners' errors and the specifics of why the tutor's regulation was so helpful. Finally, in Chapter Seven (p. 233), the research will discuss the concepts developed in this study; present numerous insights, implications, etc.; and, offer suggestions for future studies.

2. REVIEW OF THE LITERATURE

In this chapter, literature related to a) historical overview of error correction; b) recent studies of error correction in oral communication; and, c) error correction within the framework of sociocultural theory and the Zone of Proximal Development, will be reviewed.

2.1. HISTORICAL OVERVIEW OF ERROR CORRECTION

Theories and methodologies in reference to the role of error correction (negative feedback) in SLA have been highly divergent. By following theories and approaches that were in vogue at different times, L2 practices have been subject to drastically different approaches ranging from an obsession with error correction in drill practice (i.e., the Audio-Lingual Method), to complete tolerance of errors (i.e., the Natural Approach), to correction of only those errors which interfere with meanings in communication (i.e., Communicative Language Teaching). Presently in vogue is the Focus on Form Approach (Long, 1991; Long & Robinson, 1998), which emphasizes, in the communication-oriented classes, the provision of corrective feedback that encourages self-repairs involving accuracy and precision of linguistic forms and not merely comprehensibility (Lyster & Ranta, 1997).

In this section, theories and methodologies representing these varied viewpoints on error correction in oral communication will be presented and their influence on classroom practice and L2 learning outcomes will be discussed.

2.1.1.The Audio-Lingual Method and error prevention

In the 1950s and 1960s, the dominant learning theory was behaviorism, which emphasized that language learning, like all other learning, centered around habit formation. Habits were formed when learners responded to stimuli in the environment. Influenced by behavioral psychology and structural linguistics, the Audio-Lingual Method (ALM) considers foreign language (FL) learning as acquisition of correct linguistic habits, which consist of the ability to perform a particular linguistic feature (a sound, word, or grammatical pattern) automatically (i.e., without conscious effort). The formation of this habit is linked to stimulus-response connections during massive practice of mechanical linguistic patterns – where the teacher supplies the stimulus (input), the learner supplies the response (output) and finally the teacher reinforces the correct response by providing positive reinforcement, or negative reinforcement if the response is incorrect (Ellis, 1994). This tenet determines the role of teacher as the center of teaching, one who tightly controls what and how learners speak and write. The essential teaching and learning practices involve memorization of dialogue and practicing patterns in substitution.

Under behaviorism and ALM, errors were seen as first language (L1) interference, which fostered the formation of bad linguistic habits in L2 learning and, thus, needed to be prevented or explicitly corrected in all cases. When errors did occur in ALM classes (i.e., drill practice), the teacher corrected them explicitly, with a request that all students repeat the correct response in a chorus, followed by a repetition from the student who made the error originally (Omaggio, 1988). Teachers' explicit correction of learners' errors in the ALM may have brought linguistic accuracy in drill practice, but due to its total isolation from meaningful context, it could not produce satisfactory results during communicative activities, and this, finally, led FL teachers to consider alternative approaches (Mings, 1993).

2.1.2.The Cognitive method and the value of error correction

Unlike behaviorist learning theory, cognitive learning theory (McLaughlin, 1978, 1987) did not seek to explain language learning as an external manipulation of learners' behavior but, instead, it emphasized that language learning was a cognitive process and a rule-governed creativity (Chomsky, 1965). That is, with a finite number of grammatical rules and a limited vocabulary, humans could create a limitless number of sentences, many of which may never have been articulated before. To these researchers, perception and awareness of L2 rules was essential and conscious grammatical knowledge or competence had to be taught so as to "regulate and guide performance" (McLaughlin, 1987, pp. 133-134). Errors that learners produced were not due to the lack of linguistic knowledge but the lack of knowledge of how to apply it in a real setting. The teacher's role in a cognitive class was to provide an explanation of grammatical rules and learning conditions which enabled learners to use and practice linguistic knowledge in authentic communicative situations (Johnson, 1988). Any mismatches between the desired and actual output were made salient to the system through various types of external corrective feedback. Through this repeated activation (or practice), sequences, which were first produced by controlled processing, become automatic and the continuing movement from controlled to automatic processing resulted in constant restructuring of the linguistic system of the L2 learner, which finally led to SLA (Mitchell & Myles, 1998).

2.1.3.Natural Approach, Communicative Language Teaching and the tolerance of errors

Perceptive changes in the attitude toward error correction occurred in the late 1960s, when Chomsky (Universal Grammar Theory) contended that language learning was governed by an innate system, which needed to be exposed to input from the environment. The Natural Approach (NA) and Communicative Language Teaching (CLT), which advocated creating

opportunities for learners to use language in more authentic and spontaneous ways, became the new direction in language teaching. The theory behind these pedagogical shifts was that learners could develop greater L2 communicative abilities through instruction that more closely resembles the characteristics of a “natural” environment. It has been argued that such an approach can eventually lead to mastery of the target language in much the same way that a child grasps its first language (L1), provided that the learner manages to get enough exposure to the language (Krashen, 1982, 1985) and participates in interaction through negotiation of meaning (Long, 1981, 1983). In classrooms with NA and CLT, more attention was given to proficiency or functional use of the language during meaningful communication. Positive input and interaction through negotiation of meaning among teachers or peers were believed to bring out learners’ comprehension, which would further enhance language acquisition. The focus of language is not on accuracy but on communicating one’s own meaning through interaction with others. Error correction, as negative input, was viewed as largely harmful, or unnecessary (Mings, 1993).

Empirical studies that have been conducted on input-based, communication-oriented programs, such as the French immersion program, showed that students in these naturalistic programs, although demonstrating higher levels of fluency and “communicative confidence” in the L2, still continued to produce a wide range of basic grammatical errors in their speech (Swain 1985; Harley & Swain, 1984; Genesee, 1987; Lightbown & Spada, 1990). For example, the accuracy of students learning French syntax and morphology was found to be far below what may have been expected from learners who had spent several years immersed in L2 (Swain, 1985), and this has led many SLA researchers to question the assumption that positive input and negotiation of meaning foster knowledge of the formal aspect of the language and lead to accuracy without error correction or focusing on form (Carroll, Swain & Roberge, 1992; Carroll

& Swain, 1993; DeKeyser, 1998; Doughty, 1991; Harley, 1998; Lightbown, 1991; Lightbown, 1998; Lightbown & Spada, 1990; Lyster, 1998; Spada & Lightbown, 1993).

2.1.4. Focus on Form Approach and the integration of form and meaning

In the last ten years, the field of L2 pedagogy has witnessed a reaction against NA and CLT, which had advocated the exclusive use of meaning-focused activities in language classrooms (Nassaji, 1999). Proponents of change have endorsed a form-focused (FonF) approach and error correction in L2 learning. They have argued that attention to form and meaning should not be mutually exclusive in the FonF classroom and that both explicit and implicit negative feedback (or error correction) should be provided during meaning-focused classroom lessons or communicative activities. The negative feedback (negotiation of form and explicit grammar explanation), which is elicited from negotiation of meaning, can best draw students' attention to forms during the functional use of the language (Long, Inagaki & Ortega, 1998) and facilitate more effective integration of form, meaning and function (Doughty & Williams, 1998).

The theoretical belief and the application of error correction in L2 classrooms have experienced a swing from the quick, decisive error correction of the Audio-Lingual classroom (which focused on multiple forms), to the opposite extreme of total tolerance of errors in meaning-focused naturalist and communicative classrooms, and then to the middle position of integrating corrective feedback and negotiation of meaning in the FonF classroom (Long, 1998).

Does error correction play a beneficial role in the formal aspect of L2 learning in oral communication? In the next section, classroom-based research will be reviewed to explore the current studies.

2.2. RECENT STUDIES ON ERROR CORRECTION IN ORAL COMMUNICATION

The focus of language teaching is on the development of both fluency and accuracy in the communicative classroom. SLA researchers have reached a general consensus that positive feedback (i.e., comprehensible input and interaction through negotiation of meaning) alone does not foster knowledge of the formal aspect of the language or lead to grammatical accuracy (Carroll, Swain & Roberge, 1992; Carroll & Swain, 1993; Doughty, 1991; Harley, 1998; Lightbown, 1991; Lightbown, 1998; Lightbown & Spada, 1990; Lyster, 1998; Spada & Lightbown, 1993). Error correction (negative feedback) is also necessary in facilitating L2 learning (Nassaji & Swain, 2000).

2.2.1. Effectiveness of negative feedback

Since the 1960s, the theory-driven research on Universal Grammar (Chomsky, 1965) has credited children with a language acquisition device (LAD) – an imaginary “black box” in the brain – which contains all the linguistic principles which are universal to all human languages. For the LAD to do its job, a child only needs access to samples of natural language (positive input), which serves to trigger the device and allow them to discover the structure of the language to be learned by matching innate knowledge of basic grammatical relationships with the structures of the particular language in the environment (Lightbown, Spada, Ranta, & Rand, 1993. p. 8). Negative feedback, since it is unavailable to children (Brown & Hanlon, 1970) and not used by them (Birdsong, 1989), does not affect language acquisition.

In adopting this innatist position, some L2 theorists have also accepted that L2 learners are equipped with a set of universal linguistic principles that constrain their hypotheses on the language to which they are exposed. They hold not only that exposure to positive evidence is sufficient to trigger the resetting from L1 parameters to L2, but also that negative evidence is not a necessary condition for acquisition to occur (Schwartz, 1993). The most influential of these L2

theories, and the one with the most pedagogical implications for L2 and FL teaching and learning is the Monitor Model¹ by Krashen (1982). He proposes that there exist two ways for adult L2 learners to approach learning L2: acquisition and learning. Acquisition is the subconscious process which occurs when learners engage in meaningful interaction in L2, in much the same way that children pick up their L1 – with no attention to form. Learning is a conscious process, which occurs when the learner's attention is on forms and corrective feedback (Lightbown & Spada, 1993).

Krashen asserts that acquisition is the sole initiator of correct language utterances. Speaking fluency and accuracy naturally “emerge” over time when L2 learners have access to comprehensible input and when their “affective filter” is low (e.g., they are motivated to learn and are not anxious) – only then can the comprehensible input be made available to the internal mechanisms for processing. Negative feedback or FonF involves the conscious manipulation of language rules in formal settings; therefore, it is considered as unable to be converted into fluent language use (Krashen, 1981, 1982, 1985).

Accepting that comprehensible input was necessary for language acquisition – interactionists, like Long (1981, 1983, 1985), advanced Krashen’s argument and emphasized that input was made comprehensible through interactional modifications (e.g., clarification requests, confirmation checks, repetitions, etc.). Since interactional modifications make input comprehensible and comprehensible input promotes acquisition, then interactional modification promotes acquisition. For Long and others, comprehensible input generated by interactional modifications, was a prime source of target language acquisition, feeding into the learner’s “black box”; the more input that was negotiated to increase its comprehensibility, the greater was

1 The Monitor Model consists of five central hypotheses: (1) The acquisition-learning distinction; (2) The natural order hypothesis; (3) The monitor hypothesis; (4) The input hypothesis; and (5) The affective filter hypothesis. For the details see Krashen (1982).

its potential usefulness as input to the needs of the individual learner (Mitchell & Myles, 1998). Throughout the 1980s, important connections between interactional modifications, comprehension, and acquisition were well under way to being established (Swain, 1993), but not without criticisms from current SLA research (Young, 1988).

One criticism came from empirical studies, which found that, although interactional modifications around negotiation of meaning increased modified input and promoted comprehension of input (Pica, Young & Doughty, 1987; Loschky, 1994), it failed to show any clear link of the increased comprehensible input and comprehension to the acquisition of grammatical structures (see Loschky, 1994; Sato, 1986). Learners could comprehend input by drawing on contextual and schematic knowledge of the world in such a way that they did not have to attend to the actual linguistic forms. As a result, the modified input generated by negotiation of meaning may have resulted in successful comprehension but not language acquisition (Ellis, 1999, p. 6).

The second criticism was based on the theoretical assumption (from the cognitive perspective) that language learning was not an inductive process, but, rather, a type of problem-solving process that required learning strategies such as metalinguistic awareness and conscious monitoring. Negative feedback helped learners narrow down the range of possible hypotheses that they had formulated in response to the input to which they had been exposed (Zock, Francopoulo, & Laroui, 1989); therefore, it was required because the linguistic forms, used to convey subject matter or meaningful communication, may not have been readily salient in the comprehensible input generated by interaction around negotiation of meaning (cf. Gass, Mackey & Pica, 1998, p. 300).

To address these criticisms, three revisions relevant to the discussion of error correction (negative feedback) have been proposed: error correction from the Incomprehensible Input Hypothesis (White, 1987); error correction from the Updated Output Hypothesis (Swain, 1993; Swain, 1995; Swain & Lapkin, 1995; Swain & Lapkin, 1998); and error correction from the Revised Interaction Hypothesis (Long, 1981; 1996). The three hypotheses stated that negative feedback during either comprehension, production, or negotiation of meaning is vital to L2 development (Loschky, 1994; Swain & Lapkin 1998).

2.2.1.1. Error correction in the Incomprehensible Input Hypothesis

White, in her series of studies (1987, 1991), challenged Krashen's comprehensible input hypothesis (that language was not learnable if the input only provided positive evidence about the target language) (Pinker, 1989). She reasoned that well-formed utterances may have provided the learner with evidence on grammar structures which the target language system permitted, but they did not provide specific-enough information on the boundaries of the system, i.e., they failed to rule out a number of generalizations which were compatible with the input received, but were actually incorrect (Mitchell & Myles, 1998). To White, the driving force of grammar change was that the input was incomprehensible and that the modifications to language (triggered by something incomprehensible) could be an impetus for learners to recognize the inadequacy of their own rule systems. The following empirical studies also support White's hypothesis that positive input alone may not be enough for SLA.

White (1991) investigated whether negative feedback in form-focused classrooms was more effective than positive input alone in helping L2 learners arrive at the appropriate adverb placement of English (where Subject-Adverb-Verb (SAV) word order is allowed but Subject-Verb-Adverb-Object (SVAO) is not). In her study, the experimental groups were given explicit

instruction on adverb placement including error correction. Pretests and post tests were administered immediately following the treatment sessions, followed by a second post test after five weeks, and a follow-up test one year later. The results revealed that both experimental and control groups started out with the L1 parameter setting (accepting and producing SVAO order) but only the group that received the negative feedback during form-focused instruction demonstrated consistent knowledge of the impossibility of SVAO order. White concluded that negative feedback might be necessary to trigger parameter resetting in SLA and may be effective in helping L2 learners realize that SVAO is ungrammatical in the target language when it is grammatical in their L1 (cf. Wen, 1999).

After first showing that negative evidence may be necessary to trigger parameter resetting in a learner's grammar, Trahey and White (1993) then tested if positive evidence without negative feedback was sufficient to trigger parameter resetting. They showed a dramatic increase in the correct use of SAV order, but, confirming White's hypothesis, only a small decline in incorrect SVAO usage. The study concluded that positive evidence is not sufficient to detect the ungrammaticality of SVAO sentences (cf. Wen, 1999), and that incomprehensible input (negative feedback) is vital to SLA.

The studies by Day and Shapson, (1991) and Williams and Evans (1998) also confirmed White's conclusion. They found that increasing the frequency of a particular form in the input did not necessarily make it more salient, nor led to improvement in learners' using that form. For example, some linguistic forms in English, such as articles, gender, or case assignments are frequent in the input yet they seem to lack saliency for L2 learners because there is little semantic or communicative motivation (Harley, 1998). If learners are provided with negative

feedback, it may draw their attention to target-nontarget language mismatches more effectively than merely supplying correct target forms in the input (Lyster, 1998).

2.2.1.2.Error correction in Updated Output Hypothesis.

The second challenge to the direct relationship between positive feedback and language learning was Swain's Updated Output Hypothesis. It emphasized that learners produced modified output as a result of negative feedback. Based on her empirical evidence in the Canadian French program (see, e.g., Swain, 1985; Swain & Lapkin, 1995) where English L2 students, despite being offered abundant meaning-oriented input, still failed to achieve productive control of many aspects of French grammar, Swain argued that comprehension from negotiation of meaning and comprehensible input was often achievable by semantic or pragmatic means, making it unnecessary for the L2 listener to struggle to process unfamiliar syntax in full. In her view, 'Pushed output' obligated learners to engage in syntactic processing, as opposed to the kind of semantic processing involved in comprehension, and this fostered acquisition. Swain (1995) discussed three functions of output where accuracy is concerned. First, output served a consciousness-raising function by triggering 'noticing'. That is, output helped learners notice their errors. Second, output allowed learners to reflect consciously about the L2 forms, which occurred in the context of communicative tasks where the content was grammar (i.e., when learners negotiate for meaning while they dealt with a grammatical error). Finally, output enabled learners to test hypotheses about the L2. One way in which Swain thought this occurred was through the modified output that learners produced following the negative feedback. This last point hinged on the fact that learner production sometimes elicited, from the interlocutor, either direct or indirect negative feedback, which could provide learners with information not

only in terms of comprehensibility, but also the well-formedness of their utterances. According to Swain, this may be the path through which output led to language learning.

In the revised version of her Output Hypothesis (1993, 1995, 1998), Swain stated that just speaking was not enough, since, in communicatively oriented classrooms where interactional exchanges were motivated by a variety of purposes and foci (see Harley, 1993 and Swain, 1988), L2 learner may not readily notice target-nontarget mismatches in the interaction (Izumi & Bigelow, 2000; Lyster, 2000). External and internal feedback may be needed to make L2 learners aware of their own linguistic errors. While learners' language output may set "noticing" in train, it was the explicit or internal feedback during the "pushed" output that called learners' notice to errors, which awareness triggered an analytical or mental process that led to modified output (Swain & Lapkin, 1995. p. 388).

The modified output after negative feedback has been found in several empirical studies. Pica (1988) reported that beginning ESL learners modified their spoken output 31% of the time and intermediate learners did so 51% of the time after the interlocutors' signals of non-comprehension. The modified utterances of both groups were closer to correct English (Pica, Hollidays, Lewis, and Morgenthaler, 1989). The positive effects of error correction during communicative activities were also reported by Nobuyoshi and Ellis (1993), who investigated ESL learners' ability to produce more accurate output while explaining a picture-based story using past-tense forms. They found that when teachers provided negative feedback in the form of requested clarification, it pushed learners to modify their output and they were able to not only make self-repair, but also achieve a higher accuracy of output. The improved accuracy resulted in improved performance, both immediately and over time.

On the basis of think-aloud data taken from immersion students, Swain and Lapkin (1995) further claimed that what went on mentally between the original output and its reprocessed form was part of the process of L2 learning. This process “represents the internalization of new linguistic knowledge, or the consolidation of existing knowledge” (Swain & Lapkin, 1995, p.385). Negative feedback not only provided an opportunity for learners to notice their mistakes but also automatized the retrieval of target language knowledge that already existed in some form (McLaughlin, 1987). It is through restructuring or selective attention brought on by negative feedback that learners actively test hypotheses—formulating new hypotheses and rejecting old ones. “Without this selective attention, grammar development does not take place” (Gass, 1988. p. 212).

Other experimental studies have also examined and documented the positive relationship between error correction and the learner’s output performance in using certain grammatical structures.

Lightbown and Spada (1990) studied the effects of negative feedback in the context of intensive communicative ESL teaching in Quebec. They found that learners who received error correction achieved greater accuracy in the production of the structure *there is* in place of the L1 induced error *it has*. Testing one year later, Lightbown (1991) revealed continued high performance on *there is/are* in the same group of learners.

Tomasello and Herron (1988, 1989) constructed a learning situation, called ‘Garden Path condition’, where early-level L2 learners of French were induced to make over-generalization and transfer errors and were then corrected explicitly. They found that explicit error correction was more effective than modeling because it allowed the learners to carry out cognitive comparisons between their own ill-formed utterances and the correct target-language forms.

Carroll and Swain (1993) investigated the effectiveness of various types of negative feedback on the acquisition of the English dative by one hundred Spanish-speaking learners of English (L2). Subjects were divided into five groups according to which types of feedback they received. Whenever learners made an error in producing a dative alternation, Group A received explicit metalinguistic information about the generalization; Group B was simply told that the response was wrong; Group C was corrected and given a model of the correct form; Group D was asked if they were sure about their response; while the Control Group only received positive evidence of acceptable syntax. Carroll and Swain found that all four experimental groups (Group A through Group D), which received negative feedback, outperformed the Control Group. This demonstrated that adult L2 learners can and do use negative feedback to learn specific linguistic rules and abstract generalizations and correctly narrow down the application of those rules.

The empirical studies of Spada and Lightbown (1993), Swain and Lapkin (1995), White (1991) and White, Spada, Lightbown and Ranta (1991) also support that the provision of negative feedback does indeed facilitate the development of L2 syntactic ability (Ellis & Laporte, 1997, p. 58).

2.2.1.3. Error correction in Revised Interaction Hypothesis.

The third challenge to the direct relationship between positive feedback and language learning is Long's Revised Interaction Hypothesis. In contrast to his own earlier version of the Interaction Hypothesis, which posits that SLA comes from negotiation of meaning in obtaining comprehensible input, the Revised Interaction Hypothesis emphasizes the positive contribution of interaction in terms of the provision of negative feedback during the negotiation of meaning, or FonF (Long, 1991). Long specifically contrasts his idea of FonF with traditional grammar instruction (teaching forms exclusively in isolation), and with current communication-oriented

instruction (teaching language exclusively during negotiation of meaning). He states that negotiation of meaning elicits negative feedback in the form of implicit error correction, such as recasts or interactional modifications (e.g., clarification requests, confirmation checks, etc.). Such feedback draws the learners' attention to mismatches between input and output, which can push the learners to notice the kinds of forms for which a pure diet of comprehensible input will not suffice. Long highlighted that the possible contribution of negative feedback to the learning of structure in the target language is through "selective attention and the learner developing L2 processing capacity. These resources are brought together most usefully, although not exclusively, during negotiation of meaning. Negative feedback obtained during negotiation work or elsewhere may be facilitative of L2 development, at least for vocabulary, morphology and language-specific syntax, and essential for learning certain specifiable L1-L2 contrasts" (Long, 1996. p. 414).

Several empirical studies have found positive evidence while investigating negative feedback through implicit error correction such as recasts (Doughty, 1991; Doughty & Varela, 1998; Long, Inagaki & Ortega, 1998; Mito, 1993) and negotiation of form (Van den Branden, 1997; Lyster & Ranta, 1997; Lyster, 1998, 2000).

Doughty (1991), Doughty and Varela (1998), and Long, Inagaki and Ortega (1998) tested implicit negative feedback (recasts) in a real communicative classroom setting. The results showed that recasts, when narrowly focused on one linguistic form, promoted successful L2 development far beyond that achieved with the typical focus on diverse forms of the traditional classroom or even linguistically unfocused error correction in the study by DeKeyser (1993). According to Doughty and Williams (1998), recasts are a kind of negative feedback which functions to negotiate meaning (Van den Branden, 1997); however, when used to focus on one

linguistic form, it can make that particular form very salient, and, thus, “learners in their study can take responsibility for accuracy on one form before they can taper off the focus on that form and move onto another” (Doughty & Williams, 1998. p. 256).

Studies by Van den Branden (1997), Lyster and Ranta (1997) and Lyster (1998, 2000) have also provided robust evidence that negative feedback during negotiated interaction can encourage learners to actively participate in repair (i.e., negotiation moves), which not only leads to higher rates of uptake in linguistic form but also can elicit peer- and self-repair.

All of these studies emphasize that interaction around negotiation of meaning alone does not facilitate an increase in production of targeted high-level morpho-syntactic forms (Mackey & Philp, 1998) and neither does it have a significant effect on the syntactic complexity nor grammatical correctness of the learners’ output (Van den Branden, 1997). It is specifically the negative feedback during negotiation of meaning that highlights learners’ errors and facilitates cognitive comparison, which finally lead to SLA (Lyster, 1998; Lyster & Ranta, 1997; Mackey & Philp, 1998; Van den Branden, 1997).

The contribution of error correction to SLA has been well recognized within an interaction framework by connecting negotiation of meaning, comprehensible input, and comprehensible output via selective attention (Ellis, 1999). Through negotiation of meaning, the interlocutor shows interest in what the learner has to say and thus encourages him or her to pursue the conversation and verbal interactions. Following the interlocutors’ positive feedback (comprehensible input and interaction) and negative feedback (non-comprehension signals), language learners may negotiate on form (Van den Branden, 1997. p. 592-593), question the language they produce, and reconsider the Inter-language Hypothesis that underlies their output. By modifying their output, language learners may experiment with new structures and forms

and, hence, test new hypotheses. It is during the negotiation of meaning that mutual understanding is established or restored. And it is during error correction (negotiation of form) within negotiation of meaning that one interlocutor tries to “push” the other toward producing a more correct or appropriate utterance (Lyster & Ranta, 1997), while preserving the existing meaning.

While there is an agreement that error correction (negative feedback) has to be provided within meaningful context to be effective, there is no agreement on what types of negative feedback (explicit vs. recasts vs. negotiation of form) are most effective in dealing with learners’ grammatical errors in oral communication. This topic will be discussed in the next section.

2.2.2.Types of error correction

Current empirical research has yielded mixed results regarding the effectiveness of different types of error correction on grammar learning (Lyster, 1998, 2000; Nassaji & Swain, 2000). Some researchers emphasize that explicit error correction (Carroll & Swain, 1993; Lightbown, 1991; Lightbown & Spada, 1990) is effective. Spada (1997), after surveying more than thirty studies, concluded that explicit error correction and grammar explanation during form-focused instruction appeared to be especially effective in communication-based and content-based L2 classrooms. Other researchers, such as N. Ellis (1995), Long, Inagaki, and Ortega (1998), and Doughty and Varelas (1998), have argued that the provision of negative feedback, especially in the form of recasts, facilitates the development of L2 syntactic ability.

Lyster (1998, 2000), Lyster & Ranta (1997) and Van den Branden (1998) have drawn on data from classroom-based discourse analysis and opposed both aforementioned corrective types. They argue that learners, in the communicative contexts, were unlikely to notice that the majority of recasts were negative feedback, since teachers use recasts as feedback for both ill-formed and

well-formed utterances. Thus, they claimed that recasts had a considerable degree of ambiguity in communicative classroom discourse. In addition, since both recasts and explicit error correction already provided correct forms to learners, they did not lead to peer- or self-correction. Lyster (1998, 2000), Lyster and Ranta (1997) and Van den Branden (1998) noted that learners' uptake of linguistic forms was more likely to occur after negotiation of form (i.e., elicitation, repetition of error, and clarification request) than any other type of correction aforementioned. Negotiation of form not only made important form-function links to the target language without interrupting the flow of communication, but more importantly, it maintained the mutuality inherent in the negotiation and returned the control to the learner. By being provided with meta-linguistic clues in the feedback, the learner was then able to continue the negotiation bilaterally by drawing on their own resources.

2.2.3. Some observations

The explanation of error correction (corrective feedback) within social interaction in the aforementioned studies, is informative because it recognizes the importance of the social aspect of error correction. These studies have examined how environmental conditions, such as interactive contexts (Long & Crookes, 1992; Long, Inagaki & Ortega, 1998; Long & Robinson, 1998; Lyster, 1998, 2000; Lyster & Ranta, 1997; Pica, et. al, 1996; Van den Branden, 1997) and communicative tasks or activities (Crookes & Gass, 1993; McDonough & Mackey, 2000; Pica, 1994), in which error correction occurs, supply the learner's "black box" with the right kinds of data to "process." But, they have not acknowledged that a social relationship exists – a potential collaborative and constructive process of learning created between the teacher and the learner during the negotiated interaction (Adair-Hauck & Donato, 1994). In other words, what has not been considered is how the external force (teachers' error correction) interacts with individual

learner's internal cognitive understanding (learner's self-regulation) and how this negotiated process (error correction) results in functional use of the target-language forms. As Donato (2000) notes, current studies in SLA exclusively focus on the social and communicative aspects of interaction and ignore its cognitive function (Ellis, 1999. p. 17). The critical issue of how a teacher's error correction during social interaction (inter-personal level) is incorporated with and transformed into a learner's self-regulated correction on the cognitive (intra-personal) level is neither clearly explained theoretically nor thoroughly investigated empirically.

Another perspective that is missing is the consideration of a learner's individuality (e.g., personality, motivation, age, language aptitude, readiness, etc.). According to Ellis (1988), adults bring to the classroom preexisting meta-linguistic knowledge (L1, L2 and FL learning experience). It should be expected that learners may be at different stages in their learning (Allwright & Bailey, 1991), and that they, at any single stage, will find "learnable" only those concepts that are at the next stage of their natural development. It may be possible to accelerate their progression through these stages; however, it is impossible to jump individual stages altogether. In other words, error correction (feedback level) has to be appropriately pitched, so that learners are not being uselessly harangued about errors for which their interlingual developmental stage has not yet prepared them to cope (e.g., premature treatment of characteristically late-learned forms) (Pienemann, 1984). How is the teacher's error correction with regard to error type (level of explicitness) and timing, geared to the individual's needs so as to best trigger cognitive awareness and self-regulated correction? There is no theoretical background or empirical evidence on these topics in current SLA research.

SLA researchers have been debating which type of specific feedback (explicit vs implicit) affects the L2 learner's immediate, modified oral production. The teacher's error correction has

been offered in such a way that while L2 learners have had clear-cut linguistic and meta-linguistic competence, their modified oral production after error correction has been considered to be a fixed trait or end-production. This has resulted in rare documentation of the teacher's movement-by-moment corrective feedback and the learner's subsequent use and control of a particular linguistic form during spontaneous oral communication. In other words, the process of a teacher's error correction (corrective feedback) and the developmental stages of a learner in terms of conscious awareness or noticing of underlying linguistic rules (Mackey, Gass, & McDonough, 2000; Schmidt, 1990, 1993) are rarely documented.

In summary, current SLA theories and research do not and can not thoroughly explain how error correction affects L2 learning. This study took Vygotsky's sociocultural theory and his concept of Zone of Proximal Development (ZPD) as the theoretical framework of the exploration of the process of error correction or corrective feedback and learning as they unfold during collaborative dialogic activity. In the next section, Vygotsky's sociocultural theory and its applications to error correction will be explained.

2.3. ERROR CORRECTION FROM THE SOCIOCULTURAL PERSPECTIVE

Vygotsky's sociocultural theory provides an ideal theoretical framework to investigate the process of negative feedback and learning. In this section, the principles of sociocultural theory and the concept of Zone of Proximal Development will be presented. Its relevance to L2 learning and development, and to issues of error correction will also be discussed.

2.3.1. Sociocultural theory and language learning

Sociocultural theory is based on the work of L. S. Vygotsky (1978), his colleagues (e.g., Leont'ev, 1981), and contemporary researchers (e.g., Wertsch, 1979, 1991; Lantolf, 1994, 2000). The primary focus of sociocultural theory (SCT) is on the social process and an individual's

cognitive development. Vygotsky's account of social interaction and human cognitive function emphasizes the mediating effect of socioculturally constructed artifacts, or symbolic tools, such as language and the transforming effect of introducing language into the relationship between humans and their environment. To Vygotsky, the primacy of social interaction is the driving force and prerequisite of individual cognitive development by participating and appropriating semiotic mediation encountered in the sociocultural realm (Nyikos & Hashimoto, 1997). In other words, it is through participating in everyday conversations that a child is learning language and learning through language.

The idea that human cognitive development is social in origin and that it is mediated by psychological tools was synthesized in Vygotsky's "genetic law of cultural development" as follows: "any function of child mental development appears twice: first on the social plane, and then on the psychological plane; first between people as an inter-psychological category, and then within the individual as an intra-psychological category" (1981. p. 163). It is only through the inter-psychological process (social interaction with others) that language can be used for social purposes and that it is a means of influencing others. Only later, does it become a means of influencing the self (Wertsch, 1980). The transformation from social or inter-psychological functioning into mental or intra-psychological functioning takes place within the Zone of Proximal Development.

2.3.2.Semiotic mediation within the Zone of Proximal Development

Vygotsky used the metaphor of "the Zone of Proximal Development" (ZPD) to characterize the crucial role of expert-novice (tutor-learner) interaction and its relationship to the transformation process from external or inter-psychological function to the internal or intra-psychological function. He defined the ZPD as "the distance between the child's actual developmental level as

determined by independent problem solving and the higher level of potential development as determined through problem solving under the guidance or in collaboration with adults or more capable peers” (Vygotsky, 1978. p. 86).

To Vygotsky, initially, a novice (learner), is incapable of carrying out a task on his or her own and must be assisted (other-regulated) by expert (tutor) or more experienced peers within the culture. The primary means of providing assistance or other-regulatory functions is through dialogic speech. It is in this process that an expert undertakes to direct a novice through a task, and where the novice provides feedback to the expert, who then makes the necessary adjustments to the direction offered to the novice (Wertsch, 1979). It is through the dialogic interaction that an expert enters the novice’s ZPD, challenges and supports the novice in the task; scaffolds the novice through guided participation in the goal-oriented activities and finally empowers the novice to construct and solve the problem on his or her own (Adair-Hauck & Donato, 1994). It is also by observing, participating and interacting with an expert in the goal-oriented and semiotic mediated activity that a novice, by first carrying out other regulatory functions, gradually appropriates the semiotic process until self-regulation, or independent mental functioning is achieved. It is within this dynamic dialogic process that the novice and the expert collaborate in constructing a mutual ZPD (Aljaafreh & Lantolf, 1994) and that the reconstructive and qualitative changes take place.

The ZPD is the ‘construction zone’ in which the expert guides the novice towards higher level of performance interactively (Figure 2.1¹), which, to Vygotsky, involves not only the completion of the linguistic task, but more important, guiding the novice towards a definition of situation which parallels that of the expert (Frawley & Lantolf, 1985). The guidance enables the

¹ A graphical depiction of Vygotsky’s Zone of Proximal Development in which the level of solitary child’s performance (the novice) is raised by joint collaboration with the parent (the expert) (cf. Sokolov & Snow, 1994, p. 44).

novice to work jointly with the expert and finally achieve inter-subjectivity or shared orientation of activities and tasks.

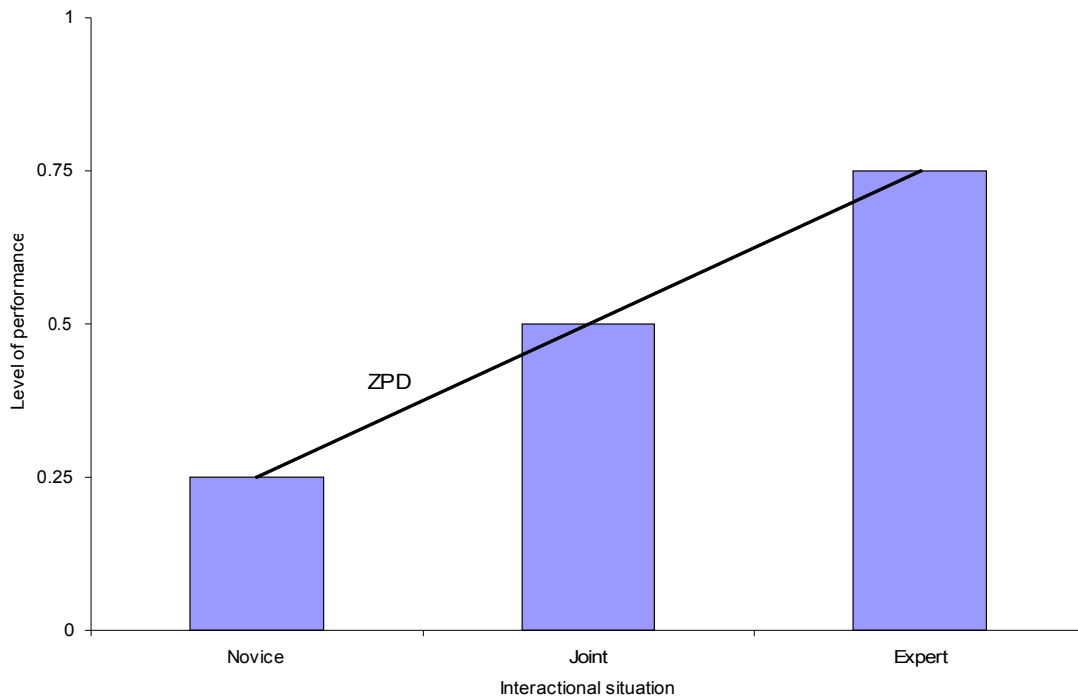


Figure 2.1: Visualization of Vygotsky's Zone of Proximal Development (ZPD)

In the concept of ZPD, to make this guidance (instruction) effective, Vygotsky argued that it must always be in advance of development. That is, for a learner in any situation, there is a Zone of Proximal Development – a window of potential learning that lies between what the learner can manage to do unaided and what he or she can achieve with help. “ZPD defines those functions that have not yet matured but are in the process of maturation”(Vygotsky, 1978, p. 86-87). For a learner to profit from guidance, it must be geared appropriately toward the learner's potential level of development. Only then can the learner's actual level of development move forward.

Vygotsky criticized the educational practice which determined a child's (learner's) mental development solely on the basis of what they could do without external help (independent functioning). He claimed that this kind of instruction, oriented toward the stages of what a child could already do (development that had already been completed), failed to utilize the ZPD (development that is maturing), and was not as effective.

ZPD is the sensitive and dynamic phase in which fruitful collaborative activities and transition of cognitive functions from interpsychological to intrapsychological take place, hence the importance of the ZPD in Vygotskian socio-cultural theory (Aljaafreh, 1992, p. 71).

2.3.3.ZPD and L2 instruction and development

Vygotsky's explanation of instruction and development has several significant implications for L2 teaching and learning. Teaching should be more than merely providing learners with optimal environmental conditions (i.e., communicative context, tasks and activities) through the use of conversational devices such as clarification requests, comprehension checks, confirmation checks, repetition, and so on. Instead, teaching should involve the ongoing co-construction of each learner's ZPD and moment-by-moment evaluations of how to best facilitate the learner. In this sense, a teacher's instruction should not be simply the provision of correct linguistic data to the learners during negotiation of meaning, but a moment-by-moment, on-line assistance geared toward each learner's cognitive level. It is at the micro-level or during the moment-by-moment co-construction of meaning in the sequences and episodes of discourse through which activities are realized, that the craft of teaching is found (Wells, 1999).

Of equal importance is the growing recognition of the multi-faceted nature of a learner's development. Development, from Vygotsky's perspective, takes place not only a in terms of transforming the immediate situation from the micro-genetic perspective, but also the

ontogenetic change in the form of a transformation from inter- to intra-mental functioning. To him, language development (self-regulation) is not manifested by a learner's correct linguistic output in the immediate situation, and the failure to produce correct linguistic output is not a fossilization. Instead, learning is a process of maturation (evolution) at the level of ontogenetic development, which should not only take account of the cycles and maturation processes that have already been completed but also those that are currently in the state of formation and that are just beginning to mature and develop (Vygotsky, 1978). Since self-regulation is cognitively related to maturation, different learners may be at different levels of other- and self-regulation. For example, one learner may have gained self-regulation in a given task, while another learner may have to require other-regulation to carry out the task (Frawley & Lantolf, 1985). Even one particular learner may have different levels of self-regulation in handling different tasks or in handling the same task at different times. Therefore, to offer the learner the best environment for learning, a gradual and contingent intervention within the ZPD should always be made available. To Vygotsky, it is in the micro-genesis or in continuously assessing the needs and abilities of the novice learners and moment-by-moment tailoring of the help to those needs that we will search for evidence of ontogenetic development in the inter- to intra-psychological changes.

2.3.4. Application of the ZPD in error correction in L2 research

Vygotsky's concept of assisted learning through semiotic mediation within the ZPD has been documented as collaborative scaffolding (Bruner, 1987; Donato, 1994; De Guerrero & Villamil, 2000), assisted performance (Tharp & Gallimore, 1988), cognitive apprenticeship (Rogoff, 1990, 1995) and negotiated corrective feedback (Anton, 1999; Aljaafreh & Lantolf, 1994; Nassaji & Swain, 2000). According to these researchers, the mechanisms of graduation and contingency are to discover the potential developmental level of the learner and provide the appropriate help,

which is, at its core, a dialogic activity that unfolds during the expert-novice interaction (Aljaafreh & Lantolf, 1994).

Campione et al. (1984) described dialogic activity (providing help to the learner) as “the initial hints were very general, but the succeeding 'hints' became progressively more specific and more concrete, with the last hint actually providing a detailed blueprint for generating the correct answer” (p. 82). Drawing on the data of maternal intervention derived from the scaffolding behavior of mothers, Wood et al. (1978) identified five levels of intervention which start with general verbal encouragement and become increasingly more explicit until finally a full demonstration is given by the mother, who takes increasing control of the task during this process. The researchers observed that the level of effective intervention by the mother was related to success or failure of the child and the contingent intervention produced superior performances by children (Wood, 1980).

Aljaafreh and Lantolf (1994) investigated, in the written setting, how the tutor and learners negotiate error correction (corrective feedback) in the ZPD and how this process promoted grammar learning in ESL tutorial sessions. By analyzing the dialogue between the tutor and learner, the study came to the following conclusions.

First, the dialogue between the tutor and learner established the collaborative frame in the correction process, which, as an effective form of other-regulation, provided a source of implicit error correction on the learners' utterance and triggered the learners' attempt at making self-corrections.

Second, different learners had different ZPDs for the same target language form and the same learners had different ZPDs for different target language forms. Therefore, they would require different levels of help, provided by the tutor who dialogically co-constructed their

ZPDs. When error correction as other-regulation became gradual and contingent, it could be appropriated and used by the learners to modify their interlanguage systems. The appropriation process started with the tutor being in control, then the reliance of the learner on the tutor gradually shifted, until the learner gained self-regulation. Therefore, the types of feedback (e.g., implicit through explicit) that promoted learning could not be determined independently of individual learners, but only through the tutor's dynamic interaction with the individual learner and, moreover, finding where the learner's ZPD (a particular property of the L2) was situated.

Unfortunately, neither how error correction should be negotiated during oral interaction, nor how the negotiated oral corrective feedback affects L2 learner functional use of grammatical structures that are intended to lead to communicative competence, are well documented in the field of second and foreign language education, especially in the field of teaching Chinese as a foreign language. By investigating the process of negotiated error correction during communicative interaction in speaking tutorials and using beginning English speaking learners of Chinese, this study is trying to fill in this gap.

2.4. RESEARCH QUESTIONS

This study, by observing the process of corrective feedback between the tutor and learner during meaningful communicative interaction, has answered the following questions:

1. What types of assistance does the tutor provide during spoken tutorial sessions? What are the similarities and differences between the tutor's assistance in spoken and written tutorial sessions? (The First Research Questions has been clarified in Section 4.1, p. 60).
2. How does the tutor's assistance change within and across tutorial sessions and what is the relationship of this assistance to the learners' oral production of the three grammatical structures in Chinese?

3. Which grammatical errors are eliminated in each learner's subsequent oral conversation and which are not eliminated?

2.5. DEFINITION OF TERMS

2.5.1. Zone of Proximal Development (ZPD)

Vygotsky's concept of ZPD establishes two developmental levels in each learner: the actual developmental level which is determined by what the learner can do alone, and the potential level which is determined by what the learner can do when assisted by a tutor. To Vygotsky, the transformation from the learner's actual development level to the potential developmental level is initiated and shaped by the dialogic interaction between the tutor and learner during which gradual and contingent assistance (negotiated error correction) is provided.

2.5.2. Error Correction

2.5.2.1. Tutor error correction

Tutor error correction, in this study, refers to all corrective feedback from the tutor toward the learner's ill-formed grammatical structures in speaking activities, moving along the continuum from implicitness to explicitness.

2.5.2.2. Learner self-correction

Learner self-correction, in this study, is defined as the learner's ability to respond to or ability to become involved in the tutor's error correction, which moves along the continuum from being unable to notice an error to being able to self-correct an error without assistance from the tutor (see Table 2.1).

Table 2.1: Five levels of the development of learning (Aljaafreh & Lantolf, 1994, p. 470)

3 stages	5 levels	Characteristics of each level in terms of intervention, noticing the errors and correcting the errors
Stage 1	Level 1	The learner is not able to notice or correct the error, even with intervention from the tutor. The tutor's task in this level is to bring the target into focus and, in so doing, begin the process of co-constructing the ZPD with the learner.
	Level 2	The learner is able to notice the error, but cannot correct it, even with intervention. The learner heavily relies on the tutor and requires more explicit help from the tutor. Different from Level 1, here an opening is provided for the tutor and the learner to begin negotiating the feedback process and for learning to begin to progress towards self regulation.
	Level 3	The learner understands the tutor's intervention and is able to react to the feedback offered. The levels of help needed to correct the error have moved towards more strategic and implicit feedback.
Stage 2	Level 4	The learner notices and corrects an error with no obvious feedback from the tutor and begins to assume full responsibility for error correction. However, the learner still needs the tutor to confirm the adequacy of the correction. Therefore, the development is still on the intermental level, not the intramental level.
Stage 3	Level 5	The learner becomes more consistent and automatized in using the target structure correctly in all contexts. At this level, the individual is fully self-regulated.

2.5.2.3. Negotiated error correction

Negotiated error correction refers to the process where a tutor and learner actively interact with each other in oral communication, during which the tutor takes the initiating role in adjusting the corrective feedback (error correction) to the state of the learner's responsiveness (within the learner's ZPD) until the learner achieves the state of self-correction (self-regulation).

The next chapter will present the overall methodology of the study.

3. METHODOLOGY

As discussed in the previous chapter, the development from inter-psychological to intra-psychological planes occurs through a dynamic transformative process called microgenesis (Wertsch, 1985a) – a cognitive development that occurs moment by moment in social interaction (De Guerrero & Villamil, 2000). Through microgenesis, in which processes undergo change “right before one's eyes” – in the space of a few days or weeks or even seconds – the appropriation process, or ontogenesis of a learner into an expert: the moment-by-moment change or development in self-regulation and the functional use of the grammatical structures from the learner in the immediate and in sequential activities, has been observed (Aljaafreh & Lantolf, 1994).

In this study, the researcher adopted the microgenetic approach from the sociocultural framework to analyze collaborative error correction between the tutor and beginning English-speaking learners of Chinese in oral interaction to observe how grammatical knowledge was transferred from the tutor to the learner. In the remainder of this chapter, the researcher will detail and describe a) *where* data were collected – the setting, participants, and the tutor; b) *what* data were collected and *why* – which grammatical structures were chosen and why; c) *how* data were collected – the equipment; and, d) how data were *treated* prior to analysis – data transcription, reduction, etc..

As the reader may find some sections complicated (e.g., Data Evaluation), Figure 3.1 may be of help as it succinctly shows various aspects of the treatment of data and also which data the researcher compared to obtain the findings of this study.

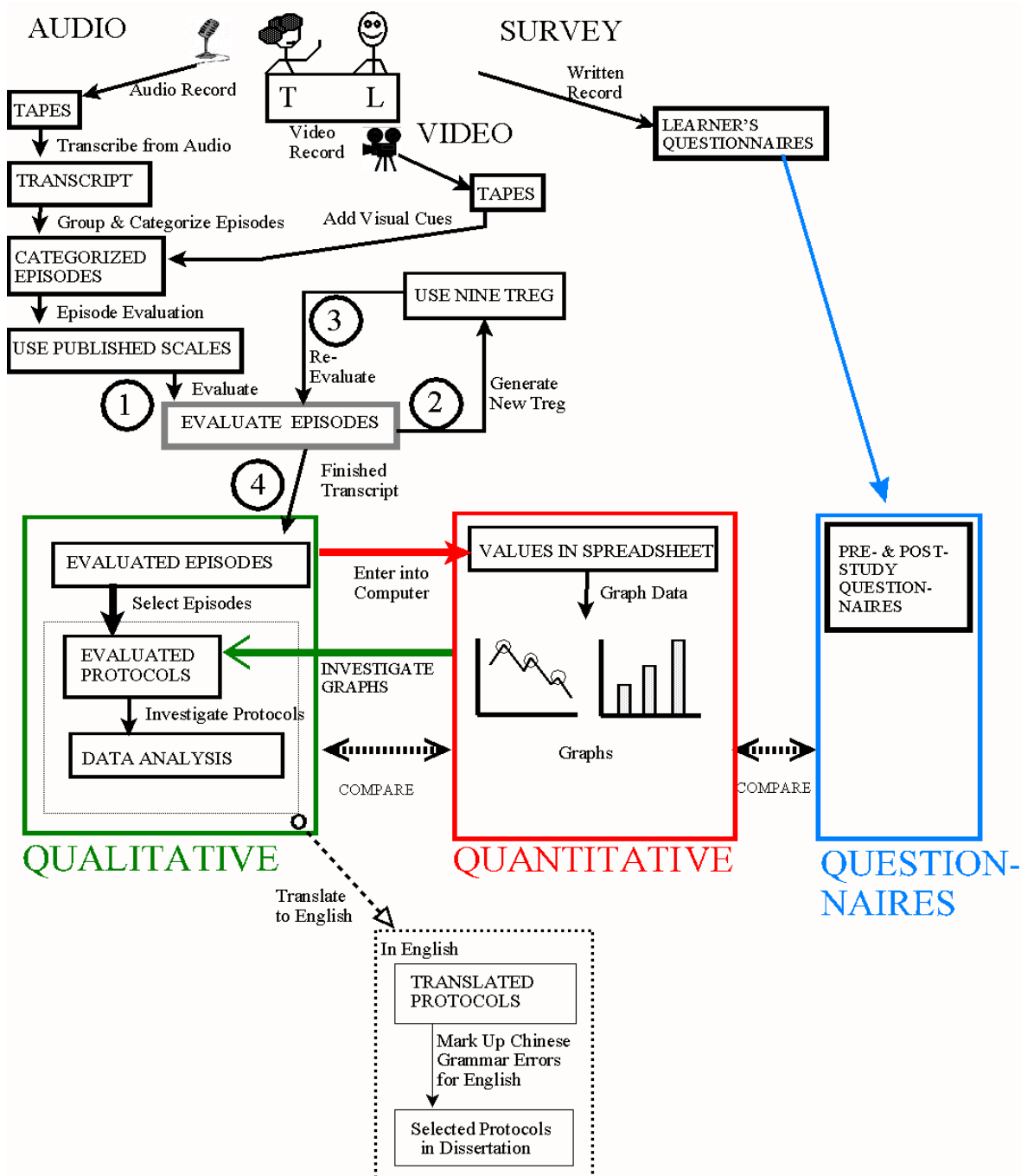


Figure 3.1: Overall procedure (flowchart) of treatment of data for this study

3.1. WHERE THE DATA WERE COLLECTED

3.1.1. The setting and participants

The Elementary Chinese 102 classes at Princeton University (PU) consisted of forty six students who were assigned to two lecture classes, each consisting of about twenty three students. Ninety percent of the students were native English-speaking learners, while the remainder were American Chinese, American Japanese, American Korean or foreign students from Asian countries.

Because the primary focus of the Elementary Chinese 102 curriculum was on oral communication, the teacher-learner dyad conversation were adopted as one of the most important in-class activities and was the format of the oral examination. The three-hour lecture and three-hour drill classes, each week, stressed grammar explanation and oral practice. The presentation of each new grammatical item was briefly made in English and the remaining class time was devoted to language use through the guided practice of grammatical structures and extensive controlled practice in drill classes.

In addition, every two weeks, each learner spent about fifteen minutes in Individual Sessions where he or she could practice speaking with a native-Chinese teacher. Also available several times a week was “Chinese Table”, where native-Chinese teachers dined with interested students and conversed in Chinese.

The individual sessions¹ (synonymous with “tutorial sessions” or TS) had four objectives: a) create meaningful contexts; b) create opportunities to elicit the use of the grammatical structures so as to possibly expose weaknesses in the learners' understanding – i.e., expose

¹ In this study, individual sessions are defined as an oral conversation, co-constructed between the tutor and the learner where the tutor provided *two* types of assistance, as outlined in Section 4.1 (p. 60).

errors; c) establish the learner's ZPD; and, d) correct these errors within that ZPD, while also maintaining a focus on meaning.

From the group of volunteers, the researcher first excluded all students who had either Chinese-family or Chinese-language background. Then, from the remaining ten volunteers, the researcher selected four participants. Because these were to receive eight (8) times *more* attention than other students (i.e., one hour per week vs. 15 minutes every two weeks), in a highly-competitive atmosphere and because the researcher wanted to offer all volunteers an equal chance, random selection was used. The four participants were identified as learner A (female), learner B (male), learner C (male), and learner D (male).

Although data for four participants were collected, only that for learners A and B were transcribed and analyzed. These learners were *specifically* selected because preliminary analysis demonstrated that they received *more* EC from the tutor (than learners C and D) and, thus, would offer more episodes of EC for analysis of their language development.

3.1.2. The tutor

In this study, the tutor and the researcher were the same person. This arrangement was legitimate for three reasons. First, during my research, I have systematically studied sociocultural theory and have completed several theoretical and experimental research papers for my graduate work. Second, as a language teacher, I have been teaching first-year Chinese for ten years at the university-level, which has given me the opportunity to understand the applicability of the Sociocultural Theory to real classrooms. Thus, I could guarantee that the corrective procedure during the dialogic activity in tutorial sessions were coherent with both the theoretical framework and the design of this study.

Finally, I have conducted countless Individual Sessions as part of my teaching requirements, which have given me ample opportunities to observe and experiment with effectively a) co-constructing a meaningful conversation or meaningful context; b) eliciting learner's use of grammatical structures within these meaningful contexts; and, c) probing the learner's ZPD and providing proper assistance (error correction) within that ZPD while maintaining the meaningful conversation.

3.1.3.Permissions

The researcher obtained the approval of Princeton University's Institutional Review Panel for Human Subjects (APPENDIX A). In addition, the researcher met with the instructors who taught Elementary Chinese 102 course and obtained approval to meet with their students.

Permission from participants A, B, C, and D was obtained through their signatures on the Informed Consent Form (APPENDIX A), which outlined the purpose of this study and the participant's rights.

3.2. *WHAT DATA WERE COLLECTED AND WHY*

3.2.1.Interaction during the tutorial sessions

Correcting learners' errors during oral production in the individual sessions provided an optimal situation for interaction between learner and tutor, and the significance of grammatical features was realized when the learner become directly involved in producing them (Nassaji & Swain, 2000).

3.2.2.The target grammatical structures (TG)

This study was designed with three grammatical structures (TG) in mind. While learners were tutored on all structures (i.e., the tutor provided EC towards *all* errors within the learner's ZPD), three specific TG forms received special attention both in the tutor's preparation before the

sessions and in the data collection and analysis. In this section, the researcher will cite the grammar explanations from Yip & Rimmington (1997), and Ta-tuan Chen, Perry Link, Yih-jian Tai, and Hai-tao Tang (1994) and then explain *why* the three were selected as the focus of this study.

3.2.2.1. The TG ZAI, SHI..DE, and LE

ZAI (在) is a [first-position] verb that, together with a place word, indicates where (at, in, or on) something “be located” – the *location* of an activity or event. In this way, it is similar in *meaning* to the English “at” of the prepositional phrase in: “I study Chinese at Princeton University”. However, the ZAI sentence-order is different from English in that the ZAI phrase comes *before* the verb: “I at Princeton University study Chinese” – situations where it did *not precede* the verb (e.g., 住) were not considered to be TG ZAI.

Because the remaining two TG (SHI..DE and LE) both involve “tense”, the researcher will attempt to clarify why English and Chinese treat this issue very differently. In English, the tense is indicated within a sentence by a modification of the verb and this is possible because English words are composed of individual letters. Chinese language, on the other hand, is written using iconic characters where each “word” is composed of one or several characters which can *not* be modified in this manner. Thus, in the Chinese sentence, information about “tense” is specified with the insertion of additional markers – themselves characters – and it is the location of these markers which indicates the precise tense-meaning.

The marker LE (了) can be used to give the sentence a multitude of meanings depending on its location (indeed, several locations) within a single sentence. When following a verb, for example, LE indicates that an action or event started in the past and has completed – if accompanied by a time-phrase, it also specifies the *duration* of that action or event. However, if

a *second* LE marker is added to the end of such a sentence, the meaning changes to indicate that that action or event did *not end* but is still continuing and will continue.

While LE has a number of additional uses, for the purposes of this study, *only* the “time-duration of an action or event which began in the past and completed in the present” meaning will be considered to be the TG LE – as illustrated in Figure 3.2 and demonstrated in Table 3.1.

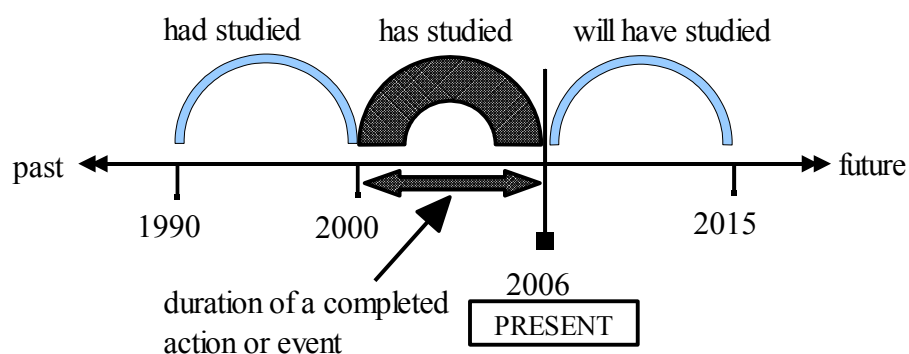


Figure 3.2: Time-frame of the TG LE, as used in this study

That is, the LE and time-duration phrase construct was most similar to the English “has been doing [something] for duration of time” but specifically *restricted* to events or actions which began in the past and completed in the present (Table 3.1). In addition, when the verb's object is explicitly specified – i.e., the “[something]” in the above example – the verb must be *repeated*¹ (Table 3.1). Hereafter, both types of time-duration meaning of LE will be referred to as the TG LE or simply LE.

¹ However, the variation “他学了两年中文” was not considered to be TG LE.

Table 3.1: Examples of the TG LE usage in this study

Object Specified		Examples
none	Form	Subject <u>verb LE</u> time-expression.
	(Chinese)	他学了两年。
	(<i>lit.</i>)	He <u>study LE</u> two years.
	(English)	He <u>has studied</u> [for] two years.
Chinese	Form	Subject <u>verb</u> object <u>verb LE</u> time-expression.
	(Chinese)	他学中文学了两年。
	(<i>lit.</i>)	He <u>study</u> Chinese <u>study LE</u> two years.
	(English)	He <u>has studied</u> Chinese [for] two years.

The SHI...DE (是...的) construct is composed of two separate markers: SHI (是), the intensifier, is placed immediately before the adverbial phrases to highlight the modifying element (i.e., location, time, method or instrument; adverbial phrases of manner; or purpose construct) while DE (的), the particle, generally comes at the end of the sentence – the form where DE was *not* at the end was excluded from this study¹.

The TG SHI...DE is most similar to the English emphatic sentence except that it only refers to events or actions in the past. That is, it may only emphasize when, where, how, with whom, to what purpose, etc., that an action or event took place (Table 3.2).

¹ While this variation form (*lit.* I SHI last year start learn DE Chinese) is acceptable, it was not officially taught.

Table 3.2: Examples of the TG SHI...DE usage in this study

Emphasizes	Examples	
Time	(Chinese): 我是去年开始学中文的。 (<i>lit.</i>) I SHI <u>last year</u> start learn Chinese DE (English): It was <u>last year</u> that I started learning Chinese.	
Place	(Chinese): 我是在 Princeton University 开始学中文的。 (<i>lit.</i>) I SHI <u>at Princeton University</u> (ZAI) start learn Chinese DE (English): It was <u>at Princeton University</u> that I started learning Chinese.	
Means	(Chinese): 我是坐车去电影院看电影的。 (<i>lit.</i>) I SHI <u>by bus</u> go movie-theater see movie DE (English): It was <u>by bus</u> that I went to a movie-theater to see a movie.	
With Whom	(Chinese): 我是跟我妈妈一块儿去电影院看电影的。 (<i>lit.</i>) I SHI <u>with my mom</u> go movie-theater see movie DE (English): It was <u>with my mom</u> that I went to a movie-theater to see a movie.	

3.2.3.Reasons for selecting the three TG

The TG ZAI, SHI..DE, and LE were specifically selected for five reasons. First, while ZAI has a relatively close counterpart in the English “at”, neither SHI..DE nor LE do. This fact was important because while learners were found to *have* a general idea of the contexts where ZAI was and was not applicable, they were found to *lack* analogous knowledge for both SHI..DE and LE.

Second, while SHI..DE and LE both accompany a time expression, in the TG LE it specifies the *duration* of an action or event (e.g., “[for] two years”) while in SHI..DE it *emphasizes the time-point* (e.g., “[exactly] two years [ago]”). As will be shown in Chapter Six (p. 205), the learners confused the two structures, misapplying SHI..DE in contexts where LE was appropriate and vice versa.

Specifically, while the learners found both SHI..DE and LE *neither* difficult to understand *nor* define – i.e., they could effortlessly recite their grammatical meanings – the

learners found it nearly *impossible* to select which of the two structures to use during the conversation without the tutor's assistance. Thus, the researcher selected the TG SHI..DE and LE to observe both the interference between grammatical structures without an English counterpart and the assistance which the tutor needed to provide to help learners differentiate these TG.

Third, the three TG were unavoidable for the beginning learner because they did not know alternative means of expressing their meaning. This was an important consideration because it freed the researcher to engage the learner in the conversation with the confidence that the elicitation of the structures would be *always* within reach.

Fourth, the mis-location of the “at location” phrase for both the English “at” and the Chinese ZAI is often not perceived to warrant EC because it does not appreciably impede comprehension (English: “At school I study Chinese” instead of “I study Chinese at school”; Chinese: “I study Chinese at school” instead of “I at school study Chinese”). However, because the ZAI phrase comes before the verb, if the *sentence-order* is incorrect, it usually dooms the learners' successful placement of additional markers (e.g., SHI..DE, the repeated verb for the v-o-v LE variant, etc.) and the researcher wanted to study these *interactions* among structures.

Fifth, the three TG were introduced into the tutorial sessions in chronologically-offset manner: a) ZAI was introduced two months before the study began, making it an “old” structure in the first TS; b) SHI..DE was introduced in the first TS; and, c) LE was not corrected until TS Three.

These multiple aspects of the selected three TG presented an ideal opportunity for investigation of how EC directed towards a new structure (i.e., one in an *earlier* period of learning) affected the level of EC and learning of other structures (i.e., those in *later* periods of

learning). In terms of spoken EC, no SLA studies have examined the effects of EC on such cumulative learning.

In other words, in this study the researcher investigated the beginning English-speaking learner's acquisition of three TG through the study of not only the *interactions* among these TG but also the details of the different *types of EC* which the tutor needed to provide for the learners to successfully learn these TG.

3.2.4.Pre and Post Study Questionnaires

The researcher developed and distributed two questionnaires: the Pre-Study Questionnaire (APPENDIX B, p. 264) – which was completed before the first tutorial session – and the Post-Study Questionnaire (APPENDIX B, p. 266) – which was completed at the end of the last tutorial.

While the two questionnaires were not designed to be compared – the Pre-Study Questionnaire attempted to assess the participants' prior language-learning experience and approaches to learning Chinese while the Post-Study Questionnaire sought self-reflections on their language development as well as likes and dislikes regarding various aspects of the tutor's assistance during the study – the two questionnaires not only offered¹ insight to the participants' language-learning background but also an alternative viewpoint of their appropriation of the tutor's assistance during the study.

3.3. HOW THE DATA WERE COLLECTED

3.3.1.Corrective feedback within the ZPD during oral conversation

The error correction (EC) procedure was adapted from the study by Aljaafreh and Lantolf (1994): the EC was provided through the dialogic interaction between the tutor and learner – i.e.,

¹ The data gathered in the two questionnaires will be presented in Section 5.5 (p. 184).

the EC was always within the learner's ZPD. That is, the tutor made on-the-spot decisions based on the learner's responses so as to provide contingent assistance – i.e., the least-explicit assistance sufficient to help the learner.

Specifically, whenever an ill-formed TG was encountered during the conversation, the tutor first provided minimal assistance in the form of kinesic assistance (e.g., raising eye-brows, head-shaking, hand movement, or other *visual* cues) or paralinguistic assistance (e.g., repetition of a part or whole sentence while raising its intonation) in an effort to assist the learner to recognize the linguistic error. If this minimal-level assistance failed or only partially succeeded, incrementally more explicit assistance was offered until the learner was able to make the correct response and self-correct the error.

Clearly, because the tutor's assistance was at times visual – i.e., inaudible – the researcher needed to collect both the auditory and visual records of the Tutorial Sessions. Consequently, during the data transcription phase, the transcripts of the audio tapes were supplemented with visual cues obtained from corresponding video tapes.

Table 3.3: Tutor’s 12 Regulatory Scale adopted from Aljaafreh & Lantolf (1994, p. 471)

0.	Tutor asks the learner to read, find the errors, and correct them independently, prior to the tutorial.
1.	Construction of a “collaborative frame” prompted by the presence of the tutor as a potential dialogic partner.
2.	Prompted or focused reading of the sentence that contains the error by the learner or the tutor.
3.	Tutor indicated that something may be wrong in a segment (i.e., sentence, clause, line): e.g., “Is there anything wrong in this sentence?”
4.	Tutor rejects unsuccessful attempts to recognize the error.
5.	Tutor narrows down the location of the error (i.e., tutor repeats or points to the specific segment which contains the error).
6.	Tutor indicates the nature of the error, but does not identify the error (i.e., “There is something wrong with the tense marking here”).
7.	Tutor identifies the error (i.e., “You can’t use an auxiliary here”).
8.	Tutor rejects learner’s unsuccessful attempts at correcting the error.
9.	Tutor provides clues to help the learner arrive at the correct form (i.e., “It is not really past but something that is still going on”).
10.	Tutor provides the correct form.
11.	Tutor provides some explanation for use of the correct form.
12.	Tutor provides examples of the correct pattern when other forms of help fail to produce an appropriate responsive action.

Although the tutor attempted to provide the EC along the explicitness scales adapted from the “Tutor’s 12 Regulatory Scales” by Aljaafreh & Lantolf (1994) (Table 3.3), as will be outlined in Section (p.), these scales were found to be *not entirely* applicable to the oral conversation.

3.3.2.Equipment

From February to April of the year 2004, the tutor met with each learner after class, once a week for one hour. All of these sessions were both audio and video taped, resulting in 36 hours each of audio and video tapes (Figure 3.1).

One Marantz (PMD 101) portable cassette tape recorder with omnidirectional boundary microphone was used to record the audio and one Sony HI-8 (8mm) video camera recorded the scene from a corner of the room. The tutor and learner sat shoulder-to-shoulder, positioned such that their facial expressions and body movements were captured by the video camera. To minimize tape-affected speech – i.e., the learners' self-awareness to being recorded – all of the recording equipment was positioned ahead of time and in such a way as to be minimally obtrusive.

During the conversation, corrective feedback targeting the three TG was provided contingently or within each learner's ZPD. By observing the process of negotiated EC between the tutor-learner dyads, this study examined how this EC improved each learner's language use of three TG.

3.4. DATA TRANSCRIPTION, REDUCTION, AND DISPLAY

Although the researcher only selected two learners and considered only their odd-numbered tutorial sessions (1, 3, 5, 7, and 9), this resulted in five sets of one hour audio- and video-taped tutorial sessions for each learner. Because the data for each learner contained EC towards the use of three TG, the resulting transcribed and evaluated episodes spanned over three hundred pages of transcript-data. Thus, to ensure objectivity *and* consistency of the subsequent assessment of the effectiveness of the tutor's EC, the researcher, first, evaluated the learners' transcripts with the scales by Aljaafreh & Lantolf (1994) (designed for oral correction of pre-existing or pre-written

errors), then, adapted these scales for oral correction of errors which emerged in the same session in which they were corrected (thus, generating new scales), and, finally, re-evaluated all the episodes of EC with the new scales.

While the transcribed and evaluated episodes did provide great depth (Table 3.4), they lacked the scope to observe the learners' overall language development. Thus, by graphing the highest evaluated instance of EC from *each* episode across the *odd-numbered* tutorial sessions, the researcher visualized the tutor's EC within and across the tutorial sessions. That is, by using the graphs in conjunction with the protocol data, the *depth* offered by the protocols was combined with the *scope* offered by the graphs.

Table 3.4: Scope and depth of different types of data used in the study

Point of view	Scope	Source of data	Depth
Researcher	Across Sessions	Overall trend (linear best-fit on graph)	Low
Researcher	Within a Session	Episode values on graph for that Tutorial Session	Low
Researcher	Within an Episode	Protocol Analysis for that episode	High
Learner	Whole study	Learners' questionnaires	n/a

In addition, the researcher also used graphs to a) help select protocols which were representative of the learners' language development at a particular moment in the study¹; and, b) pin-point “meaningful” protocols by investigating the graphs for “interesting” values and correlating with the protocol-data.

3.4.2.Data transcription

The five sets of one hour audio-taped tutorial sessions for each of the two learners were transcribed from audiotape (step One in Table 3.5) using the transcription symbols for oral

¹ To further establish the validity of this approach, the researcher correlated learner A's graph of using SHI..DE with the analysis of A's protocols in Section 5.2 (p. 127).

discourse adopted from the studies by Schegloff, Jefferson, and Sacks (1977, p. 388) and Wells (1999) (APPENDIX D).

The transcript was generated in three general steps (see Table 3.5).

Table 3.5: Steps taken to obtain the transcript with Categorized Episodes

Step	Procedure
One	Audiotape ➔ Transcript
Two	Transcript ➔ Identified & Categorized Episodes
Three	Visual Cues from Videotape ➔ Added to Categorized Episodes

After the audio tapes were transcribed, the researcher identified all the occurrences where the TG ZAI, SHI..DE, or LE appeared. For each occurrence, the tutor's immediate and subsequent EC related to these occurrences (if any) and the learner's corresponding responses (if any) were identified. These episodes were consecutively numbered for the appropriate TG (step Two in Table 3.5). For example, "A-ZAI-1(1)" was the first episode of learner A using ZAI during the first TS. Likewise, "B-LE-7(5)" represented the data of the fifth episode of learner B using LE in the seventh TS, and so forth.

To improve fidelity, the researcher revised and updated each Categorized Episode in the transcript by adding the tutor's visual cues from the video tape (step Three, Table 3.5).

3.4.3.Data reduction (evaluation)

The researcher "derived" two qualitative data-sets from the Evaluated Episodes: a) the explicitness of the tutor's EC towards the three TG within and across the odd-numbered Tutorial Sessions, and, b) sums of the various aspects of both the tutor's and each learner's participation in the First, Fifth, and Ninth Tutorial Session – i.e., beginning, middle, and end of this study.

Because the data reduction for the Participation involved just numerical summation (i.e., “counting”), only the data-reduction of the tutor's EC will be discussed.

As aforementioned, to ensure that the explicitness of the tutor's EC was evaluated objectively *and* consistently¹ across both tutorials *and* learners, the researcher evaluated all EC episodes. Because the researcher attempted to use the “Tutor’s 12 Regulatory Scales” by Aljaafreh and Lantolf (1994), she first ensured that it was *completely applicable* for correction of emergent (i.e., not pre-written) errors during the oral conversation by *attempting* to evaluate the Categorized Episodes and, if a discrepancy was found, adapting it accordingly. In other words, the Categorized Episodes were effectively evaluated *twice* – *first* using the published scales (which yielded the scales adapted for correcting emergent errors) and *then* using the adapted scales, as shown in Table 3.6 and illustrated in Figure 3.1.

Table 3.6: Procedure for evaluating Categorized Episodes

Step	Description	Corresponding step in Figure 3.1
One	Evaluate all episodes with “Tutor’s 12 Regulatory Scales” for oral correction of <i>pre-existing</i> errors, from Aljaafreh and Lantolf (1994)	①
Two	Generate “Tutor’s Regulatory Scales” for oral correction of <i>emergent</i> errors (<i>not</i> pre-existing)	②
Three	Evaluate all episodes again with “Tutor’s Regulatory Scales” for oral correction of <i>emergent</i> errors	③
Four	Episodes evaluated for <i>spoken</i> setting, Finished Transcript obtained	④

¹ By exclusively focusing on this task and performing it at one time (and before other data analyses), the researcher ensured that the tutor's EC of a particular explicitness for *one* learner's error in the *first* session was assigned the *same* Treg level as the *other* learner's error in the *last* session.

The researcher first evaluated all the Categorized Episodes using the published “Tutor’s 12 Regulatory Scales” by Aljaafreh and Lantolf (1994) (step One, Table 3.6) by assigning each tutor’s corrective move a level ranging from non-corrective feedback (level: 0), to most explicit corrective feedback (level:12). In cases where the tutor's corrective move could *not* be placed on the scale, a note to this effect was written in the transcript and a *new* level was inserted.

When the end of the transcript was reached, all the *newly-inserted* levels were added to the adapted scale while those which were *unused* (i.e., unassigned) were discarded. The new “Tutor’s Regulatory Scales” (Table 4.3) were thus obtained (step Two, Table 3.6).

After obtaining the new “Tutor’s Regulatory Scales”, all of the Categorized Episodes were evaluated *again* – i.e., each tutor’s corrective move was re-assigned an appropriate Treg level (step Three, Table 3.6). The re-assigned Treg levels were recorded next to the utterance in the margin of the transcript (APPENDIX D, Example protocol, p. 271) and some¹ of these Treg values were entered into a computer spreadsheet.

Following this re-evaluation, the transcript contained both qualitative (protocols for episodes of EC) and quantitative (numerical Treg values) data (step Four, Table 3.6).

3.4.4.Data display

The researcher presented the data in four general forms: a) select protocols; b) graphs of the tutor's evaluated EC within and across odd-numbered sessions; c) graphs of participation from the first, Fifth, and final Tutorial Session – i.e., beginning, middle, and end of this study; and, d) excerpts of the learners' Pre-Study and Post-Study Questionnaires.

3.4.4.1.Select protocols

The transcribed data were almost entirely in Chinese, with the exception of utterances originally in English. The protocols presented in this dissertation were generally selected

¹ Only the highest Treg value from each episode was recorded, see Section 3.4.4.2.

following the investigation of the EC graphs (Section 3.4.4.2, below). All protocols were marked-up to enable non-Chinese readers to easily understand the missing grammar or errors (APPENDIX D, p. 271).

3.4.4.2. Graphs of EC

The EC graphs, showing the trends of the tutor's EC (Treg) for each learner's use of each TG, were obtained by entering the values of Treg from all Evaluated Episodes (step Four, Table 3.6) into a computer spreadsheet and plotting the *highest* Treg value from each episode. Only the highest Treg values were plotted because the researcher was interested in assessing changes in each learner's *greatest* need for the tutor's EC. This qualification reduced the numerical quantity of values to be plotted at the expense of eliminating information concerning the number of *turns* needed to establish the learner's ZPD.

In the resulting six graphs (one graph for each of the three TG for each of the two learners), the X-axis represented episodes across the odd-numbered tutorial session while the Y-axis spanned the tutor's evaluated EC¹. That is, each graph visualized the trend of the explicitness of the tutor's corrective moves towards a particular learner's need for assistance when using a particular TG within and across all the episodes of the odd-numbered Tutorial Sessions.

In this study, the researcher used the graphs for two purposes. First, the graphs compactly visualized the tutor's EC (Chapter 5, p. 100) and were ideal for presentation in this dissertation. Second, the researcher also investigated them to locate “unusual” values² for closer examination of the corresponding Categorized Episodes. By combining inspection of the graphs (i.e., wide scope) with protocol analysis (i.e., great depth), the researcher gained additional insight of how the tutor provided the EC in the spoken setting and how the tutor's EC, within the learner's ZPD,

1 The levels of tutor's explicitness of EC are presented in Table 4.3 and were one of the findings of this study.

2 The overall trend of the graphs was gradually decreasing and values which deviated from this trend were considered “unusual” – their closer scrutiny led to findings that are presented in Chapter 6 (p. 209).

assisted that learner's cognitive understanding of the TG. That is, the graphs helped the researcher rapidly and easily locate episodes which held clues to important moments in the learners' appropriation process.

3.4.4.3. Graphs of participation

The graphs of various aspects of participation¹ – i.e., the number of questions asked by each participant, etc. – were simple numerical summations of the instances in each of the first (start of study), fifth (middle), and ninth (end of study) tutorial sessions (e.g., Figure 5.10, p. 180). Using the above example, the researcher “added up” all the instances of tutor-originated questions in each of the tutorial sessions and then repeated the summations for learner A and learner B.

3.4.4.4. Excerpts of questionnaires

The Pre-Study Questionnaire was primarily designed to assess the learners' language learning background and approach to learning (APPENDIX B, p. 264). However, when the learners completed the Post-Study Questionnaire (APPENDIX B, p. 266), the tutor prompted them to elaborate their answers to questions, while the tape-recorder (audio) was still active. Transcripts of these recordings also yielded learners' miscellaneous comments and observations. Excerpts from these transcripts will be presented in Section 5.5 (p. 184).

3.5. DATA TREATMENT SUMMARY

In this study, the graphs presented the trends of EC both *across* the sessions and *within* a session making them a very useful *tool* for investigating the learners' longitudinal development. However, it was by using these graphs *in combination* with the high depth offered by the protocol analysis which proved to be fortuitous. That is, because the researcher selected TG

¹ Details of what was summed and how will be explained in Section 5.3 (p. 139).

which the learner was liable to confuse, the graphs allowed for visualization of EC directed towards any one structure to be separated, making the comparisons among individual grammatical structures almost trivial.

While the initial finding was made from a comparison of graphs (i.e., showing *what* EC was where), it was the correlation with the protocol-data (i.e., showing *why* that specific explicitness of EC was provided at that instant) which enabled the researcher to confirm and expand that finding. In other words, the graphs helped the researcher rapidly visualize the trend and locate values *deviating* from that trend while the protocol analysis provided the reasons *why* a learner needed EC of a particular explicitness and *how* the tutor's EC was able to help the learner “return” to that trend.

That is, the comparative analysis of protocols, the EC and Participation graphs, and the alternative view-point afforded by the learners' questionnaires (the three color boxes, in Figure 3.1) successfully uncovered the process of negotiated error correction and its effect on learners' language development (self-correction and functional use of grammatical structures) in oral communication.

This study was founded on the sociocultural framework but it was the combination of interpretative and quantitative data, supplemented by the learners' questionnaires, which provided the holistic insight to the learners' language development.

In the next chapter, the researcher will first clarify and then answer the First Research Question. The researcher will also present an overview of the findings made in this study and describe and relate all the major variables found in the subsequent chapters.

4. FINDINGS AND ANSWER TO THE FIRST QUESTION

This study was designed to investigate the tutor's collaborative error correction (EC) towards the three TG within the oral conversation (interaction) but a significant finding was made during data analysis. The researcher found that, in addition to the EC, the tutor simultaneously provided assistance¹ (*regulation*) in participation and, that this regulation was of great importance for beginning learners of Chinese not only in learning how to participate but also in learning the TG itself. In addition, the researcher found that the tutor's opportunities to provide EC towards co-elicited TG depended on learner's participation in this interaction and this participation, in turn, depended on tutor's regulation in participation (RinP).

The study was adapted, therefore, to analyze two types of tutor's assistance: a) assistance on grammatical structures through error correction (EC); and b) regulation in participation (RinP). Participation was critical, since without the learners' participation, no errors would emerge. Thus, RinP served to enable learners to construct meaning during the conversation while simultaneously offering the tutor new opportunities for the elicitation of TG and potential EC. In effect, the tutor's two types of assistance complemented each other. By increasing the learners' participation, increased opportunities for the tutor's EC emerged that could potentially lead to subsequent improvement of the learners' grammatical accuracy on the TG.

In answering the Three Research Questions, the researcher will analyze the qualitative and quantitative data and the Pre-study and Post-study Questionnaires and discuss: a) how the

¹ Assistance and regulation may be used interchangeably so long as provision of both is implied to be "within the learner's ZPD". In this study, while regulation in participation *was* provided within ZPD, in the interest of maintaining the conversation, the tutor provided assistance on vocabulary, pronunciation, tones, etc. *not* within ZPD. For this reason, assistance and regulation will *not* be used interchangeably in sections on participation.

two types of tutor's assistance were negotiated in the oral interaction, in this chapter; b) what were the changes in these two types of the tutor's assistance and what was their relationship to the learner's development within and across TS, in Chapter 5; and, c) whether errors of the three TG were eliminated, in Chapter 6. Finally, a comprehensive discussion of these findings will be presented in Chapter 7.

4.1. INTRODUCTION TO CHAPTER FOUR

Research Question One: What types of assistance does the tutor provide during spoken tutorial sessions? What are the similarities and differences between the tutor's assistance in spoken and written tutorial sessions?

This question underscores the importance of differentiating studies of a) error correction in which errors from pre-written compositions were collaboratively corrected in follow-up conferences with the tutor, and b) error correction in which errors emerged on-line during spoken interactions. Thus, the first research question seeks to understand how error correction in the conversational setting takes place and how it differs from previous studies of error correction in conferences on written texts, where errors are already established in the student's writing.

Because this study focuses on the effectiveness of the tutor's assistance *specifically* within the spoken tutorial¹, the researcher wishes to distinguish not only *where* and *how* the errors originated but also the specific *characteristics* of the setting where these errors were collaboratively corrected. And, in this chapter, the researcher will demonstrate that the tutor's assistance within the “spoken tutorial” significantly depended on the origin of the errors corrected therein.

¹ The individual sessions, as described in Section 3.1 (p. 40), constituted the “spoken tutorial” of this study.

The researcher will clarify the First Research Question (the changes have been underlined): “*What types of assistance does the tutor provide during the oral conversation? What are the similarities and differences between the tutor’s assistance in the oral conversation when dealing with grammatical errors which occurred in the same oral conversation and those which occurred in a pre-written composition?*”

The researcher will answer this question in four steps. First, the researcher will describe the characteristics of the oral conversation, at the core of this study, and show that the origin of the errors greatly affected the dynamics of the spoken tutorial. At the same time, in the effort to triangulate this study with current research, the researcher will also differentiate this study from those where errors from pre-written composition were corrected in subsequent spoken tutorials (Section 4.2, p. 61).

Second, the researcher will provide annotated protocols which will demonstrate *how* the tutor provided regulation in participation (RinP) and the vital role it was found to play in the oral conversation (Section 4.3, p. 70). Third, the researcher will provide additional protocols which will demonstrate how the tutor provided EC on TG within the oral conversation (Section , p.). And, finally, the researcher will discuss and integrate these findings to answer the First Research Question (Section 4.5, p. 96).

4.2. THE ORAL CONVERSATION

The researcher will first ascertain the characteristics of the setting¹ of this study and elucidate the key concepts of the oral conversation, at its heart, with annotated protocols. Where relevant, the researcher will differentiate the setting, participants, and objectives of this study from those in studies where the tutor provided assistance on pre-existing errors in subsequent spoken tutorials

¹ This section will build upon information presented in Section 3.1 (p. 40).

– of which the study by Aljaafreh and Lantolf (1994), will be taken as representative. The researcher will also discuss the repercussion of the oral conversation on “the tutor’s assistance in dealing with grammatical errors”.

The focus in this study was on the oral conversation where the tutor collaboratively provided EC within the learner's ZPD on TG errors and, for this reason, the study by Aljaafreh and Lantolf (1994) was selected for comparison because it *also* examined the collaborative EC of TG errors found in spoken tutorials. While the difference between the two studies, at first glance, *appears* to be only the origin of the errors – pre-existing vs. exposed during the spoken tutorial – the researcher will demonstrate, in the remainder of this chapter, that the two studies had *few similarities*.

The data for this study were collected during nine (9) weeks of Tutorial Sessions (TS) of beginning Chinese (CHI-102) at Princeton University. The purpose of the one-on-one TS was to give learners an environment where they could functionally use and practice Chinese in real-life conversations with a native-Chinese tutor. During each one hour TS, the tutor provided assistance on errors which *both* originated and were corrected within the *same* TS. Thus, in this study, the *error context* and the *EC context* were the same.

By comparison, the setting of the study by Aljaafreh and Lantolf (1994) was seven¹ (7) weeks of collaborative spoken tutorial sessions, lasting “about 45 minutes” (Aljaafreh, p. 99), on errors which originated in essays, written in-class, once a week, “for about 30-45 minutes” (Aljaafreh, p. 101). The purpose of the tutorial sessions was to, “provide the appropriate level of assistance, and to enable the learner to function at a higher level; that is, encourage the learner to function at her potential level of development” (Aljaafreh, p. 99). When the tutorial session

¹ Although eight compositions were collected, the first was used only to “develop an initial profile of the learners' grammatical competence...” (Aljaafreh and Lantolf, 1994) and was not collaboratively corrected.

began, the tutor and learner engaged in “joint reading” (Aljaafreh, p. 105) with the intention of not only locating the *pre-existing* errors but also reconnecting and refreshing the learner into the context where the error occurred. Thus, the setting where the essays were written (i.e., the classroom) and where the errors were corrected (i.e., the tutor's office) *differed* and the *error context* was clearly not the same as the *EC context*.

The participants of this study were adult (about 18 years old) beginning learners of Chinese with no previous Chinese language knowledge. The Pre-study Learner Questionnaire *did* reveal other prior second-language experience but negligible proficiency (see Chapter Five, Section 5.5, p. 184). By comparison, the participants of the study by Aljaafreh and Lantolf (1994) were adult (20 average age) learners of English (ESL) who were judged by the English Language Institute at the University of Delaware to be “beginners in terms of their writing abilities” (Aljaafreh, p. 97). While the learners' oral proficiency was unstated, it can be conservatively judged from the protocols to have been *more* advanced than the subjects in this study. The extent of formal English education that the learners acquired before their arrival in the USA was unstated.

As previously described, each Tutorial Session (TS) of this study started with the tutor engaging the learner in a friendly, inter-personal conversation. The researcher will now describe the key characteristics of this conversation and their impact on the tutor and the learner. Where appropriate, a comparison will be made with the study by Aljaafreh and Lantolf (1994).

In this study, the meaning uncovered at any moment during the oral conversation was co-constructed by the tutor and the learner who were engaged in joint meaning-making. In other words, the meaning originated from the interaction of both participants, as the tutorial session

progressed; with the explicit implication that nothing was preexisting or *pre-written*. For the purposes of this study, the meaning in the oral conversation is said to be *emergent*.

The tutor's role, as potentially-equal conversational partner¹, allowed her to steer the conversation by co-constructing contexts which were ideal for the elicitation of the TG (ZAI, SHI..DE, and LE) and its EC, which was the focus of this study. By comparison, in studies where the meaning and errors were pre-existing, the tutor was *denied* this opportunity.

The first protocol (Protocol 4.1) will demonstrate that the conversation (meaning), elicitation of the target grammatical construct (SHI..DE, in this case), and EC are all *emergent*.

Protocol 4.1

01T	你今天有中文考试，你昨天晚上学中文了吗？	01T	You had Chinese exam today. [Did you study Chinese last night?]
02A	今天早上:::, 我学中文, 可是, 昨天 eh..., 可是, 昨天晚上, 我::: 看书, 因为我的 <i>order</i> 来了。	02A	This morning:::, I study Chinese, but yesterday eh..., but, yesterday morning, I ::: read book, because my <i>order</i> came.
03T	你买的书？	03T	The book you bought?
04A	对, 我 eh..., 我买书, 我, 买书 eh..., 网, eh..., 我用网, 我可不可以说？	04A	Right. I eh..., I buy book, I, buy book eh..., web, eh..., I use web, can I say that?
05T	上网	05T	on the web
06A	我上网 eh... 买书	06A	<u>I on the web eh... buy book.</u>
07T	是 past, right? (5)	07T	[It] is <i>past, right? (5)</i>
08A	我是:::, 我是::: 上网买的书。	08A	I SHI:::, <u>I SHI::: on the web bought the book DE.</u>

At the beginning of the conversation, the tutor asked the learner the question, “Did you study Chinese last night” (01b) which, she was *planning* to follow with an elicitation of a TG (e.g., LE, “How long did you study?”; SHI..DE, “When was it that you started?”) Unexpectedly, the learner's response, “This morning, I studied Chinese...” (02a) was followed by *new* information, “...but, yesterday evening, I read my [new] book, because my order came” (02b).

¹ However, as will be detailed in Section 4.3, the beginning learners were initially *unable* to participate beyond answering the tutor's questions with phrases and memorized-sentences and the conversation was initially primarily the tutor's responsibility.

Because the conversation was co-constructed by the tutor *and the learner*, the tutor abandoned her plans and pursued the learner's *emergent* context. First, she asked for clarification (03) which led to learner A's elaboration, "I bought a book on [the world-wide-]web." (04b). The tutor's assistance in vocabulary (05), enabled learner's *emergent* SHI..DE error (06), and the tutor's *emergent* EC (07: Level 5).

Without the tutor's willingness to pursue the learner's interests, this exchange would not have occurred. Incidentally, learner A's emergent SHI..DE error (06) was truly natural because it was not in response to tutor's elicitation-question but was found within the learner's elaboration of her own experience. That is, in this protocol, the learner's initial elaboration, her self-elicitation of SHI..DE, and the tutor's EC were all emergent.

In the beginning of the study, the meaning was found to be primarily created by the tutor questioning the learner and, as a result, the conversation revolved around the learner's daily life, experiences, etc. Later, as the learners increased their participation by asking questions (*initiation*) and expanding their answers by volunteering more information (*elaboration*), the meaning gradually became *equally* collaboratively co-constructed – with both speakers actively contributing.

While the tutor was always ready to provide assistance to the learner in vocabulary, pronunciation and tones, and EC, she had to actively *limit* the impact of these interruptions so as to reduce the likelihood of the emergent meaning becoming *lost*. All assistance provided within the oral conversation had to be *efficient*. That is, the tutor's assistance and, especially, EC had to be unobtrusive and timely, and, at the same time, always provided within the learner's ZPD.

The second protocol (Protocol 4.2) will demonstrate that the conversation (meaning) may be lost when an interruption, EC in this case, was not efficient.

Protocol 4.2

01B	你回去过中国吗?	01B	Have you returned [to] China?
02T	我回去过。	02T	I have been back.
03B	(pause) 你去，你回中国一个人 吗？	03B	(pause) you go, [Did] you return [to] China by yourself? (SHI)
04T	(raising eyebrows) (2)	04T	(raising eyebrows) (2)
05B	no? 你跟谁， 你跟谁去过中国？	05B	No? You with whom, with whom have you been China?
06T	It is past and it is emphasizing. (5)	06T	It is past and it is emphasizing. (5)
07B	你跟谁去过中国？	07B	With whom have you been to China?
08-20	(lengthy discussion, with examples on differences of : verb 了，verb 过, and 是...的) (9)	08-20	(lengthy discussion, with examples on differences of: verb LE, verb GUO, and SHI..DE (9)
21B	我没有去过台湾。	21B	I haven't been to Taiwan.
22T	我的问题是什么？我们刚才说去中国，不？	22T	What was my question? We were just talking about China, right?
23B	你可以问我你去过台湾吗？	23B	You can ask me 'have you been to Taiwan?'

This protocol shows an episode where learner B confused the structures SHI..DE, LE, and GUO (GUO was not the focus of this study). After a lengthy and thorough discussion of the differences (08 to 20), learner B did provide the correct sentence using GUO but, at that point, neither the tutor nor the learner remembered what they had been talking about, as evident from the tutor's question, "What is my question? We were just talking about China, correct?" (22). The tutor and learner were forced to restart the conversation (23).

By contrast, in studies where the contexts and meaning originated in a *pre-written* composition there were no restrictions on the *duration* of EC. When an EC episode was completed, the written composition was referenced to regain the meaning (and pre-existing errors).

The oral conversation, at its core, was found to be the *sharing* of two individuals' meanings, structured with, ideally, a common grammar. Protocol analysis identified three consequences of the competition between the meaning and the form. First, because the tutor was

expected to participate in the conversation, she needed to ascertain the learner's meaning so that she could comprehend it and contribute to the conversation, by responding to the learner's question or using the learner's volunteered context to elicit a target grammatical structure – i.e., the tutor needed the meaning *for response*. Second, the tutor needed to be sure of the intended meaning so as to judge whether the learner had used the appropriate grammatical structure to express that meaning – i.e., the tutor needed the meaning *for form*. That is, the oral conversation was a predominantly *meaning-oriented* activity for the tutor.

In studies where the meaning and errors were *pre-written*, while the tutor still needed the meaning *for form*, there was *no expectation* on the tutor to respond or contribute to that meaning. When an error was found in a particular context, the tutor had to only reconnect or refresh the learner with that specific context, negotiate the meaning *for form*, conduct the EC within the learner's ZPD, and return back to the preexisting meaning.

The third consequence of the oral conversation was that the learner experienced meaning and form *competition*. That is, while the learner was predominantly focusing on what he or she wanted to say, he or she also needed to consider the correct grammatical structures necessary to express that meaning. The meaning-form competition was found to be especially pronounced when the tutor indicated that something was amiss, for example by responding with a request for meaning clarification or overtly providing EC. Such tutor's feedback was found to refocus the learner's attention on the form.

In studies where the contexts were pre-existing, learners' attention switched between meaning (when they were writing the composition) – and the form (when they were receiving the tutor's EC). The only time that these learners faced meaning-form competition was when they

were reading their composition, in the presence of the tutor, before the tutorial session began – i.e., the “joint reading” (Aljaafreh, p. 105).

The next protocol (Protocol 4.3) will demonstrate not only the tutor's dual need for meaning but also learner A's meaning-form competition.

Protocol 4.3

(Learner A is asking the tutor questions.)

- 01A 你去美国的时候, 是:::, 在, 去, eh...
 02T 来美国, 不是去美国
 03A Oh! 去中国, 来美国, 你来美国的时候...., ..., (SHI)
 04T **Do you want to ask the time? (1)**
 05A That also works. Okay . 对不起, 你::: 来美国?
 06T **What is the question? (1)**
 07A 的时候
 08T What time?
 09A yeh...
 10T 什么
 11A 什么时候
 12T yeh.
 13A so, 你 :::, 你 ::: 美国来什么时候?
 14T **(Raising eyebrow) (2)**
 15A 你来什么时候吗? 你什么时候来美国?
 16T **(Raising eyebrow) (2)**
 17A Oh! I forgot “是...的”. 你是什么时候来美国的?
 18T (laugh) Does it make sense?
 19A It makes sense. It is just that I have to think about what I want to say.
 20T You just have to use this structure to ask this kind of question. So, 我是 94 年来美国的。

(Learner A is asking the tutor questions.)

- 01A While you were in the U.S. SHI:::, at, go, eh...
 02T come to the U.S, not go to U.S.
 03A Oh! Go [to] China, come [to] U.S., While you were in the U.S....., ..., (SHI)
 04T **Do you want to ask the time? (1)**
 05A That also works. Okay. Sorry, you::: come [to] U.S.?
 06T **What is the question? (1)**
 07A while
 08T What time?
 09A yeh...
 10T what
 11A when
 12T yeh.
 13A so, you:::, you::: U.S. come when?
 14T **(Raising eyebrow) (2)**
 15A you come when? You when come [to] U.S.?
 16T **(Raising eyebrow) (2)**
 17A Oh! I forgot ‘SHI..DE’. You SHI when came [to] U.S. DE?
 18T (laugh) Does it make sense?
 19A It makes sense. It is just that I have to think about what I want to say.
 20T You just have to use this structure to ask this kind of question. So, I SHI year 94 came [to] U.S. DE.

This protocol offers evidence for the tutor's and learner's different reasons for needing meaning in the oral conversation. That is, the tutor needed to understand what the learner was trying to say so that she could decide if EC was necessary (lines 01 to 13; meaning *for form*) and also needed to formulate a response to that meaning (20; meaning *for response*). The learner needed to focus on the meaning and self-admittedly (19) ignored the form, in the process (lines 13 to 20).

The tutor was negotiating the meaning because she did not understand (04, 06, and 08) what the learner was trying to ask – and it was not entirely evident that even the learner was too sure (05). Indeed, the lone “SHI” (01) marker was ignored until the tutor was sure that the learner wanted to ask a time question, “[When] was it that you came to the U.S.” (13). Once she knew A’s intentions, the tutor offered implicit EC to help the learner re-focus on the sentence-order (14: Level 2) and on the partial SHI..DE structure (16: Level 2) which led to A's self-correction (17). In the meta-comments, learner A admitted that she forgot to use SHI..DE because she was focusing on what she wanted to ask – i.e., the meaning (19).

This protocol (Protocol 4.3) shows that the tutor could *only* offer assistance on the grammar when she knew the meaning the learner intended to express. In addition, it shows that the learner was so focused on the meaning (lines 05 to 15) that the tutor's assistance was necessary to refocus attention to the form. Because the learners initially *lacked* the knowledge of which contexts **were** appropriate for SHI..DE and LE, the tutor's elicitation served as an explicit reminder that those structures were necessary (Section 6.2, p. 209).

In this section, the researcher has demonstrated that the meaning, the grammar to structure that meaning, and the tutor’s EC towards any misuse of this grammar were *emergent*. Not only was the tutor’s EC shown to be inseparable from the oral conversation but, because the

tutor was one of the participants, she was shown to actively steer the conversation so as to elicit the TG. That is, the researcher has clearly demonstrated that the responsibilities of both the tutor and the learner in this study differed *dramatically* from the participants' responsibilities in studies where the spoken tutorial interaction centered around an already-written text.

In the next section, the researcher will describe how the tutor assisted the learners' participation within the oral conversation to overcome the fact that the beginning learners were found to initially participate at a level which placed EC *beyond* the learners' ZPD.

4.3. TUTOR'S DILEMMA AND REGULATION IN PARTICIPATION

In the previous section, the researcher described how the tutor provided assistance to the learner in the oral conversation. In this section, additional evidence will be presented to show that the learner's involvement in the oral conversation was principal in making possible both the elicitation of the three target grammatical structures (TG) and their error correction (EC). That is, protocol analysis revealed that the tutor was *forced* to actively guide the learner *to participate* because neither the elicitation of the TG nor EC could take place if the learners' participation remained unchanged.

The researcher wishes to emphasize the last point. Because the subjects of this study were *beginning* learners of Chinese, with minimal prior speaking experience, their limited linguistic knowledge not only made it difficult for the tutor to *maintain* the oral conversation but especially problematic to *elicit* the functional use of the TG. That is, before the tutor could have an *opportunity* to correct any errors, she had to, *first*, co-construct a meaningful conversation, and, *only then*, attempt to elicit the TG and, possibly, correct the emergent errors.

Alas, these beginning learners were found to be *unable* to participate at a level which made the elicitation and correction of any TG possible. In fact, because the learners responded

exclusively in short, memorized sentences for common topics and words or phrases for anything more involved, the tutor spent the majority of her effort just assisting them to build-up such responses into complete sentences. Thus, the elicitation of TG was out of the question, because it would have only *overwhelmed* the already-struggling learner. In this study, that situation is termed the *Tutor's Dilemma* and the tutor's regulation which was necessary to overcome this dilemma is one of the findings of this study.

Clearly, the tutor had no alternative but guide the learner to participate at a higher level – but, how? In the next section, the researcher will provide the answer by describing the different types of regulation the tutor was found to provide, as categorized in the protocol analysis. In addition, she will also attempt to establish the relationships among these categories of regulation and the effects they had on the learner's participation in the oral conversation.

4.3.1.Types of Regulation in Participation

Categorization of the tutor's Regulation in Participation (RinP) during protocol analysis revealed that the tutor's solution to the *Tutor's Dilemma* was multifaceted but fell into four general categories of regulation: a) elaboration; b) initiation; c) elicitation of TG; and, d) articulation. In this section, the researcher will provide definitions (which will be supplemented with sample protocols in the next section) and also establish the general relationships among these categories¹.

Protocol analysis revealed that, to bring the elicitation of TG within ZPD, the tutor assisted the learners to provide their answers in the form of phrases and, when “enough” meaning was co-created, to challenge the learners to rephrase these into a complete sentence. This category of regulation, termed *articulation* in this study, was found to also include assisting

¹ Section 4.3.3, below, will present a set of criteria which will be used to describe the learners' improving participation during the protocol analysis in the next chapter.

the learners to narrate, that is, provide answers in the form of paragraphs¹. In other words, because the elicitation of TG was only possible when the learners were no longer *overwhelmed* answering in the form of complete sentences, the tutor was found to direct considerable efforts toward helping the learners achieve that level of articulation.

In addition to regulating the learner's articulation, the tutor also regulated the learner to more naturally contribute meaning within the conversation. Specifically, the tutor challenged and assisted the learners to answer her questions by volunteering information *in addition* to that necessitated by the question – termed *elaboration*, in this study. By encouraging learners to embellish their answers, the tutor encouraged the learners to volunteer information which not only enriched the inter-personal meaning but, more practically, saved the tutor from having to actively interrogate the learner to maintain the conversation.

Initially, the learners were found to elaborate in the form of phrases and short sentences. With the tutor's regulation in articulation, however, these elaborations were later found to be in the form of narratives. Narration not only introduced more meaning into the conversation but also fostered originality – e.g., the learner was encouraged to co-construct a personal story within or around the context established by the tutor's question, etc..

The tutor also regulated the learner to ask questions – in this study, termed *initiation* – and the protocol analysis revealed three reasons. First, the tutor wanted the learner to practice initiating because the learner were required to do so as part of the final exam. In addition, initiation allowed the learner to, if only temporarily, assume the tutor's role – i.e., the responsibility for leading the conversation.

Second, as explained in APPENDIX C, because word order of simple or special question and its corresponding answer is identical in Chinese, the learners could “copy” the form by

1 In this study, *articulation* was manifest in terms of the two other categories of RinP: *elaboration* and *initiation*.

making only single-word changes. To prevent the possibility of such unwitting copying, the tutor posed questions which *implied* the use of TG in the answer but did not explicitly *contain* TG – in this study, termed *omitted questions*. For example, the tutor challenged the learner to elicit an LE question with the “[ask me] How long?” and a SHI..DE question with “[ask me] When?” omitted question.

Finally, until the learners could ask questions of the tutor, only the meaning related to the *learner* was exposed on the conversation. That is, the tutor's answers to the learners' initiations not only contributed meaning that otherwise would not have surfaced within that conversation but also helped build the inter-personal relationship. Of course, initiation also gave learners opportunities to practice formulating and asking questions.

However, initiation was found to be a very challenging task for the learners because it demanded the ultimate originality. That is, it was the *learners* who had to originate: a) the meaning – what to ask; b) the form – the sentence-order of a question and the necessary TG; c) the vocabulary – the words to express their question; and, d) the context which served to narrow down the answer. Protocol analysis revealed that the tutor provided additional assistance to specifically help learners initiate, which will be discussed in Section 5.3.2 (p. 155).

Through the final category of the RinP – in this study, termed *elicitation [of TG]* – the tutor challenged the learners to accurately express their desired meaning by structuring their elaborations and initiations with grammar and especially TG. However, so long as the learners were nearly overwhelmed with *merely* answering in the form of complete sentences, the EC towards errors in the learners' self-expressions was beyond the learners' ZPD. Thus, in the interest of keeping the learner talking, the tutor initially ignored TG errors because their correction would have been counterproductive.

As soon as the EC was within a learner's ZPD, however, the tutor began to collaborate with the learners to resolve these errors – see Section , . In addition, because the learners were found to, initially, primarily focus on the meaning or what they wanted to say or ask. For this reason, the learners often needed the tutor's EC to make them aware that a particular TG was appropriate in that particular context. And the tutor often provided these reminders in the form of the aforementioned *omitted questions*.

However, when providing the four categories of RinP, the researcher wishes to underscore that this RinP was provided *in addition* to the always-available assistance on vocabulary, phrases and non-target grammar, pronunciation, and tones because these were *vital* to the survival of the oral conversation. That is, the tutor not only challenged the learners *to participate* but also assisted them *in participating*. For example, the tutor was found to provide assistance *in preparation* for a future challenge and only challenged the learners when she determined that they were ready to be challenged. That is, before challenging the learners to narrate, while assisting the learners' in attaining sentence-level articulation, the tutor prompted their sentence-level answers with a) conjunction words such as “therefore”, “so”, and “because”; and, b) prolongations, such as “you went to::” and “at::”. Later, after the tutor *did* challenge them to narrate, the learners were found to successfully link their sentences into longer passages employing these constructs.

When all the protocols of this study were analyzed, the tutor was found to challenge and assist the learners to elaborate and initiate while, at the same time, challenging and assisting them to a) move their articulation from the level of phrases to that of sentences and, finally, to that of paragraphs, and b) elicit the TG within these elaborations and initiations. For ease of reference, the uncovered progression along the tutor's goals has been presented in Table 4.1 – no

specific progression within the table is implied, and the individual learner's appropriation of the tutor's RinP will be treated in the next chapter.

Table 4.1: Tutor's challenges during regulation of participation.

	<i>Articulation</i>	(or Discourse Level)	
	Elaboration or Initiation at Phrase-Level	Elaboration or Initiation at Sentence-level	Elaboration or Initiation at Paragraph-Level
<i>Without</i> elicitation of TG	Wants more than one sentence or more than one question	Wants more than one sentence or more than one question	Wants learner to narrate or take tutor's role for leading the conversation
<i>With</i> elicitation of TG	Note 1	Wants more than one sentence or more than one question using TG	Wants learner to narrate or take tutor's role for leading the conversation using TG

Note 1: The tutor elicited TG during the conversation, when necessary, but did not provide EC if it would have been beyond the learner's ZPD or counter-productive.

In the next section, the researcher will present sample protocols to demonstrate *how* the tutor provided the RinP in the oral conversation.

4.3.2. How the tutor regulated the participation (sample protocols)

The researcher will illustrate the collaborative process by which the tutor assisted and challenged the learners to more fully and naturally participate within the oral conversation. Protocols 4.4 to 4.6 will not take into consideration the learner's grammar errors or the tutor's EC and, instead, the focus will be exclusively on the learner's needs and the tutor's RinP (Table 4.1).

The first protocol will demonstrate an early episode for learner B and the aforementioned *Tutor's Dilemma* – the tutor was challenging the learner to attain sentence-level articulation.

Protocol 4.4

01T	你好吗？	01T	How are you?
02B	我很忙。	02B	I [am] very busy.
03T	你为什么那么忙？	03T	Why are you so busy?
04B	我妈妈来了。	04B	My mom came.

05T	你妈妈是从哪儿来的？(SHI)	05T	Your mom SHI from where came DE? (SHI)
06B	从哪儿？	06B	from where?
07T	从哪儿。	07T	from where
08B	从哪儿，“从”是什么？	08B	from where, what is “from”?
09T	from	09T	from
10B	Oh! 我的妈妈从来	10B	Oh! My mom from come
11T	从哪儿来	11T	from where come
12B	我的妈妈从 Virginia	12B	my mom from Virginia
13T	从 Virginia:::	13T	from Virginia:::
14B	从 Virginia 住	14B	from Virginia live
15T	来	15T	come
16B	从 Virginia 来。	16B	from Virginia come
17T	Can you say it again...	17T	Can you say it again...
18B	<u>我的妈妈从 Virginia 来。</u> (no correction)	18B	<u>My mom from Virginia come.</u> (no correction)
19T	她开车吗？	19T	Does she drive?
20B	No response	20T	(No response)
21T	Drive the car	21B	Drive the car
22B	是, 开车。开车, 对。	22B	yes, drive car. Drive the car, correct.
23T	她开了几个钟头？(LE)	23T	She drove LE how many hours? (LE)
24B	钟头？	24B	hour?
25T	几个钟头？	25T	how many hours?
26B	<u>她开一, 二, 三, 四, 五, 六, 六个</u> <u>钟头</u> (no correction)	26B	<u>She drive[s] one, two, three, four,</u> <u>five, six, six hours.</u> (no correction)
27T	她常常来看你吗？	27T	Does she come [to] see you often?
28B	她不常常 eh..., 开车	28B	She [does] not, eh..., drive very often.
29T	开车 (pronunciation)	29T	drive (pronunciation)
30B	开车, eh..., eh...	30B	drive, eh..., eh...
31T	来:::	31T	come:::
32B	来我, 来看我。	32B	come me, come [to] see me.
33T	Can you give me a complete sentence	33T	Can you give me a complete sentence?
34B	她不常常 eh...,...	34B	She not often, eh...,...
35T	开车:::	35T	drive:::
36B	开车来看我。	36B	drive [to] come [to] see me.

Protocol 4.4, which came from the beginning of the first TS, demonstrates that the tutor was working hard to maintain the conversation by initiating all the questions and providing help in every possible way to enable the learner to answer. Learner B, however, could only originate

some phrases in his answers and, thus, the tutor's finely tuned assistance was directed toward helping B build up these phrases into complete sentences.

In this conversation, only the tutor posed questions (05, 19, 23, 27) and they were simple and used only basic words from the textbook. Learner B, however, was lacking the linguistic skill to comprehend them (06, 08, 20, 24) and the tutor provided assistance in vocabulary (07, 09, 15, 21, 25), pronunciation (29), and non-TG (11, 13).

To guide the learner into participation, the tutor provided partial answers and helped structure B's words into phrases (13, 15, 25, 31). As soon as the learner, with tutor's assistance, uttered all the phrases *necessary* for one sentence, the tutor explicitly challenged him to do so (17, 33). Indeed, while the tutor challenged learner B to answer in a complete sentence using SHI..DE (18) and LE (26), because the tutor's focus was on helping the learner attain sentence-level articulation, she intentionally *ignored* the absence of this TG in B's answers.

In this protocol of 32 lines, learner B produced just *three* complete sentences (18, 26, 34-36). In providing contingent assistance, the tutor actively negotiated and modified her feedback based on the learner's responses (06-16, 19-22, 23-26, and 27-36). While the learner was actively involved in offering personal information (04, 12, and 32) and incorporating the tutor's feedback into his understanding (by rephrasing his statements), B's final correct sentences (18, 26, 34-36), could not have been possible without the tutor's assistance.

The researcher would like to note that the tutor's assistance enabled the *learner* to produce a series of phrases that, taken together, were sufficient for a complete sentence. However, it was the tutor's explicit *challenge* for a complete sentence that enabled the learner to reach the higher articulation level. That is, it was only the tutor's RinP, which challenged learner

B to successfully restructure his phrases into a complete sentence and challenged him from phrase-level (i.e., actual level) to sentence-level (i.e., potential level).

The next protocol (Protocol 4.5) will show that when the learner was capable of elaborating at the sentence level, the tutor challenged him to narrate or elaborate at paragraph-level articulation (Table 4.1).

Protocol 4.5

01T	你今天忙吗？	01T	Are you busy today?
02B	我今天很忙，因为我有五堂课。	02B	I [am] very busy today, because I have five classes.
03T	真的！五堂课？	03T	Really? Five classes?
04B	对。所以，我很累！	04B	Yes. Therefore, I [am] very tired.
05T	那，你除了上课以外，你还作什么呢？	05T	In addition to your class, what else do you do?
06B	除了？	06B	in addition?
07T	‘除了上课’ in addition to class	07T	‘In addition to class’ [is] <i>in addition to class</i>
08B	除了上课，我还运动。	08B	In addition to class, I also exercises.
09T	你喜欢什么运动？	09T	What exercises [do] you like?
10B	什么？(a) eh..., 我, 我要跑步， (b)一天，我 eh..., 我跑步跑得...， 我，常常跑步。(c)可是，eh..., 后来，我去大学校，大学校， college 大学	10B	What? (a) eh..., I, I want [to] run, (b) one day, I eh..., I run ..., I, often run. (c) But, eh..., later, I go [to] big school, big school, <i>college</i> college
11T	上大学	11T	enter college
12B	我上大学以后，我...，我...，我跑步，我不常常跑步。	12B	After I entered college, I...; I...; I run, I do not run often.
13T	为什么？	13T	Why?
14B	为什么？我太忙了。	14B	Why? I [am] too busy.
15T	那，你现在不运动吗？	15T	Then, don't you exercise now?
16B	运动？	16B	exercise?
17T	exercise	17T	<i>exercise</i>
18B	(a) 有时候，是。(b)今年太凉了， (pause)	18B	(a) sometimes, yes. (b) This year it is too cold. (pause)
19T	所以... (hand movement hinting he should elaborate more)	19T	therefore... (hand movement hinting he should elaborate more)
20B	所以，我不常常运动。(c) 可是，我，我觉得，我觉得这个 semester 我天天运动。(d) 我不知道 eh..., 我... 会...会...天天运动。	20B	therefore, I [do] not exercise often. (c) But, I, I feel, I feel this <i>semester</i> I exercise everyday. (d) I didn't know, eh..., I... would... would... exercise everyday.

21T	你天天跑步，那，你今天早上跑步了？	21T	You run everyday, then, did you run this morning?
22B	我今天早上没跑步。	22B	I did not run this morning.
23T	那，你今天早上作什么了？can you give me a narration?	23T	What did you do this morning? <i>Can you give me a narration?</i>
24B	(a) 今天早上, eh..., 今天早上, 我:::, 我, eh..., ..., 我, mh..., 七点, 七:::七点起床。	24B	(a) this morning, eh..., this morning, I:::, I, eh..., ..., I, mh... seven o'clock get up.
25T	It is past, right?	25T	<i>It is past, right?</i>
26B	(b) 我:::, eh..., <u>我是七点起床的</u> 。(SHI) eh..., 我先学中文，再:::, eh...开车，eh..., 然后开车来学校。(c) 我开车的时候，我一边 eh..., 我一边开车, 一边，一边吃早饭。	26B	(b) I:::, eh..., <u>I SHI seven o'clock got up DE.</u> (SHI) I first studied Chinese, later:::, eh...drove car, eh..., later came to school by car. (c) While I (was) driving, I eh..., I driving, I had (my) breakfast.....
27T	从你家到普大，你开车开了多长时间？ (LE)	27T	From your home to Princeton University, you drove the car drove LE how long? (LE)

Protocol 4.5, from TS Five, demonstrates that when learner B was answering at the level of sentences, the tutor challenged him to attempt to narrate *and* elicit TG during this narration.

Learner B not only demonstrated the ability to produce complete sentences but also that he was capable of actively using conjunction words to elongate these sentences (02, 04, 10c, 20b). Alas, many of his sentences were still short and he was actively reformulating them because he was not exactly sure that what he *said* was what he *meant* to say. This can be observed from the fact that some sentences often completely reversed in meaning with each reformulation (10a, 10b, 12a, 12b, 18b, 20a, 20b, 20c).

The tutor was actively offering assistance in vocabulary (11, 17) which helped widen and increased the learner's possible topics and ability of expression (12, 18). When the tutor sensed that some context might end (18a, 18b), she offered the conjunction word “therefore:::” (19) and the accompanying hand movement (19) to encourage the learner to elaborate more and longer sentences (20a, 20b, 20c). In addition, just the tutor demonstrating genuine interest “Really? Five

classes?” (03), was effective in triggering learner B to elaborate, “Yes, therefore, I am very tired” (04).

After learner B elaborated several sentences with the tutor’s assistance (10-12 and 18-20), the tutor explicitly challenged the learner to narrate, “What did you do this morning? Can you give me a narration?” (23). And, learner B was able to offer a three-sentence narration using time-sequence words, “先 (first), 再 (later), 然后 (later)” (24) and “一边儿 X, 一边儿 Y (while doing X, I did Y)” (26). His narration also contained the incorrect self-elicitation of the TG SHI..DE (24), which, with tutor’s EC (25: Level 5) he was able to self-correct (26).

Incidentally, this protocol demonstrates that the responsibility for maintaining the oral conversation was not *entirely* the tutor's responsibility. Learner's elaborations, combined with his sentence-level articulation, made possible for an information-rich conversation yet one that required comparatively less prompting and questioning by the tutor than the one in the previous protocol (Protocol 4.4). In addition, this protocol demonstrates that, by TS Five, the learner took the tutor's EC (25) in stride and continued with his elaboration (26).

The next protocol will demonstrate how the tutor challenged learner A to ask a question – i.e., initiate.

Protocol 4.6

01T	Can you ask me questions?	01T	<i>Can you ask me questions?</i>
02A	Ask questions? I can't do that.	02A	<i>Ask questions? I can't do that.</i>
03T	Why?	03T	<i>Why?</i>
04A	Because it is harder.	04A	<i>Because it is harder.</i>
05T	Is it harder? You think so?	05T	<i>Is it harder? You think so?</i>
06A	I think so, because I will (unintelligible)	06A	<i>I think so, because I will (unintelligible)</i>
07T	But, if you go to China next summer, you might have to ask question. Besides, in the final examination, you might have to ask Professor X questions.	07T	<i>But, if you go to China next summer, you might have to ask question. Besides, in the final examination, you might have to ask Professor X questions.</i>
08A	(silence)	08A	(silence)

09T You can think about what I asked you and then ask me.
 10A Okay. 你, eh..., ..., eh..., 在去哪儿?
 11T 你现在:::
 12A 你现在住哪儿?
 13T 我住在普大附近。
 14A eh..., ..., I have no question.
 15T (laugh) waiting for the learner to come up with something.
 16A How do you say before 以前?
 17T Yes. 以前
 18A Oh! So it is 以前, 以前你住在这儿, 你住在哪儿?
 19T 以前, 我住在 Pittsburgh
 20A 你住 Pittsburgh 几年? (LE: no correction)
 21T 我住了七年。
 22A 你, 你有家?
 23T 你有家::
 24A 你有没有家?
 25T 我家有。
 26A 你家很大吗?
 27T 我家有四个人, 我妈妈, 妹妹, 我跟我的 husband。
 28A 你妈妈跟妹妹住在中国吗?
 29T 对。他们现在住在中国。
 30A (laugh) That sucks.
 31T (laugh) 对啊!
 32A 你要他们, eh..., 你要去中国, eh....你看他们吗?
 33T 我去过中国看他们。
 34A 几:::, 几个次, ..., 几个次,
 35T 几次?
 36A 几次?
 37T 四次

09T *You can think about what I asked you and then ask me.*
 10A *Okay. you, eh..., ..., eh..., at go where?*
 11T *you now:::*
 12A *Where [do] you live now?*
 13T *I live nearby Princeton University.*
 14A *eh..., ..., I have no question.*
 15T *(laugh) (waiting for the learner to come up with something.)*
 16A *How [do] you say before? [Is it] 'before'?*
 17T *Yes. 'before'*
 18A *Oh! So it is before, before, you live [at] here, where [do] you live?*
 19T *Before, I live at Pittsburgh*
 20A *You lived [at] Pittsburgh how many years? (LE: no correction)*
 21T *I lived LE seven years.*
 22A *You, you have family?*
 23T *You have family:::*
 24A *Do you or don't you have family?*
 25T *I have [a]family.*
 26A *[Is] your family very big?*
 27T *There are four people in my family, my mom, sister, I and my husband.*
 28A *your mom and your sister live at China?*
 29T *Yes. They live in China now.*
 30A *(laugh) That sucks.*
 31T *(laugh) [You are] right!*
 32A *You want them, eh..., you want [to] go [to] China, eh....[do] you see them?*
 33T *I have been back to China [to] see them.*
 34A *How many :::, how many times, ..., how many times?*
 35T *How many times?*
 36A *How many times?*
 37T *Four times.*

In Protocol 4.6, which came from TS Three, the tutor requested that learner A initiate a question – but not without a struggle. For this reason, the tutor’s RinP was geared toward convincing and guiding learner A to make an attempt.

The episode began with the tutor challenging learner A to initiate (01) and A resisting, “I can’t do that”, “because it is harder” (line 02 and line 04, respectively) and, for this reason, the tutor’s initial assistance was to persuade and explain the activity (07). The tutor took learner A’s subsequent silence (08) as willingness to comply but also a sign that A did not know what to ask and suggested that the learner recall and emulate the same types of questions that the tutor had asked A before (09). The learner agreed (10) and initiated a garbled question, “you, [...] at go where?” (10) which, with tutor’s suggestion, “you now:::” (11), the learner reformulated into an understandable and correct question, “Where (do) you live now?” (12).

Learner A was still overwhelmed with asking questions because, even after all of the tutor’s assistance (01 to 11), A exclaimed, “I have no [more] question” (14). The tutor’s laughter and patience (15) effectively left the learner no alternative but to formulate more. And, learner A initiated seven additional, albeit very simple, questions (18-36). While A erroneously used LE to ask “How long did [you] live in Pittsburgh?” (20), the tutor ignored the error because she was most interested in the learner practicing initiation.

Protocol 4.6 demonstrates the critical importance that the collaborative process plays in enabling the learner to successfully ask questions. When the tutor offered convincing arguments for the learner to overcome her apprehension, learner’s attitude changed from refusal; to silence; to “Okay”; and to a simple attempt. At times, the only support the tutor needed to express was patience (15) to compel the learner to formulate more questions (18-36). The same collaborative effort which allowed the initiation effort, also permitted the learner to take tutor’s elaboration,

“Before I lived at Pittsburgh” (19) and self-initiate a TG LE question (duration). Even though the question lacked the TG and employed incorrect sentence-order, the tutor answered it because correcting these errors would have been counter-productive.

In the next section, the researcher will present an alternative viewpoint for the tutor's RinP in the oral conversation: empowering the learner to assume increasing responsibility for not only volunteering more meaning in the conversation but also structuring that meaning with self-elicited and correctly used TG.

4.3.3.Regulation in Participation in the Oral Conversation

Sections 4.3.1 and 4.3.2 have demonstrated both the *categories* of the tutor's regulation in participation (RinP) and *how* the tutor provided this regulation within the learners' ZPD during the conversation, respectively. In this section, the researcher will present a more conceptual explanation of *why* the RinP was provided and was so useful in helping the learners learn the TG. In other words, by introducing a set of criteria, the researcher will provide a practical definition of what is an active participant. Incidentally, these criteria will be employed in subsequent chapters to assess the learners' development in participation.

In the oral conversation, both participants may be considered to be in one of two “states”: giving meaning (answering questions) or requesting meaning (asking questions). The transfer of meaning in the conversation may be at the level of words, sentences, paragraphs, etc. which may or may not be structured with accurate grammar. And, it may be the tutor or the learner who a) structured the conversation with the grammar and b) ensure that that grammar was used correctly.

As previously described, the beginning learners of this study were initially only capable of answering the tutor's questions at the level of words or memorized sentences without much

knowledge of how to functionally *use* the grammar they had memorized. That is, to rephrase in the terminology of this chapter, the beginning learners were capable of *elaborating* only at phrase-level *articulation* and could neither *initiate* nor *self-elicite* the TG, making the conversation the sole *responsibility* of the tutor.

From another perspective, the tutor was responsible for the conversation because she had to: a) guide the learner to participate; b) assist the learner to utter their contributions in the form of complete sentences; c) assist the learner to use the correct TG to structure those sentences; and, d) assist the learner to cognitively understand why any such sentence was incorrect and help them reason out the correct answer – i.e., provide EC within the learner's ZPD. For the purposes of this section, the tutor was responsible for not only helping the learner contribute the meaning in the conversation but also structure that meaning with correctly used TG.

Protocol analysis revealed that the tutor did, indeed, regulate the learners to take on more responsibility for both tasks – i.e., to contribute more meaning and self-elicite the TG to structure that meaning. In fact, for the remainder of this dissertation, the researcher will analyze the learner's participation in terms of the role-shift from the tutor to the learner for elaborating answers and initiating the conversation while self-eliciting the TG within elaborations moving from phrases, to sentences, to paragraphs and initiations moving from phrase-questions, to multiple questions, to leading the conversation.

The researcher has separated this seemingly-complex criterion into the simpler and more comprehensible Three Criteria of Participation Development shown in Table 4.2 and visualized in Figure 4.1.

Table 4.2: Three Criteria of Participation Development in the Oral Conversation

Criterion	Definition
Articulation	Integrity and coherency of units of meaning; ranging from none or silence to phrase-level to sentence-level to paragraph-level, etc.
Elicitation	Use of grammatical structures to structure each unit of meaning; with the minimum unit being the sentence
Role-shift	From the conversation being tutor-interrogated to one where the learner was as equal partner – from peripheral and dependent on the tutor to active and self-sufficient

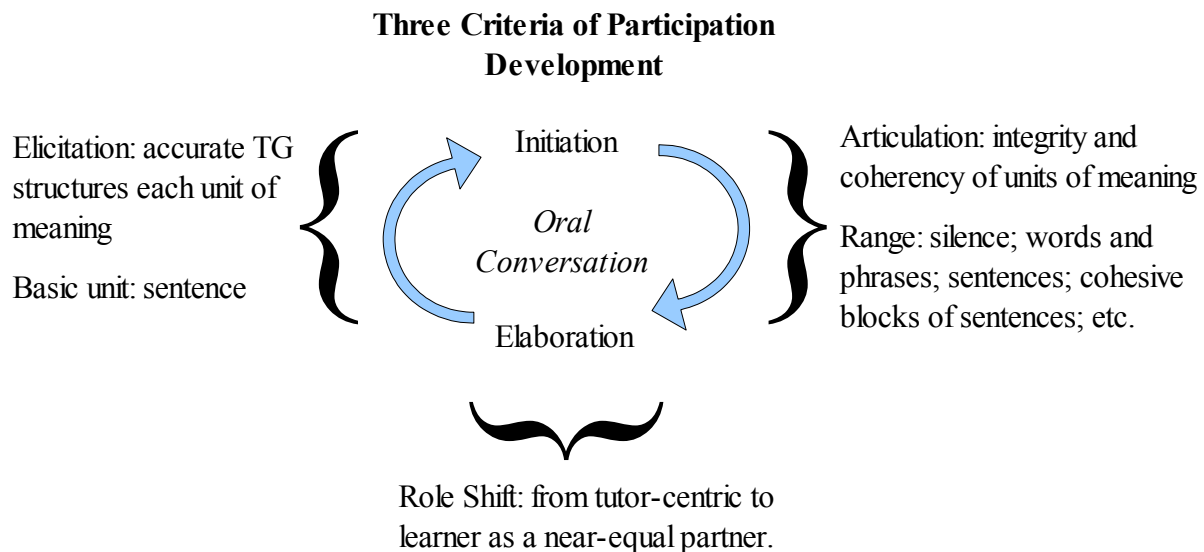


Figure 4.1: Three Criteria of Participation Development in the Oral Conversation

The relationship of the collaborative frames, within which the tutor's two types of regulation operated, has been visualized in Figure 4.2, below. That is, the larger collaborative frame of the oral conversation, which the tutor regulated with RinP, is shown to *contain* the smaller frame of the tutor's collaborative EC. In addition, the tutor's assistance – RinP (dark arrows) and other-assistance (white arrows) – is drawn to suggest imparting a motive impetus on

the outer collaborative frame¹ – how this affected the tutor's EC will be detailed in the next section.

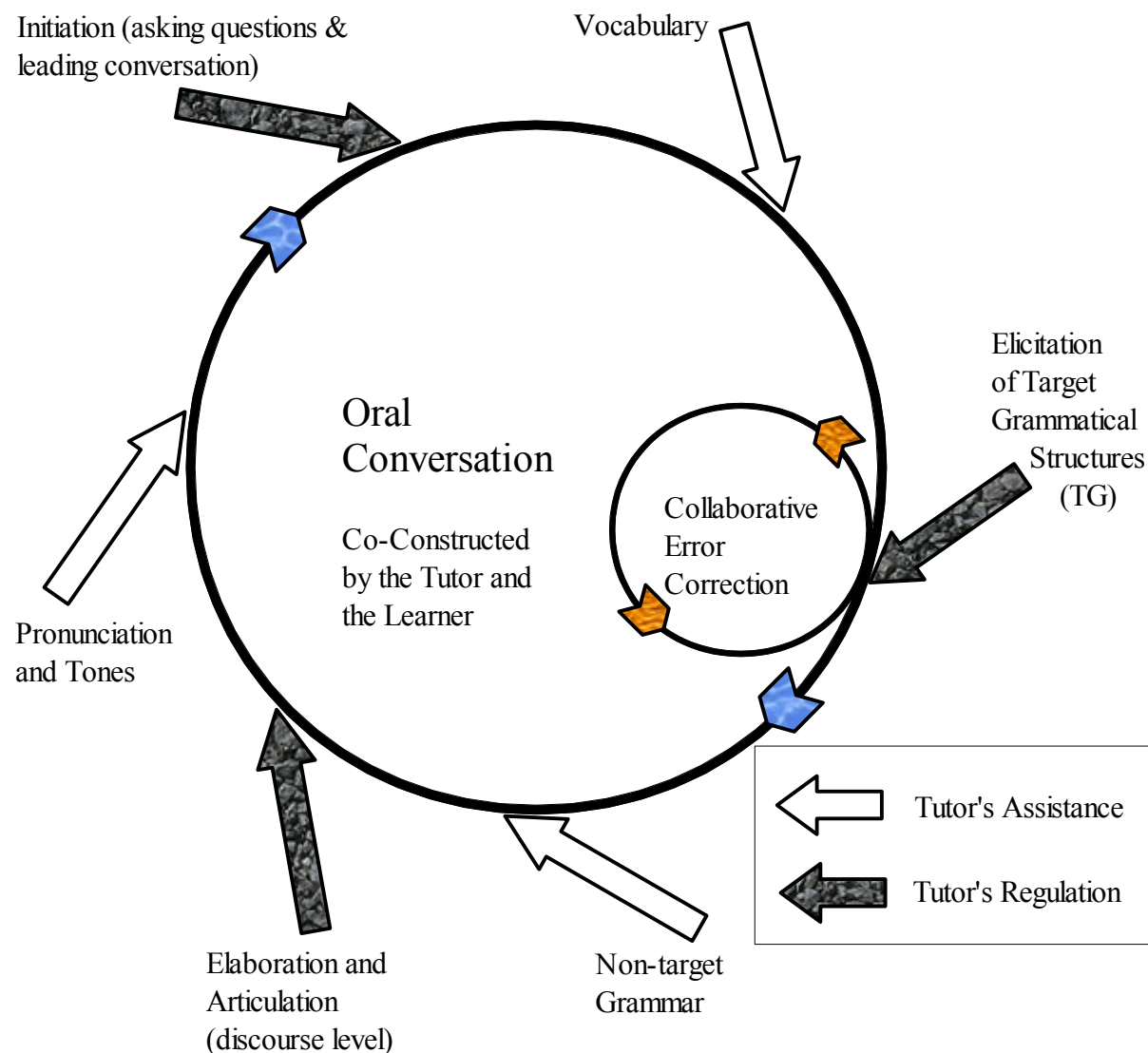


Figure 4.2: Relationship between the Tutor's RinP and EC

The two frames are shown to connect with the elicitation of TG² – the root of the learners' need for the tutor's EC towards the TG, in this study. Specifically, because the *elicitation* of TG

1 The opposing “direction” of the smaller collaborative frame is intentional – the tutor's EC *could* potentially stall the conversation – and this relationship will also be discussed in the next section.

2 Elicitation may result from either the tutor's challenge to use the TG or the learner's self-elicitation.

acts as the *intersection* between the two collaborative frames, elicitation is *neither* entirely RinP nor EC.

In this study, the tutor's RinP acted to not only expand the conversation but also to shift the responsibility for the elicitation of the TG from the tutor to the learner. The efficacy of the tutor's EC grew as the learner became predominantly responsible for eliciting the TG within his or her ever-increasing quantity and quality of participation.

In this section, by showing that the learners were primarily challenged to elicit the TG in their initiations and elaborations, the researcher only wished to establish the link between the opportunities for EC (i.e., the primary vehicle for the transfer of grammar knowledge) and the RinP which directly affected both the numerical *quantity* of these opportunities as well as the shift in *responsibility* from the tutor to the learner for initiating these opportunities.

The intimate association between the two types of the tutor's assistance, as well as the learners' appropriation of both types of assistance, will be fully treated in the next chapter (Section 5.4). However, in the next section, the researcher will describe the tutor's EC, which was the *original* focus of this study in more detail.

4.4. ERROR CORRECTION WITHIN THE ORAL CONVERSATION

In the previous section, the researcher described how the tutor co-constructed the meaning in the oral conversation by regulating the learners to improve their participation. The researcher also situated the tutor's error correction (EC) as the collaborative frame connected to the oral conversation through the elicitation of TG. In this section, the researcher will describe how the tutor provided EC, within the emergent meanings of the oral conversation, and how the explicitness of that EC was evaluated to maintain consistency and objectivity during the protocol analysis.

When all the protocols were analyzed, the tutor's EC was found to be a collaborative process – the tutor constantly probed and assessed each learner's needs and provided gradual and contingent assistance¹, within each learner's ZPD. This contingent assistance was first evaluated using Aljaafreh & Lantolf's "12 Tutor's Regulatory Levels" scale (see Table 3.3, p. 50) which was designed for correcting pre-written grammatical errors in a subsequent spoken tutorial.

Following the methodology outlined in Chapter Three (Section 3.4.3, p. 53), these 12 Regulatory Levels were adapted to the spoken context, yielding Nine² (9) Tutor's Regulatory (Treg) Levels (Table 4.3). Subsequently, all of the tutor's feedback-moves in the episodes were re-evaluated with these Nine Regulatory Levels.

Table 4.3: The "Tutor's Regulatory Scales" for the spoken setting (Treg)

[0.	Learner provides correct form and does not need tutor's assistance.]
1.	Tutor requests clarification of meaning.
2.	Tutor raises eyebrows, shakes head, or provides hand movement (no hint where or what type of error)
3.	Tutor admits explicitly that an error exists without specifying where or what type of error.
4.	Tutor narrows down location of error by stressing a specific segment or provides information related to the nature of error without directly pointing it out.
5.	Tutor points out the nature of the error
6.	Tutor identifies the error by pointing out the grammar marker
7.	Tutor explicitly provides learner the location of grammatical marker; does not provide answer.
8.	Tutor provides partial or full correct form
9.	Tutor explains and provides examples of form and usage

The researcher would like to stress that the application of any Treg level was negotiated during the corrective process and was based on the learner's responsive moves – i.e., it was not pre-determined in advance¹. The Treg levels offered clues of differing explicitness which

1 As described in Chapter Two (p. 9)

2 If Level Zero, representing no error or misunderstanding, is counted then into ten (10) levels.

1 However, because the tutor could recall the learner's actual developmental level for a related prior error (which can be viewed as ZPD persistence), it allowed for a more efficient and less tedious EC strategy.

assisted the learner in restructuring their understanding of the TG – the correct answer was not provided.

The researcher will now present sample protocols to demonstrate how the tutor's different levels of Treg – i.e., EC within a learner's ZPD – elevated a learner's understanding of using a particular TG. That is, by demonstrating the collaborative EC, the researcher will show how each Treg level served as a cognitive tool in assisting the learners to better understand the nature of the error at hand.

The researcher would like to stress that because this study took place in an oral conversation, where comprehension of meaning was paramount *yet* chance of misunderstanding likely, Level 1 Treg was triggered purely by the tutor's requests for clarification of meaning. However, for learners with high ZPD, these clarification requests also served as *unintentional*, but very successful and efficient form of EC.

Protocol 4.7 will demonstrate that Level 1 assistance successfully assisted learner B in self-correcting an error when attempting to use LE.

Protocol 4.7

(The tutor is telling the learner that she went to New York with her students.)

- 01B 你这个周末做什么了？
- 02T 我去了纽约。
- 03B 你是怎么去纽约的？
- 04T 我是坐火车去纽约的。
- 05B ‘火车’ 是什么？
- 06T Oh! train
- 07B train, eh..., 你... 你走 eh..., 几点了？
- 08T 你是说 ‘how many hours?’ (1)
- 09B 几点
- 10T **at what time? (1)**
- 11B Oh! 几个钟头

(The tutor is telling the learner that she went to New York with her students.)

- 01B What [did] you do this weekend?
- 02T I went [to] New York.
- 03B You SHI how went [to] NY DE?
- 04T I SHI by train went (to) NY DE.
- 05B What is ‘train’?
- 06T *Oh! train*
- 07B *train, eh..., you:::, you go eh..., what time **LE?** (LE)*
- 08T **You mean ‘how many hours’ (1)**
- 09B what time
- 10T **at what time? (1)**
- 11B *Oh! how many hours*

12T	对不起，你刚才说什么？(1)	12T	Excuse me, what did you just say? (1)
13B	你走几个钟头？ <u>你走了几个钟头？</u>	13B	You go how many hours? <u>You went LE how many hours?</u>
14T	You mean how long I walked in New York? (1)	14T	<i>You mean how long I walked in New York? (1)</i>
15B	New York? Oh! No! How long does it take you to get there?	15B	<i>New York? Oh! No! How long does it take you to get there?</i>
16T	Oh! So, 是 take train 坐火车,	16T	<i>Oh! So, [it] is “take train”, take train</i>
17B	坐, 坐火车, <u>你坐火车坐了几个钟头?</u>	17B	<i>take, take train, <u>you took train took LE how many hours?</u></i>

Protocol 4.7, which came from TS Seven, strongly suggests that learner B's self-correction in LE (13, 15) was caused purely by the tutor, as his dialogic partner, requesting clarification in meaning (08, 10, 12, 14). From line 01 to 06, the learner was taking an initiative role by asking about the tutor's trip to New York City. In line 07, the learner attempted to elicit an LE question, which has the expected form of “How many hours does it take you to get there by train?” (*Lit*: “You took the train took LE how many hours?” or the shortened version, *Lit*: “You took LE how many hours?”) However, instead of using the time-duration word “how many hours”, the learner *misapplied* the time-point word “at what time”, *misplaced* the grammatical marker LE, and *mispronounced* the verb “坐” in “坐火车” (to take the train) as “走” (to walk). These *three* simultaneous errors led to tutor's confusion because the learner's question could have been, “How many hours did you walk in NY?” or “It was at what time that you walked in NY?”, and neither fit the context.

The tutor's first two requests for clarifications (08, 10: Level 1) triggered the learner to self-replace the time-point word “at what time” with time duration “how many hours” (11). While the third request (12: Level 1) resulted in learner B reformulating the sentence (13) somewhat. Although the new sentence had the correct form for LE, the meaning was still strange because a native speaker would have asked, “How long you have been in NY?” rather than,

“How long have you been walking in NY?” The tutor’s fourth clarification request (14: Level 1), this time in English, triggered learner B to explain that he had been trying to ask, “How long did it take you to get to NY by train?” With this meaning clear, the tutor provided assistance in vocabulary and pronunciation (16: “take the train”) which enabled the learner to reformulate his sentence into the correct question, “You took train took LE how many hours?” (17).

In this protocol, the tutor was talking to the learner in a friendly manner, trying to understand what he wanted to ask (i.e., focusing on the meaning, rather than the form) and did not offer any overtly corrective moves on the LE error. The collaborative meaning-making moves (07-13) acted as a source of implicit and unintentional EC, which was effective in assisting learner B to not only self-detect but also self-correct the LE error. Specifically, the several rounds of very implicit assistance triggered learner B’s thinking and elevated his ability to differentiate the sentence order of SHI.DE from that of LE. B’s responses (11, 13, 17), suggest that such implicit contingent assistance (Level 1) was most effective for high-ZPD learners.

Other non-verbal collaborative assistance was also found to be effective in triggering learner’s self-correction, when learner’s ZPD was high. Tutor’s Level 2 assistance, such as eyebrow movements, represented the most implicit assistance that was *intentionally*¹ EC. The purpose of Level 2 Treg was to inform the learner only that there *was* an error but intentionally *not* offer any clues of its location or nature.

Protocol 4.8 will demonstrate that Level 2 assistance (facial and body movements) was an important form of assistance and frequently used during the dynamic conversation, especially when learners A’ ZPD was relatively high.

Protocol 4.8

1 Treg Levels 2 through 9 were all used by the tutor to provide *intentional* EC.

01T	那,你是什么时候出生的呢?	01T	In that case, You SHI when born DE?
02A	去,去,我出生, eh..., 1885 (laugh) 我太老,我去,去, (re-focus the gaze at the tutor)	02A	go, go, I born, eh..., 1885 (laugh) I [am] too old. I go, go (re-focus the gaze at the tutor)
03T	出 (pronunciation)	03T	go-out (pronunciation)
04A	出	04A	go-out
05T	出生 (pronunciation)	05T	born (pronunciation)
06A	出生, <u>我出生 1985 年了。</u>	06A	born, <u>I born [for] 1985 year.</u>
07T	(Raising eyebrow) (2)	07T	(Raising eyebrow) (2)
08A	我是::: 18 (laugh) <u>我是 19, 85 年出生的。</u>	08A	I SHI::: 18, (laugh) <u>I SHI year 1985 born DE.</u>

Protocol 4.8 illustrates that the tutor's raising her eyebrows (07) successfully triggered learner A to correct the SHI..DE error (08). When the tutor elicited SHI..DE in the question (01) (*Lit.* "You SHI when born DE?"), following tutor's assistance in pronunciation (03), the learner attempted to respond (06) but in her answer misapplied LE ("I was born [for] 1985 years") in what should have been a SHI..DE sentence (*Lit.* "It was in year 1985 that I was born."). When the tutor raised her eyebrows (07: Level 2), the learner was able to immediately self-correct (08).

During the oral conversation, body movements (i.e., facial, hand) were capable of not only generating learner's self-questioning and self-correction but, especially for higher ZPD learners, were an effective form of EC. Notably, similar body movement on the part of the *learner* (02, where learner A shifted her gaze from looking off, into the distance, to looking directly at the tutor) was equally effective in invoking tutor's assistance (03). Because the tutor and learner were found to be *very attentive* to each other's needs in the oral conversation, even visual cues were sufficient to trigger assistance from the tutor and self-correction from the learner.

Protocol 4.7 and Protocol 4.8 have demonstrated that requests for meaning clarification (Level 1) and non-verbal assistance (Level 2) were successful for high ZPD learners. While

collaborative EC also worked for lower ZPD learners, Protocol 4.9 will demonstrate that more explicit assistance was required.

Protocol 4.9

01T	你现在常常练习说中文吗？	01T	[Do] you often practice speaking Chinese?
02B	现在我常常练习说中文。	02B	Now, I practice Chinese often.
03T	你跟谁说中文？	03T	With whom [do] you practice it?
04B	跟谁？我用录音带，我不跟别的人说中国话。	04B	With whom? I use tape, I [do] not practice Chinese with others.
05T	你没有中国朋友吗？	05T	Don't you have Chinese friends?
06B	eh..., eh..., 我有中国朋友，中国朋友不在这儿，在别的地方。	06B	eh..., eh..., I have Chinese friends, Chinese friends are not here, at other places.
07T	在什么地方？	07T	At what place?
08B	在什么地方，他们在 eh..., 别的学校，我有一个朋友从 eh.... <u>Hong Kong</u> , 他::: (silence)	08B	at what place? They are at, eh..., other schools, <u>I have a friend from, eh..., Hong Kong, he :::</u> (silence)
09T	你的朋友::: (4)	09T	your friend::: (4)
10B	从 Hong Kong 到这儿来。	10B	from, <i>Hong Kong</i> , come (to) here
11T	他以前来，是 ‘past’, 对不对？(5)	11T	he came before, [It] is ‘past’, right? (5)
12B	‘了’？我不懂。	12B	[Is it] ‘LE’? I don't understand.
13T	It is past emphatic. It was from Hong Kong that he came from. So you should use “SHI..DE” to emphasize the place, right? (7)	13T	<i>It is past emphatic. It was from Hong Kong that he came from. So you should use “SHI..DE” to emphasize the place, right? (7)</i>
14B	我不知道。	14B	I don't know.
15T	Do you remember the structure we have learned “SHI..DE” ? (7)	15T	<i>Do you remember the structure we have learned “SHI..DE” ? (7)</i>
16B	(silence)	16B	(silence)
17T	What is the function of SHI ...DE (9)	17T	<i>What is the function of SHI ...DE (9)</i>
18B	to emphasize	18B	<i>to emphasize</i>
19T	emphasizing when you did it	19T	<i>emphasizing when you did it</i>
20B	where you did it	20B	<i>where you did it</i>
21T	with whom you did it	21T	<i>with whom you did it</i>
22B	how you did it	22B	<i>how you did it</i>
23T	from where he came. Is that right?	23T	<i>from where he came. Is that right?</i>
24B	是，所以:::	24B	Yes, therefore:::
25T	所以，你的朋友::: (4)	25T	therefore, your friend::: (4)
26B	所以，我的朋友是从 <u>Hong Kong</u> 来的。	26B	therefore, <u>my friend SHI from Hong Kong, came DE.</u>

Protocol 4.9 shows that the explicitness of tutor's assistance (line 09 to 25) was keenly adjusted to learner B's ZPD. That is, the tutor can be observed probing and adjusting the explicitness of her assistance moment-by-moment such that her assistance is always appropriate for the learner's need.

In this protocol, learner B was trying to say that his friend came from Hong Kong (26: *Lit.* "He SHI from Hong Kong come DE") but he not only omitted SHI..DE but also stopped short of completing the sentence (08). Because the SHI..DE error occurred at the very beginning of the first TS – before the learner had much chance to use it – the tutor offered Level 4 assistance (09; repeated the subject, giving B another chance to complete his sentence) which overtly made the learner aware of the error. While this Treg was sufficient to help B complete his sentence (10), he did not realize that, instead of LE which he used, to express his meaning in this particular context, SHI..DE was appropriate.

When the tutor's relatively implicit assistance failed (09: Level 3), she pointed out the error's nature (11: Level 5, hinting that the SHI..DE marker should be used), alas, also in vain (12). Trying to remind the learner of the past emphatic structure, the tutor further raised the regulatory level by explicitly pointing out that SHI..DE was appropriate to emphasize where his friend had come from (13, 15: Level 7) but the learner, again, responded that he did not understand (14, 16).

At this point, the tutor was left no choice but to use the most explicit assistance (17: Level 9, review the function of SHI..DE). Somewhat surprisingly¹, the learner not only remembered that SHI..DE was used "to emphasize" (18) but was also able to collaboratively enumerate (19 to 23) the five *other* situations where it was appropriate, which he had memorized from the

1 The fact that the learner *did know* the grammar form *and* the grammar meaning but did *not* know *when to use* it will be the fully discussed in Chapter Five.

textbook. As soon as the tutor established that the learner knew the meaning of SHI..DE, she lowered the explicitness of assistance back to Level 4 (25) by repeating the subject and waiting for the learner to self-correct, which he was able to do (26).

The researcher wishes to stress that each instance of Treg was collaboratively or jointly determined through dialogue. That is, the tutor's level of assistance (Treg) was in direct response to the learner's responsive moves. The learner was *not* a passive recipient of correction, indeed, even when not responding (12, 14, 16), B was actively involved in the thinking process and indicated to the tutor what he did and did not know. It was precisely this feedback (in response to the tutor's probing) that allowed the tutor to provide appropriately-explicit assistance (09, 11, 13, 15, 17).

Protocol 4.9 also demonstrates that the tutor, by asking general questions – to give clues of the nature of the error – provided the cognitive structure which helped the learner concentrate on the problem-area *without* having to directly provide the correct answer. As soon as the tutor realized that the learner was capable of solving the problem (lines 18 to 24), her regulatory level immediately dropped (25: Level 4) which allowed the learner to reflect on his understanding and self-correct (26).

Protocol 4.7 to Protocol 4.9 have demonstrated how the tutor's EC, categorized into Nine Regulatory Levels (Treg), provided the assistance (other-regulation) to the learner who was initially incapable of using TG correctly. The tutor's EC helped the learner notice the error; restructure his or her understanding of the particular grammatical structure involved; And, eventually trigger learner's attempt to self-correct. Each Treg level was based on the learner's ZPD, probed during the oral interaction and it was by participating in this goal-oriented, dialogic

interaction that the learner was assisted in moving from his or her actual level to his or her potential level.

In the next section, the researcher will answer the First Research Question.

4.5. DISCUSSION AND ANSWER TO THE FIRST RESEARCH QUESTION

In this chapter, the researcher described the oral conversation within which the tutor provided assistance to the learner. The researcher also described the two types of assistance that the tutor was found to provide: a) tutor's regulation in participation (RinP) challenged and assisted each learner to improve their participation within the oral conversation within their ZPD; and, b) tutor's error correction (EC), which was the *original* subject of this study, provided contingent assistance on grammatical forms elicited in the oral conversation. That is, the tutor's EC was found in the smaller collaborative frame which was situated within the larger collaborative frame of the oral conversation.

While the oral conversation was, in essence, an inter-personal communication of meanings between the tutor and the learner, it was also goal-oriented activity where the tutor provided contingent EC to help the learners correct their use of three TG and assisted them to ask questions because initiation would be a requirement of the final exam. However, at the start of the first TS, the beginning learners were responding with memorized short sentences or phrases and the tutor, for the moment, was forced to abandon aspirations of either eliciting TG or initiation because both were *beyond* the learners' ZPD.

The solution to the Tutor's Dilemma was through assisting and challenging the learner to consistently respond with complete sentences. Once this *basic conversation* was established, both the elicitation of TG and its EC were possible *without* overloading the learner – i.e., within the learner's ZPD.

In the oral conversation, the researcher found that while both types of the tutor's regulation were collaborative processes and always provided within the learner's ZPD, their application *differed*. That is, the tutor's collaborative EC offered the most implicit or general help and efficiently increased that help by providing more specific help until optimal help was reached – “the *minimal* level which could trigger the learner to take responsive action and self-correct” (Aljaafreh & Lantolf, 1994, p. 112) was provided. When regulating the learners participation, on the other hand, while the tutor still provided the minimal level of assistance sufficient to help the learner participate in the activity, the tutor challenged or *pushed* the learner to achieve a higher level of performance when the learner was deemed to be capable – e.g., when learner was responding in words, the tutor assisted the building of phrases and challenged for a complete sentence; later, when learner was responding in sentences, the tutor assisted with conjunction words and prolongations and challenged for a narration, etc..

The tutor's RinP was found to be directed towards three goals: a) answering tutor's questions and volunteering more information – *elaboration*; b) taking the leading role in the conversation by asking questions of the tutor – *initiation*; and, c) using appropriate grammar to structure these elaborations and initiations – *elicitation* of TG.

Because, in the oral conversation, the learner's participation was found to be directly tied to the instances that the TG was elicited, the tutor's regulation of both participation and EC was instrumental in helping learners improve in *both*. That is, more TG could be elicited when more meaning was being co-constructed in the oral conversation. The learners' appropriation of these two inseparable types of regulation will be treated in the next chapter.

The researcher will now answer the second part of the First Research Question by demonstrating one partial similarity and many differences between correcting grammar errors

which occurred within the same oral interaction and those which occurred in pre-written composition but were corrected in a subsequent spoken tutorial.

Notably, the only similarity between the two studies (i.e., between the tutor's EC in the spoken tutorial of this study vs. the tutor's EC in the spoken tutorial of the study by Aljaafreh and Lantolf, 1994) was that the EC was collaboratively negotiated and contingent to the learner's need. That is, the tutor assessed the learner's ZPD and provided the minimal level of EC needed to help the learner recognize the error and self-correct.

The tutor's assistance differed in *all other* respects, in the spoken tutorial of both studies, because the origin of the errors in each study was so vastly different. Put figuratively, in the spoken tutorial of this study, the participants worked to *not only* dynamically “compose” a story *but also* correct any errors emergent in the collaboration. On the other hand, in the spoken tutorial of errors in a pre-written text, the participants were only involved in correcting a “list” of errors. The researcher has summarized the key comparisons in Table 4.4.

In the next chapter, the researcher will demonstrate the learners' appropriations of the tutor's EC and RinP, within and across the tutorial sessions. Specially, the researcher will demonstrate how the tutor's RinP enabled learner to take more responsibility in elaborating and initiating the conversation, and how this improving participation provided increasing contexts for the natural co-elicitation of the three TG and the appropriation of tutor's EC therein.

Table 4.4: Summary of the answer to second part of the First Research Question

Study	Tutor's assistance, during spoken tutorial, on grammatical errors which occurred within the <i>same</i> oral conversation (this study)	Tutor's assistance, during spoken tutorial, on grammatical errors which occurred in a pre-written composition (e.g., Aljaafreh and Lantolf, 1994)
Participants	Beginning Learners of Chinese (L2)	Beginning Learners of English as a Second Language (ESL)
Setting	Oral Conversation; Collaborative correction of emergent errors	Written Composition; Collaborative correction of pre-written errors
Setting Characteristics		
Contexts (Meaning)	Emergent (co-constructed by tutor and learner)	Pre-Written/Pre-Existing
Grammar Errors	Emergent	Pre-Written/Pre-Existing
EC	Emergent; Must be Efficient; Meaning-oriented; Within Error Context	Emergent; Not Applicable; Meaning-oriented; Not within Error Context
Assessment	Tutor co-elicits TG	Not Applicable
Learner's Focus	Meaning and Form competition; only Form during EC	Meaning or Form; limited Meaning and Form competition; only Form during EC
Tutor's Focus	Meaning for Form <i>and</i> Meaning for Response competition	Meaning for Form only

5. ANSWER TO THE SECOND QUESTION

Research Question Two: How does the tutor's assistance change within and across tutorial sessions and what is the relationship of the assistance to the learners' oral production of the three grammatical structures in Chinese?

Chapter Four introduced the tutor's two types of assistance, regulation in participation (RinP) and error correction (EC), and demonstrated how this assistance helped the learners move from their actual to potential levels by the way of microgenetic analysis of single, isolated episodes.

In this chapter, the researcher will investigate the relationships between the tutor's two types of assistance and the learner's corresponding appropriation processes through ontogenesis within and across the episodes of the nine weeks of tutorial sessions. Specifically, the researcher will explore the learner's increasingly accurate use of the three TG through decreasing need for the tutor's EC assistance (Treg) *within* the learner's increasing role for elaborating, initiating, and eliciting TG during participation in the oral conversation.

First, the learners' increasingly-accurate use of the three TG will be presented through protocol analysis (Section 5.1) combined with graphs which will help visualize the overall trends of the tutor's changing EC and the learners' appropriation (Section 5.2). And, the learners' appropriation of RinP will be demonstrated through protocol analysis (Section 5.3) combined with graphs showing their increasing role for elaborating, initiating, and eliciting TG in the oral conversation (Section 5.4).

Second, the learner's self-reflections, in the form of Pre-Study and Post-Study Questionnaires, will provide an alternative viewpoint of their appropriation of the tutor's two types of assistance (Section 5.5). While these questionnaires were not *designed* to assess “participation”, per se, they will offer convincing proof that this appropriation did take place. Third, the researcher will present evidence for each learner possessing multiple ZPDs in the oral conversation and that these levels must be considered together when providing assistance (Section 5.6).

Finally, the researcher will discuss the inter-dependence between the tutor's EC and RinP and answer the Second Research Question (Section 5.7).

In the next section, the researcher will present the changes in the tutor's EC and the learner's appropriation process.

5.1. APPROPRIATION OF ERROR CORRECTION

Thus far, the researcher has introduced the Tutor's Regulatory Levels (Treg) in the spoken setting and demonstrated that a) these levels of differently-explicit assistance were provided during the collaboratively-negotiated EC and b) they elevated the learner's understanding and use of the TG within each episode (Section 4.4).

In this section, the researcher will employ Aljaafreh and Lantolf's (1994) developmental criteria to demonstrate the learners' appropriation of the tutor's EC through: a) the decreasing Treg within one session and across sessions; b) the occurrence and development of the learner's understanding of applying TG in subsequent context in terms of responsive moves and meta-comments; and c) the elimination of TG errors. That is, it is through these three developmental criteria that the transition from tutor-regulated TG use to self-regulated TG use will be observed.

The protocol analysis revealed that the First Tutorial Session (TS) was marked with multiple instances of high-level Treg but that their frequency and level began to decrease within the first session and the learners began to demonstrate an increasing understanding of the functional use of TG. Subsequent TS showed that the learners' need for Treg gradually dropped as they only assumed more responsibility for correctly using the TG by applying the new-found grammatical knowledge to subsequent contexts.

In other words, while the learners initially demonstrated a nearly-total dependence on the tutor, starting within the first TS, that dependence began to wane and continued to fall across the sessions. These protocols are, essentially, the proof of the transition from tutor-regulated correction to self-regulated correction.

The researcher will also demonstrate that ZAI, which has a counterpart in English, had a very different pattern of appropriation than either SHI..DE and LE, which both lack a counterpart. That is, the learners will be shown to *be aware* of the contexts where ZAI was and was not appropriate and predominantly need EC with the particular sentence-order for ZAI. Conversely, the learners will be shown to *be unaware* of the contexts where SHI..DE and LE was and was not appropriate and that they needed EC with contexts *and* with TG form.

Thus, while the appropriation of TG *with* an English counterpart will be demonstrated with four (4) protocols of learner B's appropriation of ZAI across tutorial sessions, because the learners' needed considerably more EC for TG without an English counterpart, learner A's development in using SHI..DE will be shown with eight (8) protocols across tutorial sessions, as detailed in Table 5.1.

Table 5.1: Coverage of protocols for appropriation, within and across TS.

Learner & TG	Tutorial One	Tutorial Three	Tutorial Five	Tutorial Seven	Tutorial Nine
B using ZAI	Protocol 5.1	Protocol 5.2		Protocol 5.3	Protocol 5.4
A using SHI..DE	Protocol 5.5 Protocol 5.6	Protocol 5.7 Protocol 5.8	Protocol 5.9	Protocol 5.10 Protocol 5.11	Protocol 5.12

5.1.2.Learner B's appropriation of tutor's error correction in using ZAI

From the beginning of the first TS, because the meaning of ZAI is similar to the English “at” except that it can only be used with a location, both learners knew the meaning that ZAI expresses and were able to apply it in the appropriate contexts. Indeed, the learners’ predominant error was to adopt the English sentence-order, “I study at school”, instead of Chinese sentence-order, “I ZAI [at] school study”. Thus, because the learners were aware of the contexts in which ZAI was appropriate, the tutor’s focus was *mainly* on assisting with the grammar form – the different sentence-order.

Since both learners experienced the same problem and demonstrated similar appropriation processes, only learner B’s data will be presented. The first protocol will demonstrate that learner B needed the tutor’s comparatively-high Treg to recognize that using ZAI required attention to sentence-order.

Protocol 5.1

(The learner B is telling the tutor that he wants to work at State Department in Washington D.C.)

- 01T 那，你想在 **State Department** 做什么？(ZAI)
02B eh..., 你, eh...
03T 做什么工作？
04B 做什么？eh..., eh..., 我想工作在 eh..., State Department.
05T 我想::: (4)

(The learner B is telling the tutor that he wants to work at State Department in Washington D.C.)

- 01T **Then, you want [to] ZAI [at] State Department do what? (ZAI)**
02B eh..., you, eh...
03T do what job?
04B do what? eh..., eh..., I want [to] work ZAI [at], eh..., State Department.
05T **I want::: (4)**

06B	我想 State Department 做	06B	I want <i>State Department</i> do
07T	where does the place word ‘在’ go? (5)	07T	<i>Where does the place word ‘ZAI’ go? (5)</i>
08B	不知道。	08B	don't know.
09T	The place word goes in front of the verb. (7)	09T	<i>The place word goes in front of the verb. (7)</i>
10B	eh..., oh! 是!	10B	eh..., <i>oh!</i> Correct!
11T	我想::: (4)	11T	<i>I want::: (4)</i>
12B	<u>我想在 State Department 工作,</u> <u>对, 是。</u>	12B	<u><i>I want ZAI [at] State Department</i></u> <u><i>work, yes, correct.</i></u>
13T	你想在 State Department 做什么工作?	13T	you want ZAI [at] <i>State Department</i> do what job?

Protocol 5.1, which came from the beginning of the first TS, represents the third episode of learner B using ZAI. When the tutor asked B a ZAI question, the learner's only error was adopting the English sentence-order.

At the beginning of the conversation, the tutor asked what B wanted to do at the State Department. Learner B answered but adopted the English sentence-order, "I want [to] work ZAI [at] State Department" (04) instead of the desired, "I want ZAI [at] State Department work". When the tutor's hinting failed (05: Level 4), the tutor provided more explicit assistance by pointing out the nature of the error, "where does the place word go?" (07: Level 5) and, surprisingly, the learner did not know, "I don't know" (08). This left the tutor no choice but to provide the answer, "the place word goes in front of the verb" (09: Level 7). Learner B seemed to remember this, "oh, [it is] correct", but failed to self-correct (10) and needed the tutor's prompting (11: Level 4) to do so (12).

In the next protocol, the learner's need for the tutor's assistance with ZAI will be shown to have dropped to an occasional Level 2 Treg.

Protocol 5.2

01T	我们说话以后, 你做什么?	01T	After our talk, what do you do?
-----	---------------	-----	---------------------------------

02B	我想我会运动。	02B	I think I will exercise.
03T	你做什么运动?	03T	What exercise do you do?
04B	做什么?	04B	do what?
05T	做什么? (tone)	05T	do what? (tone)
06B	做什么? (murmur)	06B	do what? (murmur)
07T	做什么运动?	07T	do what exercise?
08B	eh..., ..., ... 我想, 我跑步, 是。	08B	eh..., ..., ... I think, I run, yes.
09T	你在哪儿跑步? 在街上吗? (ZAI-1)	09T	You ZAI [at] where run? ZAI [at] the street? (ZAI-1)
10B	对。 (a) 我在街上跑步。 (b) 我在 Nassau 街上跑步。	10B	yes. (a) I ZAI [at] the street run. (b) I ZAI [at] Nassau Street run.
11T	Nassau 街上的人会不会很多?	11T	Are there many people on Nassau street?
12B	eh..., ..., ...	12B	eh..., ..., ...
13T	你不喜欢在 Dillon Gym 跑步吗? (ZAI-2)	13T	You don't like ZAI [at] Dillon Gym run? (ZAI-2)
14B	eh..., Dillon Gym 里有 eh..., 很多, 很多人, 所以, 我喜欢跑步在 Nassau 街上。	14B	eh..., In Dillon Gym, there are eh..., many, many people, so, I like [to] run ZAI [at] Nassau Street.
15T	(Raising eyebrow) (2)	15T	(Raising eyebrow) (2)
16B	我喜欢在 Nassau 街上跑步。	16B	<u>I like ZAI [at] Nassau Street run.</u>
17T	街上 (tone)	17T	on the street (tone)
18B	我喜欢在 Nassau 街上跑步。	18B	I like ZAI [at] Nassau Street run.
19T	街上 (tone)	19T	on the street (tone)
20B	街上跑步。eh..., 我们说话以后, 你做什么?	20B	on the street run. eh..., After our talk, what do you do?

Protocol 5.2, which came from TS Three, shows that the learner is relatively comfortable using ZAI but occasionally makes errors, especially when he is preoccupied with the meaning.

In this protocol, the tutor elicited ZAI twice (09, 13). The first time, learner B answered correctly, “I ZAI [at] the street run” (10a) and elaborated, “I ZAI [at] Nassau Street run” (10b), also correctly. However, the second time, learner B’s elaboration employed the English sentence-order, “I like [to] run ZAI [at] Nassau Street” and only implicit EC (15: Level 2) was needed to trigger B’s self-correction (16).

Compared to the previous protocol (Protocol 5.1), learner B required much less explicit assistance – B knew the sentence-order and where the ZAI marker should be placed but made the mistakes because he was preoccupied with *something else*.

In the next protocol, B will be shown to no longer need the tutor's assistance with ZAI.

Protocol 5.3

01B	我们...说...话了以后,你:::做什么?	01B	After we...talk, you::: do what?
02T	我还有‘中文桌子’。	02T	I still have to go to ‘Chinese Table’.
03B	‘中文桌子’, eh...	03B	‘Chinese Table’, eh...
04T	今天晚上我得去‘中文桌子’。	04T	This evening, I have to go to ‘Chinese Table’.
05B	‘中文桌子’在哪儿?	05B	Where is ‘Chinese Table’ held?
06T	在 Rocky (student cafeteria)	06T	ZAI [at] Rocky (student cafeteria)
07B	在 Rocky	07B	ZAI [at] Rocky
08T	你不吃饭吗?	08T	You don't eat?
09B	eh..., (a) 我 :::, <u>我不吃...饭在 Rocky,</u> 我, 我不在 Rocky, (b) <u>我不在 Rocky 吃饭。(ZAI)</u>	09B	eh..., (a) I :::, <u>I don't eat ... ZAI [at] Rocky,</u> I, I [do] not ZAI [at] Rocky, (b) <u>I [do] not ZAI [at] Rocky eat. (ZAI)</u>
10T	你不在 Rocky 吃饭, 你也可以去 Rocky, 跟我们说中文。	10T	You [do]not ZAI [at] Rocky eat, you can still go to Rocky to speak Chinese with us.
11B	eh..., 我可以去 Rocky, 对	11B	eh..., I can go to Rocky, yes.
12T	你可以?	12T	You can?
13B	可是, 我想, 我...会睡觉.	13B	but, I think, I ...will sleep.
14T	睡觉, m! 你昨天晚上没睡觉吗?	14T	sleep, m! Didn't you sleep last night?

In this protocol, which came from TS Seven, it was learner B who was not only initiating the conversation but also consciously self-regulating his use of ZAI throughout.

In this co-constructed conversation, the learner and the tutor were both initiating and elaborating. In response to the tutor's question, “don't you eat [dinner]?” (08), learner B provided an English sentence-order response, “I [do] not eat [dinner] ZAI [at] Rocky [Cafeteria]” (09a) but then, immediately, took it back and self-corrected “I [do] not ZAI [at] Rocky eat [dinner]” (09b).

The next protocol will show that, by TS Nine, the learner's conscious self-regulation of ZAI sentence-order had become habitual.

Protocol 5.4

01T	你常常回家吗?	01T	Do you go home often?
02B	eh..., 我:::, 我不常常回家, 可是, 我, 我想, 我的妈妈 eh..., 不干净	02B	eh..., I:::, I don't go home often. But, I, I think, my mom, eh..., not clean

03T	什么?	03T	what?
04B	不干净 eh..., 不高兴	04B	not clean, eh..., not happy
05T	Oh! 不高兴	05T	Oh! Not happy
06B	(laugh) 不是‘不干净’, eh..., 是‘不高兴’。	06B	(laugh) not ‘not clean’, eh..., is ‘not happy’.
07T	Oh! (laugh) 不高兴, 那, 你什么时候回家?	07T	Oh! (laugh) not happy. Then, when do you go home?
08B	eh..., 不知道, eh..., 我, 我在:::, 我在家觉得:::不舒服。(ZAI-1)	08B	eh..., don't know, eh..., I, I at:::, I <u>ZAI [at] home feel::: not comfortable.</u> (ZAI-1)
09T	为什么?	09T	Why?
10B	为什么? 在:::, 在家, 我:::, 我不忙, 所以, 我, 我觉得不舒服。很奇怪。我:::, 常常, 我在这儿, eh..., eh..., 有很多功课。(ZAI-2)	10B	Why? at:::, at home, I:::, I am not busy, so, I, I don't feel comfortable. Very strange. I:::, often, I <u>ZAI [at] here, eh..., eh..., have a lot of homework.</u> (ZAI-2)
11T	功课 (tone)	11T	homework (tone)
12B	功课, eh..., eh..., 所以, 我回家的时候, 没有功课, 我不喜欢这个:::, ...,	12B	homework, eh..., eh..., so, when I go home, I don't have homework, I don't like it:::, ...,
13T	那你为什么, 你可以把功课拿到家里做呢?	13T	Then. Why, you can take your homework and do it at home?
14B	拿到家里, eh..., 好, 我想, 可是, 可是不一样	14B	take it home, eh..., good, I think, but, but, not the same.
15T	为什么?	15T	Why?
16B	我在家不能工作, (ZAI-3) 所以, 我:::, 我只回家:::了几天。	16B	<u>I ZAI [at] home can't work.</u> (ZAI-3) so, I :::, I only went home, eh..., eh..., for several days.

In this protocol, which came from the final TS, learner B is elaborating that his mother was unhappy because he doesn't visit her often and used ZAI thrice, naturally and correctly.

In this protocol, the learner was explaining that he does not go home often because, “I ZAI [at] home [do] not feel comfortable” (08). Indeed, he really can not be happy without homework, “I ZAI [at] here have many homework” (10c) which he clarified, “When I go home, I do not have homework, so I do not like it” (12). And he could not bring his homework home because, “I ZAI [at] home can't work” (16).

Learner B's need for the tutor's EC decreased rapidly – from Level 7 in TS One (Protocol 5.1), to Level 2 in TS Three (Protocol 5.2), to consciously self-regulating and self-reformulating,

in TS Seven (Protocol 5.3), and, finally, to correctly using ZAI during the oral interaction, in TS Nine (Protocol 5.4) – implies that the tutor's EC was effective and that ZAI was relatively simple.

ZAI was “simple” because the learner already knew the contexts where ZAI was appropriate. Thus, the tutor’s EC was directed predominantly to helping him use the correct ZAI sentence-order. The researcher will now demonstrate that TG lacking an English counterpart had a much more arduous appropriation process because the form was only a *small* part of the learners' needs.

Only appropriation of the TG SHI..DE will be demonstrated with protocol data for learner A because the appropriation of the TG LE was found to be of similar¹ nature for both learners.

5.1.3.Learner A’s appropriation of tutor’s error correction in using SHI..DE

While the tutor's EC towards learner B's use of ZAI focused almost entirely on assistance with the sentence order, in this section the researcher will demonstrate that SHI..DE was much more problematic for learners. That is, the protocols will show that even after the learner knew the SHI..DE's form, A needed the tutor's continued and extensive EC to build a cognitive understanding between the contexts and the TG to express a certain meaning – i.e., contexts where SHI..DE was and was not appropriate to express the learner's meaning.

In the next protocol, learner A will be shown to know the form of SHI..DE but be unaware of the contexts where it was and was not appropriate, thus, needing the tutor's high Treg.

1 Figures 5.3 to 5.6, in Section 5.2, will further demonstrate the learners’ appropriation of SHI..DE and LE.

Protocol 5.5

01T	今天怎么样？	01T	How are you today?
02A	今天我有中文考试。	02A	I have Chinese exam today.
03T	在哪儿？(SHI) (ZAI)	03T	ZAI [at] where? (SHI) (ZAI)
04A	<u>在Frist eh..., 3... 0..., ... 9... 考试</u>	04A	<u>ZAI [at] Frist, eh..., 3... 0..., ... 9... have exam</u>
05T	(Raising eyebrows) (2)	05T	(Raising eyebrows) (2)
06A	eh?	06A	eh?
07T	那是‘past’, can you give me the structure? (5)	07T	That is, ‘past’, can you give me the structure? (5)
08A	so, 我有考试以前, 以前, 我有中文课。	08A	so, before I had exam, before, I had Chinese class.
09T	你是在哪儿考试的？(SHI)	09T	You SHI ZAI [at] where had exam DE? (SHI)
10A	以前, 我在Frist 309 考试。	10A	before, I ZAI [at] Frist 309 have exam.
11T	It is past emphatic, you should use 是...的? (6)	11T	It is past emphatic, you should use SHI..DE? (6)
12A	Oh! That one?	12A	Oh! That one?
13T	Yeh.	13T	Yeh
14A	Okay. 我 ..., 我..., 在, 我是 <u>在Frist 309 (silence)</u>	14A	Okay. I ..., I..., at, <u>I SHI ZAI [at] Frist 309 (silence)</u>
15T	考试, 考试是 verb	15T	have exam, ‘have exam’ is verb
16A	<u>考试的。</u>	16A	<u>had exam DE.</u>
17T	那, 你昨天晚上学中文了吗?	17T	Then, [did] you study Chinese last night?
18A	eh..., (laugh) 对, so, 昨天晚上, use that thing? Or not? Should I use the structure? When do I use it?	18A	eh..., (laugh) right, so, last night, use that thing? Or not? Should I use the structure? When do I use it?
19T	Tell me the function of “是...的” ? (9)	19T	Tell me the function of ‘SHI..DE’? (9)
20A	It emphasizes place and time.	20A	It emphasizes place and time.
21T	Are you emphasizing anything in this sentence? (9)	21T	Are you emphasizing anything in this sentence? (9)
22A	I could be	22A	I could be
23T	Let’s see, 你昨天晚上学中文了吗? Am I emphasizing? (9)	23T	Let’s see, Did you study Chinese last night? Am I emphasizing? (9)
24A	我昨天晚上学中文	24A	I studied last night
25T	了*	25T	LE*
26A	了	26A	LE
27T	You are not emphasizing. It is just a yes or no question, saying that “Did you study Chinese last night?” So, no “是...的”right? (9)	27T	You are not emphasizing. It is just a yes or no question, saying that “Did you study Chinese last night?” So, no ‘SHI..DE’, right? (9)

28A (a) 对，我学中文了。可是，
 (b) 我起来...., 可是，五点起来今天。(SHI)
 29T Oh! 你今天五点起来！
 30A 我今天五点起来。
 31T **This is the ‘time’ you should emphasizing. (9)**
 32A Now, I can see it. (laugh) 我是五点起来的。
 33T 真的！为什么那么早起来？

28A (a) Right, I studied Chinese. But,
 (b) I get up...., but, today 5 o’clock. (SHI)
 29T Oh! You today 5 o’clock get up
 30A I today 5 o’clock get up.
 31T ***This is the ‘time’ you are emphasizing. (9)***
 32A Now, I can see it. (laugh) I SHI 5 o’clock got up DE.
 33T Really! Why so early?

* While this particular use of LE is correct (25), as outlined in Section 3.2.2 (p. 42), only the “duration” meaning of LE was counted as TG in this study but not corrected until the Third TS. Also, the tutor was really after differentiating the context, in line 17, from the one where SHI..DE was just used (03) and did *not* consider learner’s utterance (26) to be an acceptable answer.

This protocol, which came from the first TS, demonstrates three early instances of learner A using and misusing SHI..DE. While the learner did *not* need the highest Treg to provide the correct linguistic form, she did require *several* instances of the *highest* Treg to understand that the meaning she was expressing in one context *did* necessitate the use of SHI..DE but another meaning in another contexts *did not* – i.e., differentiate where SHI..DE was and was not appropriate.

When the tutor skillfully posed the omitted question, “At where?” (03), the response implied SHI..DE without using the actual markers themselves and, thus, denied the learner any “hint” of *which* structure was appropriate. Predictably and incorrectly, learner A's answer, “[I ZAI [at] Frist 309 have exam” (04) *lacked* SHI..DE. The tutor first raised her eyebrows (07: Level 2) and then pointed out the nature of the error (09: Level 5). When even this level of assistance failed, the tutor revealed that this context called for SHI..DE (13: Level 6) which, together with vocabulary help, resulted in learner’s production of the correct SHI..DE sentence (14, 16).

In this protocol, the learner did not need tutor’s assistance with the linguistic form (14, 16) or the meaning that SHI..DE expressed – A was more than able to recite most of its function,

“It emphasizes place and time” (20). However, A's question, “[U]se that thing? Or not? Should I use the structure? When to use it?” (18) showed that she did not know the contexts where SHL.DE was and was not appropriate. To draw a connection between the linguistic form and the meaning SHL.DE expresses, on the one hand, and the contexts where it was applicable, on the other, for the remainder of the protocol (18-33), the tutor provided detailed discussion, explanation and two model instances (21, 23, 27, 31: Level 9) to co-construct the understanding of when to use SHL.DE.

This collaborative process continued when the tutor used learner's incidental information, “I had an exam [this] morning” (14 and 16) to pose a yes-no question, “[..] did you study Chinese last night?” (17). The learner started to answer (18) but hesitated and instead expressed her distress, “[...] When do I use it?” (18), in English. These explicit pleas for help convinced the tutor that A was *not* aware that just a yes-no answer was desired – i.e., nothing was being “emphasized”.

Knowing the source of A's confusion, the tutor involved the learner in a thorough and extensive discussion of the *differences* (27: Level 9) between the new context (17) and the previous one (03) in the hopes of raising the learner's understanding in differentiating the two contexts. However, the tutor was not done yet with her assistance because, when the learner later elaborated, “[...] I get up at 5 o'clock today” (28b), the tutor took the opportunity to *contrast* that context (31) with the previous one (17 to 27). The tutor's explicit EC, “This is the place you should emphasize” (31: Level 9) was intended to draw learner A's attention to the similarity between the third context (28) and the first one (03). This move clinched the learner's improved understanding, “Now, I can see it” (32) and led to self-correction (32).

This protocol showed that, by collaboratively co-constructing three *contrasting* contexts and providing EC *within*, the tutor guided the learner towards an improved understanding of the contexts where SHI..DE was appropriate and those it was not.

Also, this protocol clearly demonstrates that the tutor's assistance was finely tuned to learner's ZPD – when learner A did not know that SHI..DE should be applied (10), the tutor explicitly pointed out that fact (11: Level 6); when the learner was confused why SHI..DE should not be applied in the yes-no question of a past event (18), the tutor first reminded her of the function of SHI..DE (19-20), then questioned and explained why such a question was different from the function of SHI..DE (19-28). And, when an opportunity presented itself in learner's self-initiated context (28b), the tutor jumped on it (29) to even further contrast the use of SHI..DE (31: Level 5).

While taking the leading role in discussing and explaining why SHI..DE *was not* appropriate for the situation in 17 but *was* for that in 28b, the tutor was also actively involving learner A by asking various questions to check A's understanding. Learner A's responsive moves (08, 10, 18, 20, 22, 24) and meta-comments (06, 12, 18, 32) demonstrate her active thinking and understanding (12, 28a, 32).

From the beginning, the tutor's corrections were not oriented towards the linguistic form or meaning of SHI..DE because the learner had (more or less) successfully memorized these and could correctly apply the TG in a sentence. Instead, what the learner did not know was the contexts where SHI..DE was appropriate.

While Protocol 5.5 illustrated that learner A required the tutor's highest Treg to differentiate the contexts for SHI..DE, the next protocol, just four episodes later, will demonstrate that the learner needed lower Treg when applying SHI..DE to subsequent contexts.

Protocol 5.6

01T	昨天你睡觉了吗？	01T	[Did] you sleep last night?
02A	今天我睡七个小时。	02A	Yesterday, I sleep [for] seven hours.
03T	你是什么时候上床的？上床 go to bed.	03T	You SHI what time went to bed DE? ‘go to bed’ [means] <i>go to bed</i> .
04A	<u>我上床十二点。</u>	04A	<u>I go to bed 12 o’clock.</u>
05T	(raising eyebrows) (2)	05T	(raising eyebrows) (2)
06A	我十二点上床。	06A	I 12 o’clock go to bed.
07T	‘Yesterday’, it was past. (5)	07T	‘Yesterday’, it was past. (5)
08A	以前？	08A	before?
09T	It should be emphasizing. (5)	09T	It should be emphasizing. (5)
10A	Oh! (laugh) 我是:::, 我是十二点::: 的时候	10A	Oh! (laugh) I SHI:::, I SHI 12 o’clock
11T	十二点:::	11T	12 o’clock:::
12A	十二点 eh..., ...上:::	12A	12 o’clock, eh..., ...go:::
13T	上床	13T	go to bed
14A	上床	14A	go to bed
15T	是::: (hand-signaling for the other half of this TG) (8)	15T	SHI::: (hand-signaling for the other half of this TG) (8)
16A	的 (laugh)	16A	<u>DE</u> (laugh)
17T	对。	17T	Right.
18A	You are very visual. I could not use it.	18A	<i>You are very visual. I could not use it.</i>
19T	You will.	19T	<i>You will.</i>
20A	Better than I was.	20A	<i>Better than I was.</i>

In this protocol, learner A’s chief problem was recognizing when to apply SHI..DE, as her meta-comment indicates, “I could not use it” (18). However, here A only needed Level 5 Treg to notice that SHI..DE was applicable, as opposed to the drawn-out discussion, punctuated by Level 9 assistance, in the previous protocol (Protocol 5.5).

At the beginning of Protocol 5.6, learner A omitted SHI..DE from her answer (04) to tutor’s question, “When was it that you went to bed [last night]?” When implicit EC failed (05: Level 2), the tutor explicitly pointed out the nature of the error, reminding the learner that the event happened in the past, “Yesterday; it is past” (07: Level 5). Learner A failed to connect the “past” hint with the context for SHI..DE and tried to offer the time-word “before” (08). Instead

of increasing the Treg, the tutor reminded A that this context *also* called for “[..] emphasizing” (09: Level 5). The fact that this immediately triggered learner’s attempt at self-correction (10), indicates that A was consistent with her *incomplete* definition of SHI..DE as “It emphasizes place and time” (Protocol 1, line 20).

Near the end of this protocol, when the learner stopped (10) just shy of self-correcting – due to unfamiliarity with an *emergent* verb “go to bed” (14) – the tutor motioned with her hand for the missing “DE” while stressing the “SHI” marker (15: Level 8). Not only was the learner able to quickly self-correct (16) but A also remarked that she was amused by the assistance strategy, “You are very visual” (18). Learner A also contemplated that, while improving in performance “[I am] better than I was” (20), she still depended on the tutor’s assistance when using SHI..DE, “I could not use it [by myself]” (18).

In this protocol, learner A did not always immediately respond to the tutor’s EC because A did not *share* the tutor’s notion of what constituted an appropriate context for SHI..DE. That is, while learner A *did* immediately respond to the key-word “emphasizes”, her lack of a comparable response to the word “past” demonstrates that she still did not have a complete understanding of SHI..DE.

The next protocol will demonstrate learner A beginning to associate the tutor’s EC key-words “past” and “emphasizing”, the grammatical meaning these words imply, and the contexts appropriate for SHI..DE.

Protocol 5.7

01T	你是什么时候来普大的？（普林斯顿大学）(SHI)	01T	You SHI when came to Princeton University DE? (SHI)
02A	我 :::, 我 :::, so I just say 我来..., 我 03:::	02A	I :::, I :::, so I just say I come..., I 03:::
03T	年	03T	year

04A	<u>我 03 年来普大。</u>	04A	<u>I year 03 come to Princeton University.</u>
05T	(Raising eyebrows) (2)	05T	(Raising eyebrows) (2)
06A	Isn't that correct?	06A	<i>Isn't that correct?</i>
07T	You are saying the 'time', and it is 'past'. (5)	07T	<i>You are saying the 'time', and it is 'past'. (5)</i>
08A	so:::, <u>我是 03 年来普大的。</u>	08A	<i>so:::, I SHI year 03 came to Princeton University DE.</i>

In Protocol 5.7 (TS Three), learner A indicated attention to form when responding to the tutor's question on “past” experiences, “Which year was it that you came to Princeton University?” In fact, A prefaced her answer with the meta-comment, “so, I just say...” (02), suggesting that she was unsure of the TG to use. When the tutor provided implicit assistance (05: Level 2), the learner's question, “Isn't that correct?” (06) demonstrated that A still did not know that SHI..DE was required. To help, the tutor attempted to associate the context of learner A coming to Princeton with the fact that this event happened in the “past” (07: Level 5, “You are saying the ‘time’, and it is ‘past’”).

While the learner was able to properly insert SHI..DE (08), she did so only following the meta-comment, indicating uncertainty, “so...” (08). That is, while learner A's chief problem was still recognizing the contexts where SHI..DE was and was not appropriate, she had begun to give attention to the TG.

From Protocols 5.5 through 5.7, learner A had been guided to establish A connection between the trigger-words “past” and “emphasizing” and contexts where SHI..DE was appropriate. In the next protocol, however, the learner will be shown to demonstrate early signs of making this connection *without* the tutor's explicit “past” or “emphasizing” trigger-words.

Protocol 5.8

01T	你是在 New Jersey 出生的吗？ (SHI)	01T	You SHI ZAI [at] New Jersey born DE? (SHI) (ZAI)
02A	eh..., 我 :::, 出生..., 我出生..., 我 在 Ellington 出生.	02A	eh..., I :::, born..., I born..., I [was] ZAI [at] Ellington born.
03T	(Raising eyebrows) (2)	03T	(Raising eyebrows) (2)
04A	Did I say anything wrong?	04A	Did I say anything wrong?
05T	(nodding her head) (4)	05T	(nodding her head) (4)
06A	我 :::, oh! all is past	06A	I :::, oh! all is past
07T	(laugh)	07T	(laugh)
08A	I will realize we are doing past	08A	I will realize we are doing past
09T	You will.	09T	You will.
10A	我是，我是在 Ellington 出生的。	10A	I SHI, I SHI ZAI [at] Ellington born DE.
11T	你现在多大了？	11T	How old are you now?

Protocol 5.8, from TS Three, shows that learner A only needed relatively implicit EC to make the connection between the context and SHI..DE. Indeed, learner A will be shown to use the same trigger-words, that the *tutor* had used before, but now to regulate herself.

The protocol began with learner A answering the tutor's question, "Where was it that you were born?" (01) by omitting SHI..DE (02). The tutor only needed to provide two instances of low Treg (03: Level 2; and, 05: Level 3) *without* explicitly associating the trigger-words (i.e., "past" or "emphasizing") with the specific context.

The tutor's simple confirmation that the learner was in error (05), triggered A to demonstrate a new level of understanding (06), not seen before, in the independent realization, "Oh! All is past" (06) that her meaning took place in the past. That is, it was the *learner* who *internally* made the connection between the context and the trigger-word "past" (06) and then proceeded to self-correct (10). Learner A then followed it up with the meta-comment, "[In the future,] I will realize we are doing past" (08), promising that she will pay attention to the contexts for SHI..DE.

Through Protocol 5.5 to Protocol 5.8, the researcher has demonstrated that knowledge which was initially located in the tutor and surfaced in the dialogic interaction during the process of collaborative EC, started to become a part of the learner's repertoire. To paraphrase Vygotsky, it was during the dialogue of EC (the inter-mental activity) that the transition of mental functions or skills resulted in learner's appropriation (the inter-mental activity) – this transition took place from the social plane to the individual plane.

In the next protocol, learner A's understanding of SHI..DE will be shown to have advanced. However, A will be shown to still need the tutor's implicit assistance to remind her to use SHI..DE, *especially* when formulating questions.

Protocol 5.9

(Learner A is asking the tutor questions.)

- 01A 你去美国的时候, 是:::, 在, 去, eh...
 02T 来美国, 不是去美国
 03A Oh! 去中国, 来美国, 你来美国的时候, ..., ..., ... (SHI)
 04T **Do you want to ask the time? (1)**
 05A That also works. Okay . 对不起, 你::: 来美国?
 06T **What is the question? (1)**
 07A 的时候
 08T What time?
 09A yeh...
 10T 什么:::
 11A 什么时候
 12T yeh.
 13A so, 你 :::, 你 ::: 美国来什么时候?
 14T **(Raising eyebrow) (2)**
 15A 你来什么时候吗? 你什么时候来美国?
 16T **(Raising eyebrow) (2)**
 17A Oh! I forgot “是...的”. 你是什么时候来美国的?

(Learner A is asking the tutor questions.)

- 01A While you were in U.S., SHI:::, at, go, eh...
 02T come to U.S, not go [to] U.S.
 03A Oh! Go [to] China, come [to] U.S., while you come to the U.S., ..., ..., ... (SHI)
 04T **Do you want to ask the time? (1)**
 05A *That also works. Okay. Sorry, you::: come [to] U.S.?*
 06T **What is the question? (1)**
 07A while
 08T *What time?*
 09A *yeh...*
 10T *what:::*
 11A *what time*
 12T *yeh.*
 13A *so, you:::, you::: U.S. come what time?*
 14T **(Raising eyebrow) (2)**
 15A *you come what time? You what time come [to] U.S.?*
 16T **(Raising eyebrow) (2)**
 17A Oh! I forgot ‘SHI..DE’. You SHI what time came [to] U.S. DE?

- | | | | |
|-----|--|-----|---|
| 18T | (laugh) Does it make sense? | 18T | (laugh) <i>Does it make sense?</i> |
| 19A | It makes sense. It is just that I have to think about what I want to say. | 19A | <i>It makes sense. It is just that I have to think about what I want to say.</i> |
| 20T | You just have to use this structure to ask this kind of question. So, 我是 94 年来美国的。 | 20T | <i>You just have to use this structure to ask this kind of question. So, I SHI year 94 came [to] U.S. DE.</i> |

Protocol 5.9, which came from TS Five, shows learner A posing a question and unintentionally self-eliciting SHI..DE. Because initiation forced the learner to both originate the meaning (i.e., what to say) and the grammar form to express this meaning, learner A required extensive collaboration with the tutor (01 to 13) before she could ask the question, “What time was it that you came to the US?” (13), alas, not only omitting SHI..DE but also bungling the sentence-order and the time-word.

The tutor's implicit EC (14: Level 2) was sufficient to help the learner self-notice the erroneous sentence-order (15) but learner A needed another round of assistance (16: Level 2) to notice the incorrect grammar. A's meta-comment, “Oh, I forgot SHI..DE” (17), preceding the self-correction (17) indicated that, once alerted that something was amiss, she could now recognize that the context called for SHI..DE on her own. Indeed, learner A's subsequent meta-comment, “It makes sense. It is just that I have to think about what I want to say” (19), confirmed that, because A was focusing on the conversation (i.e., the meaning), she still needed the tutor's assistance to notice the errors (i.e., the form).

While learner A demonstrated an improved understanding in using SHI..DE, this protocol demonstrated that initiation was very challenging – the learner had to originate what to ask, come up with the necessary vocabulary, and structure everything into the correct SHI..DE question-form. For this reason, A not only needed the tutor's extensive assistance in vocabulary and sentence-order (01-15) but also experienced meaning and form competition, as indicated by her meta-comments, “Oh, I forgot...” (17) and “I have to think about what I want to say” (19).

The next protocol will demonstrate that learner A's understanding of SHI..DE had improved to the point that she could successfully self-correct with just the tutor's meaning clarification request.

Protocol 5.10

- | | | | |
|-----|---|-----|---|
| 01A | 你,你:::,你在,你 eh...,学英文在北京:::,的大学(SHI) | 01A | You:::, you at, you eh..., study English ZAI [at] Beijing's::: university. (SHI) |
| 02T | 对不起,你说什么?(1) | 02T | Excuse me, what did you say? (1) |
| 03A | eh...,我,你,你是 eh...,在北京的大学,学英文:::,:::的吗? | 03A | eh..., I, you, You SHI eh..., ZAI [at] Beijing's university, studied English :::,::: DE? |
| 04T | Oh!不是,我是在北京的中学开始学英文的。 | 04T | Oh! No. I SHI ZAI [at] a high school in Beijing started learning English DE. |
| 05A | 你总喜欢英文吗? | 05A | [Do] you always like English? |
| 06T | 对。 | 06T | Yes. |
| 07A | eh...,你,你为什么 eh...,喜欢学英文? | 07A | eh..., you, why [do] you, eh..., like [to] study English? |
| 08T | 我觉得我学英文学得很好,所以我喜欢学。你为什么学中文? | 08T | I felt that I studied English very well, therefore, I studied English. Why [did] you study Chinese? |

This protocol, from TS Seven, began with learner A constructing a question (01), which utilized English sentence-order and lacked the question-marker, thus, making it a statement and *not* a question. While the tutor's meaning-making move, “Excuse me, what did you say?” (02: Level 1) was *intended* to clarify whether the learner was asking or making a statement, learner A responded by not only inserting the question-word but also correcting the sentence-order and properly inserting SHI..DE!

This protocol shows that even *unintentional* stimulus could trigger learner A's self-correction, because her ZPD of using SHI..DE was higher than in the previous protocol (Protocol 5.9), where A required implicit but *intentional* EC.

In the next protocol, learner A will be shown to a) self-recognize contexts appropriate for SHI..DE; and, b) self-correct her utterance without *any* assistance from the tutor.

Protocol 5.11

- | | | | |
|-----|---|-----|--|
| 01T | 你喜欢看什么书？ | 01T | What book [do] you like [to] read? |
| 02A | 我 :::, 很多书, 我喜欢 science Fiction, 我喜欢, 我不喜欢 Science 的书. | 02A | I :::, many book, I like <i>science fiction</i> , I like, I don't like <i>science</i> book. |
| 03T | 你喜欢看 Harry Potter 吗？ | 03T | Do you like [to] read <i>Harry Potter</i> ? |
| 04A | 我喜欢。 | 04A | I like [it]. |
| 05T | 你是什么时候看的？ (SHI) | 05T | You SHI when read [it] DE? (SHI) |
| 06A | eh..., 我是:::, 我看 Harry Potter, can I say 我看 Harry Potter or is it I saw him? | 06A | eh..., I SHI:::, I read <i>Harry Potter</i> , can I say I read <i>Harry Potter</i> or is it I saw him? |
| 07T | 看是 look, 看书是 read. | 07T | 'look' is <i>look</i> , 'look book' is <i>read</i> . |
| 08A | Oh! Okay. 我看 <u>Harry Potter 书</u> .
Oh! It is wrong. <u>我是, 我是三年以前看的。</u> | 08A | <i>Oh! Okay. I read Harry Potter book. Oh! It is wrong. I SHI, I SHI three years ago read DE.</i> |
| 09T | 你三年以前看了五本 Harry Potter 的书吗？ | 09T | [Did] you read five books of Harry Potter three years ago? |

Protocol 5.11, from TS Seven, demonstrates the first instance where learner A consciously self-regulated SHI..DE without the tutor's EC. When the tutor asked "When was it that you read [Harry Potter]?" (05), learner A offered the complete sentence, "I read Harry Potter book" (08). Before the tutor could point out the lacking SHI..DE and time-word, learner A immediately took it back, "Oh, it's wrong" (08) and self-corrected, "I SHI three years ago read [Harry Potter] book DE" (08).

Learner A's meta-comment, "Oh, it's wrong" (08), clearly indicates that she understands a) when and how to use SHI..DE; and, b) that she was consciously monitoring her own speech – i.e., checking it for grammatical correctness. And, compared to the previous protocol (Protocol 5.10), where the tutor's meaning-making moves *unintentionally* triggered learner A's reconsideration, here A was capable of recognizing that the contexts called for SHI..DE and

forming the correct sentences entirely with self-regulation – an utterance appears; the learner re-evaluates it; and, in this case, consciously self-corrects.

The next protocol will demonstrate that learner A's overt self-regulation and meta-comments were disappearing and she was transitioning to covert self-regulation.

Protocol 5.12

- | | | | |
|-----|--|-----|---|
| 01T | 你说你星期六有跆拳道比赛，
你说说，好不好？ | 01T | You said [that] you had Tae Kwon
Do competition Saturday, [can]
you talk [about it]? |
| 02A | eh..., eh..., 我::: , (a) 我星期，
<u>我是星期六台拳:::比赛的。(SHI-1)</u>
Eh..., (b) 我跟 eh..., 我朋友 X，
跟跆拳道 club 去::: eh..., 我:::
<u>是跟跆拳道 club 去耶鲁的。(SHI-2)</u> | 02A | eh..., eh..., I::: , (a) I week,
<u>I SHI Saturday Tae Kwon Do:::</u>
<u>competed DE. (SHI-1)</u> Eh...,
(b) I with, eh..., my friend X, with Tae
Kwon Do <i>club</i> go::: eh..., I::: SHI
<u>with Tae Kwon Do <i>club</i> went [to]</u>
<u>Yale DE. (SHI-2)</u> |
| 03T | 耶鲁 (pronunciation) | 03T | Yale (pronunciation) |
| 04A | 耶鲁 | 04A | Yale |
| 05T | 耶鲁 (tone) | 05T | Yale (tone) |
| 06A | 耶鲁 | 06A | Yale |
| 07T | 你是开车去的吗？ | 07T | You SHI by car went [there] DE? |
| 08A | 我，我们开车了。我们，我们是:::eh...
<u>开 SUV 去的。(SHI-3)</u> 我，eh...,
我 eh..., 我去，我是六点，六点，no，
<u>我是六点，eh..., 早上六点去耶鲁的。</u>
(SHI-4) | 08A | I, we drove. We, <u>We SHI::: eh...,</u>
<u>drove SUV went DE. (SHI-3)</u> I,
eh..., I, eh..., I go, I SHI 6 o'clock,
6 o'clock, <i>no</i> , <u>I SHI 6 o'clock, eh...,</u>
<u>6 o'clock in the morning went [to]</u>
<u>Yale DE. (SHI-4)</u> |
| 09T | 耶鲁 (pronunciation) | 09T | Yale (pronunciation) |
| 10A | 耶鲁 | 10A | Yale |
| 11T | 对不起，你说什么？ | 11T | Excuse me, what [did] you say? |
| 12A | 我，我们::: 是::: eh..., 六点去耶鲁
的。 (SHI-4) | 12A | I, <u>we::: SHI::: eh..., 6 o'clock went</u>
<u>[to] Yale DE. (SHI-4)</u> |
| 13T | Oh! | 13T | Oh! |
| 14A | 可是，我，可是:::, eh..., eh..., 六点
eh..., 星期六，六点 eh..., 我没，没上，
我没起床，所以，X 给我打电话，
他:::, 他:::, 告诉我::: 他来，来，
来我的屋子。 | 14A | but, I , but, :::, eh..., eh..., 6 o'clock,
eh..., Saturday, 6 o'clock, eh..., I did
not, did not go, I did not get up, so, X
called me, he:::, he:::, told me:::he
came, came, came [to] my room. |

Protocol 5.12, which came from TS Nine, shows the tutor requesting learner A to narrate her trip to Yale University for a Tae Kwon Doe competition (01). The learner's narration was composed of correctly produced SHI..DE sentences, in a pattern reminiscent of previous sessions: when she did it (02), with whom she did it (02), how she did it (08) and, what time she did it (12).

Closer inspection, however, demonstrates that while learner A was *still* consciously regulating the use of SHI..DE, this self-regulation was notably different from that in the previous protocol (Protocol 5.11). Specifically, here, learner A was attempting to *simultaneously* balance the SHI..DE sentence-form *with* the meaning she was trying to express – getting her meaning across *and* repairing the SHI..DE sentence-form *along the way* (02a, 02b and 08).

In other words, because the tutor had helped the learner differentiate contexts where SHI..DE was and was not appropriate, A could attend to the meaning while also repairing the form. Supporting this observation was the significantly reduced quantity of learner A's English meta-comments – the private speech whose function was not to communicate but assist the self in problem-solving situations.

Although the tutor was still actively guiding the conversation (01), probing for learner's elaboration (07) and providing pronunciation (03, 05, and 09) and vocabulary assistance, learner A was manifestly a more confident language user, capable of *actively* narrating what had happened in her immediately-recent life while *accurately* using SHI..DE.

Through Protocols 5.5 to 5.12, the researcher demonstrated that learner A's need for EC when using SHI..DE gradually decreased within and across the sessions. That is, because SHI..DE lacks an English counterpart, the learner needed to learn the contexts where SHI..DE was and was not appropriate to express the “past” and “emphatic” meaning.

To transfer this contextual knowledge, the tutor co-constructed numerous contexts in the oral conversation where she engaged learner A to elicit SHI..DE. On the emergent errors, the tutor probed A's ZPD and provided appropriate levels of contingent assistance. And, by participating in the conversation, the learner had the opportunity to not only functionally use SHI..DE in many such contexts but also receive the tutor's EC, thus, gradually differentiating which contexts were appropriate for SHI..DE and which were not. In other words, by presenting analysis of the learner's appropriation for ZAI (Protocols 5.1 to 5.4) and SHI..DE (Protocols 5.5 to 5.12) in terms of the three developmental criteria, the researcher has provided robust evidence that the learners did appropriate both ZAI and SHI..DE.

That is, in terms of the first developmental criterion, the tutor's EC towards SHI..DE was shown to gradually decrease from detailed explanations and provision of examples (Level 9 in TS One); to pointing out the nature of the problem (Level 5 in TS Three); to reminding the learner to use the TG (Levels 1 and 2 in TS Five and Seven); to self-regulated correction and, eventually, correct use (Level 0 in TS Nine).

In terms of the second developmental criterion, the improvements in learner A's understanding of using SHI..DE in immediate and subsequent contexts were demonstrated through the analysis of her meta-comments and, later, her self-regulated corrections. At the beginning of TS One, learner A indicated that she did not know the contexts for SHI..DE, "When do I use it?" (18, Protocol 5.5). While the tutor's explicit EC (Level 9) elevated her understanding, "Now, I can see it" (32), she still struggled when trying to recognize SHI..DE contexts, "I could not use it" (18, Protocol 5.6); "Isn't that correct?" (06, Protocol 5.7) and "Did I say anything wrong?" (04, Protocol 5.8). Protocol 5.8 was the first to offer an early glimpse of learner A's self-regulation when she associated an event that happened in the past with the

context for SHI..DE in her meta-comment, “Oh, all is past!” (06, Protocol 5.8). Adding onto her knowledge that SHI..DE was “emphasizing”, this new understanding of “past” helped her consciously self-regulate the use of SHI..DE as indicated by later comments: “I forgot SHI..DE” (17 in Protocol 5.9) and “It is wrong” (08b in Protocol 5.11), until, in Protocol 5.12, the learner was capable of attending to both the meaning and the form *simultaneously* – without any EC from the tutor.

Finally, in terms of the third developmental criterion, learner A’s errors when using SHI..DE were shown to steadily decline through the sessions, a fact that will be even more apparent in Section 5.2, where the Treg will be graphed.

The researcher has also demonstrated that learner A’s improvement in self-regulation in using SHI..DE was accompanied by A’s increasingly more involved role in the oral conversation. In TS One and Three, it was the tutor who initiated the whole conversation and, within it, elicited questions that led to the learner’s functional use of SHI..DE. However, at that point the learner only *passively* provided SHI..DE. That is, learner A’s utterances were brief, repetitive, littered with hesitations, and, in general, A needed the tutor’s substantial assistance to utter a complete sentence with clear meaning in the conversation.

Indeed, learner A gradually volunteered more personal information, via elaboration (Protocol 5.11 and Protocol 5.12) and expressed interest in the tutor’s life by asking the tutor questions and leading the conversation (Protocol 5.9 and Protocol 5.10). This improving participation¹ made the conversation more spontaneous and, at the same time, made the contexts for the elicitation of SHI..DE an integral component of the conversation – A’s creative language

¹ This improving participation, and the tutor’s active proactive role in its development, will be the subject of Section 5.3.

use for self-expression became intertwined with her cognitive understanding and functional use of SHL.DE to structure those self-expressions.

While this section did provide evidence that the tutor's EC was appropriated by the learner, it also demonstrated that that “correction” was not so much towards corrective errors but modifying the learners' cognitive understanding. That is, the tutor *assessed* the learner's knowledge of a TG and then offered assistance intended to help the *learner* make the connection between what he or she *already knew* (e.g., SHL.DE was for “emphasizing”) and something he or she *did not know* (e.g., SHL.DE was for emphasizing a “past” event or action). The tutor's contingent help triggered the learner's thinking; guided the learner to understand the nature of the error; and, reason out the correct answer – the answer was not provided; only sufficient “hints” to help the learner arrive at the correct answer.

In other words, the tutor's contingent help empowered the learner to gradually become self-sufficient in understanding how to express their meaning by structuring the sentence with the appropriate TG. And the concept of ZPD provided access to the very process through which learners transitioned from tutor-regulated (inter-mental functioning) to self-regulated (intra-mental functioning).

Protocols 5.1 to 5.12 were selected to demonstrate the detailed information of the collaborative EC process in terms of how the step-by-step tutor's assistance triggered learner's moment-by-moment understanding and appropriation but they were not selected arbitrarily. Indeed, they were selected because they were *representative* of learner's development across the sessions. In the next section, by graphically plotting the highest level of tutor's assistance (Treg) from all episodes for the three TG, and also correlating the graph for SHL.DE with the protocol

analysis in this section, the researcher will provide additional evidence that these protocols did accurately reflect the learner's understanding.

5.2. EFFECTIVENESS OF ERROR CORRECTION

By analyzing select protocols within and across the sessions, the researcher demonstrated the gradual decrease in the explicitness of tutor's EC; the reciprocal increase in learners' self-regulation; and the elimination of the TG errors. In this section, to supplement the otherwise-incomplete view, the researcher plotted the highest Treg from all of the Categorized Episodes for both learners' functional use of the three TG in odd-numbered tutorial sessions (TS), generating six graphs¹. The trends of the tutor's Treg or EC for all TG were found to gradually decrease, in agreement with the protocol analysis of the previous section.

In some graphs, select data-points will be marked with a successively higher letter (starting with “D”, so as to avoid confusion with the two learners) to allow for easy reference to these points in the ensuing analysis. These letters will restart with “D” and, for data-points where a protocol is provided, the protocol's number will be appended to the letter – e.g., D5.1 in Figure 5.2.

Before the graphs are analyzed, the researcher will present the conventions used. Each graph will plot the tutor's Nine Regulatory Levels (Treg), on the vertical axis, within and across all of the odd-numbered tutorial sessions, on the horizontal axis, for one TG. Each data-point will be the highest value of Treg from the episode where the TG was elicited. Treg value of zero (0) will indicate correct usage by the learner and no EC from the tutor.

The graphs do show the frequency of EC episodes (and errors) and, while they do display a significant amount of information, it is important to remember that the picture they present is

¹ Learners A and B one each using the TG ZAI, SHI..DE, and LE or six graphs.

only as *complete* as the purpose is *suitable*. For one, the graphs show the *highest* value of Treg in any episode but not the *total* number of instances of Treg in that episode. In other words, while the protocols are suitable for analysis of the moment-by-moment development and the graphs are suitable for analysis of the overall trend of that development, the complete picture only emerges when both graphs and protocols are used in *conjunction*. That is precisely what the researcher has done in this study.

In addition, while the graphs were ideal to demonstrate two of the three criteria of language development (i.e., the falling of the Treg and the elimination of errors), the protocols were necessary to demonstrate the remaining criterion – i.e., the development of learner's understanding in applying grammatical structures in subsequent linguistic contexts. Thus, learner A's *overall* development of SHI..DE, as visualized in Figure 5.3, will be compared with her protocol data from the previous section. While this correlation will be presented only for Learner A's development in SHI..DE, the graphs for the remaining structures and learner B's development were derived in the same manner and with analogous results.

The researcher will next present the decreasing trend of tutor's EC towards learner A's errors in ZAI (Figure 5.1). It will be followed by similar treatment of ZAI for learner B. Then, this pattern will be repeated for SHI..DE and LE.

5.2.1.Improvement of learner A's functional use of ZAI across sessions

Figure 5.1 visualizes learner A's functional use of ZAI, as observed through changes in tutor's highest Treg levels from each episode of the odd-numbered tutorial sessions. The graph shows that the level of Treg dropped within and across the sessions and, in fact, dropped to zero by TS Five. This overall decreasing trend of tutor's assistance and the disappearance of learner A's errors in ZAI strongly suggests that tutor's EC of A's errors in ZAI was effective.

Figure 5.1 also shows that learner A never required the highest (9) Treg to help her correct an error. At the start of the first TS, the tutor only had to point out the nature of error (D: Level 5), for A to self-correct. This mid-level Treg dropped to Level 3 (E), then to Level 2 (F), and, eventually, errors entirely disappeared by TS Five.

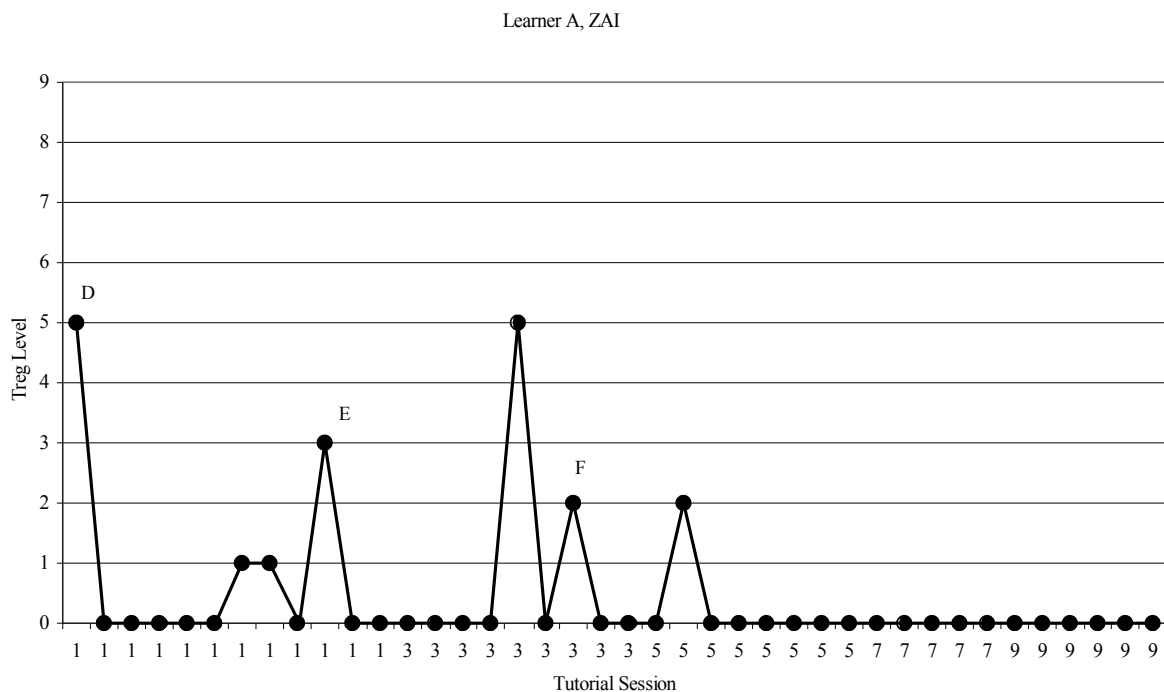


Figure 5.1: Improvement of learner A’s functional use of ZAI across sessions

5.2.2.Improvement of learner B’s functional use of ZAI across sessions

Figure 5.2 visualizes the changes in tutor’s highest Treg from all episodes in the odd-numbered tutorial sessions for learner B’s use of ZAI. The Treg dropped within and across the sessions, and was zero from TS Seven. This overall decreasing trend of tutor’s assistance and the disappearance of the learner’s errors in ZAI implies that tutor’s correction of learner B’s errors was also effective.

The same as learner A, this graph shows that learner B also never required the highest Treg. In the first TS, learner B needed the tutor's assistance in providing the correct linguistic form (D5.1: Level 7) before B was able to self-correct. Following this relatively explicit assistance, the Treg dropped to “hinting the use of ZAI by raising eyebrows” (E5.2: Level 2) and completely disappeared by the middle of TS Seven (for F5.3 and G5.4).

Both learners A and B exhibited a similar dropping trend of Treg. That is, both learners' need for the tutor's assistance dropped, implying that the EC was effective and that learners' functional use of ZAI improved. The rapid improvement shown in Figure 5.1 and Figure 5.2 was reasonable because ZAI was a) introduced in the preceding semester; b) did have an English counterpart, making it a *comparatively easier* structure.

As will be detailed in Section 5.3, the correct use of ZAI in TS Nine differed from that in TS one in that ZAI was found within the learner's self-elicitation and during the improved participation. That is, when the protocol analysis was referenced for D5.1, the particular use of ZAI was very different from that found in, for example, G5.4.

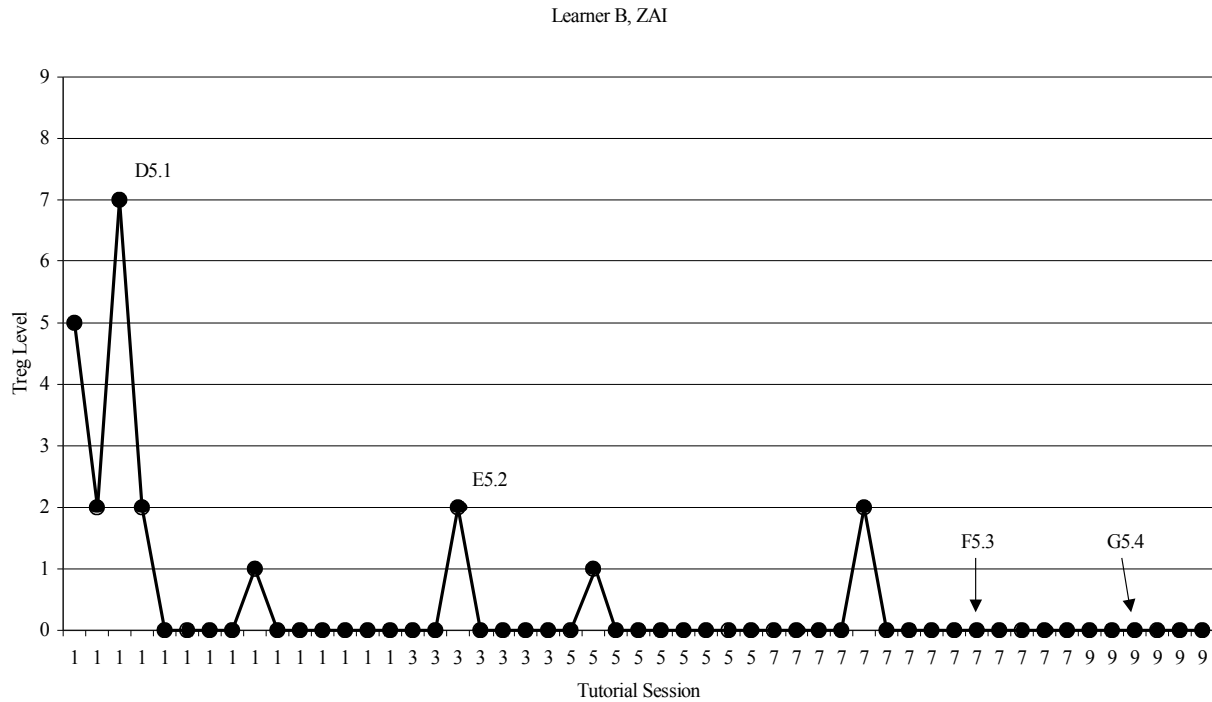


Figure 5.2: Improvement of learner B's functional use of ZAI across sessions

5.2.3.Improvement of learner A's functional use of SHI..DE across sessions

Unlike other graphs, the researcher will compare the data-points identified in Figure 5.3 with learner A's specific needs at certain moments by correlating with the protocol data from Section 5.1.

Figure 5.3 shows the changes in tutor's highest regulatory levels (Treg) towards learner A's use of SHI..DE from all episodes in the odd-numbered tutorial sessions. The Treg values corresponding with Protocol 5.5 to Protocol 5.12 have been identified with D5.5, E5.6, F5.7, G5.8, H5.9, I5.10, J5.11, and K5.12, respectively. While similar to the graphs for ZAI in that the Treg *eventually* did drop to zero – indicating that the tutor's correction of SHI..DE was effective – this graph differs from those for ZAI in three aspects: a) learner A *did* require the highest Treg

level; b) the Treg did *not* drop as rapidly as it did for ZAI; and c) the tutor and learner co-constructed many more contexts for SHI..DE.

During protocol analysis of the previous section, the researcher demonstrated that the highest Treg value (D5.5: Level 9) occurred because learner A did not know the contexts for SHI..DE, even if A *did* know how to form the correct sentence with SHI..DE and also knew its grammar meaning. That is, the paramount difficulty of English-speaking learners of Chinese was knowing which *contexts* were for SHI..DE and which were not (see Protocol 5.5).

The primary reason that the learner lacked the contextual meta-knowledge was that the TG SHI..DE does not have a counterpart in English (Section 3.2.2.1, p. 43) and, together with the fact that it was introduced in class just prior to TS One, the tutor was the learner's *sole source* of which contexts were appropriate for SHI..DE. Thus, even by F5.7 (Protocol 5.7) and G5.8 (Protocol 5.8), the learner was still largely dependent on the tutor's explicit EC (Treg 5), as supported by her meta-comment, "Use that thing? Or not? Should I use the structure? When do I use it?" (line 18 in Protocol 5.6).

In other words, because ZAI *does* have an English counterpart and was introduced to the learners in the preceding semester, learners not only could adapt the contextual meta-knowledge from English but also draw on their prior experience with ZAI. For these reasons, SHI..DE was a comparably more difficult structure and its trend in this graph demonstrates a much slower decrease than the graphs for ZAI.

The learner's *gradually* improving understanding of where to use SHI..DE can also be seen when 'groups' of repeating levels in Figure 5.3 are correlated with learner A's meta-comments. In TS One, learner A was entirely unsure of where SHI..DE was to be used: "I could not use it", in E5.6 (line 18 of Protocol 5.6). Around TS Three, her understanding changed, "Isn't

that correct?” in F5.7 (line 06 of Protocol 5.7) and “Did I say anything wrong?” in G5.8 (line 04 of Protocol 5.8), indicating that she was testing hypotheses on where SHI..DE was applicable. In fact, the later meta-comments coincide with a group of six instances of Level 5 assistance where the tutor guided the learner with contexts where SHI..DE was appropriate.

Learner A began to display signs of self-regulation in TS Five which only improved in TS Seven, “Oh, all is past” in H5.9 (line 06 of Protocol 5.9); “I forgot SHI..DE” in I5.10 (line 17 of Protocol 5.10) and “It is wrong” in K5.11 (line 08b in Protocol 5.11). Learner A's meta-comments coincided with two groups of tutor's successively more *implicit* assistance – six instances of Treg 2 around TS Five corresponded with the tutor only hinting that SHI..DE should be used with visual cues, followed by six instances of Treg 1 in TS Seven where the tutor was engaged in clarification-requests and not EC, per se.

By the last TS, learner A's understanding of where SHI..DE was appropriate grew significantly: the meta-comments nearly vanished and A began to demonstrate self-regulation and no longer needed the tutor's assistance. This improved understanding coincided with the ten instances of Treg 0 in Figure 5.3. Indeed, the decreasing trend shown in the graph corresponded with the transition from tutor-regulated correction to self-regulated correction demonstrated in the analysis of Protocols 5.5 to 5.12 in the previous section.

Finally, Figure 5.3 contains many more values than the graphs for ZAI because the tutor could pose a greater number of questions using SHI..DE. That is, in any one context, SHI..DE could be used to initiate questions related to what, when, with whom, how, and for what purpose. This fact not only made SHI..DE more frequently encountered in the conversation than either ZAI or LE but also granted the learners more opportunities to use it and, inevitably, make more mistakes and receive more EC.

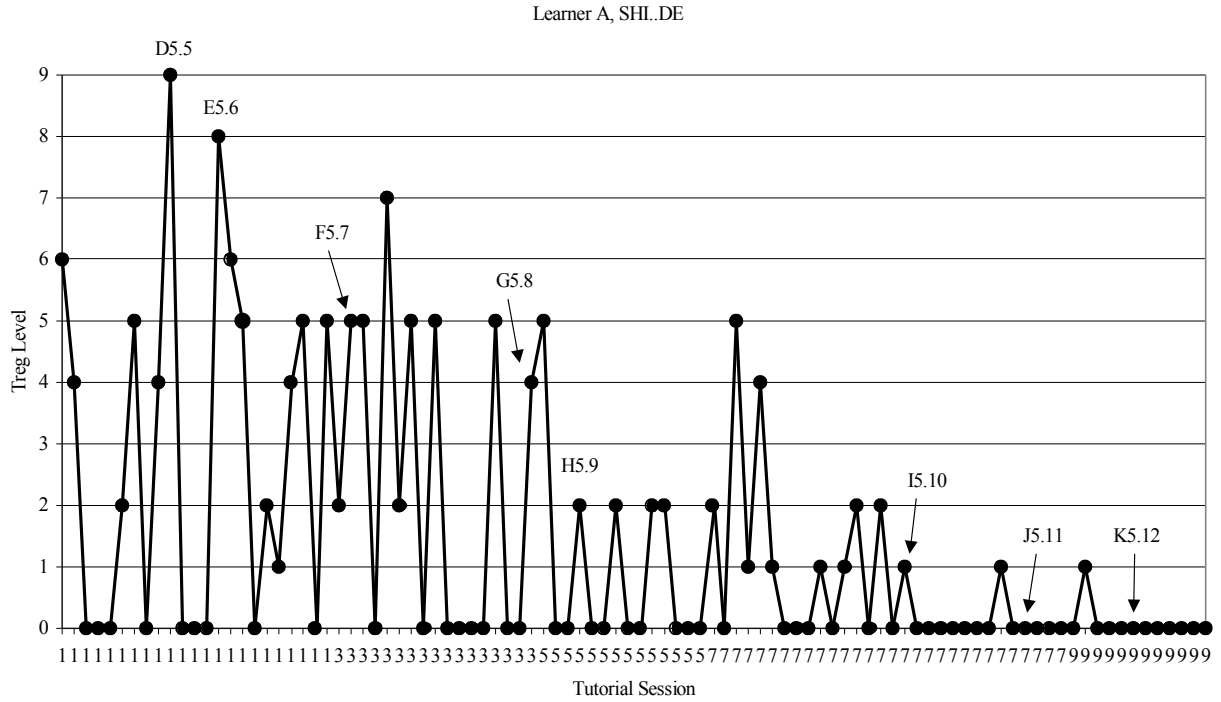


Figure 5.3: Improvement of learner A's functional use of SHL.DE across sessions

5.2.4.Improvement of learner B's functional use of SHL.DE across sessions

Figure 5.4 shows changes in tutor's highest Treg from all episodes in the odd-numbered tutorial sessions. Treg was found to drop through the sessions and reached zero by TS Seven. This overall decreasing trend of the tutor's assistance and the disappearance of learner B's errors in SHL.DE implies that tutor's EC was effective.

Learner B's dropping need for Treg, shown in Figure 5.4, is similar to learner A's in Figure 5.3 except that learner B required comparatively fewer instances of Treg than learner A. This topic will be discussed in more detail in Section 5.6.

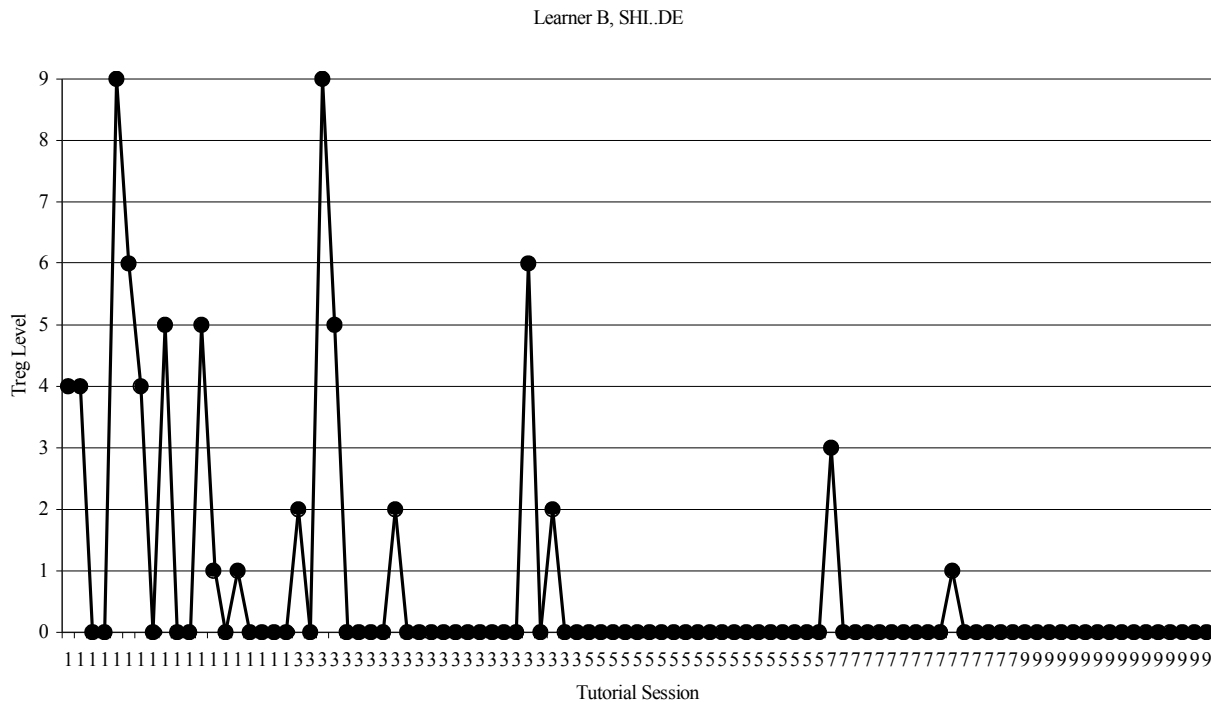


Figure 5.4: Improvement of learner B's functional use of SHL.DE across sessions

5.2.5.Improvement of learner A's functional use of LE across sessions

As with SHL.DE, the TG LE also lacks an English counterpart and, in combination with a time-expression, is used to specify the duration of an action that has been completed (Section 3.2.2, p. 42). However, unlike SHL.DE which had been used and corrected from the first TS, the tutor *began correcting* errors of LE only starting with the third TS.

The TG LE was difficult for both learners because, from the beginning of TS Three, they confused the contexts for LE with those for SHL.DE (Section 3.2.3, p. 46) – indeed, the next chapter will be dedicated to this very issue. For this reason, in Figure 5.5, the Treg is shown to start with several Treg 8 and 9's as the learner needed explicit assistance to differentiate LE from SHL.DE and vice versa.

However, the learner's need for assistance successively dropped through the sessions and, eventually, dropped to zero in the last TS. This overall decreasing trend of the tutor's assistance, and the elimination of learner A's LE errors, implies that tutor's EC was effective.

Incidentally, the reason that Figure 5.5 has numerically fewer Treg values than the graphs for SHI..DE is because the tutor could only elicit a *single* LE question (i.e., how long) in any one context, compared to the five questions possible for SHI..DE.

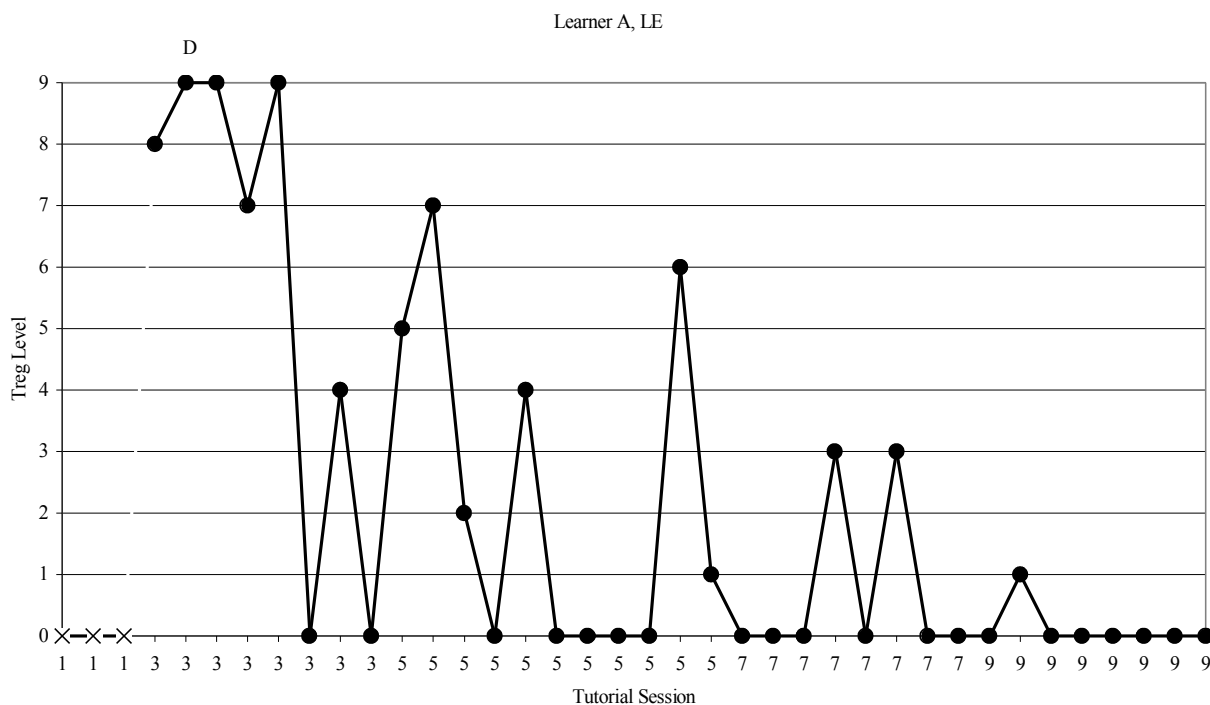


Figure 5.5: Improvement of learner A's functional use of LE across sessions

5.2.6.Improvement of learner B's functional use of LE across sessions

As shown in Figure 5.6, learner B also required several high-level Treg values in TS Three (D: Level 9; E and F: Level 8, G: Level 9 and H: Level 8) for the same reasons as learner A – to differentiate the contexts for LE from those for SHI..DE.

While the Treg started with two groups of very explicit levels, it dropped through the sessions and, eventually, dropped to zero in TS Nine. This overall decreasing trend of the tutor's assistance and the elimination of learner B's errors implies that tutor's EC was effective.

Figure 5.6: Improvement of learner B's functional use of LE across sessions

That is, in addition to clearly demonstrating that the tutor's EC was effective in using the three TG with the falling trends of Treg in Figures 5.1 to 5.6, the graph also makes it apparent that the acquisition process for ZAI was very different from that of SHL.DE and LE. That is, the graphs enable the reader to rapidly tell apart a *rapidly* falling trend of Treg (Figures 5.1 and 5.2 of ZAI) from one falling more *gradually* (Figures 5.3 to 5.6 of SHL.DE and LE) which would have been more difficult with only protocol data.

A similar glance at the graphs will also reveal that the two learners showed a different rate of development for the same TG. For example, in using SHL.DE, learner B required many fewer instances of EC than did learner A and this fact can be easily seen by comparing Figure 5.4 with Figure 5.3.

In this section, the researcher also demonstrated that the presentation of learner A's development of SHL.DE across all episodes from the odd-numbered tutorial sessions was comparable with the protocol data presented in the previous section¹. Indeed, it was the efficient nature of the graphs (Figures 5.1 to 5.6) which allowed for the presentation of the other two TG for learner A and all TG for learner B *without* the burden of additional protocol data. In Chapter Six, the usefulness of the complementary relationship between quantitative and qualitative data will be shown to be a powerful tool in the analysis of specific aspects of the learner's language development.

Thus far, the researcher has presented EC in isolation, without considering the larger collaborative frame *within which* the EC occurred (see Section). In the next two sections, the focus will be on the learners' appropriation of the tutor's RinP and how the improving participation created opportunities for the elicitation of TG and its correction.

1 This should be expected, as the source data for both the protocols and the graphs were the same.

5.3. APPROPRIATION OF REGULATION IN PARTICIPATION

Thus far, the researcher has presented evidence that the tutor's EC was effective in reducing and eliminating TG errors for both learners, within and across tutorial sessions. The researcher will now present evidence that the learners' improving grammar accuracy (hitherto analyzed in isolation) actually developed simultaneously with their participation.

In Section 4.3, the researcher discussed the collaborative process of the tutor's regulation in participation (RinP) and asserted that the tutor challenged and assisted the learners to participate within their ZPD and that this regulation enabled them to take more responsibility in the co-construction of the oral conversation.

In this section, the learner's appropriation of RinP will be demonstrated through the analysis of protocols across the sessions. This analysis will seek for the transition from tutor-regulated participation to self-regulated participation – i.e., the receding role of the tutor and increasing role of the learner when elaborating (Section 5.3.1) and initiating (Section 5.3.2). Because the TG was found only *within* elaborations and initiations, the shift in responsibility for the elicitation of TG will be treated in those sections.

And, because the tutor also needed to regulate the learners to move from answering questions in the form of phrases to answering in complete sentences – i.e., to overcome the “Tutor's Dilemma” described in Section 4.3 – the researcher will also examine the learner's articulation in terms of both elaboration (from phrases to sentences to narrations) and initiation (from isolated questions to multiple questions to leading the conversation) in Sections 5.3.1 and 5.3.2.

After analyzing all the Evaluated Episodes containing instances of the tutor's RinP, the researcher found that the learners' elaborations gradually increased from the level of phrases to sentences and, finally, to narration, and, at the same time, also began to elicit TG within their

increasingly-creative elaborations. Similarly, the researcher found that the learners' initiations gradually shifted from resisting to asking isolated questions to leading the conversation, and, at the same time, gradually began to elicit TG within their increasingly-active initiations. In other words, the tutor's role shifted from that of the sole interrogator to an equal partner of an increasingly-active learner, across the sessions.

The researcher will demonstrate the learner's appropriation of the tutor's RinP with two sets of protocols: elaboration with Protocols 5.13 to 5.17 and initiation with Protocols 5.18 to 5.22. Supportive quantitative data for the elicitation of TG will be presented in Section 5.4.

5.3.1. Appropriation of regulation in Elaboration

In this section, the researcher will focus the protocol analysis on the collaborative process through which the tutor challenged and assisted the learners to increase their elaboration – defined, in Section 4.3, as the learner answering the tutor's question by volunteering information in addition to that necessitated by the question. From the very beginning, the tutor worked to involve and help the learners to, at least, answer her questions in the conversation. It was only *after* the learners began to provide answers that the tutor could challenge and assist them to do more.

Through these protocols, the researcher will demonstrate that the tutor *first* assisted the learners to structure their phrase-level answers into complete sentences. *Then*, when the learners had produced enough “meaning” for a complete sentence, she challenged them to connect the phrases into a complete sentence. *Later*, when the learners were no longer overwhelmed producing complete sentences, the tutor challenged them to both elicit TG in their sentences and, later, narrate.

The researcher wishes to stress that not only was the tutor's RinP provided within the meaning-oriented, interpersonal conversation but also that it was provided *in addition* to the always-available assistance on vocabulary, phrases and non-TG, pronunciation, and tones, because these were vital to the survival of the oral conversation.

Because learners A and B demonstrated similar¹ development in participation, the researcher will present learner B's development. The first protocol will demonstrate that, at the start of TS One, learner B was answering the tutor's questions at the level of phrases and short sentences (phrase-level articulation) and that the tutor was primarily assisting and challenging the learner to complete these sentences.

Protocol 5.13

01T	你好吗？	01T	How are you?
02B	我很忙。	02B	I [am] very busy.
03T	你为什么那么忙？	03T	Why are you so busy?
04B	我妈妈来了。	04B	My mom came.
05T	你妈妈是从哪儿来的？(SHI)	05T	Your mom SHI from where came DE? (SHI)
06B	从哪儿？	06B	from where?
07T	从哪儿。	07T	from where
08B	从哪儿，“从”是什么？	08B	from where, what is “from”?
09T	from	09T	<i>from</i>
10B	Oh! 我的妈妈从来	10B	<i>Oh! My mom from come</i>
11T	从哪儿来	11T	from where come
12B	我的妈妈从 Virginia	12B	my mom from <i>Virginia</i>
13T	从 Virginia:::	13T	from <i>Virginia:::</i>
14B	从 Virginia 住	14B	from <i>Virginia</i> live
15T	来	15T	come
16B	从 Virginia 来。	16B	from <i>Virginia</i> come
17T	Can you say it again...	17T	<i>Can you say it again...</i>
18B	<u>我的妈妈从 Virginia 来。</u> (no correction)	18B	<u>My mom from Virginia come.</u> (no correction)
19T	她开车吗？	19T	Does she drive?
20B	No response	20T	(No response)
21T	Drive the car	21B	<i>Drive the car</i>

¹ That is, other than learner B not refusing to initiate the first time as learner A did.

22B	是, 开车。开车, 对。	22B	yes, drive car. Drive the car, correct.
23T	她开了几个钟头? (LE)	23T	She drove LE how many hours? (LE)
24B	钟头?	24B	hour?
25T	几个钟头?	25T	how many hours?
26B	<u>她开一, 二, 三, 四, 五, 六, 六个</u> 钟头 (no correction)	26B	<u>She drive[s] one, two, three, four,</u> <u>five, six, six hours.</u> (no correction)
27T	她常常来看你吗?	27T	Does she come [to] see you often?
28B	她不常常 eh..., 开车	28B	She [does] not, eh..., drive very
29T	开车 (pronunciation)		often.
30B	开车, eh..., eh...	29T	drive (pronunciation)
31T	来:::	30B	drive, eh..., eh...
32B	来我, 来看我。	31T	come:::
33T	Can you give me a complete sentence	32B	come me, come [to] see me.
34B	她不常常 eh...,...	33T	<i>Can you give me a complete sentence?</i>
35T	开车:::	34B	She not often, eh...,...
36B	开车来看我。	35T	drive:::
		36B	drive [to] come [to] see me.

Protocol 5.13, which comes from the beginning of TS One, shows that the tutor was actively maintaining the conversation around learner B's phrase-level responses (02, 04, 06, 20, 24, 28). Because learner B was articulating at the level of phrases, in addition to just helping B with vocabulary needed for completing his sentences (07, 09, 11, 13, 15, 21, 25, 29), the tutor also challenged and assisted B to produce complete sentences (17, 33).

The fact that the learner could produce just *three* complete sentences (18, 26, 34-36) in the 36 lines of this episode and with the significant amount of tutor's assistance, shows that learner's ZPD of participation was very low. Because learner B could only bear very limited responsibility in the conversation, the tutor did not correct¹ SHI..DE error (18) so as to allow B to continue talking.

In this protocol, it is the tutor who is entirely responsible for keeping the conversation active and meaningful – asking all the questions; providing assistance with vocabulary and

1 The tutor ignored the TG LE error (line 26) because LE was not corrected until the start of TS Three.

pronunciation; assisting in constructing the learner's phrases into sentences, etc., all in an effort to keep the learner involved in the meaning exchange.

The next protocol will show that when learner B was no longer overwhelmed with just answering questions in complete sentences, the tutor challenged the learner by eliciting and correcting TG.

Protocol 5.14

The tutor and learner B are talking about learning Chinese.

- 01T 除了中文以外，
 02B 除了？
 03T ‘in addition’, 除了中文以外，
 你还会说什么外语？
 04B eh..., ..., 我:::, 你, 请你再说一次。
 05T 除了
 06B 除了, 我没听懂。
 07T 除了, ‘in addition to Chinese’, 除了
 中文, 你还会说什么外国话？
 08B 会说, 会说, 外国话？eh...,
 是, eh..., 我:::, eh..., 还, eh...,
 会说, eh..., 我, 我, 我, 我还会
 09T 我不会:::
 10B 我不会说别的外国话。
 11T 不会？
 12B 不会, 是, eh..., 我学, eh..., 我
 学中文, no, 学, 学 eh..., 法文。
 13T 你学法文学得好不好？
 14B 我法文学不好。
 15T 学得不好
 16B 学得不好。
 17T 请你再说一次。
 18B 我学法文, 学得不好。我:::,
 eh..., 我学 eh..., eh..., 外文学得
 不好。我知道。

The tutor and learner B are talking about learning Chinese.

- 01T In addition to Chinese,
 02B in addition?
 03T ‘in addition’, in addition to Chinese,
 what [other] foreign Language[s] can
 you speak?
 04B eh..., ..., I:::, you, please say it again.
 05T In addition
 06B In addition, I don’t understand.
 07T In addition, ‘in addition to Chinese’,
 In addition to Chinese, what [other]
 foreign language[s] can you speak?
 08B can speak, can speak, foreign
 language? eh..., yes, eh..., I:::, eh,
 still, eh..., can speak, eh..., I, I, I, I
 still can not
 09T I can not:::
 10B I can not speak other foreign
 Language[s].
 11T can not?
 12B can not, yes, eh..., I study, eh..., I
 study Chinese, no, study, study,
 eh..., French.
 13T [Did] you study French well?
 14B I study French not well.
 15T did not study well.
 16B did not study well.
 17T Please say it again.
 18B I study French, study French, did
 not study well, I :::, eh..., I did
 not study, eh..., eh..., foreign

- 19T 你不喜欢法文吗？
 20B eh..., 我喜欢法文。
 21T 可是...
 22B 可是学法文很难，对我。
 23T 那，你学法文学了多长时间？
 24B 多长时间？(murmuring)
 25T how long
 26B 多长？(tone)
 27T 多长
 28B 多长
 29T 时间
 30B 五年 (pronunciation)
 31T 什么？
 32B 五年 (pronunciation)
 33T 五年
 34B 五年
 35T Can you give me a complete sentence?
 36B 我...，学...，法文，学...，我五年学
法文。eh..., 我...，eh..., eh...,
 我不知道怎么说。
 37T **Now, for a period of time, what**
structure do you use? (5)
 38B eh..., 是...的, the period of time.
 39T **If you want to say I have learned**
it for several years, what structure
do you use? 了 or 是...的? (9)
 40B 了?
 41T **Why 了 not 是...的? (9)**
 42B 是...的 is how thing is done, when
 it is done, where it is done, not the
 period of time.
 43T **yeah, it is length of time. (9)**
 44B so, 我一年学了。
 45T where does the time duration go?
 46B At the end?
 47T yes.
 48B eh..., 我学了一年。
- language well. I know.
 19T Don't you like French?
 20B eh..., I like French.
 21T but...
 22B but French is difficult, to me.
 23T Then, **you studied French studied**
LE how long time? (LE)
 24B how long time? (murmuring)
 25T *how long*
 26B how long? (tone)
 27T how long
 28B how long
 29T time
 30B five years (pronunciation)
 31T what?
 32B five years (pronunciation)
 33T five years
 34B five years
 35T *Can you give me a complete sentence?*
 36B I...，study...，French，study...，I five
year[s] study French. eh..., I...，eh...,
 eh..., I don't know how to say
 37T **Now, for a period of time, what**
structure do you use? (5)
 38B eh..., SHI..DE, *the period of time.*
 39T **If you want to say I have learned**
it for several years, what structure
do you use? LE or SHI..DE? (9)
 40B LE?
 41T **Why LE not SHI..DE? (9)**
 42B SHI..DE is how thing is done, when
 it is done, where it is done, not the
 period of time.
 43T **yeah, it is length of time. (9)**
 44B so, I one year studied LE.
 45T where does the time duration go?
 46B *At the end?*
 47T yes.
 48B eh..., I studied LE one year.

Protocol 5.14, which comes from the beginning of TS Three, shows that the tutor was still actively maintaining the conversation. However, it also shows that learner B was no longer

overwhelmed answering the tutor's questions because, in addition to providing phrase-level responses (08, 12, 24, 26, 28, 30, 32, 34) and originating a number of short but complete sentences (10, 14, 18, 20), he was requesting the tutor's help in Chinese (04b, 06b).

Learner B's articulation level was not as clear-cut as it was in the first protocol; between phrase- and sentence-level. In fact, the tutor challenged B not only for complete sentences (17, 35) but also to create a longer expression (21) with the conjunction-word prolongation, "but:::" (21). In addition, the tutor elicited LE (23) and assisted the learner in differentiating it from SHI..DE (36-48).

In the next protocol, the tutor will be shown to keep challenging the learner to create longer expressions. The learner will not only be seen to respond by elaborating several short sentences but also will be shown to need less explicit EC to correct a SHI..DE error.

Protocol 5.15

01T	你昨天有没有去言室听音？	01T	Did you or did you not go [to] the language lab [to] listen [to the] tape?
02B	eh..., 我昨天不去。	02B	eh..., I don't go yesterday.
03T	没去, it is past negation	03T	did not go, <i>it is past negation</i> .
04B	(a) 我昨天没去, eh..., eh..., (b) 我在我的屋子里听音	04B	(a) I did not go yesterday, eh..., eh..., (b) I in my room listen [to the] tape
05T	所以:::	05T	therefore:::
06B	所以, 我不得	06B	therefore, I not have to
07T	不必	07T	don't have to
08B	不必去言室	08B	don't have to go [to] language lab
09T	听:::	09T	listen:::
10B	听音。	10B	listen [to] tapes.
11T	你常常去？	11T	Do you go often?
12B	我, 常常, eh..., 我不常常去 eh..., 一天一个, eh..., ..., ..., 一个星期,	12B	I, often, eh..., I don't often go, eh..., one day one, eh..., ..., ..., one week
13T	一个星期去:::	13T	one week go:::
14B	一个星期去	14B	one week go
15T	一次	15T	once
16B	我 eh..., 一个星期去一次。	16B	I, eh..., one week go once.
17T	你上次是什候去的？	17T	You last time SHI what time went DE?

18B	eh..., 下::	18B	eh..., next::
19T	上	19T	last
20B	上次::, ..., 下	20B	last time::, ..., next
21T	不是下, 是上	21T	not next, last
22B	上次, 我, eh..., ..., 下个, no, 上个月去言音。	22B	last time, I, eh..., ..., next, no, last month go language tapes.
23T	□ 言室	23T	language lab
24B	□ □ 室	24B	lab
25T	听:::(hand movement)	25T	listen:::(hand movement for elaboration)
26B	听音。我上个星期去言室 □ □ 室音。	26B	listen [to] tapes. <u>I last week go [to] language lab record tape.</u>
27T	(raising eyebrows) (2)	27T	(raising eyebrows) (2)
28B	(a) 我是上个星期去言室 □ □ 音的。(b) 我看 X 老。	28B	<u>I SHI last week went [to] language lab [to] record tape DE.</u> (b) I saw X teacher.
29T	那, 你得 X 老?	29T	Then, do you know him?
30B	我得。	30B	Yes. I know him.
31T	你是? Tell me about him.	31T	Who is he? <i>Tell me [something] about him.</i>

Protocol 5.15 come from the end of TS Three and demonstrates that learner B is not only comfortable offering isolated, short sentences (02) but also self-elaborating some on his own (04b, 16¹, 28b) and others with just minimal prompting assistance from the tutor (06, 08, 10, 22, 24, and 26).

In this protocol, the tutor was no longer satisfied with the learner producing just a complete sentence. In fact, by providing conjunction words and prolongations (05, 09, 13, 15, 23, and 25), the tutor challenged the learner to extend his otherwise-complete sentences (04b, 08, 12, 22) into pseudo-narrations (5b-10b, 12-16, 22-28). Indeed, it was in one of these elaborations that the learner inadvertently self-elicited SHI.DE (27) which, with just implicit (Level 2) EC, he was able to correct.

This protocol also demonstrates the useful side-effects of elaboration – it adds new information into the conversation without requiring the tutor to probe for it. Thus, when the

1 Chinese “one week go once” is equivalent to English “go once a week”. Thus, line 12b, with tutor's assistance, becomes line 16 which is an elaboration of line 12a: “I don’t often go, [...] I [go once a week]”.

learner elaborated, “I saw X teacher” (28b), the tutor explored the new topic, “Who is he? Tell me about him” (31), desiring the learner to elaborate further – and, hopefully, creating additional contexts for the elicitation of TG.

This protocol also shows the first instance where the tutor was no longer the sole entity probing because learner B was volunteering information through his elaborations.

The next protocol will demonstrate the tutor not only challenging learner B to narrate but also elicit TG naturally, during the collaboratively-constructed conversation.

Protocol 5.16

- | | | | |
|-----|---|-----|--|
| 01T | 你春假去哪儿了？Can you give me a narration? | 01T | Where [did] you go Spring Break? <i>Can you give me a narration?</i> |
| 02B | 我去了 Costa Rica. | 02B | I went [to] <i>Costa Rica</i> . |
| 03T | 你是什么时候去的？(SHI-1) | 03T | You SHI when went DE? (SHI-1) |
| 04B | 什么时候？eh..., 我 eh..., 下个星期 | 04B | When? eh..., I, eh..., next week |
| 05T | 上个星期 | 05T | last week |
| 06B | 上，下 | 06B | last, next |
| 07T | 上 last, 下 next | 07T | 'last' [is] <i>last</i> , 'next' [is] <i>next</i> |
| 08B | 下 Oh! 对, 我是上个星期去 Costa Rica 的。对, eh..., 我有两个朋友, eh..., 坐在 eh..., 在 Costa Rica 坐 | 08B | next, <i>Oh! Right, I SHI last week went [to] Costa Rica DE. Right, eh..., I have two friends, eh..., sit at, eh..., at Costa Rica sit</i> |
| 09T | 工作 | 09T | work |
| 10B | 工作，对，工作，对。 | 10B | work, right, work, right. |
| 11T | 你是怎么去的？(SHI-2) | 11T | You SHI how went DE? (SHI-2) |
| 12B | 怎么去？ | 12B | how [I] went? |
| 13T | 你走路吗？ | 13T | you [went] by walking? |
| 14B | 走路？(laugh) 我不知道怎么说 ‘airplane’。 | 14B | walking? (laugh) I don't how to say ‘ <i>airplane</i> ’. |
| 15T | 坐飞机 | 15T | by airplane |
| 16B | 我坐飞机，我是坐飞机去的。 | 16B | I by airplane, <u>I SHI by airplane went [there] DE.</u> |
| 17T | 飞机 (tone) | 17T | airplane (tone) |
| 18B | 飞机，飞机。我是上个星期坐飞机去 Costa Rica 的。(b)在 Costa Rica, 天:: 很红。(SHI-3) | 18B | airplane, airplane. <u>I SHI last week by airplane went [to] Costa Rica DE. At Costa Rica, sky:: very red. (SHI-3)</u> |
| 19T | 红？ | 19T | red? |
| | | 20B | red |

20B 红
 21T red?
 22B Oh! 不对，对不起，很 eh... 热。
 23T Oh!
 24B eh..., ..., (a)天很蓝，eh..., 很蓝，
 (b) 我:: 我吃很多的 mangoes。
 (c) 我们坐车去 Fertonace。
 (d) Fertonace 是一个 eh..., 小 city,
 在过去呢，是:: 一个小山:: 山，
 (e)有一个 volcano, (f) 我们看这个 volcano。
 25T 现在还有 volcano 吗？
 26B eh..., 还有, eh..., 对, ... 还有, 还有 volcano, 可是, ..., eh..., 我们 eh..., 比
 27T 离
 28B 比
 29T You use 离 when you talk about the distance between the two place.
 30B Oh! 不对，我们离, 我们离 volcano 很 eh..., 很不附近。
 31T 很远
 32B 很远, 对, eh..., 可是，你::, 你能看。
 33T 所以，你很高兴？
 34B 对, 我, eh..., 我来普大, 很, 高, 高兴。
 35T 在普大没有 mangoes, 你为什么很高兴？
 36B 对，eh..., 可是，eh..., 我吃 mango 吃得 eh..., ...
 37T 太多了
 38B 对，吃够了。
 39T 那，从 Costa Rica 到普大，你坐飞机坐了几个钟头？(LE)
 40B 几个钟头？eh..., eh..., 我坐飞机
 41T 坐 (tone)
 42B 我坐飞机，坐，坐的，坐的，我，我坐飞机坐的。
 43T 几个钟头 (1)

21T red?
 22B Oh! Wrong, sorry, very, eh... hot.
 23T Oh!
 24B eh..., ..., (a) sky was blue, eh..., very blue, (b) I:: I ate many mangoes.
 (c) We by car go [to] Fertonace.
 (d) Fertonace is a, eh..., small city, in the past, is :: a small mountain:: mountain, (e) had a volcano, (f) we looked at this volcano.
 25T Is there still volcano now?
 26B eh..., still has, eh..., right, ... still has, still has volcano, but, ..., eh..., we, eh..., compare
 27T distanced from
 28B compare
 29T You use 'distanced from' when you talk about the distance between the two place.
 30B Oh! It is wrong, we are distanced from, we are distanced from volcano very, eh..., very not near.
 31T very far
 32B very far, right, eh..., but, you::, you can see [it].
 33T therefore, you [were] very happy?!
 34B Right, I, eh..., I come [to] Princeton University, very happy, happy.
 35T There is no mangoes at Princeton University, why [are] you so happy?
 36B Right, eh..., but, eh..., I ate mango ate, eh..., ...
 37T too much
 38B right, ate enough.
 39T Then, from Costa Rica to PU, you took airplane took LE how many hours? (LE)
 40B how many hours? eh..., eh..., I take airplane
 41T take (tone)
 42B I take airplane, take, take, take DE, take DE, I, I take airplane take DE.
 43T how many hours (1)

44B	我坐飞机了	44B	I took airplane LE
45T	verb object verb 了 (7)	45T	verb object verb LE (7)
46B	对，我坐飞机， <u>我坐飞机，坐了...，eh...，六，六钟头。</u>	46B	Right, I took airplane, <u>I took airplane, took LE...，eh...，six, six hours</u>
47T	六个钟头。(tone)	47T	six hours (tone)
48B	六个钟头。	48B	six hours
49T	很远啊！	49T	very far!
50B	对，我看，我在飞机上看我的书，我看我的书。eh...，不错。(ZAI)	50B	Right, I read, <u>I read my books [in] ZAI the airplane.</u> I read my book, eh...，not bad. (ZAI)

Protocol 5.16, from TS Five, shows that learner B was capable of a elaborating groups of basic and complete sentences (02-32) and even attempted to elicit TG. However, both the somewhat-cohesive narrative and the elicitation of TG could not have happened without the tutor's extensive assistance.

The tutor's initial challenge for the learner to narrate (01)... failed (02). The learner required not only more questions (03 and 11) before starting his narrative but also the tutor's extensive assistance throughout (18 to 22; 26 to 36), with the *exception* of a brief sequence (24a-f) of short and primitive sentences. In other words, the only way the learner could attain the tutor's challenge to narrate was with the tutor's intensive *and* nearly-continuous assistance. And, the learner did self-adjust many of the sentences during the narrative (08, 16, 18, 24a, 24b, 24d, 26, 30, 32, 34, 42, 46, 50) but the meaning was entirely volunteered and presented to keep the tutor's interest, as evidenced by the tutor's genuine expressions (19, 23, 25, 33, 35, 49).

While still plentiful, the tutor's assistance was different from previous protocols in three respects. First, the tutor was no longer the driving force behind the learner's answers – probing for information, steering the conversation, and assisting with the utterance of nearly every phrase. In this protocol, because the learner was able to originate the meaning, the tutor only needed to assist in structuring that meaning. Second, the responsibility for structuring that

meaning was no longer entirely the tutor's job – in this protocol, the tutor only needed to elicit and correct LE (39-47: Level 7) because the learner was able of self-elicite and correctly use SHI.DE (16, 18).

Third, because the tutor was no longer overwhelmed interrogating the learner, she could attend the inter-personal relationship to a greater extent. In this protocol, learner B also showed signs of trying to apply prior-knowledge to describe his life-experiences for the tutor – using vocabulary from random parts of the textbook, often incorrectly. Consequently, the tutor was providing assistance with learner-originated vocabulary rather than offering the learner words which B would likely not remember using.

The next protocol will demonstrate that, near the end of the study, learner B was actively narrating, self-eliciting and correctly using the three TG without the tutor's assistance.

Protocol 5.17

(Talking about bargaining in China)

01B (a) 这样很便宜, eh..., 我知道, eh..., eh..., eh..., (b) 我, eh...前, 我前年, 我是去年去 India 的。(SHI)
(c) 我在 India 住了一个星期。(LE)
(d) 我在 India 的时候, eh..., ..., 人人问我们 eh..., ‘你是::哪国人’?

02T 你是 (tone)

03B (a) ‘你是哪国人’? Eh...
(b) 我们告诉他们我们是::美国人。
(c) 他们告诉我们 oh! 美国人很有钱, 很有钱啊! (d) 我们是, 我们, 我们说我们是学生, 所以, 我们没有, 很多钱, eh..., 可是, 他, 他们不懂。

04T 不信 (word)

05B 不信

06T 那, 你觉得印度怎么样?

(Talking about bargaining in China)

01B (a) this way, very cheap, eh..., I know, eh..., eh..., eh..., (b) I, eh... front, I the year before the last, I SHI last year went [to] India DE. (SHI)
(c) I ZAI [at] India lived LE one week. (LE) (ZAI) (d) While I was at India, eh..., ..., everyone asked us, eh..., ‘what country are you from’?

02T You are (tone)

03B (a) ‘Which country are you from’? eh... (b) We told them ‘we are:: Americans’. (c) They told us oh! ‘Americans have a lot of money, very rich Ah!’ (d) We are, we, we said ‘we are students, so, we do not have, a lot of money, eh..., but, he, they didn't understand.

04T didn't believe (word)

05B didn't believe

06T Then, how do you feel about India?

- 07B (a) 怎么样？(b) eh... 印度很好, (c) 我, 我真喜欢印度。eh..., eh..., (d) 印度有:::很多人, (e) 我们, 我们开, 我们在 countryside 开车, (ZAI)
(f) 我们看见很多, 很多的人,
(g) 他们走来走去, 可是, 我们不知道他们 eh... 去哪儿。(h) 他们走路很, 奇, 奇怪, (i) 他们常常 走路可是, 我们, 我们看, 我们看不见, 哪儿, 他们走。
- 08T 你们不知道:::
- 09B 我们不知道他们在哪儿, 到哪儿去。
- 10T 不知道?
- 11B 不知道。
- 12T 他们走路, 他们没有 bus, 没有车吗?
- 13B eh..., eh... eh..., 对, 印度有, 有 bus, eh..., 可是, 很多的人, eh..., 没钱, 所以, 他们, 他们用 cows, eh..., 他们开 cow.
- 14T 不可以开 cow, “开”一定是 machine.
- 15B so, 他们用 cows
- 16T 你在印度的时候, 你也坐在 cow 的上头吗?
- 17B (a) 他们, 我, 我们不, 坐在:::cow 的上头。(b) 我坐, 我们坐开车
- 18T 不是坐开车, 是开车
- 19B 开车。我有, 去年我的同屋是一个印度人
- 20T 同屋 (tone)
- 21B 对, (a) 同屋, eh... 是一个印度人, 所以, eh..., 我, 我去印度看:::他, (b) 所以, 他, 他的::: 父亲是一个 business manager, (c) 所以, 很有钱, 可是, 可是, eh..., 他们有很多的 servants, eh..., 很奇怪。(d) 我们, 我们, 吃饭的时候, 他们的 servant 去 served us, 很奇怪, (e) 他们的 maid 睡 eh..., 在, 在 eh... 地上,
- 07B (a) how about it? (b) eh... India is very good, (c) I, I really like India. eh..., eh..., (d) India has ::: many people (e) we, we drive, we ZAI [in] the countryside drove, (ZAI)
(f) We saw many, many people,
(g) they walked back and forth, but we didn't know where they, eh... [were] going.(h) They walked very, strange, strange. (i) They walk very often, but we, we look, we were unable to see, where, they walked [to]
- 08T You did not know:::
- 09B We did not know where they were, where they went.
- 10T did not know?
- 11B did not know
- 12T They walked. Didn't they have bus, didn't they have car?
- 13B eh..., eh... eh..., right, India has, has bus, eh..., but, many people, eh..., don't have money, so, they, they use cows, eh..., they drive cow.
- 14T [you] can't drive cow, you must 'drive' a machine.
- 15B so, they use cows
- 16T While you were at India, you also sat on top of the cow?
- 17B They, I, we didn't, sit on top of the cow. I sat, we sat drove car.
- 18T not 'sit drive a car', [but] we 'drive a car'.
- 19B drive a car. I had, last year my roommate was an Indian
- 20T roommate (tone)
- 21B Right, (a) roommate, eh... is an India, so, eh..., I, I went to India (to) see :::him, (b) so, he, his::: father is a business manager, (c) so, very rich, but, but, eh..., they have many servants, eh..., very strange.
(d) When we, we ate, their servant went (to) serve us, very strange. (e) Their maid sleep, eh..., on, on, eh... floor, floor.

地上。

- | | | | |
|-----|---|-----|--|
| 22T | 地上，真的吗？ | 22T | floor, really? |
| 23B | 真的吗？eh..., eh..., 对。很奇怪。 | 23B | Really? eh..., eh..., right. Very strange. |
| 24T | 为什么在地上睡觉？ | 24T | Why [do] they sleep on the floor? |
| 25B | 他们的时代，他们的，society 是什么？ | 25B | their period, their, what is 'society'? |
| 26T | 社会 | 26T | society |
| 27B | 我不知道怎么说，可是，
<u>他们的 lower cast 在地上睡觉。(ZAI)</u>
我们，我们，我们觉得很不舒服。 | 27B | I don't how to say, but, <u>their lower cast ZAI [on] the floor sleep. (ZAI)</u> We, we, we felt very uncomfortable. |
| 28T | 所以，你以后不要 maid? | 28T | So, you don't want <i>maid</i> in the future? |
| 29B | 我不要 maid, 可是，要是我有一个 maid，他， <u>他不在地上睡觉。(ZAI)</u> | 29B | I don't want <i>maid</i> , but, if I have a <i>maid</i> , he, <u>he doesn't ZAI [on] the floor sleep. (ZAI)</u> |

In Protocol 5.17, from the last TS, learner B elaborated his fascinating trip to visit a roommate's upper-class family in rural India. Not only did this narration originate without the tutor's explicit request, but learner B also completed it without any RinP along the way.

Within the 29 lines, learner B elaborated 32 complete and cohesive sentences, and only needed the tutor's assistance on vocabulary and pronunciation (02, 04, 14, 18, 20, 26). B's sentence-structure was more mature and he self-elicited and correctly used ZAI (07e, 27b, 29b), SHI..DE (01b), and LE (01c).

In this protocol, the learner elaborated several narrations (01, 03, 07, 13, 21, 27, 29) about his trip. While the narrations were encouraged by the tutor's genuine questions of interest (06, 12, 16, 24, 28), the learner did not require any other assistance from the tutor – freeing the tutor to focus on the meaning. As the tutor had never been to India, in this limited context (and for the first time) the learner was the “expert” and the tutor was the “learner” – the roles had been completely reversed, even if only temporarily. Learner B's was clearly approaching paragraph level articulation.

The constituent sentences of the narratives were also more often complete than not and worked together to paint a vivid description of the learner's life-experiences. Whereas in prior protocols many of the sentences were repetitive, here, B not only employed the correct grammar but *each* sentence added some new worth to the story – his sentences formed nearly coherent paragraphs. In addition, the complexity of many sentences was higher and B demonstrated to have appropriated tutor's regulation shown in prior protocols. For example, the learner skillfully used conjunction words such as “therefore” (03, 13, 21), “however” (03, 07, 13, 21, 27, 29), and clauses, such as “when I was in..., ...” (01, 21) to connect shorter thoughts into more lucid sentences.

Compared to the first protocol (Protocol 5.13), learner B has demonstrated profound development not only in expressing his thoughts in a coherent manner but also in that he now possesses a high-enough sense of confidence of the overall sentence structure to attempt more complex elaborations. The learner still made mistakes (e.g., 07i, 13, and 17) but was now able to negotiate for assistance (e.g., 25).

When the last protocol (Protocol 5.17) is compared with the first (Protocol 5.13), a nearly complete role-reversal can be observed. That is, while in the first protocol the tutor was the one actively drawing the learner into the conversation, in the last protocol it is the learner who is actively contributing a significant portion of the meaning. In other words, the learner has been observed through the protocols (Protocol 5.13 to 5.17) to transition from not being able to elaborate to becoming a near-equal partner in the co-construction of meaning in the oral conversation.

The researcher would like to highlight that the learner's improving participation was accompanied not only by an increased elicitation of TG within the elaborations but, although not

the focus of this section, also an improving self-regulation of the learner's use of TG. Specifically, in the first protocol the tutor did not even correct the TG because it would have overwhelmed the learner (i.e., EC was out of the learner's ZPD) while in the last protocol, it was the learner who self-elicited and correctly used the TG.

By analyzing the protocols (Protocols 5.13 to 5.17) of the tutor involving, helping the learner participate, and challenging him to accomplish a higher level of performance in the oral conversation, the researcher demonstrated *how* the learner was regulated in the goal-oriented activity. That is, by analyzing how the tutor assisted learner B to accomplish the task at hand within his ZPD and challenge him to attempt a more difficult task, the researcher demonstrated how the learner's performance was elevated to both participate in the “now” and prepare him for engagement in subsequent conversation, at a higher level of performance – the tutor's regulation within learner B's ZPD caused his “actual level” to gradually and seamlessly evolve: a) in the beginning of TS One (Protocol 5.13) just answering the tutor's questions with phrases and unable to elicit TG; b) by the end of TS Three (Protocol 5.15) answering the tutor's questions with short-but-complete sentences, providing occasional elaborations, and self-eliciting SHI..DE; and, c) in TS nine (Protocol 5.17) answering the tutor's questions with cohesive blocks of simple but expressive sentences, self-eliciting and correctly using ZAI, SHI..DE, and LE.

The researcher will next demonstrate how the tutor regulated the learner's participation in terms of initiation – asking questions and how the learner appropriated this regulation. The protocol analysis will show that, while initiation was a more challenging task, it enabled the learner to become the tutor's near-equal partner in the oral conversation.

5.3.2.Appropriation of regulation in Initiation

Protocol data revealed that initiation was more difficult for both learners than elaboration because the tutor needed to help the learner with various information *before* he or she could utter any question: a) help the learner decide *what* to ask and on-topic, if context was within their ZPD; b) assist with the *vocabulary*; c) help the learner *arrange* everything into the question-form; and, d) regulate the learner to *elicit* TG and provide EC, when *within* ZPD.

The researcher will briefly discuss three aspects of the tutor's assistance towards these needs, before starting the analysis of Protocols 5.18 to 5.22. First, when the learner fell silent, the tutor provided assistance within the learner's ZPD. That is, when elicitation of TG was beyond that learner's ZPD, the tutor offered the learner a meaning, for example, “[Ask me about] my Spring Break” and, when elicitation of TG was possible, the tutor's suggestions became more open-ended, for example, “[Ask me what] time” and “[Ask me] how long”. The two later suggestions were found to serve a *dual purpose*, in that, they were not only suggestions for a certain direction along an existing topic or context but also served to challenge the learner to elicit TG - “Time?” for SHI..DE and “How long?” for LE.

Second, the tutor was found to remind the learner of the *context* or *topic* of the conversation. That is, the tutor assisted the learner to ensure that the questions would either fall within an existing topic or build up a new context – when suggesting “[Ask me what] Time”, the tutor's reminder would tersely summarize it, “We were talking about me going back to China”, often in English.

Finally, the tutor was always ready to provide assistance with the *question-form* and, later, EC with the insertion of TG into the question. While protocol analysis will specifically highlight tutor's regulation in initiation, the researcher stresses that this regulation was provided

within the meaning-oriented, interpersonal conversation and *in addition* to the always-available assistance on vocabulary, phrases and non-TG, pronunciation, and tones.

Because learner A initially refused to ask a question, she presented a more complete range of the tutor's regulation and learner's development processes and, for this reason, only A's data will be demonstrated in Protocols 5.18 to 5.22. The first instance of learner B asking a question will be presented in Section 5.6 (p. 191).

Learner A's appropriation will be shown to gradually shift from resisting to asking questions to leading the conversation and increasingly co-eliciting more TG. In other words, the protocols will demonstrate that the tutor's role shifted from that of the sole interrogator to an equal partner of an increasingly-active learner, across the sessions.

The first protocol will show that when the tutor's challenge to initiate was met with defiance, some tactful persuasion was necessary – only after learner A was convinced, could the tutor offer more pragmatic assistance.

Protocol 5.18

01T	Can you ask me questions?	01T	<i>Can you ask me questions?</i>
02A	Ask questions? I can't do that.	02A	<i>Ask questions? I can't do that.</i>
03T	Why?	03T	<i>Why?</i>
04A	Because it is harder.	04A	<i>Because it is harder.</i>
05T	Is it harder? You think so?	05T	<i>Is it harder? You think so?</i>
06A	I think so, because I will (unintelligible)	06A	<i>I think so, because I will... (unintelligible)</i>
07T	But, if you go to China next summer, you might have to ask questions. Besides, in the final examination, you might have to ask Professor X questions.	07T	<i>But, if you go to China next summer, you might have to ask questions. Besides, in the final examination, you might have to ask Professor X questions.</i>
08A	(silence)	08A	(silence)
09T	You can think about what I asked you and then ask me.	09T	<i>You can think about what I asked you and then ask me.</i>
10A	Okay. 你, eh..., ..., eh..., 在去哪儿?	10A	<i>Okay. you, eh..., ..., eh..., at go where?</i>
11T	你现在	11T	<i>you now</i>
12A	你现在住哪儿?	12A	<i>Where [do] you live now?</i>

13T 我住在普大附近。
 14A eh..., ..., I have no question.
 15T (laugh) waiting for the learner to come up with something.
 16A How do you say 'before' 以前?
 17T yes. 以前
 18A Oh! So it is 以前, 以前你住在这儿, 你住在哪儿?
 19T 以前, 我住在 Pittsburgh
 20A 你住 Pittsburgh 几年? (LE; no correction)
 21T 我住了七年。
 22A 你, 你有家?
 23T 你有家?
 24A 你有没有家?
 25T 我有家。
 26A 你家很大吗?
 27T 我家有四个人, 我妈妈, 妹妹, 我跟我的 husband。
 28A 你妈妈跟妹妹住在中国吗?
 29T 对。他们现在住在中国。
 30A (laugh) That sucks.
 31T (laugh) 对啊!
 32A 你要他们, eh..., 你要去中国, eh...你看他们吗?
 33T 我去过中国看他们。
 34A 几::, 几个次, ..., 几个次,
 35T 几次?
 36A 几次?
 37T 四次
 38A 我不知道。
 39T four times
 40A Oh! (laugh) okay. (silence)
 41T **Time (SHI)**
 42A eh?
 43T **We are talking about me going back to China**
 44A eh..., eh..., 你::, 你, eh..., 你生在北京吗?
 45T 'born' 是出生
 46A 出生, eh..., 你出生在北京吗?
 47T place word (ZAI: 5)

13T I live nearby Princeton University.
 14A eh..., ..., I have no questions.
 15T (laugh) waiting for the learner to come up with something.
 16A *How do you say 'before' 'before'?*
 17T yes. 'before'
 18A *Oh! So it is 'before', before, you live here, where did you live?*
 19T before, I lived at *Pittsburgh*
 20A You live at Pittsburgh how many years? (LE; no correction)
 21T I lived LE seven years.
 22A you, you have family?
 23T you have family?
 24A Do you or don't you have family?
 25T I have family.
 26A Is your family very big?
 27T There are four people in my family, my mom, sister, I and my *husband*.
 28A Your mom and your sister live in China?
 29T Yes. They live in China now.
 30A (laugh) *That sucks.*
 31T (laugh) Right.
 32A You want them, eh..., you want (to) go (to) China, eh...do you see them?
 33T I have been back [to] China [to] see them.
 34A how many ::, how many times, ..., how many times,
 35T how many times?
 36A how many times?
 37T four times
 38A I don't know.
 39T *four times*
 40A *Oh! (laugh) okay.* (silence)
 41T **Time (SHI)**
 42A eh?
 43T ***We are talking about me going back [to] China***
 44A eh..., eh..., you::, you, eh..., you born ZAI [at] Beijing?
 45T 'born' is born
 46A born, eh..., you born ZAI [at] Beijing?
 47T place word (ZAI: 5)

48A	Before the verb (laugh). 你:::, 在北京出生	48A	<i>Before the verb (laugh). you:::, ZAI [at] Beijing born.</i>
49T	It is past, right? (SHI: 5)	49T	<i>It is past, right? (SHI: 5)</i>
50A	以前, 你 eh..., 在北京出生吗?	50A	<i>before, you eh..., ZAI [at] Beijing born?</i>
51T	(Raising eyebrow) (2)	51T	<i>(Raising eyebrow) (2)</i>
52A	Oh! So I should use that thing? (laugh)	52A	<i>Oh! So I should use that thing? (laugh)</i>
53T	(laugh) whenever you are emphasizing. (5)	53T	<i>(laugh) whenever you are emphasizing. (5)</i>
54A	okay, 以前	54A	<i>okay, before</i>
55T	When you use 是, you don't have to say 以前 (6)	55T	<i>When you use 'is', you don't have to say 'before' (6)</i>
56A	Oh:::, can you add 吗 at the end?	56A	<i>Oh:::, can you add 'ma' at the end?</i>
57T	yeah.	57T	<i>yeah.</i>
58A	<u>你是在北京出生的吗?</u>	58A	<u>you SHI ZAI [at] Beijing born DE?</u>
59T	我是在北京出生的。	59T	<i>I SHI ZAI [at] Beijing born DE.</i>
60A	I have no more questions.	60A	<i>I have no more questions.</i>

Protocol 5.18, which came from TS Three, shows that the learner initially feared asking questions but, once convinced, was able to initiate several with tutor's guidance. Alas, the questions did not seem to follow any theme or context.

The conversation began with the tutor challenging learner A ask her a question (01). However, learner A resisted, "I can't do that", "because it is harder" (line 02, line 04, respectively), forcing the tutor to first persuade and explain the activity to the learner (07). The tutor took learner A's silence (08) as willingness to comply but also a sign that A did not know *what* or *how* to ask. Thus, the tutor continued by suggesting that the learner recall and emulate the same types of questions that the tutor had asked A (09). The learner understood, "Okay" (10) and tried to ask, "you, [...] at go where?" (10). While this question was garbled, with the tutor's guidance, "you now:::" (11), learner A reformulated into an understandable and correct question, "Where [do] you live now?" (12) to which the tutor provided a response (13).

Learner A tried to think of something else, "eh,," (14) and tried to give up, "I have no [more] question" (14) but the tutor's laugh and patient waiting (15) effectively left A no

alternative but to think of and formulate more questions. The learner proceeded to initiate seven simple questions (18-36), which she had adapted from various parts of the textbook. Because the learner was so overloaded with just formulating topics for questions and comprehending the tutor's responses, the tutor intentionally *ignored* the missing LE in learner A's question, "How long did [you] live in Pittsburgh?" (20) because EC of TG (and especially LE) would have been counterproductive.

The tutor took the learner's silence (40) as a sign that A had exhausted the context and, thus, she offered the learner a suggestion, "[Ask me the] Time" (41). Because the learner was not aware of the context, "eh?" (42), the tutor needed to refresh her with a brief synopsis, "We are talking about me going back [to] China" (43), in English. Because that suggestion (41), however, was an overt elicitation of SHI..DE, the learner required substantial EC (47, 49, 51, 53, 55) and even the question-form (56-57) before she could utter the question, "You SHI ZAI [at] Beijing born DE?" (58).

This protocol demonstrated that asking questions was especially challenging because, in addition to the usual need for meaning and form, the task also required the learner to consider the *context* – the learner often failed to consider or mention the context and needed the tutor's reminder of its significance (43). Indeed, because learner A did *not know* how to start a new conversation, she overtly announced when an existing context was exhausted, "I have no [more] questions" (14, 60).

More importantly, this protocol demonstrated that learner A did not and could not initiate questions *without* the tutor's challenge and very extensive assistance. In other words, for learner A, initiation was *beyond* her actual level but *within* her ZPD and it was collaboration with the tutor which *enabled* A to reach her potential level.

The next protocol will show that while learner A could not start a new conversation, she no longer declined to initiate, she still needed significant assistance.

Protocol 5.19

- | | | | |
|-----|--|-----|---|
| 01T | Now questions (pointing at herself) | 01T | <i>Now questions (pointing at herself)</i> |
| 02A | Okay ? 你, 你::, eh..., ..., (laugh)
你 eh..., 你::, 你::, eh..., ...,
eh..., 你, what's '美国', 你去过中
国没有 ? | 02A | <i>Okay? you, you ::, eh..., ..., (laugh)</i>
<i>you, eh..., you::, you::, eh..., ...,</i>
<i>eh..., you, what's 'America', have</i>
<i>you been to China?</i> |
| 03T | It's a good question, but not for my
situation. 因为我是中国人。 | 03T | <i>It's a good question, but not for my</i>
<i>situation. Because I am [a native]</i>
<i>Chinese.</i> |
| 04A | 你, eh..., 你去中国几次? | 04A | <i>you, eh..., how many times have</i>
<i>you been (to) China?</i> |
| 05T | How do you say 'return'? | 05T | <i>How do you say 'return'?</i> |
| 06A | 回来 | 06A | <i>come back</i> |
| 07T | 回去, | 07T | <i>go back</i> |
| 08A | 回去, so '回来' is what? | 08A | <i>go back, so what is 'come back'?</i> |
| 09T | '回来' is coming back to the U.S..
[ask me a] Question | 09T | <i>'come back' is coming back to the</i>
<i>U.S.. [ask me a] Question</i> |
| 10A | 你, 你去, 你:: | 10A | <i>you, you go, you::</i> |
| 11T | 回去:: | 11T | <i>go back::</i> |
| 12A | 回去中国::吗? | 12A | <i>go back (to) China::?</i> |
| 13T | have you experienced it, verb 过 | 13T | <i>have you experienced it, verb GUO</i> |
| 14A | 你回去过中国吗? | 14A | <i>Have you been back (to) China?</i> |
| 15T | 我回去过 | 15T | <i>I have been back.</i> |
| 16A | 几次? | 16A | <i>How many times?</i> |
| 17T | mh? | 17T | <i>mh?</i> |
| 18A | 几次回去过? Can I put it at the
beginning? | 18A | <i>how many times be back? Can I put</i>
<i>["how many times"] at the beginning?</i> |
| 19T | No. | 19T | <i>No.</i> |
| 20A | darn. 你回去过几次? | 20A | <i>darn. You have been back how</i>
<i>many times?</i> |
| 21T | 我回去过四次。 | 21T | <i>I have been back four times.</i> |
| 22A | eh..., 你, 你::, 你有没有钱? | 22A | <i>eh..., you, you::, do you have</i>
<i>money?</i> |
| 23T | (laugh) 我有钱, 要是我没钱, 我不
能会中国。 | 23T | <i>(laugh) I have money. If I don't have</i>
<i>money, I can't go back to China.</i> |
| 24A | (silence) | 24A | <i>(silence)</i> |
| 25T | Time (SHI-1) | 25T | <i>[ask me the] Time (SHI-1)</i> |
| 26A | eh? | 26A | <i>eh?</i> |
| 27T | you were asking about returning to
China | 27T | <i>you were asking about returning</i>
<i>to China</i> |

- 28A oh! 你去中国的时候，你去中国
什么时候
- 29T It's past, you are asking me the time
- 30A eh....,...
- 31T You should emphasize, right?
- 32A you can use that in question too?
- 33T yes
- 34A really?
- 35T That is what I have been doing when I asked you questions, right?
- 36A True, but I was not paying attention to that (laugh).
- 37-43 (helping A with 是...的)。
- 44A 你是什么时候去中国的？
- 45T 我是 02 年去中国的。
- 46A 为什么？
- 47T 我去看我妈妈。
- 48A 你妈妈::: (silence)
- 49T **One more question—'Did you go by yourself?' (SHI-2)**
- 50A 你去中国一个人？
- 51T (raising eyebrows)
- 52A 你是去中国一个人的？That is confusing.
- 53T 你是:::
- 54A 你是什么时候
- 55T by yourself:::
- 56A 你是一个人？
- 57T verb
- 58A 去中国的
- 59T 问题是什么？
- 60A Let me say that again. 你是一个人
去中国的吗？
- 61T (a) 是，我是一个人去的。
(b) [ask me] **How? (SHI-3)**
- 62A I can use say the same thing, right?
- 63T sure
- 64A darn. 你是怎么去中国的？
- 65T 我是坐飞机去的。
- 66A 你喜不喜欢坐飞机？
- 28A *oh! When you went to China, when
you go to China when*
- 29T *It's past, you are asking me the time*
- 30A *eh....,...*
- 31T *You should emphasize, right?*
- 32A *you can use that in question too?*
- 33T *yes*
- 34A *really?*
- 35T *That is what I have been doing when I asked you questions, right?*
- 36A *True, but I was not paying attention to that (laugh).*
- 37-43 (helping A with SHI..DE)
- 44A You SHI when went [to] China DE?
- 45T I SHI year 2002 went [to] China DE.
- 46A Why?
- 47T I went [to] see my mom.
- 48A your mom::: (silence)
- 49T **One more question—'Did you go by yourself?' (SHI-2)**
- 50A You go to China by yourself?
- 51T (raising eyebrows)
- 52A You SHI went [to] China by yourself DE? *That is confusing.*
- 53T You SHI:::
- 54A You SHI when
- 55T *by yourself:::*
- 56A You SHI by yourself
- 57T *verb*
- 58A went (to) China DE
- 59T What is the question?
- 60A *Let me say that again. You SHI by yourself went [to] China DE?*
- 61T (a) Yes. I SHI by myself went DE.
(b) [ask me] **How? (SHI-3)**
- 62A *I can use say the same thing, right?*
- 63T *sure*
- 64A *darn You SHI how went China DE?*
- 65T I SHI by airplane went DE.
- 66A Do you like to take airplane?

Protocol 5.19, which came from the end of TS Three, shows that learner A still needed the tutor's extensive assistance to initiate and especially elicit TG.

In the beginning of the conversation, the tutor's challenge (01) was no longer met with defiance but A's question, "[As a native Chinese,] have you [ever] been to China?" (02), while correct in form, resulted in the tutor's remark that it was inappropriate (03). A's second attempt (04) required considerable assistance on question-form and non-TG (05-13) until it was ready, "Have you been back [to] China?" (14) for the tutor to answer, "I have been back" (15). The third question (16) also needed the tutor's assistance on the form (17-19) until it was ready, "You have been back how many times?" (20) for the tutor to answer, "I have been back four times" (21). Because A's fourth question, "Do you have money?" (22) clearly demonstrated that the learner was *unaware* of the context, in addition to answering, "I have money" (23), the tutor elaborated, "If I don't have money, I can't go back to China" (23), to covertly remind the learner of the context.

When learner A fell silent (24), the tutor suggested, "[Ask me the] Time?" (25). The learner confirmed her disregard for the context, "eh?" (26), and the tutor reminded A, "you were asking about returning to China" (27), in English. Because the tutor's suggestion (25) was, again, an elicitation of SHI..DE, learner A's attempted initiation (28) required extensive assistance (29-43) before the learner could utter the correct question, "You SHI when went [to] China DE?" (44).

Later, when the learner fell silent, the tutor suggested, this time in English, "[Ask me] Did you go by yourself?" (49) which, predictably, was an elicitation of SHI..DE. Learner A attempted a direct translation (50) and needed several turns of EC (51, 53, 55, 57) and question-form assistance (59) to arrive at the correct question (60). To reinforce the use of SHI..DE in a question, the tutor then suggested, "[Ask me] How?" (61b) and learner A, following a

confirmation check, “I can use say the same thing [SHI..DE], right?” (62-63), was able to ask, “You SHI how went [to] China DE?” (64).

Although learner A no longer resisted initiating, she was still dependent on the tutor to formulate all but the most basic questions. However, in this protocol, initiation is well within the learner's actual level and it is the elicitation of TG which is *within* her ZPD. This is in stark contrast to the previous protocol (Protocol 5.18) where the elicitation of TG was *beyond* her ZPD. Further, this protocol shows that the tutor's suggestions of meaning were very often elicitation of TG and it was by being thus challenged and assisted that the learner appropriated both RinP and EC.

In the next protocol, learner A will be shown to be more aware that questions must adhere to a theme and will be shown to actively co-construct several such themes. The learner and tutor will also be shown to exchange the responsibility for leading the oral conversation, for the first time.

Protocol 5.20

- | | | | |
|-----|--|-----|---|
| 01A | 你喜不喜欢坐飞机？ | 01A | Do you or don't you like take airplane? |
| 02T | 我不喜欢坐飞机。 | 02T | I don't like [to] take airplane. |
| 03A | 为什么？ | 03A | Why? |
| 04T | 因为我有 motion sickness. | 04T | Because I have <i>motion sickness</i> . |
| 05A | 你, 你:::有 pill 吗？ | 05A | You, you::: do you have <i>pill</i> ? |
| 06T | 有, 可是, 我得睡觉, 我很不舒服, 而且, 飞机上的饭不好吃。 | 06T | Yes, but I have to sleep, I don't feel comfortable. Besides, the food in airplane is not good. |
| 07A | (laugh) 对, 我 eh..., 我坐飞机的时候, 我 eh..., 我有 own food 吃饭 | 07A | (laugh) I agree. I, eh..., when I was taking the airplane, I, eh..., I have <i>own food</i> eat food. |
| 08T | 什么？ | 08T | what? |
| 09A | 我有 own food | 09A | I have <i>own food</i> |
| 10T | 你有你自己的饭？ | 10T | You have your own food? |
| 11A | 对, 我有我自己的饭。 | 11A | Right, I have my own food. |
| 12T | 你吃什么呢？ | 12T | What do you eat? |
| 13A | 我吃 candy. | 13A | I eat <i>candy</i> . |

- 14T 你吃很多的 candy, 你不吃饭吗? 14T You eat lots of *candy*, don't you eat food?
- 15A 我吃 *crackers*, 我喜欢吃 candy。 15A I eat *crackers*, I like (to) eat *candy*.
- 16T 可是, 我不喜欢吃 candy, 我饿的时候, 我得吃饭。 16T But, I don't like (to) eat *candy*, when I (am) hungry, I have to eat (real) food.
- 17A 我吃 *snacks*. Let's see (thinking of new topics) 你今天, 你:::, 忙吗? 17A I eat *snacks*. *Let's see (thinking of new topics)* You today, are you busy?
- 18T 今天我不太忙, 我今天没有课。 18T I [am] not very busy today, I don't have class today.
- 19A 今天, 你:::, 你:::, 今天, 你怎么, eh..., mh..., 事 19A today, you:::, you:::, today, you how, eh..., mh..., thing
- 20T mh? 20T *mh?*
- 21A 今天, 你怎么::: 21A today, you how:::
- 22T how? 22T *how?*
- 23A 怎么 23A how
- 24T 怎么 what? 24T how *what?*
- 25A I guess I don't mean '怎么', I mean today you:::, eh..., 什么工作 25A *I guess I don't mean 'how', I mean today you:::, eh..., what job*
- 26T 做什么 26T do what
- 27A 你做什么? 27A What do you do?
- 28T 我得看学生的功课。 28T I have to correct students' homework.
- 29A 学生的功课好不好? 29A Is their homework good or not?
- 30T 有的很好, 有的不太好。 30T Some are good, some are not very good.
- 31A 你喜欢 correct 功课? 31A Do you like [to] *correct* homework?
- 32T 对。 32T Yes.
- 33A 你有姐妹妹妹吗? 33A Do you have sisters?
- 34T 我有一个妹妹。 34T I have a younger sister.
- 35A 她什么工作? 35A What job [does] she do?
- 36T do you want to say 'where'? 36T *Do you want to say 'where'?*
- 37A no, I want to say 'what', 她工作 37A ***No, I want to say 'what', She work[s]***
- 38T 作什么工作 38T does what job
- 39A oh, 她作什么工作? 39A Oh! What job [does] she do?
- 40T 她在 insurance company 工作。 40T She ZAI [at] an *insurance company* work.
- 41A 她喜欢吗? 41A [Does] she like it?
- 42T 她很喜欢。 42T She likes it a lot.
- 43A (silence) 43A (silence)
- 44T (pointing at herself) **come to US (SHI)** 44T (pointing at herself) ***come to US (SHI)***
- 45A 你:::, 你是什么时候去, no, 来美国的? 45A You:::, You SHI when went, no, came [to] U.S. DE?
- 46T 我是 96 年来的。 46T I SHI year 96 came DE.

Protocol 5.20, from TS Five, shows that the learner co-constructed several contexts based on the tutor's responses and also created some on her own. In addition, it shows that the learner and the tutor took turns leading the conversation.

The learner began the conversation by asking, “Do you like [to] take airplane?” (01) thereby co-constructing that context of “take airplane” with the tutor (02-07a). When A elaborated along a tangent (07b), she altered the context to “snacks I like” and the tutor took over the role for leading the conversation by questioning the learner about her snack preferences (08-16). Learner A answered (17a) and, noticing that the context was exhausted, pondered for a moment, “Let's see...” (17a) and took over the leading role by asking, “You today, are you busy?” (17b). The learner continued initiating (17b-31) and *smoothly* transitioned to a new context by asking, “Do you have sisters?” (33). Taking the tutor's answer, “I have a younger sister” (34), A began to explore the new context of “[tutor's] sister”.

In addition, learner A demonstrated that she was interested in specific meanings. That is, when A's question, “What she do?” (35) employed the incorrect form and the tutor sought to clarify its meaning, “Do you want to say ‘where’?” (36), A *affirmed* her original meaning, this time in English, “No, I want to say ‘what’ she works” (37). And, with assistance (38), learner A was able to provide the correct question, “What job [does] she do?” (39).

When learner A fell silent (43), the tutor was happy to suggest, “[Ask me when I] came to US” (44) which, naturally, was an elicitation of SHI.DE. While learner A did make a mistake she was able to self-notice and self-correct, “You SHI when went, no, came [to] US DE?” (45) *without* the tutor's assistance.

Unlike the first protocol (Protocol 5.18), where learner A could not start a new conversation – overtly announcing, “I have no more questions” – here A was experimenting with

creating new topics (07, 17b, 33) and switching the responsibility for leading the conversation with the tutor several times (07-09, 17b). In addition, in this protocol the learner demonstrated a new willingness to explore contexts created by the tutor's answers, with a clear purpose in mind. That is, learner A began to show signs of building a deeper conversation within a particular context and following-up on the tutor's responses.

In the next protocol, learner A will be shown to actively explore a context established by the tutor's response. And, she will be shown to self-elicite ZAI, SHI..DE, and LE with varying need for EC.

Protocol 5.21

- | | | | |
|-----|--|-----|---|
| 01T | Questions (pointing at herself hinting learner A should ask question.) | 01T | <i>Questions</i> (pointing at herself hinting learner A should ask question.) |
| 02A | (laugh) Oh, yeah, you've got it going finally this way! | 02A | (laugh) <i>Oh, yeah, you've got it going finally this way!</i> |
| 03T | (laugh) | 03T | (laugh) |
| 04A | eh..., how do I ever say that? | 04A | <i>eh..., how do I ever say that?</i> |
| | Spring Break | | <i>Spring Break</i> |
| 05T | 春假 | 05T | Spring break |
| 06A | 你有，I used to know that. 你有春假? | 06A | You have, <i>I used to know that</i> . You have spring break? |
| 07T | 有啊 | 07T | yes. |
| 08A | eh..., 你:::, 你,你做了，你做了什么? | 08A | eh..., you:::, you, you did, what did you do? |
| 09T | 我去了 Pittsburgh. | 09T | I went [to] <i>Pittsburgh</i> . |
| 10A | eh..., 你, 在 Pittsburgh, eh..., 你有, 你有空吗? | 10A | eh..., you, at <i>Pittsburgh</i> , eh.... did you, did you have time? |
| 11T | mh? | 11T | <i>mh?</i> |
| 12A | <u>你在 Pittsburgh 做了什么? (ZAI-1)</u> | 12A | <u>You ZAI [at] <i>Pittsburgh</i> do what? (ZAI-1)</u> |
| 13T | (a) 我看电影，(b) 我还看我的 in-laws. | 13T | (a) I saw a movie, (b) I also saw my <i>in-laws</i> . |
| 14A | 你喜欢不喜欢他们? | 14A | Do you like them or not? |
| 15T | 我很喜欢他们。 | 15T | I like them very much. |
| 16A | 你, eh..., 你的, eh..., husband, 在 | 16A | You, eh..., your, eh..., <i>husband</i> , at |
| 17T | 爱人 | 17T | 'husband' |
| 18A | Oh! Oh! 你的爱人 really? That is easy. | 18A | <i>Oh! Oh!</i> Your 'husband' <i>really?</i> <i>That is easy.</i> |
| 19T | (laugh) | 19T | (laugh) |

- 20A 你的爱人 eh..., 去 Pittsburgh 吗?
 21T 他在这儿。
 22A 他, 他的, eh..., 你, 认识不认识他在 Pittsburgh? (SHI) (ZAI-2)
- 23T **(Raising eyebrow) (ZAI-2) (SHI)**
 24A 你, eh..., I have to rephrase it. 你, eh..., 你在, 你在哪儿, 你是在哪儿认识他的?
 25T 我是在 Pittsburgh 大学认识他。
 26A 他学中文吗?
 27T 他不学中文。他学 engineer
- 28A 你们常常去 Pittsburgh 吗?
 29T 我们不常常去, 一年大概一两次。
 30A eh..., 你, eh..., ..., ..., 我, 我不会说
 31T [ask me] **how long (LE)**
 32A Okay. 你, 你是, 你是, eh..., 在 Pittsburgh 住几年的?
- 33T You mean before? (LE: 1)
 34A no
 35T or this time? (LE: 1)
 36A Oh, before
 37T before, okay, eh..., so it is duration, right? (LE: 5)
 38A structure?
 39T ‘是’ is not for duration (LE: 5)
 40A Okay, I can change it. 你在 Pittsburgh 住, eh..., 你在 Pittsburgh 住
 41T 住 (pronunciation)
 42A 住, 你在 Pittsburgh 住, 住几年? (ZAI-3) (LE)
 43T where is the structure? (LE: 5)
 44A Oh! 住, 住了几年?
 45T 我在 Pittsburgh 住了七年。
 46A 你喜欢 Pittsburgh 吗?
- 20A [Did] your husband, eh..., go [to] Pittsburgh?
 21T He [was] here.
 22A He, his, eh..., you, did you know him or not ZAI [at] Pittsburgh? (SHI) (ZAI-2)
 23T **(Raising eyebrow) (ZAI-2) (SHI)**
 24A you, eh..., I have to rephrase it. You, eh..., you ZAI [at], you ZAI [at] where, you SHI ZAI [at] where knew him DE?
 25T I SHI ZAI [at] Pittsburgh University knew him DE.
 26A [Did] he study Chinese?
 27T He [did] not study Chinese. He studied engineer.
 28A Do you go to Pittsburgh very often?
 29T We [do] not go [there] often. Once or twice a year.
 30A eh..., you, eh..., ..., ..., I, I don't know how to say
 31T [ask me] **how long (LE)**
 32A Okay. You, you SHI, you SHI, eh..., ZAI [at] Pittsburgh live how many years DE?
 33T You mean before? (LE: 1)
 34A no
 35T or this time? (LE: 1)
 36A Oh, before
 37T before, okay, eh..., so it is duration, right? (LE: 5)
 38A structure?
 39T ‘SHI’ is not for duration (LE: 5)
 40T Okay, I can change it. You ZAI [at] Pittsburgh live, eh..., you ZAI [at] Pittsburgh live
 41T live (pronunciation)
 42A live, you ZAI [at] Pittsburgh live, live how many years? (ZAI-3) (LE)
 43T where is the structure? (LE: 5)
 44A Oh! Live, lived LE how many years?
 45T I at Pittsburgh lived LE seven years.
 46A Do you like Pittsburgh?

Protocol 5.21, from TS Seven, shows that learner A was more aware that the tutor's response defined the context – i.e., the topic important to the tutor became the focus of the conversation. And, that learner A explored various sub-topics around it.

The tutor began the conversation by visually prompting learner A to start asking questions (01) without suggesting any specific meaning. Learner A anticipated this challenge (02) initiated, “You have spring break?” (06) and followed up, “What did you do?” (08). And, the tutor's response, “I went to Pittsburgh” (09) set the context to “trip to Pittsburgh” for the rest of this protocol.

When the tutor did not understand A's question (11), the learner *abandoned* it and tried a different question, “What [did] you do at Pittsburgh?” (12). The tutor's answer contained two potential contexts, “I saw a movie,” (13a) “[and] I also saw my in-laws” (13b) and A chose to pursue the later, “Do you like them or not?” (14). However, following the tutor's answer (15) the learner explored a context *related* to “in-laws” (16-20), “[Did] your husband, go [to] Pittsburgh?” (20).

The learner's deeper exploration contained an *intentional* self-elicitation of ZAI and an *unintentional* elicitation of SHI..DE, “Did you know him or not ZAI [at] Pittsburgh?” (22). With only implicit EC (23: Level 2), A self-repaired *first*¹ the incorrect sentence-order due to ZAI and *then* the missing SHI..DE, “You SHI ZAI [at] where knew him DE?” (24).

When the learner probed deeper, “[Did] he study Chinese?” (26), the tutor's response, “He [did] not study Chinese. He studied engineer” (27) left her at a loss for words. And, almost naturally, learner A *returned* to the main context of “[tutor's trip to] Pittsburgh” with the question, “Do you go to Pittsburgh very often?” (28). Alas, the tutor's elaboration (29), again, left learner A confused, “eh..., you, eh..., ..., ..., I, I don't know how to say” (30).

1 Learner A recognized the need to repair the sentence-order first, “I have to rephrase it” (line 24).

The tutor took the opportunity by suggesting, “[Ask me] how long [I stayed in Pittsburgh]?” (31) which elicited LE. Learner A complied but used SHI..DE instead of LE (32). Following the tutor’s meaning clarification requests (33-37), learner A was still confused (38) and the tutor was left no choice but differentiate SHI..DE from LE (39-43). The episode of EC enabled A to ask, “[You] lived LE how many years [in Pittsburgh]?” (44), and follow-up with a more personal question, “Do you like Pittsburgh?” (46).

In this protocol, the *primary* context of “[tutor's] trip to Pittsburgh” was established by the tutor's answer. And, for the duration of this protocol, while learner A systematically probed related sub-contexts (12, 20, 28, 32, and 46), when any were exhausted, she always *returned* to the primary context. That is, while the tutor still needed to challenge learner A *to* initiate, the tutor left the responsibility for selecting *what to ask* up to learner A.

In the first protocol (Protocol 5.18), the tutor was shown to ignore learner A’s error in LE because its EC was *beyond* the learner’s ZPD while this protocol shows that this is no longer the case. While the tutor still needed to provide extensive assistance, the elicitation and EC of LE in questions was well *within* learner A's ZPD.

In the next protocol, learner A will be shown to actively probe a tutor-volunteered context with a sense of caring and also self-elicite and correctly use all three TG.

Protocol 5.22

01A	你今天有课吗？	01A	[Do] you have class today?
02T	本来我没有课，可是，我今天得上课。	02T	Normally I don't have class, but I have to teach today.
03A	Oh! eh..., 为什么得上课？	03A	Oh! eh..., Why [did you] have to teach?
04T	因为我得帮一个老师的忙。	04T	because I had to do favor for teacher.
05A	那个老师觉得 ... 很不舒服吗？	05A	Did that teacher feel ... sick?
06T	不是，她家里有点事儿。	06T	No. She had family issues.
07A	你教课，你教课教了…eh…几个钟头？(LE)	07A	You teach class, <u>You taught class taught LE how many hours?</u>

08T	我教课教了两个钟头	08T	I taught class taught LE two hours.
09A	Oh!	09A	<i>Oh!</i>
10T	课不太多，可是，我得准备，我准备了很长时间。	10T	[There were] not many classes, but I had to prepare. I prepared for a long time.
11A	你:::, 准备好了吗？	11A	Were you::: ready?
12T	我准备好了。	12T	I was ready.
13A	你:::, eh..., 你 :::, eh..., 昨天你知道不知道你得,你得教...课？	13A	you:::, eh..., you :::, eh..., yesterday, did you or didn't you know that you had to, you had to teach...class?
14T	我知道。	14T	I knew
15A	eh..., 你:::, 你:::, 你是,你是, 知道, 你是... 什么时候知道了, <u>oh, no, 你是什么时候知道的？(SHI)</u>	15A	eh..., you:::, you:::, you SHI, you SHI, know, <u>you SHI... when knew LE, oh, no, you SHI when knew [it] DE? (SHI)</u>
16T	我是上个星期知道的。	16T	I SHI last week knew DE.
17A	eh..., 你，你有，你有，你喜欢不喜欢教这个课？	17A	eh..., you, you have, you have, did you or didn't you like [to] teach this class?
18T	我不喜欢。	18T	I did not like [it].
19A	为什么？	19A	Why?
20T	因为我很忙，我得教我自己的课，我每个星期有很多的课。可是，虽然我不喜欢她的课，我得帮她的忙，所以，我得教她的课。	20T	Because I was busy, I had to teach my own class. I had to teach many classes every week. But, although I didn't like to teach her class, I had to do her a favor. So, I had to teach her class.
21A	(a) 你的，你的，她, <i>I forgot what you were saying</i> . 我忘了。(b) Oh! (c) 你的课，那个课是几年级的课？	21A	(a) Your, your, her, <i>I forgot what you were saying</i> . I forgot. (b) <i>Oh!</i> (c) Your class, which level was that class?
22T	那个课是二年级的课。	22T	That class was a second year [class].
23A	二年，二年级的课 eh..., eh... 很容易吗？	23A	[Was] two years, second year class, eh..., eh... very easy?
24T	(a) 不太容易, 因为他们说很多中国的事儿, 中国的 <i>changes</i> 什么, 什么的, 所以有点儿难, 我觉得. (b) 你明年还想学中文吗？	24T	(a) Not very easy, because they discuss many Chinese issues, <i>changes</i> in China, etc.. So, it was a little difficult [for them], I think. (b) Do you want to learn Chinese next term?

Protocol 5.22, from the last TS, shows that the learner's questions expressed genuine concern and that A explored the tutor's life with open-ended questions. That is, learner A *led* a cohesive conversation and structured it with TG.

The conversation began with learner A asking, “[Do] you have class today?” (01) and following up the tutor’s unexpected response (02) with another, “Why [did you] have to teach?”

(03). The tutor's response (04) only served to arouse A's curiosity, "Did that teacher feel sick?" (05). But the tutor's answer was not "exciting" enough (06), thus, learner A *backtracked* and self-elicited the correctly formed v-o-v LE question, "You taught class taught LE how many hours?" (07).

The tutor's answer, "I taught class taught LE two hours" (08) caught learner A off-guard, "Oh!" (09), encouraging the tutor to elaborate, "[There were] not many classes, but I had to prepare. I prepared for a long time" (10). The learner dug deeper, "Were you ready?" (11) and when the tutor affirmed (12), A correctly formed the comparatively complicated question, "yesterday, did you or didn't you know that you had to teach class?" (13).

Then, exploring the context deeper still, learner A self-elicited and, following a mid-sentence self-correction, used SHI..DE to ask, "You SHI when knew LE, oh, no, you SHI when knew [it] DE?" (15). Because the tutor's answer was uninteresting (16), learner A *backtracked* again and asked, "did you or didn't you like [to] teach this class?" (17) and, when the tutor grumpily replied, "I did not like [it]" (18), A encouraged the tutor to vent by asking, "Why?" (19).

The tutor complied and, in course of an elaboration which spanned four lengthy sentences (20), managed to *overload* the learner with meaning, "Your, your, her, I forgot what you were saying. I forgot" (21a). Fortunately, the learner was able to recover, "Oh!" (21b) and *backtrack* a third time to ask, "Your class, which level was that class?" (21c). While the tutor answered this (22) and A's subsequent question, "[Was you] second year class very easy?" (24a), she took over the role for leading the conversation with a question, "Do you want to learn Chinese next term?" (24b), in preparation for eliciting the [overdue] TG.

This protocol demonstrated that learner A's initiations had reached the level of comfortably leading a coherent conversation while, at the same time, freely eliciting and correctly using the TG in her questions. That is, the learner was actively leading the conversation, and, at the same time, using the TG to properly structure her initiations (07, 15).

Not only did the learner demonstrate genuine care and interest in the tutor's life (11, 17, 19) but A's follow-up questions actively and *eagerly* probed the tutor's responses (11, 13). That is, the oral conversation had become an inter-personal conversation with the learner as a near-equal and active contributor. In addition, unlike the previous protocol (Protocol 5.21), where the learner returned to the "root" context when a context was abandoned, here, the learner simply *backtracked* to the immediately-previous context (07, 17, 21c) and added a new "branch".

Incidentally, Protocol 5.22 also demonstrated the potential *hazard* of learner's open-ended questions. That is, feeling compelled to answer A's questions fully and naturally, the tutor momentarily (18-24a) disregarded her primary objective – that of steady elicitation of TG¹.

In this section, the researcher presented the analysis of the learners' appropriation of the tutor's RinP, based on the three criteria of participation development (see Section 4.3). The analysis, across nine weeks of sessions, revealed that:

- a) the learners' *articulation* developed from phrases to sentences to narration in terms of elaboration, and from refusal to isolated questions to somewhat-cohesive questions to leading the conversation in terms of initiation;
- b) the learners' *elicitation* of TG developed from beyond their ZPD to within their ZPD to, eventually, self-elicited and correctly used; and,
- c) the learners' responsibility transitioned from passive and peripheral to active and leading conversational partner – independently structuring their elaborations and initiations with self-elicited and correctly used TG.

¹ This objective enabled the tutor to help the learners differentiate confusing structures and will be the subject of Chapter Six.

Indirectly, the protocol analysis also demonstrated that the learners' appropriation of the tutor's EC, shown in Sections 5.1 and 5.2, was highly reliant on the elicitation of TG and that the tutor's RinP was principally directed towards ensuring that this elicitation not only increased in frequency but also occurred within an ever-improving articulation. That is, the smaller collaborative frame of EC was situated *inside* the larger collaborative frame of the oral conversation and the tutor actively provided regulation to the learners within *both* frames.

In the next section, the researcher will present additional quantitative data demonstrating the effectiveness of the tutor's RinP on the learner's participation within the oral conversation, across the sessions.

5.4. EFFECTIVENESS OF REGULATION IN PARTICIPATION

In the previous section, the researcher analyzed the learners' appropriation of the tutor's RinP across the odd-numbered tutorial sessions. The protocol analysis showed that the learners gradually became more active participants who *also* self-elicited and correctly applied TG.

In this section, the researcher will provide additional data to further elucidate the dramatic shift in responsibility for *actively participating* in the oral conversation. That is, the researcher will study the effectiveness of the tutor's RinP by providing graphs showing the change in responsibility across the session. Then, the trends visualized in these graphs will be correlated with the protocol analysis from the previous section and will demonstrate the decreasing role of the tutor and the increasing role of the learner.

This change in responsibility across the sessions will be shown from two perspectives: a) the learner steadily increasing elaborations and initiations in each one hour TS; and, b) the learner steadily structuring their improving elaborations and initiations with self-elicited ZAI, SHI..DE and LE.

5.4.1.Improvement in elaboration and initiation across sessions

The researcher analyzed the Evaluated Episodes and located and counted all instances of the tutor's and each learner's elaborations and initiations in TS One – the start of the study ; TS Five – the middle of the study; and, TS Nine – the end of the study. These sums will be graphed to demonstrate both the changes between the tutor and learner and the changes in one learner across the sessions.

Because elaboration has been defined as the learners answering the tutor's question by volunteering information *in addition* to that necessitated by the question, a learner's *single*-sentence answer to a question *will not* count as an “elaboration” but a two-sentence elaboration *will* count. Additionally, sentences where new information resulted from tutor’s assistance in vocabulary, grammar, and pronunciation during learner’s narration will be counted. Because the researcher was assessing how much *responsibility* the learners took in the conversation, however, verbal or noun responses and a subsequent sentence which simply affirmed and did not add any new information *will not* count, e.g., “Yes. I went.”

The graphs will demonstrate a pair of sums of all instances of elaboration or initiation for TS One, Five, and Nine. Each pair will show the learner's sum on the right (dark-shaded bar) and the tutor's corresponding sum on the left (light-shaded bar) – as explained on the legend for each graph.

The number of learner A’s elaboration, shown in Figure 5.7, steadily increased from 25 in the first TS, to 53 in TS Five, to 69 in the last TS. At the same time, the tutor’s elaboration also steadily increased: from 16, to 29, to 43, in TS One, Five, and Nine, respectively.

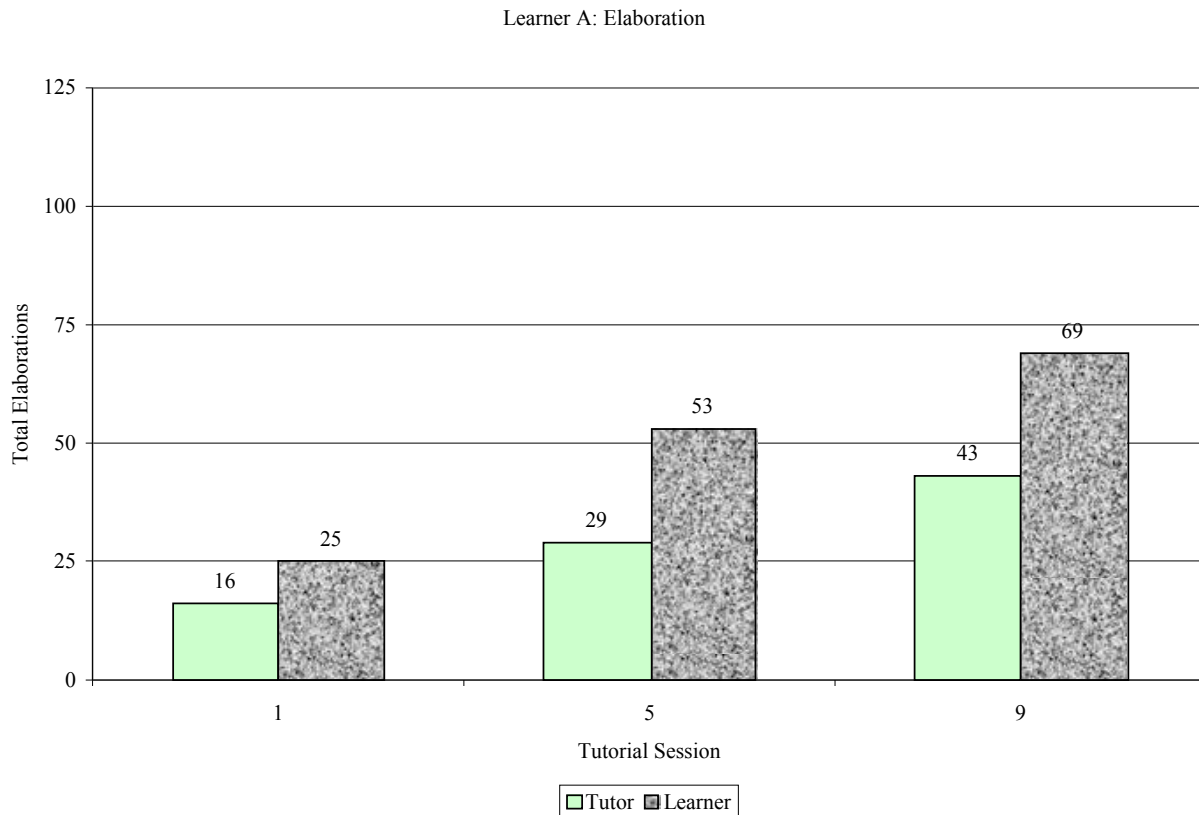


Figure 5.7: Elaborations by the tutor and learner A across sessions

Similarly to Figure 5.7, the number of learner B's elaborations, shown in Figure 5.8, also steadily increased from 49 in the first TS to 80 in TS Five and, finally, to 110 in the final TS. At the same time, the tutor's elaboration numbers also steadily increased from 29 to 45 to 55 in TS One, Five, and Nine, respectively.

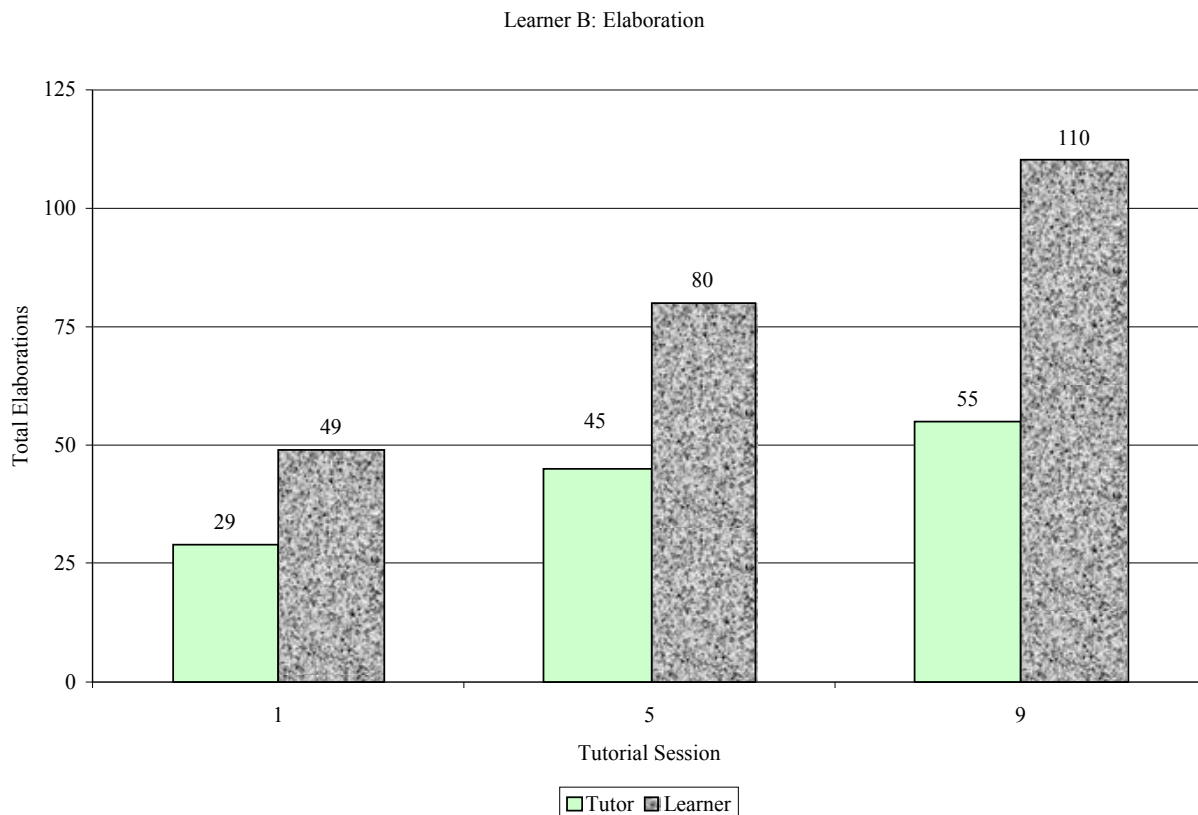


Figure 5.8: Elaborations by the tutor and learner B across sessions

Figures 5.7 and 5.8 demonstrated that the learners' and tutor's elaborations for each TS *more than doubled*, across the sessions. This observation is supported by the protocol analysis in the previous section – learner B's performance was shown to not only move from phrase to sentence to narration but his need for RinP to construct these elaborations decreased. Protocol 5.13, demonstrative of the beginning of the first TS, showed that learner B a) could utter only phrases and very short single-sentence answers; and, b) that the tutor was diligently assisting the learner with vocabulary, grammar, and pronunciation and challenging B to reform his phrases into sentences only when she determined that the learner was able to comply.

While no elaborations are shown *specifically* in Protocol 5.13, the 49 instances of elaboration, shown in Figure 5.8, were more primitive variations of elaborations¹ shown in lines 10-12, 18a-18b, and 20-22 of Protocol 5.14. In TS One, however, these early elaborations ended with the learner stating, “I don’t know how to say [more]”, in frustration.

By TS Five, not only had learner B’s elaborations nearly doubled (80), as compared to TS One (49), but were significantly different in two respects from those in Protocol 5.16. First, the elaborations were no longer superficial, for example, with learner B narrating his trip to Costa Rica. Second, B’s elaborations began to follow his interests, even if that meant using English for words not in his vocabulary. Because the learner was still uncertain of the basic sentence structure, most of his sentences were rather short. Lines 24a-24f of Protocol 5.16 were representative of the 80 elaborations found on Figure 5.8 for TS Five.

The 110 elaborations, shown in Figure 5.8 for TS Nine, were similar to those of Protocol 5.17. In that protocol, learner B narrated his trip to India in 29 lines. Not only was B’s sentence-structure solid and he actively used conjunction words to build long sentences (03, 07, 13, 21, 27, 29), but B also self-elicited and correctly used all three TG. Learner B, in addition to describing his daily activities, also expressed his personal opinion about the mis-treatment of servants in rural India.

By correlating Figure 5.8 with learner B’s protocol analysis, the researcher has demonstrated that learner B’s elaborations improved not only in *quantity* but also in *quality*. That is, the numerical comparison of elaboration for TS Nine (110) with those for TS One (49) was as dramatic as the comparison of Protocol 5.17 (TS Nine) with Protocol 5.13 (TS One).

¹ Protocol 5.14, from the beginning of TS Three, was the nearest protocol which demonstrated elaboration analyzed in Section 5.3.

This correlation yielded two additional observations. First, both graphs (Figure 5.7 and 5.8) demonstrate that the tutor's elaborations were always *below* those of the learner – it was the intention of the tutor to give the learner as many opportunities to talk as possible. Because meaning in the oral conversation was co-constructed, the tutor could not simply *stop* elaborating because that would have been detrimental to the conversation. Second, the two graphs also show that in *every* TS, learner B (Figure 5.8) elaborated approximately twice as much as did learner A (Figure 5.7).

Now, the researcher will turn to initiation and show that a similar improvement also took place. In this study, initiation has been defined as the learner asking the tutor questions. However, *only* questions related to information-gathering were counted while those related to error correction, clarification of meaning, and such, were *not*.

Because learner A did not begin initiating until TS Three, the tutor posed the 90 questions shown in Figure 5.9 for TS One. In TS Five, however, learner A initiated 20 questions and the number of tutor-initiated questions dropped to 61. In TS Nine, learner-initiated questions rose to 25 and the tutor's dropped to 52. And, correlation of learner A's graph (Figure 5.9) with the protocols from the previous section demonstrates that A, indeed, did not attempt to ask questions until TS Three (Protocol 5.18) – where she initially refused, “I can't do that”, “because it is harder” (line 02, line 04, respectively).

In TS Five (Protocol 5.20) the tutor was still skillfully guiding learner A to initiate by, for example, elaborating in ways which encouraged A to take over (17) and challenging A to initiate with suggestion of form (44). These examples (17-44) are representative of the 20 initiations in Figure 5.9 for TS Five. However, by TS Nine, learner-initiated questions rose to 25, and, as

Protocol 5.22 demonstrates, learner A had taken on an active interest in the tutor's life, even displaying care and compassion for the tutor's complaints.

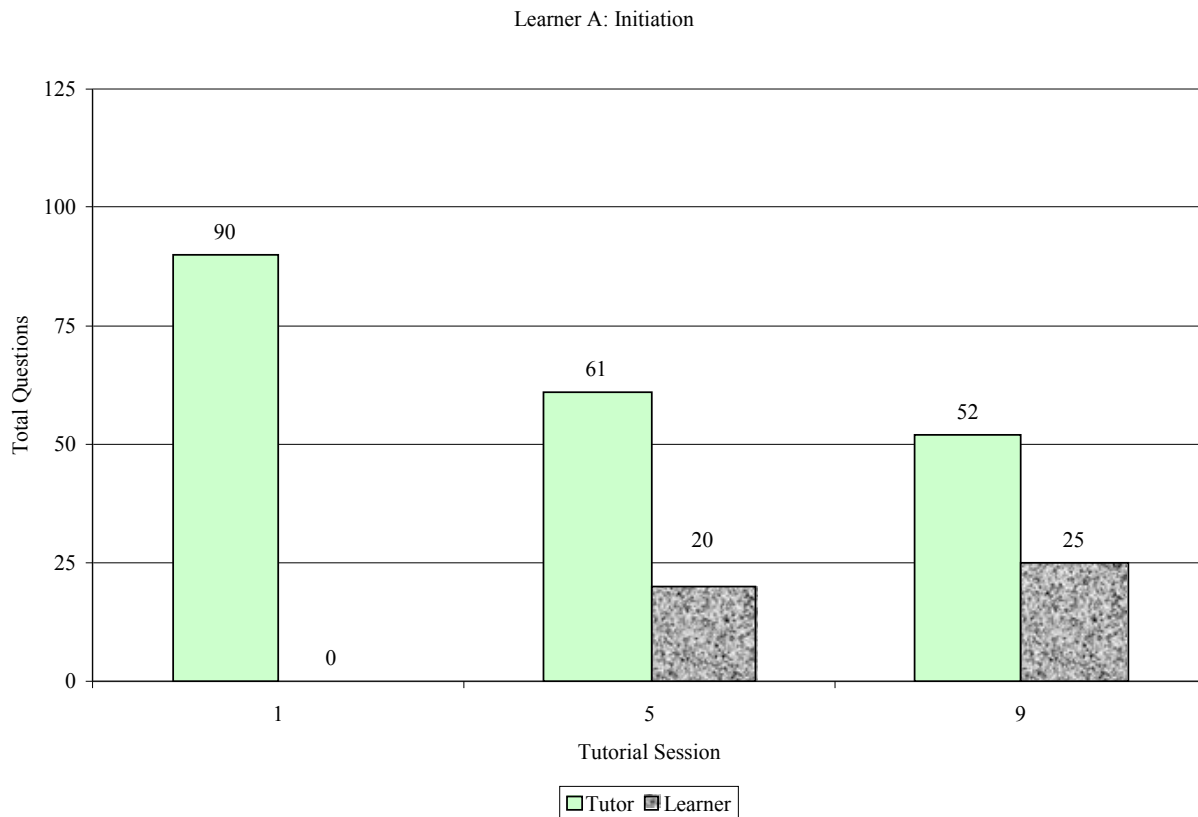


Figure 5.9: Initiations by the tutor and learner A across sessions

While Figure 5.10 and Figure 5.9 are generally similar, learner B initiated 27 questions in TS One to learner A's zero. By TS Five, the number of learner-initiated questions for B had increased to 32 while the number of tutor's questions dropped to 53. In TS Nine, learner B (50) had, in fact, surpassed the tutor (38). Indeed, by TS Nine, learner B was actively leading (Figure 5.10) *and* actively contributing (Figure 5.8) in the oral conversation. In addition, the number of learner B initiations (50) in TS *Five* was approximately that of learner A's in TS *Nine* (53) – this will be discussed in detail in Section 5.6.

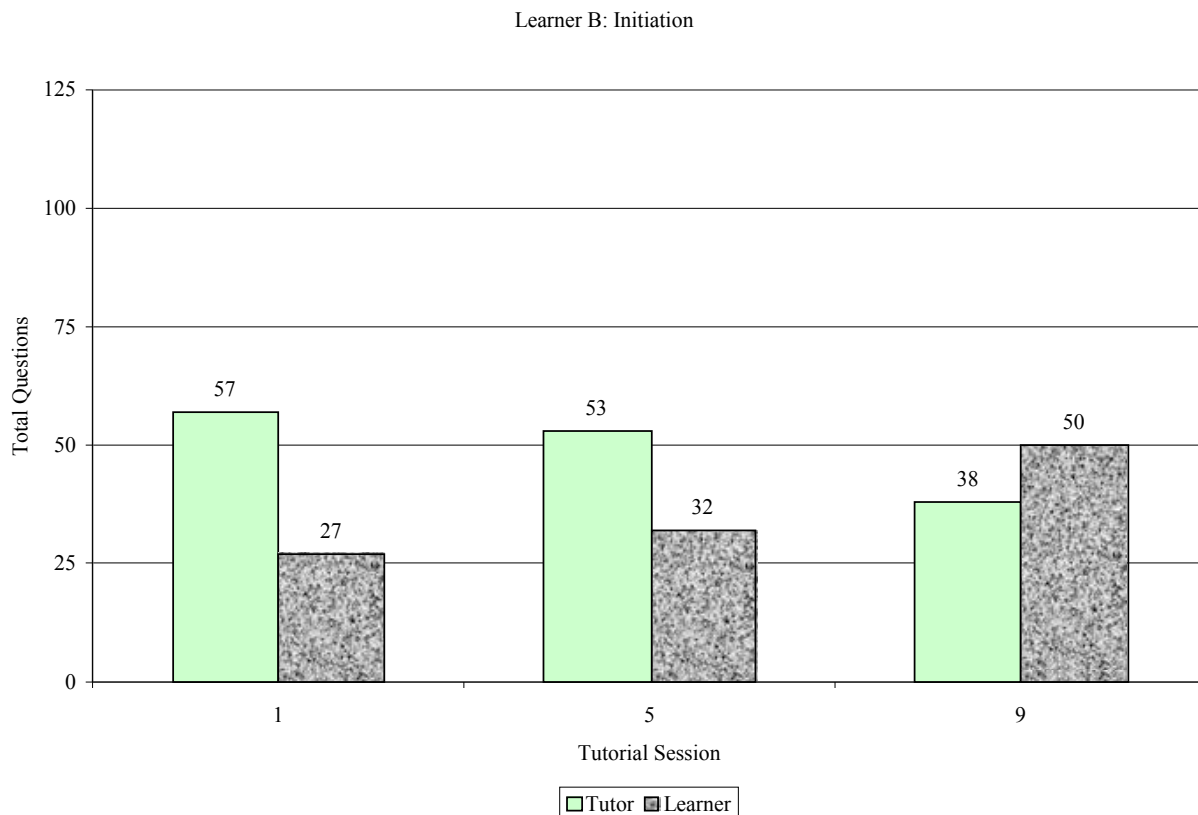


Figure 5.10: Initiations by the tutor and learner B across sessions

5.4.2.Improvement in elicitation of TG across sessions

In the previous section, the researcher demonstrated a significant numerical increase in the learners' elaborations and initiations, across the sessions. Now, additional graphs will provide evidence that the responsibility for *structuring* this increasing participation with the three target grammatical structures (TG) also shifted from the tutor to the learner. That is, the learners will be shown to transition from using ZAI, SHI..DE, and LE only when *challenged* to eliciting the structures of their own volition – i.e., shift from other-regulation to self-regulation.

As the researcher was primarily interested in a *ratio*, the “100% Stacked Column” graph-type was selected for both Figure 5.11 and Figure 5.12 of learner A and B, respectively. Both graphs show the responsibility for eliciting ZAI, SHI..DE, and LE in TS One¹, Five, and Nine –

¹ Since the tutor did not correct LE before TS Three, it does not appear on either graph for TS One.

i.e., groups of three ratios (column) from the beginning, middle, and end of study. Each column represents a ratio: the percentage of the elicitations of the learner on the top, with dark-shading, and the tutor on the bottom, with light-shading. For example, a learner's percentage was calculated as follows:

$$percentage_{learner} = \frac{elicitations_{learner}}{(elicitations_{tutor} + elicitations_{learner})} * 100\%$$

Both graphs will show that the learner progressively was able to take on more responsibility for using the TG in his or her elaborations and initiations, across the sessions. However, it is important to keep in mind that the graphs in this section show only part of the learners' overall “appropriation” and it is only by correlating the increasing responsibility for eliciting the TG with *both* learners' increasing grammar accuracy (protocol-data in Section 5.1 or graphs in Section 5.2) *and* their increasing elaborations and initiations (protocol-data in Section 5.3 or graphs in Section 5.4.1) that a more comprehensive¹ picture emerges.

Figure 5.11 shows that in the first TS, the tutor needed to elicit over 70% of the instances of ZAI and over 90% of the instances of SHI..DE while learner A elicited the remainder. By TS Five, the tutor needed to elicit noticeably less than in TS One, dropping to 50%, 70%, and 83% for ZAI, SHI..DE, and LE, respectively. In the last TS, the tutor's elicitations further dropped to 40%, 75% for SHI..DE, and LE, respectively except for ZAI (60%) which did not. While ZAI did not drop in the final TS, as shown in Section 5.2, the learner had already mastered ZAI.

¹ However, for the total picture, the protocols also are needed.

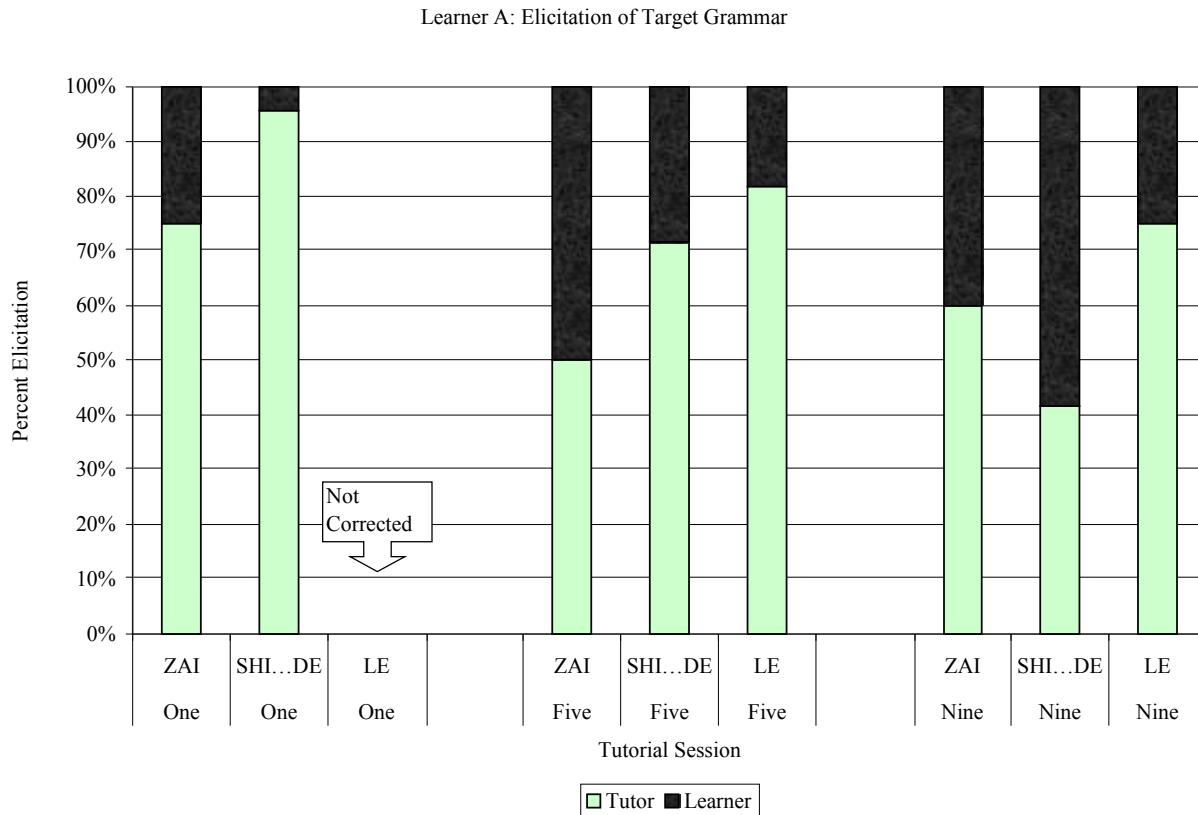


Figure 5.11: The ratio of tutor's to learner A's elicitations of TG across sessions

Figure 5.12 for learner B shows that in the first TS, the tutor needed to elicit over 70% and 90% of all instances of ZAI and SHI..DE, respectively. By TS Five, the need for the tutor's elicitation dropped noticeably, to 33%, 50%, and 63% for ZAI, SHI..DE, and LE, respectively. In the final TS, the tutor needed to elicit TG only infrequently – 18%, 6%, and 16% for ZAI, SHI..DE, and LE, respectively.

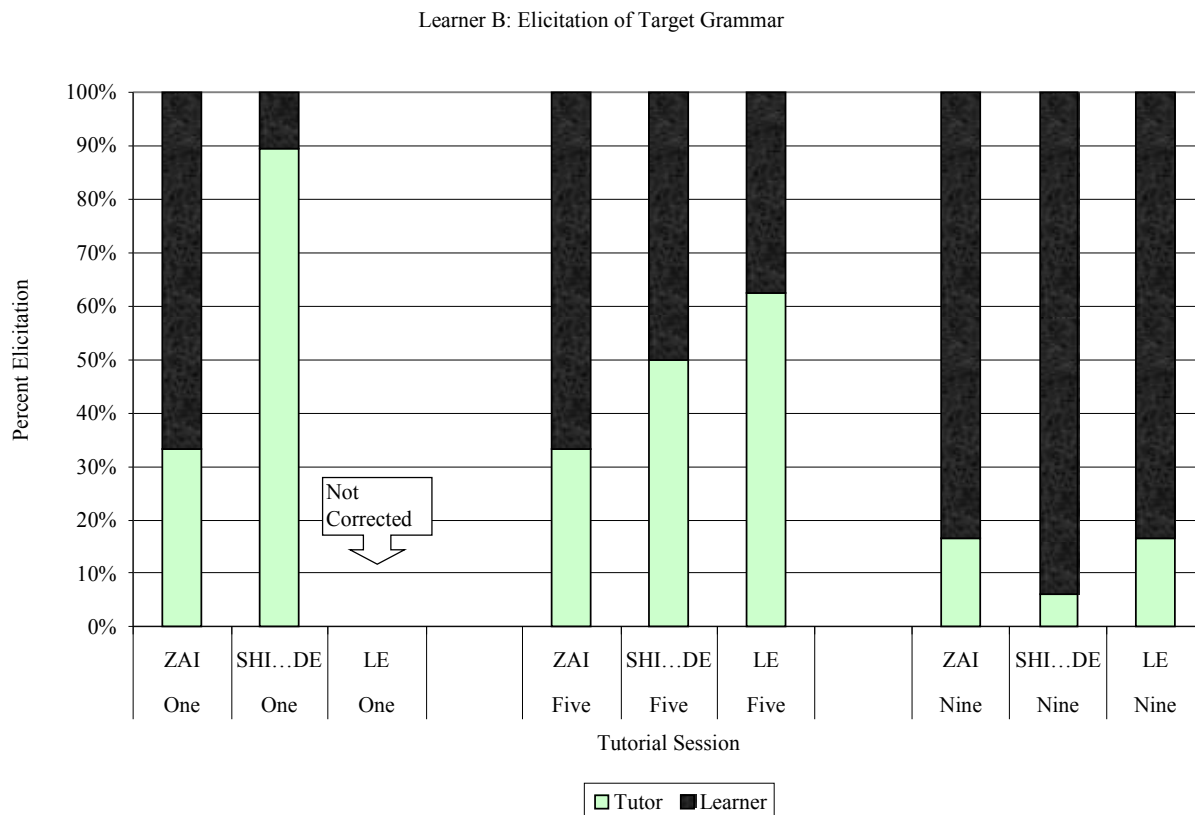


Figure 5.12: The ratio of tutor's to learner B's elicitations of TG across sessions

The tutor demonstrated¹ the shift in responsibility for co-constructing the conversation with graphs of the learners' increasing elaborations and initiations (Figures 5.7 to 5.10) and graphs of the learner's increasing responsibility for eliciting the three TG (Figures 5.11 and 5.12). And, a third shift in responsibility has also been shown, that is, the learners' gradual increasing TG accuracy in using the three TG (Figures 5.1 to 5.6).

That is, the learners' participation was shown to dramatically improve, with both learners increasingly contributing more and actively leading the conversation (Section 5.4.1) while, simultaneously, increasingly structuring (Section 5.4.2) these elaborations and initiations with the correctly applied (Section 5.2) TG. In other words, both learners demonstrated the ability to

¹ While only relationships among graphs are discussed, the researcher did multiple correlations with the protocol data to verify these comparisons.

apply TG correctly in participating during the oral interaction – the learners’ increasing grammar accuracy occurred *within* their improving participation¹ during oral conversation.

In other words, the learners gradually become self-regulated, active, and, as will be shown in the next section, confident language users by appropriating the tutor's *inseparable* RinP and EC in the oral conversation. The researcher will show, in the next section, that this study prepared them to participate in the community by presenting the learners' self-reflections on their own progress.

5.5. PRE-STUDY AND POST-STUDY QUESTIONNAIRES

Thus far, the researcher has been the sole “evaluator” of the learners' grammar accuracy (Sections 5.1 and 5.2) and participation development (Sections 5.3 and 5.4). However, by presenting sample excerpts from the Pre-Study and Post-Study Questionnaires (APPENDIX B), the researcher will show how the *learners* self-evaluated their own development.

As the tutor's regulation in participation (RinP) was a finding of this study, these surveys were designed to assess the effectiveness of only the tutor’s error correction (EC). Thus, data related to the effectiveness of tutor’s RinP are derived or secondary. Fortuitously, since the grammar accuracy took place within their participation, the learners’ self-reflections provided insights on *both* EC and RinP.

The surveys were not designed to be compared. The Pre-Study Questionnaire attempted to a) assess the participants' prior language-learning experience; b) personal approaches to learning language; and, c) each participant's self-assessment of their performance in Chinese. The Post-Study Questionnaire, on the other hand, assessed the participants' language development and their likes and dislikes of the various aspects of the study.

¹ As defined in the [preliminary] Three Criteria of Participation Development, Section 4.3.

5.5.1.Pre-Study Questionnaire

The learners completed the Pre-Study Questionnaire before TS One to establish the prior foreign language learning experience and Chinese language proficiency in terms of grammar accuracy during dynamic communication. Both of the learners were found to have previously studied a foreign language but with minimal proficiency and no prior tutoring experience; neither learner had experience with Chinese before coming to Princeton University; both were 18 years old and, while learner A was female, learner B was male.

In the following analysis, the similarities and differences between the learners will be correlated with the Pre-Study Questionnaire question numbers, in parentheses¹. The learners were found to share similarities in a) using Chinese in basic communication inside and outside class; b) the grammar accuracy during these basic communications; c) the learners' attitude towards receiving error correction; and, d) the learners' confidence in *using* Chinese and motivation in *learning* Chinese. The learners only differed in their approach to learning Chinese – learner A *did not* explicitly think of grammar while speaking (12) while learner B *did*.

First, both learners stated that they were very motivated (17) and spent about one hour per day on Chinese, in addition to their classes (7). Second, while they were motivated, their self-assessment of their communication-ability was poor because they felt weak and anxious when using Chinese to communicate (9, 10, and 11) and, consequently, did not speak Chinese unless they were forced to do so (8, 9, 16, and 19). Specifically, learner A did not feel that she was worthy to speak outside the classroom, while learner B simply did not speak Chinese outside class and “practiced” with a tape recorder.

¹ Unless otherwise noted, the question number was applicable to both learners.

Third, both learners recognized that they were good in memorization and recitation (10a) and felt that they performed better in grammar rules and recalling vocabulary than in oral communication (10e, 10f, and 10h). Fourth, both learners had an aversion to public EC – when corrected anywhere, they felt panicked (learner B: 15) or ignored it (learner A: 15). Instead, they preferred to be corrected individually, during the conversation, rather than in front of their classmates (14).

The researcher correlated both learners' self-assessments with their corresponding performance through protocols from TS One. At the start of the study, neither learner A nor B knew how to accurately use the three TG and required high levels of tutor's EC (Sections 5.1 and 5.2) and their participation in the communication was poor (Section 5.3) – the tutor needed to provide all types of assistance to, *first*, involve them into the conversation, and, *then*, elicit TG and provide EC within that guided participation.

The learners' Pre-Study self-reflections were accurate and in harmony with the low grammar accuracy and poor participation observed in the first TS. And, analysis of the Post-Study Questionnaire will demonstrate that the learners' self-assessments also accurately paralleled the profound improvement observed in both grammar and participation in this chapter.

5.5.2. Post-Study Questionnaire

At the conclusion of the final TS, the learners were asked to complete the second survey which probed the changes in their a) oral communication ability; b) use of the TG during that oral communication; and, c) attitude towards EC. In this analysis, the discussion points will be correlated with the Post-Study Questionnaire question numbers, in parentheses.

In terms of using Chinese to communicate orally, both learners stated that they felt “at ease” (10 and 11) and that they did much more of such “communication” (8, 9, 16, and 19).

“[Before,] I was overwhelmed [and] reluctant to speak – I didn’t know how to initiate conversation. [Now,] getting through the first stage [...is] easy to do. [I am now more motivated], more so since I speak better.” “[W]hen I try to say something outside the class to those Chinese teachers, I would be more likely to say something [now] instead of just nothing. I am also using more Chinese to my Chinese friends. People talking [in] Chinese tend to bind together [more] since we are suffering together. If you drop [me] in China, I would not worry about being starved [...] when we started talking, English words kept coming out. Now, I shift and once I shift to Chinese, I can stay in Chinese for a while.”

In terms of their functional use of the three TG, they felt that there was a significant improvement in using the three TG to convey their meaning during the “communication”. For ZAI, a learner said “I used [ZAI] before, but I did not know where it should go. I have a better idea of how to use it and sometimes certain things sound better than others. In English – I know nothing about English grammar but I do what sound right – at the end of [these sessions], if I don't put ZAI in front of verb, I can tell that sounds wrong. I would feel naked.”

For SHI..DE, “I am pretty good with SHI..DE [...] if I am paying attention. I know how to use SHI..DE and I really don't think how I use it, now. [Before], I did think about, ‘this is past emphatic’ for a while. Then less and less. I am used to [now] where it would be used and when it can be used. [I used to] copy [your form] more at the beginning. I still [copy] a little bit when I am not sure, now.”

“Since the [the sessions put] pressure to use structures [SHI..DE], [it is] much easier to recognize which one to use.” [The most useful to me was] repetition; using things I know more than just once so it can get into [my] head. The more repetition, the more helpful. [I also found the] Moral support [...] encouraging [and] I appreciate it.”

And, for LE, “I would make mistakes. I would talk about length of time [LE] by using SHI..DE. Part of learning is to learn rules and part of it is to learn particular ways I say [it] incorrectly. [These sessions] forced [me] to use it in regular conversation, and [in our conversations,] you tell me in which context to use it and which context not to use it. It took me a while [to stop copying the form from your questions]. Recently, when I heard ‘ni SHI shenmen shihou...’ I had the concept in my mind that you were asking sometime in the ‘past’. [Now,] it comes [out] automatically, ‘wo SHI...’, I am not sure I am there yet, but I am getting there. [In all my time learning Chinese,] I was corrected more in LE than ZAI.”

“[...After the sessions, it is] much easier to recognize now which [SHI..DE vs. LE] to use [- the sessions put] pressure to use structure[s]. [Outside the Individual Sessions,] when I was corrected, I can more easily see my mistake.”

In terms of EC, the learners’ attitude changed from panic or a desire to ignore it, to acceptance and cooperation. They realized that, “[...] it is important [for me] to know [what I say] is wrong and embarrassing and [I] do not want to repeat [the mistake] in the future. [After the sessions, it is] much easier to recognize now which [TG] to use [, the sessions put] pressure to use structure[s]. [Outside the Individual Sessions,] when I [am] corrected, I can more easily see my mistake.”

“[...] After knowing and being able to carry on conversation, I was very excited to come back [from Spring Break] and spend more time to correct mistakes and learn. I know what I am supposed to do and what [my] problems are, so I am excited to correct them. I did not have [any] idea [before] where to begin.” “[I also found your] moral support [during the EC] encouraging [and] I appreciate it.”

Not only did the learners voice their new-found appreciation for the EC but stated that they would seek it in the future: “[Next term,] I will try to ask [friends taking] upper-level Chinese [classes] to talk to me more. I did not realize how helpful it is so I did not do it last term. Language is easier with a group of people.”

The Post-Study Questionnaire also corroborated the findings in Sections 5.1 to 5.4. While neither survey (i.e., Pre-Study or Post-Study) was *explicitly* designed to assess the learner’s self-reflections on their improved participation, both learners noted that the sessions, their oral communication *and* TG accuracy improved and that they felt comfortable starting conversations and talking, in general. The learners’ self-assessment agrees with their corresponding protocol analysis for TS Nine in Sections 5.1 and 5.3. That is, at the same time that the learners were more capable of taking responsibilities in elaborating and initiating the conversation they also self-elicited more TG and self-regulated their own grammar use. That is, their improved grammar accuracy, observed in Section 5.1, took place hand-in-hand with their improved participation in the oral interaction, observed in Section 5.3.

The learners also stated that these improvements in grammar accuracy and participation came about during the TS because they felt compelled to express their own thoughts while the tutor helped them learn when to use the TG and when not to use it. The learners' self-reflections are in agreement with the findings of Section 5.1: learning grammar is not only about knowing the linguistic form or the grammar meaning that that form helps express, but, more importantly, it is about knowing in which contexts a particular grammar should be used during the conversation.

In other words, by guiding, challenging, and assisting the learner to co-construct their meaning, the tutor co-constructed meaningful contexts where she could co-elicited the grammar for

the learners' use (i.e., for self-expression) and differentiation (i.e., for telling TG apart). The learners found this aspect of the oral conversation helpful: "In class (lecture and drill classes), we were asked a question *but* we didn't engage in conversation or people exchanging ideas [...] One can't learn Chinese very well through that method. [Here, I can] talk about my thought. In class, we learn model sentence, which helps us to learn grammar [and] vocabulary. But when you learn model sentences, you are not picking your own ideas, your feelings and using your knowledge of Chinese. But if you are talking about your day, your trip a week before, you have to apply the grammar and vocabulary to what you want to say."

"[...] Seeing the structure and creating the structure seems two different exercise. So assimilation and creation are different things. In our session, you're asking me to ask you questions [so I have to remember the form and this] is more creative and makes everything more difficult, but solid. [In drills] it is almost like seeing a picture and put a transparent piece of paper and trace it out. [However,] in our conversation, I have to put that away and draw my own picture. So, how well [I] understand it is much different from how to apply it."

"[My] first step is to learn grammar rules for a particular structure. But I feel that it does not mean that if [I] know the rules [I] can incorporate it into [our] conversation. Speaking is difficult in terms of when to use it and when not to use it. I had a vague idea. When I [tried to] talk, it did not come out as I wanted [it] to. In lecture class, the structure was written [out for us] and the teacher will make up some model sentences for you to repeat it. You will know you have to incorporate that grammar in your sentence. In drill, it is the same. But in the conversation, nobody is telling you what structure to use, you just have to know when to use [it]. [In the] beginning, maybe even after the beginning, I did not know which one to use. Now, I consciously know how SHI..DE work[s]."

“[...Now,] it is much... more... easier for me to answer your questions. I [wouldn't be able to] talk so much if there were no individual sessions.”

The learners expressed that they felt comfortable actively engaging in a conversation with a native speaker – inside and outside of their Chinese classes. Indeed, they felt at ease talking because they knew that they would structure their meaning using the correct grammar *without* having to think about which grammar to use. That is, the grammar form, grammar meaning, and the contexts where that grammar should be applied had all become a natural part of their self-expression.

In the next section, the researcher will demonstrate that each learner had multiple levels of ZPDs in carrying out different tasks of elaboration and initiation and when using different TG.

5.6. MULTIPLE-LEVEL ZPD

In Sections 5.1 and 5.3, by presenting the learners' appropriation of the tutor's EC *and* RinP, the researcher demonstrated that *both* of these types of assistance were contingent on each learner's ZPD. Then, Sections 5.2 and 5.4 *graphically* illustrated that the learners developed at different paces in terms of use of the TG, elaboration and initiation, and elicitation of TG. Finally, Section 5.5 added that the learners' approaches to learning Chinese differed. In this section, the researcher will demonstrate that the tutor assistance was finely-tuned to the learner's combined need of the task and the TG they were attempting to use in that task.

Comparison of Protocols 5.23 and 5.24 will demonstrate that *different* learners had *different* ZPDs when carrying out the *same* task while using the *same* structure. Then, comparison of Protocols 5.24 and 5.25 will demonstrate that the *same* learner had *different* ZPDs when carrying out the *same* task while using the *same* structure, just some time later (Table 5.2).

Table 5.2: Protocols and learners compared in this section

Protocols Compared	Learners Compared	Task	Grammar	ZPDs
5.23 & 5.24	B & A	Initiation	SHI..DE	different
5.24 & 5.25	A & A	Initiation	SHI..DE	different

Protocols 5.23 and 5.24 will illustrate that the same task and TG presented very different problems for learners A and B and, thus, required different levels of regulation from the tutor. The first protocol will demonstrate that learner B *was* able to initiate and self-elicite TG with *limited* regulation from the tutor.

Protocol 5.23

01T	好, question (pointing at herself hinting that B asks her a question)	01T	Good. <i>question (pointing at herself hinting that B asks her a question)</i>
02B	你怎么样?	02B	How are you?
03T	我很好, 你呢?	03T	I am fine. You?
04B	我也很好。What else? (silence)	04B	I am fine too. <i>What else?</i> (silence)
05T	eh..., you can ask 'What I did, where I came from', you probably have to ask Professor Y questions in final oral exam.	05T	<i>eh..., you can ask 'What I did, where I came from', you probably have to ask Professor Y questions in final oral exam.</i>
06B	okay. eh..., 你喜欢什么?	06B	<i>okay. eh..., what do you like?</i>
07T	我喜欢跳舞, 我也喜欢说英文。	07T	I like dancing. I also like [to] speak English.
08B	'跳舞'是 dancing?	08B	'dancing' is <i>dancing</i> ?
09T	对	09T	Yes.
10B	为什么喜欢说英文?	10B	Why [do you] like [to] speak English?
11T	不知道, 我就是喜欢。不知道为什么。	11T	I don't know, I just like it. I don't know why.
12B	你喜欢念英文书, 念英文书	12B	You like [to] read book in English, read book in English.
13T	对, 念英文书。	13T	Yes, read books in English.
14B	什么书?	14B	What book?
15T	美国的 history 的书, literature 的书。	15T	American <i>history</i> book, <i>literature</i> book
16B	<u>你是什么时候开始</u>	16B	<u>You SHI when started</u>
17T	开始(tone)	17T	start (tone)
18B	开始, <u>开始念英文书的?</u> (SHI-1)	18B	start, <u>started reading books in English DE?</u> (SHI-1)

19T	我是上中学的时候开始看英文书的。	19T	I SHI in high school started reading English book DE.
20B	是什么时候？	20B	When was it?
21T	中学 high school	21T	high school [is] <i>high school</i>
22B	哪个书？	22B	Which book?
23T	什么书	23T	what book
24B	什么书？	24B	What book?
25T	是我们中学的英文书。Textbook	25T	[It] is textbook of our high school. <i>textbook</i>
26B	你喜欢哪个英文书？	26B	Which English book do you like?
27T	我喜欢看 Shakespeare 的书。	27T	I like books of <i>Shakespeare</i> .
28B	Shakespeare 的书很难。	28B	The books of <i>Shakespeare</i> are difficult.
29T	我看的 Shakespeare 的书不太难， 是 simplified。	29T	The books of <i>Shakespeare</i> I read were not difficult. [They] were <i>simplified</i> [books]
30B	eh..., ..., ..., ... 没有问题	30B	eh..., ..., ..., [I] don't have question.

In this protocol, which came from TS Three, learner B initiated much of the conversation in response to the tutor's challenge and self-elicited one SHI..DE question with only the tutor's assistance with pronunciation.

At the beginning of the conversation, the tutor challenged learner B to ask her a question (01). Learner B willingly complied (02) but exhausted his topics, "What else?" (04) and needed the tutor assistance on possible meanings (05). Indeed, he self-initiated seven more questions (06, 10, 14, 16-18, 20, 22, and 26), before stopping (30).

The researcher would like to bring attention to the learner's fourth question (16-18) where learner B self-elicited the SHI..DE question, "When was it that you started reading English books?" (16, 18: Level 0) within the context that he had co-constructed with the tutor (i.e., "What do you like [to do]?"). Not only was B's SHI..DE form correct but he needed the tutor's assistance *only* with pronunciation (17).

While Protocol 5.23 demonstrated that learner B was comfortably leading the conversation and even self-eliciting SHI..DE in TS Three, the next protocol will demonstrate that

learner A's ZPD for the same task (initiation) and same structure (SHI.DE) was *noticeably* different.

Protocol 5.24

- | | | | |
|-----|---|-----|--|
| 01T | Can you ask me questions? | 01T | <i>Can you ask me questions?</i> |
| 02A | Ask questions? I can't do that. | 02A | <i>Ask questions? I can't do that.</i> |
| 03T | Why? | 03T | <i>Why?</i> |
| 04A | Because it is harder. | 04A | <i>Because it is harder.</i> |
| 05T | Is it harder? You think so? | 05T | <i>Is it harder? You think so?</i> |
| 06A | I think so, because I will
(unintelligible) | 06A | <i>I think so, because I will...
(unintelligible)</i> |
| 07T | But, if you go to China next summer,
you might have to ask questions.
Besides, in the final examination,
you might have to ask Professor X
questions. | 07T | <i>But, if you go to China next summer,
you might have to ask questions.
Besides, in the final examination,
you might have to ask Professor X
questions.</i> |
| 08A | (silence) | 08A | (silence) |
| 09T | You can think about what I asked
you and then ask me. | 09T | <i>You can think about what I asked
you and then ask me.</i> |
| 10A | Okay. 你, eh..., ..., eh..., 在去哪
儿? | 10A | <i>Okay. you, eh..., ..., eh..., at go
where?</i> |
| 11T | 你现在 | 11T | <i>you now</i> |
| 12A | 你现在住哪儿? | 12A | <i>Where [do] you live now?</i> |
| 13T | 我住在普大附近。 | 13T | <i>I live nearby Princeton University.</i> |
| 14A | eh..., ..., I have no question. | 14A | <i>eh..., ..., I have no questions.</i> |
| 15T | (laugh) waiting for the learner to
come up with something. | 15T | <i>(laugh) waiting for the learner to
come up with something.</i> |
| 16A | How do you say 'before' 以前? | 16A | <i>How do you say 'before'
'before'?</i> |
| 17T | yes. 以前 | 17T | <i>yes. 'before'</i> |
| 18A | Oh! So it is 以前, 以前你住在这
儿, 你住在哪儿? | 18A | <i>Oh! So it is 'before', before, you
live here, where did you live?</i> |
| 19T | 以前, 我住在 Pittsburgh | 19T | <i>before, I lived at Pittsburgh</i> |
| 20A | <u>你住 Pittsburgh 几年?</u> (LE; no
correction) | 20A | <u><i>You live at Pittsburgh how many
years?</i></u> (LE; no correction) |
| 21T | 我住了七年。 | 21T | <i>I lived LE seven years.</i> |
| 22A | 你, 你有家? | 22A | <i>you, you have family?</i> |
| 23T | 你有家? | 23T | <i>you have family?</i> |
| 24A | 你有没有家? | 24A | <i>Do you or don't you have family?</i> |
| 25T | 我有家。 | 25T | <i>I have family.</i> |
| 26A | 你家很大吗? | 26A | <i>Is your family very big?</i> |
| 27T | 我家有四个人, 我妈妈, 妹妹,
我跟我的 husband。 | 27T | <i>There are four people in my family,
my mom, sister, I and my husband.</i> |

- 28A 你妈妈跟妹妹住在中国吗？
 29T 对。他们现在住在中国。
 30A (laugh) That sucks.
 31T (laugh) 对啊！
 32A 你要他们，eh...，你要去中国，
 eh...你看他们吗？
 33T 我去过中国看他们。
 34A 几...，几次，...，几次，
 35T 几次？
 36A 几次？
 37T 四次
 38A 我不知道。
 39T four times
 40A Oh! (laugh) okay. (silence)
 41T **Time (SHI)**
 42A eh?
 43T **We are talking about me going
 back to China**
 44A eh...，eh...，你...，你，eh...，你生
在北京吗？(SHI) (ZAI)
 45T ‘born’ 是出生
 46A 出生，eh...，你出生在北京吗？
 47T **place word (ZAI: 5)**
 48A Before the verb (laugh). 你...，在
 北京出生
 49T **It is past, right? (SHI: 5)**
 50A 以前，你 eh...，在北京出生吗？
 51T **(Raising eyebrow) (2)**
 52A Oh! So I should use that thing? (laugh)
 53T **(laugh) whenever you are
 emphasizing. (5)**
 54A okay, 以前
 55T When you use ‘是’，you don’t have
 to say ‘以前’
 56A Oh...，can you add ‘吗’ at the end?
 57T yeah.
 58A 你是在北京出生的吗？
 59T 我是在北京出生的。
 60A I have no more questions.
- 28A Your mom and your sister live in
 China?
 29T Yes. They live in China now.
 30A (laugh) That sucks.
 31T (laugh) Right.
 32A You want them, eh..., you want [to]
 go [to] China, eh....do you see them?
 33T I have been back [to] China [to] see
 them.
 34A how many ...，how many times, ...，
 how many times,
 35T how many times?
 36A how many times?
 37T four times
 38A I don’t know.
 39T four times
 40A Oh! (laugh) okay. (silence)
 41T **Time (SHI)**
 42A eh?
 43T **We are talking about me going
 back [to] China**
 44A eh...，eh...，you...，you，eh...，you born
ZAI [at] Beijing? (SHI) (ZAI)
 45T ‘born’ is born
 46A born, eh...，you born ZAI [at] Beijing?
 47T **place word (ZAI: 5)**
 48A Before the verb (laugh). you...，
 ZAI [at] Beijing born.
 49T **It is past, right? (SHI: 5)**
 50A before, you eh...，ZAI Beijing born?
 51T **(Raising eyebrow) (2)**
 52A Oh! So I should use that thing? (laugh)
 53T **(laugh) whenever you are
 emphasizing. (5)**
 54A okay, before
 55T When you use ‘SHI’，you don’t have
 to say ‘before’
 56A Oh...，can you add ‘ma’ at the end?
 57T Yeah.
 58A You SHI ZAI [at] Beijing born DE?
 59T I SHI ZAI [at] Beijing born DE.
 60A I have no more questions.

In stark contrast to learner B of the previous protocol, learner A initially *refused* to ask questions and overtly stated that asking questions was harder than answering questions.

This conversation began with the tutor challenging the learner to initiate (01). Learner A, however, resisted, “I can’t do that” (02) “because it is harder” (04). Thus, the tutor *first* had to convince A by explaining the goals of the task (07) and then provide guidance (09). With the tutor’s assistance, learner A was able to initiate seven questions (18, 20, 22-24, 26, 28, 32, 34-36) and one additional question that the researcher wishes to highlight.

Specifically, when learner A fell silent (41), the tutor challenged A to initiate by suggesting, “[ask me the] time” (42) hoping that A would elicit the TG SHI..DE. Learner A not only did not remember the context (43) and needed tutor’s reminder (44) but also omitted the necessary SHI..DE markers and used incorrect sentence-order (45). It was only with tutor’s *extensive* assistance (47, 49, 51, 53, 55, 57) that A could initiate, “You SHI ZAI [at] Beijing born DE?” (58).

Comparison with the previous protocol (Protocol 5.23) indicates that learners A's and B's ZPDs were different on three distinct *levels*. First, the two learners demonstrated different ZPDs in the task of asking questions – i.e., while learner B was comfortably leading the conversation following tutor’s initial challenge to do so, learner A rejected the challenge and only complied with the tutor’s convincing and demonstration. Second, the two learners demonstrated different ZPDs in eliciting the same TG (SHI..DE). While learner B *was* aware that the particular context called for SHI..DE to express his meaning, learner A *was not* (lines 52 and 54) and could not self-elicite SHI..DE without the tutor's extensive assistance. Third, the two learners demonstrated different ZPDs in using the same TG. That is, while learner B self-elicited SHI..DE correctly, learner A required 15 lines of tutor’s error correction.

In other words, these two protocols (Protocols 5.23 and 5.24) clearly demonstrated that learners A and B have *different* ZPDs in the *same* task of initiating while using the *same* TG

(SHI..DE). Next, the researcher will demonstrate that the *same* learner had *different* ZPDs for the *same* task while using the *same* TG, with the difference that Protocol 5.25 transpired only ten (10) minutes after Protocol 5.24. Specifically, only about ten minutes later, learner A could initiate and also self-elicite SHI..DE in her questions.

Protocol 5.25

- | | | | |
|-----|---|-----|--|
| 01A | 你喜不喜欢坐飞机？ | 01A | Do you or don't you like [to] take airplane? |
| 02T | 我不喜欢坐飞机。 | 02T | I don't like [to] take airplane. |
| 03A | 为什么？ | 03A | Why? |
| 04T | 因为我有 motion sickness. | 04T | Because I have <i>motion sickness</i> . |
| 05A | 你，你:::有 pill 吗？ | 05A | You, you::: do you have <i>pill</i> ? |
| 06T | 有，可是，我得睡觉，我很不舒服，而且，飞机上的饭不好吃。 | 06T | Yes, but I have to sleep, I don't feel comfortable. Besides, the food in airplane is not good. |
| 07A | (laugh) 对，我 eh..., 我坐飞机的时候，我 eh..., 我有 own food 吃饭 | 07A | (laugh) I agree. I, eh..., when I take the airplane, I, eh..., I have <i>own food</i> eat food. |
| 08T | 什么？ | 08T | what? |
| 09A | 我有 own food | 09A | I have <i>own food</i> |
| 10T | 你有你自己的饭？ | 10T | You have your own food? |
| 11A | 对，我有我自己的饭。 | 11A | Right, I have my own food. |
| 12T | 你吃什么呢？ | 12T | What do you eat? |
| 13A | 我吃 candy. | 13A | I eat <i>candy</i> . |
| 14T | 你吃很多的 candy, 你不吃饭吗？ | 14T | You eat lots of <i>candy</i> , don't you eat food? |
| 15A | 我吃 crackers, 我喜欢吃 candy。 | 15A | I eat <i>crackers</i> , I like [to] eat <i>candy</i> . |
| 16T | 可是，我不喜欢吃 candy，我饿的时候，我得吃饭。 | 16T | But, I don't like [to] eat <i>candy</i> , when I [am] hungry, I have to eat [real] food. |
| 17A | (a) 我吃 snacks. (b) Let's see (thinking of new topics) 你今天，你:::, 忙吗？ | 17A | (a) I eat <i>snacks</i> . (b) <i>Let's see (thinking of new topics)</i> You today, are you busy? |
| 18T | 今天我不太忙，我今天没有课。 | 18T | I [am] not very busy today, I don't have class today. |
| 19A | 今天，你:::, 你:::, 今天，你怎么，eh..., mh..., 事 | 19A | today, you:::, you:::, today, you how, eh..., mh..., thing |
| 20T | mh? | 20T | <i>mh?</i> |
| 21A | 今天，你怎么::: | 21A | today, you how::: |
| 22T | how? | 22T | <i>how?</i> |
| 23A | 怎么 | 23A | how |
| 24T | 怎么 what? | 24T | how <i>what?</i> |

25A	I guess I don't mean '怎么', I mean 今天你:::, eh..., 什么工作	25A	<i>I guess I don't mean 'how', I mean today you:::, eh..., what job</i>
26T	做什么	26T	do what
27A	你做什么?	27A	What do you do?
28T	我得看学生的功课。	28T	I have to correct students' homework.
29A	学生的功课好不好?	29A	Is their homework good or not?
30T	有的很好, 有的不太好。	30T	Some are good, some are not very good.
31A	你喜欢 correct 功课?	31A	Do you like [to] <i>correct</i> homework?
32T	对。	32T	Yes.
33A	你有姐姐妹妹吗?	33A	Do you sisters?
34T	我有一个妹妹。	34T	I have a younger sister.
35A	她什么工作?	35A	What job [does] she do?
36T	do you want to say where?	36T	<i>Do you want to say where?</i>
37A	no, I want to say what? 她工作	37A	<i>No, I want to say what? She work[s]</i>
38T	作什么工作	38T	does what job
39A	oh, 她作什么工作?	39A	Oh! What job [does] she do?
40T	她在 insurance company 工作。	40T	She ZAI [at] an <i>insurance</i> <i>company</i> work[s].
41A	她喜欢吗?	41A	[Does] she like it?
42T	她很喜欢。	42T	She likes it a lot.
43A	(silence)	43A	(silence)
44T	(pointing at herself) come to U.S. (SHI)	44T	(pointing at herself) <i>come to U.S.</i> (SHI)
45A	你:::, <u>你是什么时候去, no, 来美</u> <u>国的?</u>	45A	You:::, <u>You SHI when went, no,</u> <u>came [to] U.S. DE?</u>
46T	我是 96 年来的。	46T	I SHI year 96 came DE.

Because in TS Three learner A was not yet capable of initiating on her own, the researcher wishes to clarify that this protocol was part of a lengthy conversation which the *tutor* both began and maintained by challenging learner A to elicit questions along suggested topics (“when”, “with whom”, and “how”). Thus, prior to this protocol, the learner initiated three SHI..DE questions, with multiple levels of tutor’s assistance on the SHI..DE form. It was the tutor’s answer to *one* of these questions, “It was by airplane that I went back to China” which established the context for this protocol.

From the beginning (01 to 17a), the learner was involving the *tutor* and co-constructing a new context in which they shared the experiences of taking an airplane and the aversion both had

towards airline food. Within this context, learner A was naturally switching the leading role with the tutor (07, 17b). That is, first the learner was asking questions (01-05), followed by the tutor assuming that role (08-16), then, when the topic was exhausted (17a), following an indicative meta-comment, “Let’s see...”, the learner started to initiate (17b) on a new topic. When that subsequent context was exhausted (43), the tutor suggested another meaning, “[ask when did I] come to U.S” (44) which the learner formed into the self-elicitation of SHI..DE, “You SHI when came [to] U.S. DE?” (45). This question was of proper form and the tutor answered it, “I SHI year 96 came DE” (46).

Compared to Protocol 5.24, the same learner has demonstrated different ZPDs on two *levels*. First, while learner A in the previous protocol not only overtly resisted asking questions and fell silent when the topic was exhausted (Protocol 5.24: lines 14, 40, and 60), in this protocol the *same* learner could lead the conversation and freely switched the initiative role with the tutor but also built new contexts when previous ones were exhausted (Protocol 5.25: 17b, 34).

Second, while in the previous protocol learner A not only needed multiple rounds of the tutor’s assistance to understand that SHI..DE was necessary to express her meaning but also assistance to come up with the correct SHI..DE form, in this protocol the *same* learner correctly self-elicited SHI..DE in her initiations.

Clearly, the two protocols demonstrate that the *same* learner performing the *same* task using the *same* grammar structure has *different* ZPDs and, in this way, expands the findings of Aljaafreh & Lantolf (1994) who found that different learners have different ZPDs in using the same structure and the same learner has different ZPDs in using the different structures.

In the next section, the researcher will answer the Second Research Question.

5.7. DISCUSSION AND ANSWER TO THE SECOND RESEARCH QUESTION

The answer to the First Research Question established that there were two types of “tutor’s assistance” provided in the oral conversation: error correction (EC) and regulation in participation (RinP). In this chapter, the researcher showed the learners' appropriation of the tutor’s EC and RinP and demonstrated that by the end of the study, the learners self-elicited and correctly used ZAI, SHI..DE, and LE to structure their active participation. That is, in the oral conversation, the learners' appropriated the two types of the tutor’s assistance *hand-in-hand*.

The researcher first analyzed the learners' appropriation of the tutor's EC in terms of Aljaafreh and Lantolf’s (1994) developmental criteria and, in Section 5.1, established that EC of SHI..DE was successfully appropriated through protocol analysis and, in Section 5.2, for all the TG and both learners through graphs of the falling trend of Treg. Then, the researcher analyzed the learners' appropriation of the tutor's RinP in terms of the [preliminary] three participation developmental criteria (Section 4.3) and established that it was successful through both protocol analysis, in Section 5.3, and additional qualitative data, in Section 5.4.

The researcher will begin the discussion from the later section, as it was found to offer an insight to the mechanisms behind the combined effectiveness of EC and RinP. As previously established in Section 4.3, and visualized through Figure 4.2, the larger collaborative frame of the oral conversation intersects the smaller collaborative frame containing EC with the act of elicitation of TG – i.e., the tutor provided EC when a) a context for the use of TG was *somehow* encountered and b) that EC would have fallen *within* the learner's ZPD.

However, as introduced in Section 5.4, the tutor's RinP can be viewed as affecting two different aspects of the conversation: a) increasing the learner's contribution of *meaning* into the conversation and b) shifting the responsibility for *structuring* that meaning with TG, from the tutor onto the learner. Thus, by involving the learners into the conversation and then regulating

their elaboration, the tutor enabled each learner to be ever-more responsible for the co-construction of the meaningful conversation. And, by challenging the learners to initiate, narrate, and elicit TG (and, then, providing EC), the tutor enabled each learner to be ever-more responsible for structuring the increasing meaning with the TG. That is, the tutor regulation enabled the learners to, at the end of the study, be able to autonomously originate the meaning (quantity) and correctly structure it with the appropriate grammar (quality).

The grammar accuracy *within* the active participation, seen at the end of the final TS, was not just the consequence of the fact that learner's errors are inseparable from their participation in the oral conversation. By regulating the learners' participation – ensuring that the learner was always challenged to participate within their ZPD – the tutor maximized the opportunities for the elicitation of TG and its correction. And, by maximizing the opportunities for EC, the tutor not only accelerated the transfer of grammar knowledge to the learner but also improved the environment for the participation as a direct consequence of the dropping Treg – the intrusiveness of the explicit-level EC faded with the learner's *need* for it.

The learner's self-reflections, shown in Section 5.5, provided a different view-point of the their successful combination of EC and RinP. For this reason, the researcher will relate the learner's self-reflections with: a) EC within improving participation; b) elicitation of TG; and, c) transfer of responsibility.

First, the learners reflected that the EC was most useful within their participation because the TS “put pressure to use the TG” in “regular conversation”. They found this to be especially helpful for TG lacking an English counterpart because, through EC, the tutor was effectively “telling [them] in which contexts to use it and which contexts not to use it” - at the end of the

study, one learner remarked that now when the tutor asked a question with SHI..DE, he immediately knew that it was about something in the “past”.

Second, the learners found the elicitation of TG to be helpful because they often avoided TG they were not confident using¹. By being challenged to elicit the TG, within the conversation, they encountered the TG repetitively and, together with the tutor's EC, felt that it was principal to learning that TG. In other words, by using the TG so often, the learners felt that they were more likely to notice when they had misused a TG, stating that it would “sound wrong” and they would “feel naked”.

Finally, the learners indirectly noted on the effects of the transfer of responsibility. Not only did they gain confidence in participating *through* participation but also stated that the need to initiate using TG was extremely helpful in exposing weaknesses in their understanding of that TG because they had to choose the correct structure without any hints *while* thinking about other information needed to ask a question. Surprisingly, the learners found the knowledge of their weaknesses useful as it placed *them* in control of their learning – one learner looked forward to returning from Spring Break to work on his mistakes; anxious to begin because he knew *where* to begin.

The learner's self-reflections offer an affirmation of the findings of this study. Through talking, in the oral conversation, the learners connected Chinese words with their *meaning* to express their own ideas and, by *also* receiving the tutor's EC, learned to express those ideas *using* the correct TG. In effect, the learners understood that the trouble with grammar was that there was a difference between *understanding* it and being able to *use* it during self-expressions.

Thus, through being guided into the conversation and then establishing a tutor-learner inter-personal relationship across the sessions, the learners effectively *re-learned* to tell stories

¹ A potential quandary, were it not for the tutor's deliberate regulation to elicit the TG.

about their lives and interests, *in* Chinese, *with* Chinese grammar, and in the form of ever-more *articulate* discourse.

The resulting confidence, built through knowing they were being increasingly understood, eventually led to the self-confidence that the same self-expression would be as “functional” *outside* the classroom as it was in the TS – for example, no longer fearing to start a conversation and talking outside the classroom to teachers and Chinese friends.

In the preceding chapters, the researcher has detailed the oral conversation; the effects of the tutor's two types of assistance and the learners' appropriation of this assistance; and, the learner's profound development across the sessions. Given that the TG was shown to have been successfully appropriated by the learners – the errors in the three TG had been eliminated in TS Nine – one may wonder why the researcher does *not* answer the Third Research Questions now?

While a substantial insight to the learner's appropriation of the TG has been demonstrated, because the *details* of the appropriation of the chosen inter-related TG have not been sufficiently investigated, that answer can not be provided. For instance, what will happen when a *fourth* inter-related grammatical structure (one also related to “past event or action” and lacking an English counterpart) is introduced in the final TS? Will the learners' errors towards the three TG remain thus-eliminated, as SLA researchers' “end-product” approach suggests, or will the errors return? In addition, which aspects of the oral conversation and the tutor's assistance play key roles in helping learners appropriate the inter-related TG?

That is, in this chapter the researcher presented exactly *how* the tutor provided the two types of assistance by demonstrating that the learners did appropriate this assistance – in the process becoming active participants who self-elicited and correctly used TG. In the next chapter, the researcher will build upon this knowledge by explaining *why* the combination of the

tutor's two types of assistance in the oral conversation was *so effective* in helping the learners learn the three TG.

6. ANSWER TO THE THIRD QUESTION

Research Question Three: Which grammatical errors are eliminated in each learner's subsequent oral conversation and which are not eliminated?

In the previous chapter, the researcher demonstrated that the learners *did* appropriate the tutor's error correction (EC) and that this EC took place within the learners' improving participation, consequent to their appropriation of the tutor's regulation in participation (RinP). Indeed, the learners' grammar accuracy was shown to not only increase within their increasingly-active participation, but, because the responsibility for participating and eliciting the TG was shifting from the tutor to the learner, that EC was also increasingly gaining more relevance.

In this chapter, the researcher will explore the particular *complications* along this error-elimination process for ZAI, SHI..DE, and LE – i.e., the *reasons* for the learner's need for EC and, thereby, the *reasons* for the effectiveness of the tutor's EC. Specifically, the researcher will describe a) the points of confusion among the target grammatical structures (TG); b) the reasons why some TG were more challenging for the learners than others; and, c) the tutor's approach towards helping the learners overcome the points of confusion among said TG.

However, in this chapter the researcher will merely *utilize* the flow of contexts and explain how this numerically-high quantity of contexts helped the learner differentiate the confusing TG and take the learner's appropriation of the RinP for granted. That is, the researcher will demonstrate how the tutor employed the increasing participation as a convenient tool for the EC and how this EC helped the learners tell apart the TG during functional use.

To ease the process of locating the situations where the learner was differentiating the TG, the six graphs from the previous chapter (Figures 5.1 to 5.6), showing each learner's development in using the three TG, will be re-analyzed to locate any unusual surges or learners' sudden increased need for the tutor's EC assistance (Treg). The corresponding protocols related to these Treg-values will be analyzed to find the reasons for the increased need and the researcher will observe whether the surges due to the same reason disappeared in the subsequent tutorial sessions.

First, in Section 6.1, the researcher will present a brief summary of the confusing points among ZAI, SHI..DE, and LE – specifically, the most commonly confused aspects of the three TG, found during protocol analysis. Second, in Section 6.2, the researcher will re-work the six graphs from Chapter Five (Figures 5.1 to 5.6), identify values deviating from the trends, and correlate these values with the protocol data to generate six new graphs. That is, Figures 6.1 to 6.6 will distinguish the episodes where the tutor helped the learners resolve *confusion* among the TG from assistance towards *all other reasons*. Protocol analysis will provide further evidence for the learners' confusion and the tutor's assistance resolving that confusion.

Finally, in Section 6.3, the researcher will qualify the definition of the word “subsequent” in the Third Research Question, answer the question, and justify the necessity for this qualification.

6.1. GRAMMAR ESSENTIALS AND POINTS OF CONFUSION

In this section, the researcher will present some of the most common confusion points among the three TG made by the learners which were found during protocol analysis. These confusion points are presented to a) help non-Chinese readers understand the difficulties which learners A

and B faced in differentiating these structures during the oral conversation; and, b) to further illustrate why the researcher selected these TG (see Section 3.2.3, p. 46).

Before presenting the confusion points, the researcher will offer the closest English translations (see Table 6.1) and the literal Chinese translations (see Table 6.2) of the three TG.

Table 6.1: Examples of three TG (closest English translation)

Structure	Examples (English sentence-order)	Grammar notes
ZAI	“I study AT school”	only place; no implied “tense”; similar to English “at a <i>place</i> ” but different sentence order
SHI..DE	“It was AT-EXACTLY six o’clock that I studiED” or “It was AT-EXACTLY school that I studiED”	emphasize time point, place or manner; implied past “tense”; no English counterpart
v-o-v LE	“I have studiED Chinese [studiED] FOR six hours”	time duration; implied past “tense”; verb’s object <i>specified</i> and verb is <i>repeated</i> ; no English counterpart
LE	“I have studiED FOR six hours”	same as above; but verb’s object is <i>implied</i> so the verb is <i>not</i> repeated

Table 6.2: Examples of the three TG (literal Chinese translation)

Structure	Examples (Chinese sentence-order)
ZAI	“I ZAI [at] school study.”
SHI..DE	“I SHI six o’clock studi[ed] DE.” or “I SHI ZAI ¹ [at] school studi[ed] DE.”
verb-object-verb LE	“I studi[ed] Chinese studi[ed] LE [for] six hours.”
verb LE	“I studi[ed] LE [for] six hours.”

Protocol analysis revealed that the introduction of a new structure adversely impacted the learner’s understanding and functional use of similar or related structures. Specifically, SHI..DE was found to impact ZAI; SHI..DE and LE impacted each other; and, the verb-object-verb LE was confused with the verb LE.

In addition, the researcher found that when a learner attempted to use both SHI..DE and ZAI in one sentence (Table 6.3) to express a certain kind of meaning (e.g., “I SHI ZAI [at] school studi[ed] DE”), the English sentence order (i.e., “I SHI studied ZAI [at] school DE”) was often adopted. That is, while learners could *individually* apply ZAI or SHI..DE correctly, the sentence-order was often jeopardized when the two TG were combined in one sentence.

Table 6.3: Comparison of the TG ZAI and SHI..DE & ZAI used together

Structure	Examples (Chinese sentence-order)
ZAI	“I ZAI [at] school study.”
SHI..DE & ZAI	“I SHI ZAI [at] school studi[ed] DE.”

The researcher also found that beginning learners did not associate the concepts of time-point (or specific time) and time-duration with their respective structure – i.e., “six o’clock” or

¹ While ZAI *can* combine with either SHI..DE or LE, SHI..DE and LE can *not* be combined.

“when?” with SHI..DE and “six hours” or “how long?” with LE, respectively. And, because the sentence-order both “when?” and “how long?” is the same in English (i.e., “I studied *at six [o’clock]*” and “I studied *for six [hours]*”), it is very different in Chinese (Table 6.4).

Table 6.4: Comparison of the TG SHI..DE and TG LE

Structure	Examples (Chinese sentence-order)
SHI..DE	“I SHI six o’clock studi[ed] DE.”
LE	“I studi[ed] LE [for] six hours.”

In addition to confusing SHI..DE and LE, the learners were found not to understand that when the object was specified in LE sentences, that verb had to be repeated (Table 6.2).

In the next section, the researcher will re-work the six graphs from Chapter Five to “separate” the tutor’s assistance (Treg) directed towards helping the learners with *confusion* – losing ZAI sentence-order when combining it with SHI..DE, misusing LE in SHI..DE sentences and vice versa; and, forgetting to repeat the verb in LE sentences where the verb’s object was specified – from assistance directed towards *everything else*.

6.2. DIFFERENTIATION AND LEARNERS’ APPROPRIATION PROCESS

In the previous section, the researcher introduced the possible points of confusion among the three TG from the learner’s perspective. In this section, the researcher will demonstrate how this confusion affected the learners’ overall appropriation process and how the learners’ improving participation proved to be a boon to the tutor’s efforts – thereby exposing the learners’ inner-most appropriation process for grammatical structures lacking an English counterpart.

First, the researcher scrutinized Figure 5.1 to Figure 5.6 and examined their trends for values which deviated from the generally downward-falling trend. Then, the Categorized Episodes corresponding with these surge-values were analyzed to not only uncover why the *learner* needed that additional assistance but also the specific strategies the *tutor* employed to help the learner overcome these surge-values.

The researcher found two causes for the surge: a) loss of ZAI sentence-order when combined with SHI..DE – found in only learner A's data; and, b) *interference* or an inability to *differentiate* the applicability of SHI..DE from LE or SHI..DE from v-o-v LE in the same context – found in both learners' data. These causes for renewed or *surge* learner's need for EC will be graphically differentiated from EC towards all others errors, in Figures 6.1 to 6.6, with different graphical symbols. That is, white triangles will be used to denote values of Treg directed towards helping a learner differentiate ZAI from SHI..DE or SHI..DE from LE (and vice versa) while Treg towards all other errors (i.e., non-*differentiation*) will be designated, as before, with a dark dot. For convenience, the span of all surges has been highlighted on the graphs¹ with a dark, dashed line.

¹ Learner B did not have errors with ZAI sentence-order when combining ZAI with SHI..DE (Figure 6.2).

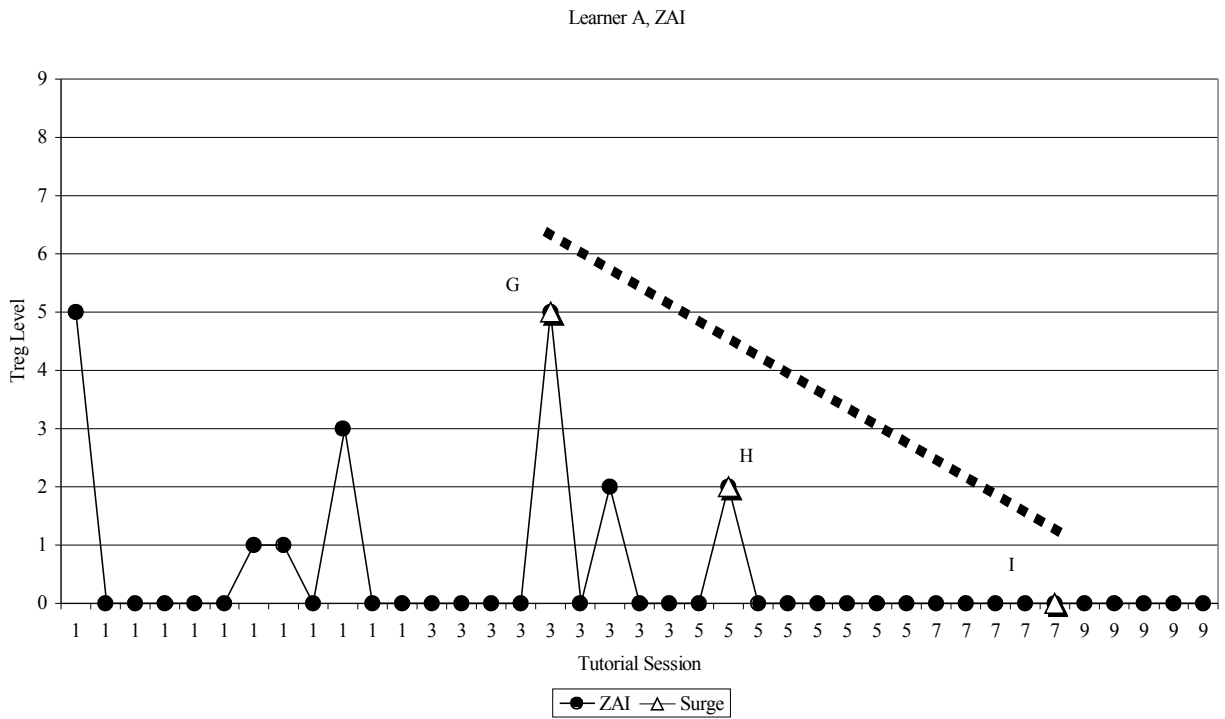


Figure 6.1: Improvement of learner A using ZAI

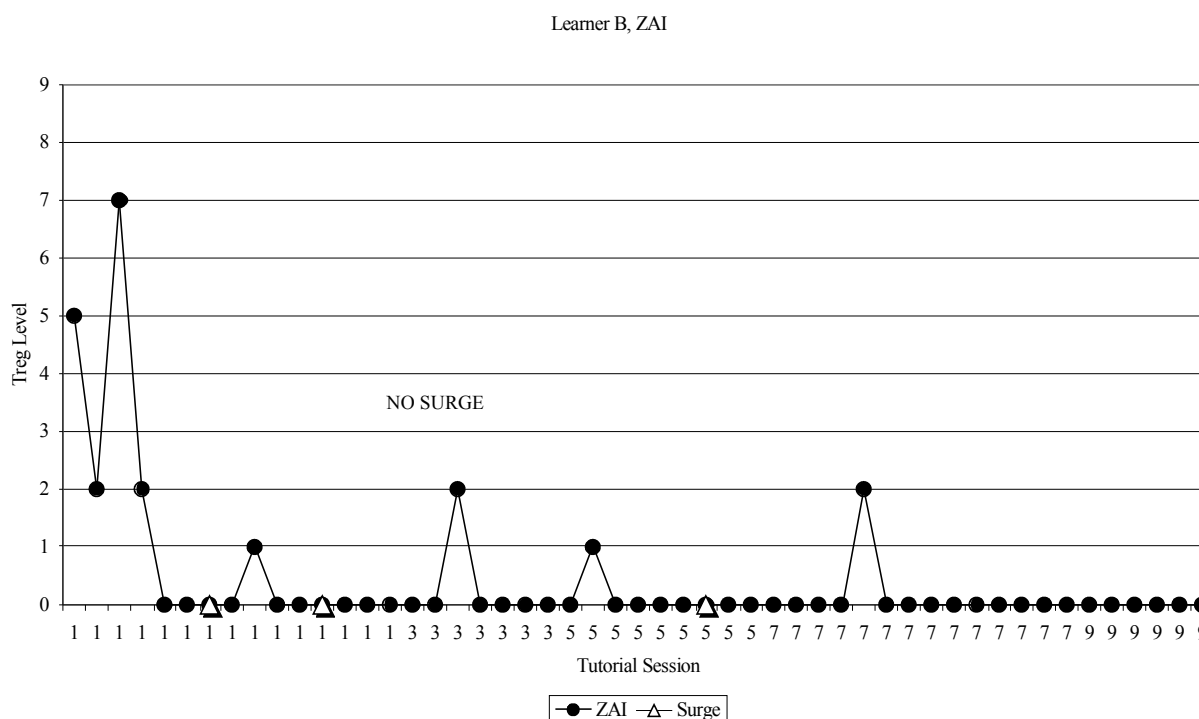


Figure 6.2: Improvement of learner B using ZAI

The next protocol will reveal that, while learner A could use ZAI and SHI..DE individually, she had a problem (marked with “G” on Figure 6.1) merging these structures into one sentence.

In Protocol 6.1, the tutor asked, “at where [your father met your mother]?” (17), which *implied* both ZAI and SHI..DE markers without these markers being explicitly used. With no form to reference, the learner responded using English word-order and missing SHI..DE, “He know[s] my mother ZAI [at] Pennsylvania” (20) instead of the desired, “He SHI ZAI [at] Pennsylvania knew my mother DE”.

To help, the tutor first repeated the incorrect sentence while raising her eyebrows (21: Level 4 and Level 2). While the learner added SHI..DE markers, she dropped the ZAI (22).

When A started to rephrase it, “Pennsylvania inside, He SHI...” (22), the tutor interrupted her and tried to refocus A on place-word, “place word?” (23, 25, 27: Level 5) without any success.

When the tutor explicitly asked learner A where the place-word should go (29: Level 5) the learner responded correctly, “before the verb” (30a) and rephrased the sentence twice before arriving at the correct answer, “he SHI ZAI [at] Pennsylvania knew my mother DE” (30b).

As previously described, ZAI does have an English counterpart (“at”) except that its sentence-order is different and it can only be used with a place (e.g., “at Pennsylvania”). If, as in this case, the action took place in the past and was being emphasized, SHI..DE was also necessary. This protocol shows that learner A knew the meaning and context for ZAI but, when she inserted SHI..DE, which does not have an English counterpart, into the ZAI sentence, she reverted to English sentence-order. Thus, there was a surge in A’s need for assistance to repair the sentence-order and the resulting general confusion. While protocols for the two other surge-points in Figure 6.1 (i.e., point H: Level 2, in TS Five; and, point I: Level 0, in TS Seven) will not be presented, they represented similar situations of an interference between SHI..DE and ZAI.

The dropping trend of the surge-values in Figure 6.1 (i.e., points G, H, and I) reflected learner A’s reduced need for tutor’s assistance and the eventual (i.e., point I) elimination of the errors due to interference between the sentence order of the target structures ZAI and SHI..DE.

Protocol 6.1

(They are talking about learner A’s father)

- 01T 你爸爸是从哪儿来的？(SHI-1)
 02A eh..., 我的爸爸是, eh..., 是从,
 是从 Jamaica 来的。
 03T 什么时候？(SHI-2)
 04A eh..., 他, eh..., 他:::, ..., 我不知道

(They are talking about learner A’s father)

- 01T **Your father SHI from where
 came DE? (SHI-1)**
 02A eh..., my father SHI, eh..., SHI
 from, SHI from *Jamaica* came DE.
 03T **When? (SHI-2)**
 04A eh..., he, eh..., he:::, ..., I don’t

可是, 可是, 我知道:::, 他是:::, 他是 eh..., 74。

05T 74 年

06A 74, eh..., 74 年以前

07T 74 年

08A 74 年, 他是, 他是:::, 74, 74 年以前 eh..., eh..., 去中国的

09T 你说他去过中国, 他是中国人吗?

10A eh..., 他的 grandpa, eh..., 在 eh..., ..., 他的 grandpa 住在中国

11T 他是什么时候来美国的? (SHI-3)

12A eh..., 他 :::, 他是 eh..., 18, 18 岁

13T 岁 (tone)

14A 岁, 对不起, 他是 18 岁来美国的。

15T 然后, 他认识了你妈妈?

16A 对。

17T 在哪儿? (SHI-4 and ZAI)

18A 在, 在 eh..., party

19T 在什么地方?

20A 在..., eh..., 我, 我, 我觉得他 ..., 他认识我的妈妈 eh..., 在 Pennsylvania.

21T 你说‘他认识你妈妈在 Pennsylvania?’ (Raising eyebrow) (2 and 4)

22A mh..., Pennsylvania.里, eh..., ..., ..., 他是

23T **place word? (5)**

24A 他是认识我的妈妈 eh..., Pennsylvania, 不是

25T **place word (5)**

26A Pennsylvania

27T **在 Pennsylvania (5)**

28A 在 Pennsylvania

29T yeh! **Where do you put the place word? (5)**

30A (a) before the verb? (b) So, 他, 他是..., 他是在 Pennsylvania 认识我的妈妈的。

31T 后来, 他们就结婚了吗? got

know, but, but I know:::, he SHI:::, he SHI eh..., 74

05T year 74

06A 74, eh..., before year 74

07T year 74

08A year 74, he SHI, he SHI:::, before year 74, 74, eh..., eh..., went [to] China DE.

09T You said he has been [to] China. Is he a Chinese?

10A eh..., his grandpa, eh..., at, eh..., ..., his grandpa lived in China.

11T **He SHI when came [to] U.S. DE? (SHI-3)**

12A eh..., he:::, he SHI, eh..., eighteen, eighteen years old

13T years old (tone)

14A years old, sorry, he SHI eighteen years old came [to] U.S. DE.

15T Later, he knew your mom?

16A Yes.

17T **ZAI [at] where? (SHI-4 and ZAI)**

18A ZAI [at], at, eh..., party

19T ZAI [at] what place?

20A ZAI [at]..., eh..., I, I, I feel he ..., he knows my mom, eh..., ZAI [at] Pennsylvania.

21T **You said ‘he knows your mom ZAI [at] Pennsylvania?’ (Raising eyebrow) (2 and 4)**

22A mh..., at Pennsylvania, eh..., ..., ..., he SHI

23T **place word? (5)**

24A He SHI knew my mom, eh..., Pennsylvania, no

25T **place word (5)**

26A Pennsylvania

27T **ZAI [at] Pennsylvania (5)**

28A ZAI [at] Pennsylvania

29T yeh! **Where do you put the place word? (5)**

30A (a) before the verb. (b) So, he, he SHI..., he SHI ZAI [at] Pennsylvania knew my mom DE.

31T later, they got married? got Married.

married.

Learner B's appropriation of ZAI, shown in Figure 6.2, demonstrates his correct use of ZAI. From the very beginning, he did not make mistakes when he inserted SHI..DE in a ZAI sentence – as demonstrated by the series of white triangles at Level 0. In other words, because learner B's use of ZAI was solid, he did not make errors when introducing SHI..DE into such a sentences and there were no surge-values.

While Figures 6.1 and 6.2 dealt with the *interference* between a structure with a counterpart in English (ZAI) and a structure without (SHI..DE), the next four graphs (Figures 6.3 to 6.6) will concern the learners' *differentiation* of two structures with no counterparts in English. That is, while both the TG SHI..DE and the TG LE describe a past action or event, SHI..DE *emphasizes* a place or time that a specific action took place whereas LE¹ specifies the *time-duration* of that action (see Table 6.5).

Table 6.5: Example comparing SHI..DE and LE

Structure	Examples (Chinese sentence-order)	English Translation
SHI..DE	“I SHI six o'clock studied DE.”	It was at six o'clock that I studied.
LE	“I studied LE six hours.”	I studied for six hours.

Because neither SHI..DE nor LE have a counterpart in English, in addition to helping the learners with the grammar forms and the grammar meanings, the tutor assisted the learners in establishing a connection with contexts where each structure was and was not appropriate. However, the researcher found that when learners encountered a context which “seemed” to be equally applicable for SHI..DE *and* LE, they needed considerably more tutor's assistance to differentiate the two structures *competing* for the same context.

¹ Together with a time-expression, as described in Section 3.2.2.1 (p. 43).

Figures 6.3 and 6.4 show learner A's and B's appropriation of SHI..DE, respectively, and the white triangles, representing the differentiation surge, were instances where the learner needed more tutor's assistance to differentiate LE from SHI..DE. The falling trends of the surges indicate that both learners did successfully differentiate SHI..DE from LE before the end of the study.

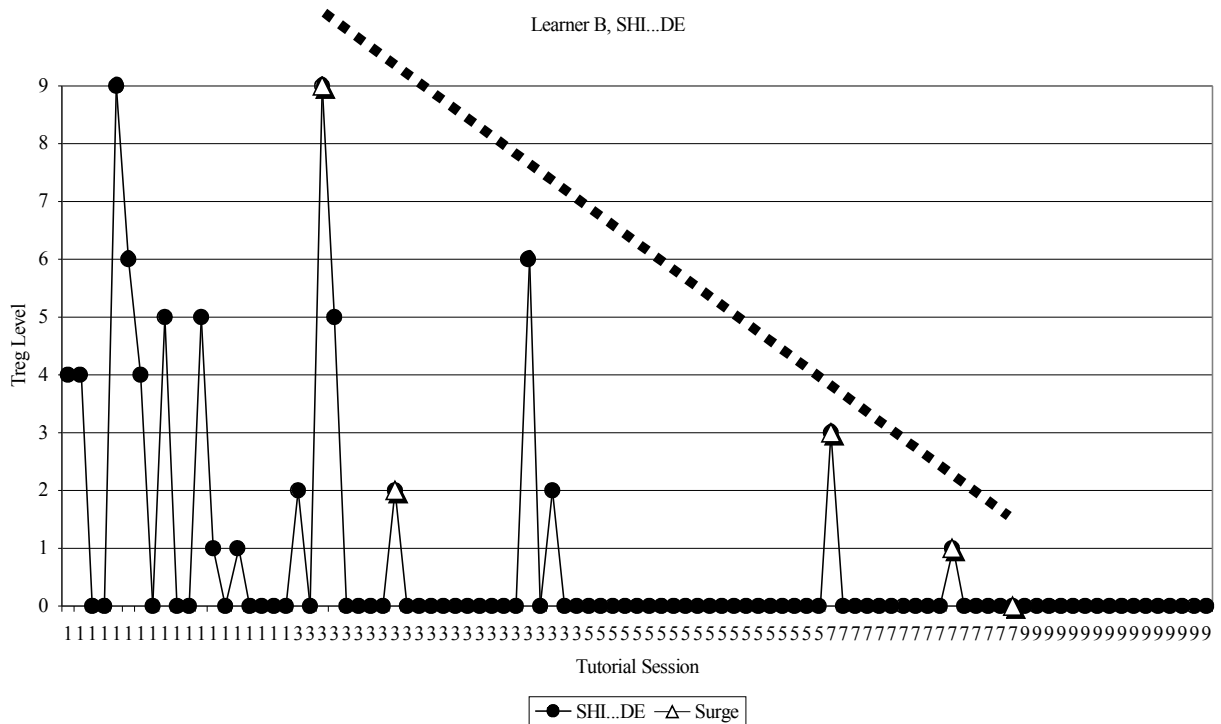


Figure 6.4: Improvement of learner B using SHI..DE

Because both learners were found to misuse LE in contexts appropriate for SHI..DE and SHI..DE in those appropriate for LE, protocol data will be shown only for the later (i.e., learners misusing SHI..DE in contexts for LE).

While Figures 6.5 and 6.6 demonstrate learner A's and B's appropriation of the TG LE, respectively, they differ from those for appropriation of SHI..DE (Figures 6.3 and 6.4) in two

respects. First, the TG LE has a variation¹ (see Table 6.6) where the verb is repeated if the sentence explicitly includes the verb's object – called the “verb object verb LE” or v-o-v LE, for short. Because, in addition to differentiating SHI..DE from verb LE the learners also had to determine whether to use LE or its variation, the two types of the TG LE have been marked with *different* symbols on the graphs. That is, in Figures 6.5 and 6.6, the *white triangles* represent the differentiation surge between SHI..DE and verb LE while the *dark squares* represent the comparable differentiation surge between SHI..DE and the v-o-v LE variant.

Table 6.6: Comparison of the TG LE and its verb-object-verb variation (v-o-v LE)

Structure	Examples (Chinese sentence-order)	Problem
verb LE	“I studied LE [for] 6 hours.”	none
v-o-v LE	“I studied Chinese studied LE [for] 6 hours.”	forget to <i>repeat</i> the verb

Second, because the tutor began correcting LE after SHI..DE had already been corrected for two weeks (TS One and Two), the learners experienced confusion of LE with SHI..DE from the very first use. Thus, the Treg values from TS Three start rather high.

¹ In the graphs of the appropriation of SHI..DE (Figures 6.3 and 6.4), the white triangles considered interference between SHI..DE and “LE” and did not distinguish between LE and its variation.

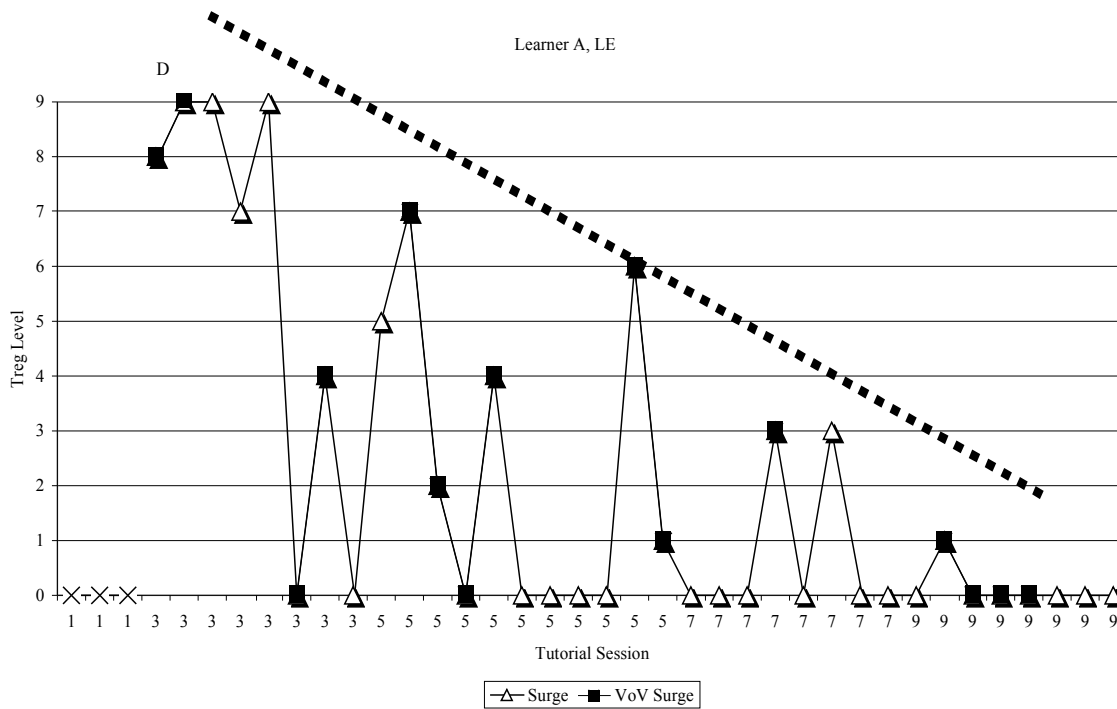


Figure 6.5: Improvement of learner A using the TG LE

Figure 6.5 and 6.6 shows that both trends were gradually falling and, before the end of the study, the learners eventually *did* successfully differentiate SHI..DE from verb LE and SHI..DE from v-o-v LE.

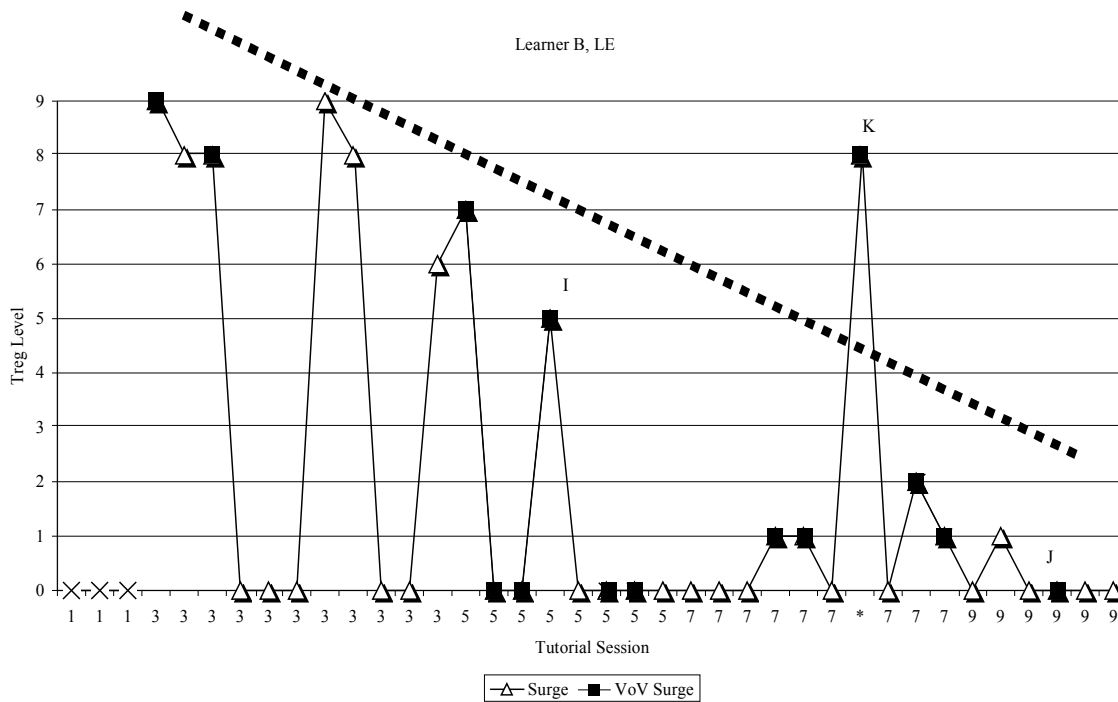


Figure 6.6: Improvement of learner B using the TG LE

The researcher will now present protocols to demonstrate the manner in which the tutor helped the learners differentiate SHI..DE from LE and its variant (v-o-v LE). Because learners A and B both exhibited similar confusion and received similar tutor's differentiation assistance, the researcher will consider the learner's data interchangeable, in this section. Data for learner A's attempts to use SHI..DE in LE contexts, corresponding with point D on Figure 6.5, and learner B's attempts, corresponding with points I and J on Figure 6.6 will be presented.

Protocol analysis will focus on how the tutor employed the high concentration of contexts, afforded by the learner's improving participation, to guide the learners into differentiating the competing structures. While this steady stream of contexts was made possible by the tutor's RinP (see Section 5.3 of Chapter Five, p. 139), in this chapter the researcher will exclusively use it as a *convenient tool* – without discussing its positive effects on the learner's participation, per se.

The next protocol will demonstrate how the tutor assisted learner A to tell apart (i.e., differentiate) structures that A found troublesome. The researcher would also like to note that this protocol shows learner A's only second-ever corrected instance of using the TG LE, but that A had been using the TG SHI..DE many times since the first TS.

Protocol 6.2:

(Learner A told the tutor that her parents came to Princeton to see her and that she drove home with them.)		(Learner A told the tutor that her parents came to Princeton to see her and that she drove home with them.)	
01T	从普大到你家, 你开车开了几个小时? (LE-1)	01T	From Princeton to your home, you drove car drove LE how many hours? (LE-1)
02A	mh..., 一个小时. Probably you want me to use the structure.	02A	mh..., one hour. <i>Probably you want me to use the structure.</i>
03T	Yes, otherwise you are not expressing your timing and people will get confused.	03T	<i>Yes, otherwise you are not expressing your timing and people will get confused.</i>
04A	Really? 从普大, eh..., 到我家, ..., ..., 一个小时, can I say like that? Oh, 开车是一个小时的。	04A	<i>Really? From Princeton University, eh..., to my home, ..., ..., one hour, Can I say like that? Oh, drive car SHI one hour DE.</i>
05T	开车::: (4)	05T	drive car::: (4)
06A	开车	06A	drive car
07T	verb object verb LE (7)	07T	verb object verb LE (7)
08A	开车回家	08A	drive car go home
09T	开车::: (4)	09T	drive car::: (4)
10A	(silence)	10A	(silence)
11T	开了 (8)	11T	drive LE (8)
12A	(a) '开车开了' (b) when do you use that?	12A	(a) 'drove car drove LE' (b) <i>When do you use that?</i>
13T	Right now, the problem is 'verb 过', 'verb 了' and '是...的' You learned '过', right? (9)	13T	Right now, the problem is 'verb GUO', 'verb LE' and 'SHI..DE' You learned 'GUO', right? (9)
14A	right.	14A	<i>Right.</i>
15T	You know '是...的', right? (9)	15T	You know 'SHI..DE', right? (9)
16A	yeh.	16A	<i>Yeh.</i>
17T	you have also learned the 'verb 了'. Let is talk about 'verb 过' (9)	17T	You have also learned the 'verb LE'. Let is talk about 'verb GUO' (9)
18A	okay	18A	<i>Okay</i>
19T	If I say '你吃过中国饭吗?'	19T	If I say 'Have you [ever] had

What is that? (9) (GUO-1)		Chinese food?' <i>What is that?</i> (9) (GUO-1)	
20A	Have you ever eaten Chinese food?	20A	<i>Have you ever eaten Chinese food?</i>
21T	How do you answer: 'experienced once'? (9)	21T	<i>How do you answer: 'experienced once'? (9)</i>
22A	<u>我吃过。</u>	22A	<u>I have had [it].</u>
23T	negation? (9)	23T	<i>negation? (9)</i>
24A	<u>我没吃过。</u>	24A	<u>I have never had [it].</u>
25T	'When did you have it?', I am emphasizing when you actually did this? Which structure do you use? (9)	25T	<i>'When did you have it?', I am emphasizing when you actually did this? Which structure do you use? (9)</i>
26A	是…的	26A	SHI..DE
27T	Then, when you had dinner with your friends, if you say 'how long did you have the Chinese food?' How long? (9)	27T	<i>Then, when you had dinner with your friends, if you say 'how long did you have the Chinese food?' How long? (9)</i>
28A	'是…的' again?	28A	'SHI..DE' again?
29T	no, 'verb 了' (9)	29T	<i>no, 'verb LE' (9)</i>
30A	okay, so verb 了 is 'how long'	30A	okay, so verb LE is 'how long'
31T	yes, the length of time. (9)	31T	<i>yes, the length of time. (9)</i>
32A	I just have a question, when do you have to repeat the verb?	32A	<i>I just have a question, when do you have to repeat the verb?</i>
33T	When you have object. For example, when you say '开车', you say '开车开了' (9)	33T	<i>When you have object. For example, when you say 'drive car', you say 'drove car drove LE' (9)</i>
34A	okay, so 我吃, 我吃中国饭, 吃了 eh..., ..., ..., 多次	34A	Okay, so I eat, I ate Chinese food, ate LE, eh..., ..., ..., many times.
35T	很多次。你 '上次', last time, 是什么时候吃中国饭的? (SHI-2)	35T	<i>Many times. 'last time', [is] last time, You SHI when ate Chinese food DE? (SHI-2)</i>
36A	Last time I did it?	36A	<i>Last time I did it?</i>
37T	Yeah, 什么时候?	37T	<i>Yeh, when?</i>
38A	我吃:::, I guess I can use '是', right?	38A	<i>I eat:::, I guess I can use 'SHI', right?</i>
39T	Yeah.	39T	<i>Yeh.</i>
40A	So, 我是, 我是吃中国饭 (silence)	40A	<i>So, I SHI, I SHI ate Chinese food (silence)</i>
41T	什么时候?	41T	<i>when?</i>
42A	<u>我是下个星期</u>	42A	<u>I SHI next week</u>
43T	'下' is next, what is 'last'?	43T	<i>'next' is next, what is 'last'?</i>
44A	Oh, <u>上个星期</u> 中国饭吃, oh, <u>吃中国饭的。</u>	44A	<i>Oh, last week Chinese food eat, oh, ate Chinese food DE.</i>
45T	你吃中国饭吃了几个小时? (LE-2)	45T	<i>You ate Chinese food ate LE how many hours?(LE-2)</i>

46A	我吃 eh..., 中国饭吃了一个小时. Okay, I got it.	46A	<u>I ate, eh..., Chinese food ate LE</u> <u>one hour. Okay, I got it.</u>
47T	So, it is different.	47T	<i>So, it is different.</i>
48A	Yes. I didn't realize which is which.	48A	<i>Yes. I didn't realize which is which.</i>
49T	你爸爸妈妈来过普大吗? (GUO-2)	49T	Have your parents ever been to Princeton University? (GUO-2)
50B	<u>他们来过普大。</u>	50B	<u>They have been here.</u>
51T	你是跟他们一块来的吗? (SHI-3)	51T	You SHI with them together came DE? (SHI-3)

In this protocol, which came from TS Three, the tutor elicited an LE question but the learner's confusion necessitated a review of grammar that did not fit within the conversation's context, "parents came to Princeton". The tutor took the learner on a lengthy detour, through an auxiliary context where the tutor first reviewed the potentially confusing structures and then allowed for their functional use, before returning to the conversation's context.

The opening question, "From Princeton to your home, you drove car drove LE how many hours?" (01) was, actually, the tutor's 5th question which probed learner A's volunteered context – A's parents had come to Princeton and she drove back home with them. However, in addition to exploring A's life-experiences, this opening question also allowed the tutor to elicit LE.

The learner offered a phrase-level answer, "one hour" (02) but then realized that she should have provided "some" structure in her response (02). Following an affirmation from the tutor (03), she, alas, attempted to re-work it using SHI.DE (04). While the learner did finally provide the correct answer (12a), after a succession of the tutor's increasingly-explicit assistance, she followed it with the meta-comment, "When do you use that?" (12b) indicating her confusion about SHI.DE and v-o-v LE.

Instead of *explaining* the differences between the two structures, the tutor *involved* the learner in arriving at the differentiation – the first of *two* such rounds, in this protocol. From 13 to 18, the tutor verified that learner A still remembered all the structures involved. Then, in lines

19 to 34, the tutor created an auxiliary context, “eaten Chinese food”, and *examined* the learner’s understanding of the functional uses, in turn, of each grammar in *that* context: GUO, “You had GUO Chinese food [before]?” (19-24); SHI..DE, “You SHI when had [Chinese food] DE?” (25-26); and, v-o-v LE, “You ate Chinese food ate LE how long?” (27-34).

This round of tutor’s differentiation assistance was composed of multiple questions (19, 21, 23, 25, 27, 29, 31, 33: Level 9) and served as a cognitive tool which helped the learner consciously distinguish the differences among the three TG. Indeed, the tutor’s assistance was anything but a monologue – her feedback was finely-tuned to the learner’s ZPD towards each structure. That is, the tutor’s feedback was based on the learner’s previous responses and A’s understanding of each structure.

Attempting to test her own understanding of the v-o-v LE, learner A adopted the auxiliary context, “eaten Chinese food”, and formed the sentence, “I ate Chinese food ate LE many times” (34) which the tutor affirmed (35). The tutor immediately adopted A’s elaboration (34) as the second auxiliary context and employed it for the second round, to further functionally differentiate SHI..DE from LE in the learner’s own context.

The second round began with the tutor’s elicitation of SHI..DE question, “You SHI when last time ate Chinese food DE?” (35). While learner A was still unsure that this context was for SHI..DE through the meta-comment, “I guess I can still use SHI, right?” (38), she did provide the correct answer, “I SHI last week ate Chinese food DE” (44). When the tutor elicited the LE question, “You ate Chinese food ate LE how many hours?” (45), however, A’s answer was immediate and correct (46). Learner A’s new-found understanding was further elucidated by her meta-comment, “Ok. I got it.” (46); “I didn’t realize which is which” (48).

In the first round (13-34) of helping learner A differentiate SHI..DE from LE, the tutor self-created a simple context and, within it, a) involved learner A to verify that A knew how to apply each grammar form to that context (13-26), b) provided error correction if A did not (28-31); and, c) answered any of the learner's questions (32-34). In the second round, however, the tutor adopted the learner's volunteered context and asked A more natural questions – the learner's higher understanding made this possible.

Indeed, because the learner had shown signs of successfully differentiating LE from SHI..DE, the tutor discarded the auxiliary contexts, returned to the context before the two differentiation rounds, “parents came to Princeton”, and refreshed learner A into it by eliciting a GUO question, “Your parent GUO Princeton University [before]?” (49). The last lines of Protocol 6.2 demonstrate that the tutor was back to her *routine*: eliciting grammar (49) and SHI..DE (51), and, in through this process, differentiating *all* grammar thus encountered.

The next protocol will demonstrate that the learner's improved *participation* appreciably helped the tutor in the process of assisting the learner differentiate the contexts for SHI..DE from those for LE. While the previous protocol showed learner A's performance, the researcher will switch to using learner B's data for the remaining two protocols.

Protocol 6.3

01T	我的春假 question (pointing at herself hinting him to ask her questions)	01T	My Spring Break [ask me] <i>question</i> (pointing at herself hinting him to ask her questions)
02B	我的春假, eh..., ..., 你:::, eh..., 你是:::, 你不是:::, eh..., 到纽约去	02B	My Spring Break, eh..., ..., you:::, eh..., you SHI:::, isn't that you:::, eh..., went to NY [City]
03T	question	03T	[what is the] <i>question</i>
04B	你不到:::, 纽约去玩	04B	You [did] not:::, go to NY
05T	你去没去	05T	[Did] you go or not
06B	你去没去纽约? 对!	06B	[Did] you go to NY or not? Correct!
07T	我去了。	07T	I did go [to NY]
08B	纽约怎么样?	08B	How is NY?

09T 很好啊!
 10B 很好? 你都作什么?
 11T 我吃了中国饭, 看了联合国
 12B 吃了中国饭? 在:::, eh..., 中国:::,
 13T 城
 14B 中国城, 对!
 15T 对! **Time of going there**
 16B eh..., eh..., 你:::去纽约了, eh...,
什么时候, 你:::, 你:::, 你去纽约了
你去纽约了, 什么时候? 对! (SHI)
 17T **什么时候? (raising eyebrows) (2)**
 18B 你是什么时候去纽约的?
 19T 上个星期一
 20B How long, 你是:::, 你是:::, eh... (LE)

 21T **你的 ‘duration’ (5)**
 22B 对, 你, 你去纽约去了, 什么时候?

 23T **(raising eyebrows) (2)**
 24B 不对?
 25T **‘什么时候’ 是 ‘when’ (1)**
 26B 对, 你 eh..., 你:::, 你去纽约去了
 eh..., 几, 几年?
 27T **几天 (1)**
 28B 几天, 你去纽约去了几天?
 29T 只有一天。

 (69 exchanges later)
 30T 那, 你去过纽约吗?
 31B 我去过纽约。
 32T **什么时候? (SHI-1)**
 33B 我是, 我是, eh..., eh..., 一位
 34T 一月
 35B 一月, 我是一月去, eh..., 纽约的。
 36T **坐飞机吗? (SHI-2)**
 37B 不是, 我:::, 是坐:::, train 去, ‘train’
 是什么?
 38T 火车
 39B 火车, 我是坐火车去纽约的。我
 的 cousin 住在纽约。
 40T 所以, 你住他家。 **从这里到纽约**

09T Very nice!
 10B Very nice? What did you do?
 11T I ate Chinese food, visited United
 Nations.
 12B Ate Chinese food? at:::, eh..., China:::
 13T town
 14B Chinatown, correct!
 15T Yes. [Ask me] **Time of going there**
 16B eh..., eh..., you:::went [to] NY LE,
eh... when, you:::, you:::, you went
[to] NY LE, you went [to] NY LE,
when, correct! (SHI)
 17T **When? (raising eyebrows) (2)**
 18B You SHI when went [to] NY DE?
 19T Last Monday
 20B How long, You SHI:::, you SHI:::,
eh... (LE)
 21T [where is] your **‘duration’ (5)**
 22B Right, you, you went [to] NY LE,
 when?
 23T **(raising eyebrows) (2)**
 24B not correct?
 25T **‘when’ is ‘when’ (1)**
 26B correct, you, eh..., you:::, you went
 [to] NY LE, eh..., how many, how
 many years?
 27T **how many days (1)**
 28B how many days, you went [to] NY
LE how many days?
 29T only one day

(69 exchanges later)
 30T Well, have you been to NY [City]?
 31B I have been to NY.
 32T **When? (SHI-1)**
 33B I SHI, I SHI, eh..., eh..., one
 34T January
 35B January, I SHI January went, eh...,
 NY DE.
 36T **By airplane? (SHI-2)**
 37B No. I:::, SHI took:::, train went,
 what is ‘train’?
 38T [It is] train
 39B train, I SHI took train went to NY
 DE. My *cousin* lives in NY.
 40T So, you stayed in his house. **How**

41B 坐火车要几个钟头? (LE)
几个钟头? 我坐火车坐了了一个
钟头。

41B **many hours does it take from
here to NY by train? (LE)**
how many hours? I took train took
LE one hour.

In this protocol, which came from TS Five, learner B initiated the first half of the conversation (lines 01 to 29) in response to the tutor's challenge. Within the learner-initiated conversation, the tutor further challenged the learner to elicit TG questions and, subsequently, helped B differentiate SHI..DE and LE. In the second half (30 to 41) of the conversation, the tutor took to quizzing learner B in the same context.

The first half of the conversation was solely initiated by learner B – following a single challenge from the tutor (01). Because the learner initiated only a string of questions lacking TG, as usual, the tutor felt compelled to challenge B to elicit SHI..DE, “[ask me the] time of going there” (15). Learner B tried (16) but misused LE, “You went [to] NY [City] LE when?” (16) instead of the desired, “You SHI when went [to] NY [City] DE?” (a correct LE question would be, “You went [to] NY [City] LE how long?”).

While the learner did not appear to associate the tutor's request (“time of going”) with SHI..DE, because LE is *not* compatible with the time-point word “when” (16), B definitely knew both SHI..DE and LE forms because the tutor's implicit EC, “when?” (17: Level 2), immediately led to self-correction, “You SHI when went [to] NY DE?” (18).

While the tutor did plan to follow up by challenging learner B to elicit a LE question, she was surprised when he uttered the English meta-comment, “How long” (20), indicating that B intended to self-initiate a LE question. Alas, learner B misused SHI..DE in his attempt, “You SHI:” (20). To help, the tutor pointed out that this context called for duration (i.e., “how long”) and reinforced the English meaning of the Chinese time-word for “when” (21-25) which led to learner's self-correction, “You went to NY went LE how many days?” (28).

In this fashion, learner B continued initiating for several more minutes. However, sixty-nine exchanges later, the tutor took over the role for leading the conversation and went over the same context, “you went to NY [City]” by asking the learner the same types of questions (32, 36, 40). This served to not only elicit the TG but also further differentiate that grammar.

This protocol (Protocol 6.3) differs from the previous protocol in two fundamental respects. First, in the previous protocol (Protocol 6.2), the tutor needed to provide detailed explanation of the TG, accompanied by multiple rounds of examples, to clarify the differences between the competing structures in their grammar forms, grammar meanings, and grammar contexts. In this protocol, on the other hand, the learner had already appropriated the grammar forms and meanings of the competing structures and, thus, the tutor’s help was only targeted towards differentiating the grammar context. That is, as soon as the learners realized that they had misapplied one grammar in another grammar’s context, they were able to self-correct.

Second, in the previous protocol, it was the tutor’s responsibility to both initiate (i.e., ask all the questions) and elicit all the TG in the conversation. However, in this protocol, both the learner and the tutor contributed to the conversation in terms of initiating questions and eliciting TG – effectively doubling the instances of elicitation of TG. In addition, by challenging the learner to self-express his meaning while eliciting the TG, any remaining weaknesses or misunderstandings were readily exposed because, as previously discussed, initiation denied the learners anything to copy – i.e., *they* had to come up with the context, the meaning, and the form.

In the next protocol, from near the end of the study, learner B will be shown to have appropriated the tutor’s EC towards differentiating SHI.DE and LE and will be shown to comfortably and correctly use the three TG for self-expression.

Protocol 6.4

01B	你, eh..., 你, 你去年教 ::: 哪个课?	01B	You, eh..., you, you last year teach::: which class?
02T	我去年:::, 我去年上一年级的课。我也上 103 的课。	02T	I last year:::, I last year teach first year class. I also teach course 103.
03B	你是哪年来普大的?	03B	You SHI which year come to Princeton University DE?
04T	我:::, 我是去年来的。2002 年	04T	I:::, I SHI last year come DE. Year 2002.
05B	所以, 你 :::, <u>你在普大教:::了两年了?(LE)</u>	05B	Therefore, you:::, <u>You ZAI [at] Princeton taught::: LE two years LE? (LE)</u>
06T	(a) 对, 教了两年。(b) 你呢?	06T	(a) Yes, [I] taught LE two years. (b) What about you?
07B	我, 我现在在普大念书。	07B	I, I now ZAI [at] Princeton University study book.
08T	念书 (tone)	08T	study book (tone)
09B	念书。 <u>我念书念了八个, 八个月了。 (LE)</u>	09B	study book. <u>I studied book studied LE eight, eight months LE. (LE)</u>

Note: The ending LE (05 and 09) represent one of the many *other* functions of LE which were not considered to be the TG LE (Section 3.2.2.1, p. 43).

This protocol, which came from TS Nine, shows that a) the tutor and learner B are nearly equal partners in a natural conversation; and, b) that the learner is expressing himself and structuring his real-life meaning with correct TG. In the first half of the conversation, learner B was asking the tutor about her teaching experience in Princeton University (01-05). Then, the tutor naturally transitioned to asking the learner about studying there (06).

During his self-initiated conversation, learner B self-elicited SHI..DE, “You SHI which year came [to] Princeton University DE?” (03). Then, in response to the tutor’s answer, “I SHI last year came DE. Year 2002.” (04), the learner computed the duration of tutor’s teaching in Princeton University and, to confirm his math, elaborated by correctly self-eliciting the LE and ZAI question, “Therefore, you ZAI [at] Princeton taught LE two years LE?” (05). The tutor confirmed (06a) and reused the same on the learner, “What about you?” (06b). Learner B first

responded with a short but correct ZAI (07) and then elaborated a more comprehensive answer, using LE (09).

In this conversation, composed of just four exchanges, learner B correctly used ZAI twice, SHI..DE once, and LE twice – without *any* tutor's prompting or assistance. In addition, the tutor and learner B naturally *exchanged* the role for leading the conversation (06-07).

In this section, the researcher has presented protocol analysis which demonstrated that the learners appropriated the tutor's assistance by functionally using the TG they perceived as competing – the learners gradually began to take on the responsibility for actively co-constructing contexts where elicitation and correct use of the TG helped them complete the differentiation process.

In the next section, the researcher will answer the Third Research Question.

6.3. ANSWER TO THE THIRD RESEARCH QUESTION

In Chapter Five, the researcher demonstrated that all grammatical errors related to ZAI, SHI..DE, and LE were eliminated by the end of TS Nine (Figure 5.1 to Figure 5.6). In this chapter, the researcher demonstrated a) that the learners' primary problem was differentiation of two or more structures which *they* had perceived to be appropriate for the *same* context; and, b) that with the tutor's assistance, both learners had successfully differentiated all aspects of the TG which they had found confusing in this manner (Figure 6.1 to Figure 6.6).

Thus, the answer to the Third Research Question is that all errors were eliminated in both learners' subsequent oral conversation – so long as another grammatical structure or even a verb is not introduced which in *any* way can be *perceived* by a learner to be competing or confusing with any existing structures. And, if such a structure or verb is introduced *and* the tutor or the learner elicit it, there, very likely, *will* be a surge in errors for, at least, the structures affected.

That is, the learner will need the tutor's assistance, again, to differentiate all the structures involved (i.e., new and prior).

Indeed, the researcher will present *two* such examples, which were found in the protocol analysis: a) a structure, perceived to be similar to SHI..DE, resulted in a surge of a learner's need for the tutor's assistance; and, b) a particular disyllabic verb, like “认识” (know), resulted in a surge of learner's need for assistance during elicitation of v-o-v LE.

First, the ‘verb 过’ (verb GUO), which was not considered in this study, deals with a specific past experience (e.g., “I have been to China [at least once]” *Lit.* “I went GUO China”). In Protocol 6.5, while asking the tutor a question (i.e., initiating), learner B misused GUO in place of SHI..DE (05). Even though the tutor reminded the learner of the nature of the error, “It is past and it is emphasizing” (06: Level 5), the assistance failed to trigger B's understanding (07). Thus, the tutor engaged the learner in a lengthy *differentiation* of the competing structures (08-20: Level 9).

Protocol 6.5

01B	<u>你回去过中国吗? (GUO)</u>	01B	<u>Have you returned [to] China? (GUO)</u>
02T	我回去过。	02T	I have been back.
03B	(pause) 你去, <u>你回中国一个人</u> <u>吗? (SHI)</u>	03B	(pause) you go, <u>[Do] you return</u> <u>[to] China by yourself? (SHI)</u>
04T	(raising eyebrows) (2)	04T	(raising eyebrows) (2)
05B	no? 你跟谁, 你跟谁去过中国?	05B	<i>no?</i> you with whom, with whom have you been [to] China?
06T	It is past and it is emphasizing. (5)	06T	<i>It is past and it is emphasizing. (5)</i>
07B	你跟谁去过中国?	07B	With whom have you been [to] China? (GUO)
08-20	(were lengthy discussion, with examples on differences of: verb 了, verb 过, and 是...的) (9)	08-20	<i>(lengthy discussion, with examples on differences of: verb LE, verb GUO, and SHI..DE) (9)</i>
21B	我没有去过台湾。	21B	I haven't been to Taiwan.

Second, both learners in this study experienced difficulty when the disyllabic verb “认识” (know) was used in a “verb object verb LE” sentence. For example, learner B’s peak in TS Seven (point K in Figure 6.6, p. 219) demonstrates that the learner needed very explicit error correction (Level 8) from the tutor.

As shown in Protocol 6.6, learner B mistook the verb “认识” as “verb-object” and tried to *force* it into the “verb-object-verb LE” form (11). This example can not be translated to English, as the verb is meaningless when “separated” in this manner.

Protocol 6.6

01B	你, 你是:::, 你是在哪儿..., 跟你的...爱人见面的? (SHI)	01B	You, you SHI :::, you SHI at where..., with your..., husband meet DE? (SHI)
02T	我们是在 Pittsburgh 认识的。	02T	We SHI at <i>Pittsburgh</i> know (each other) DE.
03B	认识 eh..., 你们, 你们一块是生, 你们, 你们都是学生吗?	03B	know, eh..., you, you together SHI, you, were you both students?
04T	对, 我们都是学生。	04T	yes, we were both students.
05B	都是学生, 好, 所以, 你是跟你的爱人见面	05B	both were students. Good. Therefore, you SHI with your husband meet
06T	认识	06T	know
07B	认识, 你跟你的爱人	07B	know, you with your husband
08T	你跟 (tone)	08T	you with (tone)
09B	你跟你的爱人认识, eh..., 几个..., 几年, 认识几年的? (LE)	09B	you and your husband know eh..., how many ..., how many years, know how many years DE? (LE)
10T	认识::: (4)	10T	know::: (4)
11B	几年, 认识了, 认识认了	11B	how many years, know LE, know LE
12T	你们认识了 (8)	12T	you knew LE (8)
13B	认识了, eh..., 几年, 你跟你爱人认识了几年?	13B	knew LE, eh..., how many years, you and your husband knew LE how many years?
14T	我们认识了五年.	14T	we knew LE five years.
15B	你是什么时候来普大的?	15B	you SHI when came to Princeton University DE?

These two examples (Protocols 6.5 and 6.6) clearly demonstrated that there exist *other* structures which learners may *perceive* as competing with SHI..DE and LE and, consequently,

that there exist other potential surges in the learners' need for the tutor's assistance if and when new structures are introduced.

In Chapter Five, the researcher demonstrated that the learners did appropriate both types of the tutor's assistance. In this chapter, the researcher presented evidence to explain why SHI..DE and LE proved more challenging for the learners than ZAI and demonstrated that it was precisely by *employing* the steady stream of co-constructed contexts within the oral conversation – improving as a result of the tutor's RinP – that enabled the tutor to help the learners differentiate the TG. In other words, through the relentless functional use of the TG, in as many co-constructed contexts as possible, the learners appropriated the tutor's EC while self-expressing themselves through their elaborations and initiations.

In the next chapter, the researcher will provide the comprehensive discussion of the tutor's EC and RinP and the learners' appropriation processes of this assistance, using the framework provided by Vygotsky's Socio-cultural Theory. The researcher will also discuss how these findings fill the gaps in the current SLA and teaching Chinese as a foreign language.

7. DISCUSSION & IMPLICATIONS

7.1. DISCUSSION OF STUDY

The original focus of this study was to investigate error correction (EC) collaboratively built between the tutor and learner in oral interaction and its impact on the development of grammatical structures across nine weeks. The researcher confirmed Aljaafreh & Lantolf's (1994) finding that a) language learning was a collaborative endeavor; and, b) collaborative EC was most effective when provided within the learners ZPD. The important finding was that, in addition to EC, the tutor also provided regulation in participation (RinP) – because the opportunities for EC depended *on* and were inseparable *from* the learner's participation – and the RinP was also most effective when also provided within the learner's ZPD.

Initially, the tutor's RinP was necessary to overcome the Tutor's Dilemma and guide the learner into collaborating in the conversation at a level that *placed* the elicitation and correction of TG errors *within* the learner's ZPD. Thereafter, the RinP served to increase the quantity of contexts where TG could be elicited and the tutor could provide EC to the learner's emergent errors. And it was *this* collaboratively provided EC which was to be the *original focus* of this study, but was found to be only a part of the greater finding.

This greater finding can be best demonstrated through a span of several minutes¹ from TS Nine because the learners entered this study with neither the shown *grammar accuracy* nor *participatory practices* – i.e., in the first TS, the learners could only passively provide phrase-

1 The conversation is presented here to help establish the tutor-learner conversation and also the learner's grammar accuracy, near the end of the study – i.e., this is not “data”, *per se*. The researcher acknowledges that this is not an orthodox introduction.

level or short, pre-memorized sentence-level responses and even the elicitation of a TG or its correction were *outside* their ZPD (see Section 4.3, p. 70).

Let us listen and consider three questions, because their answers will have important implications for psycholinguistic theory and research, as well as second or foreign language teaching. Where does the learner's *grammar accuracy* come from? Where do the learner's *participatory practices* come from? And, where does the learner's *expressive demeanor* come from?

T: What did you do this morning? *Can you give a narration?*

A: This morning, eh..., this morning, I:::, I SHI, eh..., ..., I SHI, m...seven o'clock, seven::: seven o'clock got up DE. I, I::: eh..., I first, *Can I say*, I first study Chinese, then:::, eh... drive the car, eh..., later, drive the car come to school. When I was driving, I, on the one hand, on the one hand, I drive the car, on the one hand,

T: while (phrase)

A: eh..., While I was driving, I eat breakfast. eh..., I:::, ..., I nine o'clock (to) Princeton University. I SHI..., nine o'clock came::: (to) Princeton University DE. eh..., ten o'clock, I::: had, I, eh..., had Chinese class. I, I, I SHI had Chinese class DE.

T: What time?

A: I:::, I:::, SHI ten o'clock had Chinese class DE. eh..., I hear X teacher speak::: Chinese. X teacher...eh..., eh..., X teacher's *voice* is very sharp. I like X teacher, but her *voice* is too sharp.

T: Don't you like very sharp *voice*?

A: No.

T: Mhm!

A: eh..., next week, last week, X teacher, eh... with me made a fool.

T: joked [with you] (word)

A: [She] joked [with me]. eh..., She said, eh... my *voice* is too low, my, my, eh..., my my classmates, eh..., ..., laughed, laughed at me.

T: They laughed at you?

A: laughed at me

T: Then, you why, your *voice*, why was your *voice* so low?

A: I, I don't know. Our... classroom is very large, so, when I was speaking Chinese, I, my classmates, eh... my classmates do not listen to me.

T: could not hear

(continued...)

- A: Could not hear [me]. *Let's see*. I, I, eh..., I SHI::: ten::: ten::: ten thirty had exam, had Chinese exam DE. I took exam took LE one hour. Later..., I..., I go, I SHI ZAI [at] *Noderstem* had English class DE. I don't like English writing seminar. eh... [it] is very difficult.
- T: Very difficult, really!
- A: I don't like my..., writing seminar teacher, either.
- T: Why?
- A: eh..., I think he is not polite.

In this conversation segment, the learner not only clearly demonstrates active participation, through coherent and encompassing narrative, but also grammar accuracy, through the self-elicited and correctly used ZAI, SHI..DE and LE. By analyzing the learner's appropriation of the tutor's RinP and EC *and* also establishing the relationship between these two types of the tutor's assistance, that the researcher demonstrated precisely *how* the learners were assisted in acquiring this communicative competence.

As visualized in Figure 4.2, the larger collaborative frame, on which the tutor's RinP and other assistance acted, represented the oral conversation co-constructed by the tutor and learner. The origin of the smaller collaborative frame was the elicitation of grammatical structures which resulted in learner's error and it was within this frame that the tutor provided EC. That is, the researcher established that, in the oral conversation, EC was inseparable from the RinP because the opportunities for the EC were highly dependent on the learner's participation.

In other words, the tutor was demonstrated to have *co-constructed* the inter-personal oral conversation, *assisted* the learners to use vocabulary for self-expression, *challenged* them to structure that self-expression with appropriate TG, and *provided* EC on thus emergent errors. And, the tutor was shown to have provided both the RinP and EC naturally, in the course of the oral conversation, and in addition to the always-available assistance with vocabulary, non-target grammar, etc., which were so vital to the continuation of the conversation.

Indeed, it was the inseparable nature of the two types of the tutor's assistance, found within two equally inseparable collaborative frames of the oral conversation, that so profoundly differentiated this study from studies where pre-existing errors were corrected in a subsequent collaborative TS – of which the study by Aljaafreh and Lantolf (1994) the researcher took as representative.

The researcher adapted the “Tutor’s 12 Regulatory Scales” from Aljaafreh and Lantolf (1994) for the oral conversation but found that the tutor’s regulation on grammatical forms (Treg) was categorized into nine levels: with level Nine being the most explicit assistance and level One being meaning clarification. Representing *intentional* EC, Treg levels Nine through Two were found to be effective in guiding and assisting the learners in understanding, locating, and self-correcting errors for learners with low to high ZPDs, respectively. Treg level One, on the other hand, served to clarify misunderstandings found in every conversation; and, in learners with high ZPD, also served as an effective form of *unintentional* EC (see Section , p.).

In the oral conversation, the tutor was not only expected to correct the possibly erroneous grammatical structure within the meaning-making but, because *that* meaning was emergent, was expected to also contribute responsive meaning back into the conversation. Thus, the tutor needed to understand the learner's meaning to *both* evaluate its grammar accuracy and to form an intelligent response. Similarly, in addition to contributing meaning to the conversation, the learner was also faced with having to structure that meaning with grammatical structure appropriate for that particular context – which, as will be discussed later, was particularly challenging for grammatical structures *lacking* a counterpart in English; meaning that, initially, the learner did *not* know the contexts where such grammatical structures were and were not appropriate.

To correct the emergent errors in the oral interaction, both the tutor and the learner had to make multiple, on-the-spot decisions regarding what to say and which appropriate grammatical structure to employ for any particular context. In this sense, the true challenge of learning the grammatical structures, as observed by Larsen-Freeman (2004. p. 63), was not only knowing its form (the correct linguistic form of a sentence) and what it meant (the meaning that the specific linguistic form expressed), but also in knowing when or in what contexts to use it over another form, in the cohesive text of the oral interaction. This [was] grammar at the discourse level.

It should be now clear that, because both the meaningful conversation and the errors and EC were all emergent, it was *imperative* for the tutor to engage and vigorously regulate the learner's participation within the goal-oriented activity to achieve the goal of collaborative EC. That is, it was through the *deliberate* Regulation in Participation (RinP) that the conversation was successfully co-constructed by the tutor and learner for the purpose of eliciting the TG within its various meaningful contexts and potentially triggering episodes of EC.

Thus, the tutor entered the learner's ZPD, probed their ability to perform that activity, and provided the minimal level of regulation sufficient to help them participate in that activity. In this fashion, the learners' performance was both assisted (i.e., the learner was operating within his or her ZPD) and elevated (i.e., the learner appropriated this assistance) such that, gradually, he or she became an active participant who self-elicited and accurately used the TG.

7.2. LANGUAGE AS A COGNITIVE AND SOCIAL TOOL: AN ADDITIONAL PERSPECTIVE

Speech (language), in Halliday's (1978. p. 2) elaboration of Vygotsky's SCT, described as a semiotic construct, having a form that enables the participants to predict and understand one another as they speak. By applying this psychological tool, the tutor and the learner do more than understand each other, in the sense of exchanging information through the dynamic interplay of

speech roles, but act out the social structure, affirming their own statuses and roles, and establishing and transforming the shared systems of value and of knowledge. [...] In this sense, language learning is situated and develops *within* the social interaction, which is rather unlike the current SLA research which only emphasizes the mediating function of culturally constructed artifacts (such as language) and not its practices (structure of the interpersonal communication).

That is, the segment of tutor-learner conversation presented at the beginning of this chapter was just language: language used for a social function (meaning-exchange) and for a cognitive function (e.g., the tutor's two types of regulation, learners' meta-comments, etc.). The researcher will now treat the "learner's appropriation" process from the perspective of a "transfer" of knowledge between the tutor and the learner. That is, while previously the gradual increase in the learner's understanding of TG was witnessed by a gradual dropping trend in Treg, here, it will be witnessed from the learner's changing meta-comments¹, subsequent to the use of the TG in the oral conversation. Similarly, while previously the transfer of RinP was witnessed from the learner's gradually increasing active involvement (and the tutor's successive challenges for the learner to achieve ever-higher levels), here, it will be witnessed from the learner's changing meta-comments, which were incident to the learner's participation.

In other words, the data presented in this study can be viewed as the use of language as a cognitive tool on two levels: a) in learning grammatical structures and also learning how to participate; and, b) the transfer of knowledge from the tutor to the learner on grammar and participation. That is, in addition to language used for a social function, where the researcher observed the tutor's *interactions* with the learner, these tutor-learner "interactions" also contained

1 While this discussion will provide additional evidence of the significance of learner's meta-comments and is congruent with current SLA theory, it is presented with the caveat that it is based on data from a single learner (Learner A). Learner B's speech was generally devoid of private-speech, except for self-assurances (e.g., "Good", "Yes", "Correct"), because B covertly employed test-cases to judge the applicability of TG.

episodes of regulation and learner's meta-comments (language used for a cognitive function) through which the tutor *affected* (i.e., exerted influence [on]) the learner.

The meta-comments were found to provide valuable insights about the learner's ZPD of both understanding of grammatical structures and of participation. In agreement with Donato (1994) these meta-comments, as “speech to oneself, [...] a means of self-guidance in carrying out an activity beyond one's current competence” (p. 48) were found to accurately track the difficulty of the activity (e.g., participation, grammatical structure form, etc.). As the difficulty of the activity was directly affected by the tutor's RinP, the learner's meta-comments manifested most when the tutor challenged the learner to participate at a higher level of performance.

Of considerable interest was that the learner's meta-comments also demonstrated that it was the tutor's regulation that was being transferred to the learner. Following both EC and RinP, the learner was observed to gradually regulate the self with what had initially been the tutor's assistance. While this progression in meta-comment development was most salient for participation (below), it was also found in EC. For example, learner's meta-comments showed an increased reliance on the self for what had initially been the tutor's assistance: “*Oh, that one*” (Protocol 5.5); “*Isn't that correct?*” (Protocol 5.7); “*Oh, all is past!*” (Protocol 5.8); “*Oh, I forgot*” (Protocol 5.9); “[error] *Oh, it is wrong* [self-correction]” (Protocol 5.11); and, finally, “[error] *No* [self-correction]” and “[error] [self-correction]”¹ (Protocol 5.12). These meta-comments demonstrate a gradually progression from overt remarks and private-speech to just private-speech and, finally, to inner-speech, and indicate that the activity was becoming less challenging for the learner.

1 The reader may notice that examples of this self-regulation (through inner-speech) appear in the conversation segment at the beginning of this chapter (e.g., “I nine o'clock (to) Princeton University. [inner-speech] I SHI nine o'clock came (to) Princeton University DE”, etc.)

A comparable transfer of the tutor's RinP also took place. When one learner was first challenged to initiate, the meta-comments came in the form of overt refusal, "I can't do that" (02, Protocol 5.18) and it was only through the tutor's insistence *and* assistance that the learner did attempt to comply. Later, the meta-comments demonstrated a transition from requests for confirmation, "You can use that in question too[?]" (line 32, Protocol 5.19) to private-speech, in the form of delay-tactics, "Let's see" (line 17, Protocol 5.20) to inner-speech in the form of dropping a question misunderstood by the tutor and posing another (lines 10-12, Protocol 5.21).

Indeed, the final TS demonstrated a case of inner-speech *resurfacing* as private-speech when the difficulty of the activity suddenly increased. There, when the learner was *overloaded* with meanings and forgot what she was going to ask, she vocalized her distress (private-speech), "Your, your, her, I forgot what you were saying. I forgot" (17a, Protocol 5.22). However, soon after the vocalized remembering (private-speech), "Oh!" (17b), the private-speech vanished, and A immediately uttered a follow-up question (17c) in Chinese.

Learner's participation meta-comments suggested that a transfer of RinP was taking place – the activities which the learner was initially incapable of performing alone, such as elaboration and initiation, progressively came into reach with a *simultaneous* decrease in the tutor's RinP. At the end of the study, in fact, the learner was elaborating without *any* assistance from the tutor.

7.3. TWO TYPES OF GRAMMAR: THE IMPORTANCE OF CONTEXTS

Thus far, RinP has been shown to be an important type of assistance to improve the learner's participation in the oral conversation. However, the same RinP had an indirect but very significant effect on the learner's grammar accuracy. That is, by increasing the number of contexts where the tutor was able to challenge the learner to elicit the TG, the RinP *increased* the learner's opportunities to appropriate the tutor's consequent EC. In fact, this increasing number of

contexts was shown to be particularly vital because two of the three TG (i.e., SHI..DE and LE) lacked a counterpart in English. That is, initially, the learners *did know* the form and meaning of SHI..DE and LE but *did not know* in which contexts each particular structure was and was not appropriate.

For the type of grammar *without* an English counterpart, learners' appropriation was slow and arduous because they needed to make the connection between the contexts where each structure was appropriate and the meaning that TG helped express. By comparison, for the TG *with* an English counterpart (i.e., ZAI), learners showed a much more rapid and trouble-free appropriation because they already knew the connection between the meaning it expressed and the *contexts* it was appropriate and, primarily, needed guidance only with the specific sentence-*form* of ZAI.

The researcher found that SHI..DE and LE were *interfering* TG because, while both implied a past event or activity, LE helped describe its duration while SHI..DE emphasized, for example, the time-point (e.g., when that event began or ended). Thus, merely knowing the form, without the cognitive understanding of which contexts each TG was appropriate in, left the learners confused and unable to differentiate the TG without the tutor's assistance.

Clearly, the process of appropriating the tutor's EC was dependent on the ready supply of contexts in which the learners could apply the interfering structures and receive the *required* assistance. Fortunately, because the tutor was also providing RinP, the number of contexts not only increased in numerical quantity across the sessions but also increased in scope and significance to the learner (i.e., from daily life to a trip to Costa Rica). That is, because the tutor regulated the learners to embellish their answers, narrate, and ask questions or even lead the conversation, the contexts further increased in variety and originality, respectively.

It was within this increasing number of contexts that the tutor *challenged* the learners to elicit the TG and, through negotiated EC, *assisted* them in associating each structure with a context to express a certain meaning. For example, when LE was first introduced into the conversation, the tutor steered the conversation to co-construct contexts where each one of the *other* interfering TG could be elicited and corrected in *rapid succession*. And, it was during these episodes of differentiation and comparison that the learner's cognitive understanding occurred and developed (Section 6.2, p. 209).

These findings provide a new perspective of the effectiveness of EC and language development not found in current SLA research, which studies single grammatical structures or several structures which are not inter-related. That is, by investigating several confusable and chronologically-offset TG *simultaneously*, this study demonstrated that SLA researchers and language teachers should *not* assume that grammatical accuracy is an ending product – when a confusable structure is added to those already learned, error recurrence *should* be expected – e.g., LE interferes with SHI..DE and SHI..DE may interfere with ZAI (Chapter 6, p. 205). Indeed, such apparent recurrence of errors is a *desirable* outcome because it offers opportunities for EC and the learner's differentiation of the new structure from those learned previously.

And, when the task is upgraded (e.g., initiation), teachers should expect *more* grammatical errors – demonstrating the shortcomings of the static end-result accepted by SLA research. The researcher demonstrated that it was by differentiating *all* TG in a *variety* of tasks that the appropriation of any one TG was evaluated; with the caveat that no new structures be introduced for that end-result to *remain* valid.

Indeed, the learners remarked in the Post-Study Questionnaire, that the requirement to not only recall but *choose* the appropriate TG, without any hints, to express their *own* personal

meaning was so beneficial to rapidly differentiating the TG. In other words, while they already knew the form and meaning of both SHI..DE and LE, it was the pressure to correctly apply these structures to express their own personal meaning which made the tutor's EC very relevant and useful in cognitively restructuring their understanding of each structure's applicability.

The learners also remarked that, while in the beginning of the study they often copied the tutor's sentence form¹, it was when the tutor challenged them to elicit the TG in their initiations that they were forced to [rapidly] differentiate the applicability of these structures. While learners recognized that they would probably make mistakes in the future, especially in contexts which they had *not* encountered before, they felt confident that their chances were good to be free of errors for contexts *similar* to those they had encountered during the study.

The opening conversation-segment in this chapter supports the fact that a considerable transfer of grammar knowledge had occurred during this study from the tutor to the learner – while in the first TS the mere *elicitation* of SHI..DE or LE was beyond the learners' ZPD, in the final session the learner was *self-eliciting and correctly using* ZAI, SHI..DE, and LE with no assistance from the tutor.

7.4. LEARNER'S MULTIPLE ZPDS

This study has demonstrated not only that the tutor provided EC and RinP within each learner's ZPD but also that each learner had different ZPDs, for EC of a specific TG and participation within a specific activity. Effectively, the overall need of the learner at any particular moment was the confluence of several ZPDs – each changing across time.

To this end, the researcher explicitly presented data which showed that in using TG, different learners had different ZPDs in using the same structure and the same learner had

¹ Not necessarily intentionally; in Chinese, many question-answer pairs differ by a single word or phrase (APPENDIX C, p. 268).

different ZPDs in using different structures. Similarly, in participating within an activity, different learners were shown to have different ZPDs in using the same structure in the same activity. And, in particular, the same learner was demonstrated to display different ZPDs in using the same structure in the same activity (only a short time later).

The last point requires emphasis: because the tutor provided RinP, the learner's participation ZPD changed which, in turn, affected the situations where the learner *could* apply their otherwise-unchanged understanding ZPD for TG. In other words, the learner's ZPD of using a particular structure is *meaningless* without the simultaneous consideration of the learner's other ZPDs (e.g., participation¹) and the tutor must always consider the learner's *multiple ZPDs*.

This finding represents an important implication for current SLA research: the study of the effectiveness of EC or learner's appropriation of grammar must consider or take into account the learner's participation ZPD. For example, when comparing TS One with TS Nine, the data provides robust evidence that, *without* regulating the learner's participation, accurate use of TG would have been found *only* at phase or short sentence articulation or embedded in pre-memorized and otherwise-predictable conversations; *not* the real, dynamic, and functional use the learners of this study demonstrated in the final TS.

While the tutor's regulation of both participation and EC was negotiated during the tutor-learner interaction, that task was mitigated by the ability to recollect the level of the immediately-previous related episode of need and begin the assistance at that level. That is, because the tutor could recall the learner's actual developmental level for a related prior error (which can be viewed as ZPD persistence), it allowed for a more efficient and less tedious EC

¹ While this study only considered learner's ZPDs in grammar use and participation, it is likely that ZPDs of aculturation, tones (pronunciation), vocabulary, etc. also play a role.

strategy – the tutor did not need to spend a considerable portion of the conversation just trying to assess the ZPDs (as in Aljaafreh and Lantolf, 1994).

The researcher also demonstrated that it was through this process of differentiation that the learners appropriated the tutor's two types of assistance – i.e., that the learners' participation was essential for encompassing EC. In addition, the learners' appropriation was found to also be a cognitive process, in which the beginning learners, through their participation, transformed their understanding of and responsibility for the oral interaction. That is, through participation, learners changed and in the process became prepared to engage in subsequent similar activities (Rogoff, 2004. p. 151).

Specifically, through the appropriation of the tutor's contingent assistance in EC and RinP, the learners' oral production of the three TG emerged and increased in accuracy until, in TS Nine, the learners freely employed these TG during self-expression – i.e., self-regulation of the TG had been achieved and the learner demonstrated confidence in exploring his or her conversational environment.

7.5. WHERE DOES THE GRAMMAR ACCURACY COME FROM?

The simplistic answer is that the grammar accuracy was the result of the learner's appropriation of the tutor's EC within the *regulated* participation of the oral conversation. The complete answer is much more complicated but the researcher will attempt to present four related aspects encountered in this study.

First, this study supports Aljaafreh & Lantolf's (1994. p. 480) assertion that effective EC and language learning are not something that an individual can do alone, but a collaborative endeavor, that is, the tutor and learner dialogically co-construct a zone of proximal development

(ZPD) in which the EC, first as tutor-regulated behavior, gradually becomes appropriated by learners to modify their grammatical understanding.

In fact, in this study, the tutor actively and consistently invited and regulated the learner to join in the co-construction of the conversation and it was within this conversation that the tutor challenged the learner to elicit TG and narrow down the hypotheses about linguistic forms by tailoring the assistance to the learner's need. It was because the tutor guided the learners to participate in the negotiated EC that the cognitive understanding and awareness occurred and developed – helping the learners to outperform their actual level and move toward their potential level of development, here the use of three TG in various contexts.

The language development, from the socio-cultural perspective presented in this study, has provided a detailed demonstration of precisely *how* the tutor tailored the EC to each individual learner's language level and how this EC, as an external force, interacted with that learner's cognitive understanding of functional use of TG and gradually elevated that understanding. That is, language learning was shown to not be just a process of providing negative input to the learner's "black box" and the learner using this information to modify their output in the social interaction. Rather, it was by constantly *involving* the learner into the goal-oriented activity and providing *contingent* assistance within that learner's ZPD which incrementally built-up learners' understanding of the functional use of the TG.

This study also supports the findings of Aljaafreh & Lantolf (1994) in that, so long as the assistance is provided *within* the learner's ZPD, its type is not that relevant. That is, it is not whether explicit or implicit negative feedback (EC) is inherently effective or ineffective – which has been the persistent subject of SLA research – the effectiveness of assistance is determined by

the individual learner's ZPD and the collaborative activity in which the learner and the tutor are involved.

Many aspects of this study have, thus far, been overlooked by current SLA research: the already-mentioned individual learner's ZPD; the importance of the dialogic activity in which the tutor and learner were engaged; the tutor as a partner in the learning activity; and, the dynamics of learner's development and how it unfolds over time, etc. In this study, it was specifically by probing the learner's development and considering the repeated attempts at production by the learner, as well as the learner's performance in collaboration with the tutor, that the researcher obtained the insights into effectiveness of negative feedback, described in this dissertation (see Section 5.6, “individual learner's ZPD”; Section 4.2, “importance of dialogic activity”; Section 6.2, “tutor as a partner”; and, Sections 5.2 and 5.4, “dynamics of learner's development”).

Second, the regulation of TG through EC was shown to be targeted towards two types of grammar: structures with an English counterpart (e.g., ZAI), and structures without an English counterpart (e.g., SHI.DE and LE). While the TG with an English counterpart only required EC on the form, structures without such a counterpart required additional EC to connect the structure with the context to express a certain meaning. The appropriation process, demonstrated in this study, proves that the real challenge of learning a grammatical structure in oral interaction is not only in knowing how to form it (the sentence with correct linguistic form) and what it means (the meaning this specific linguistic form expresses), but also in knowing when or in what context to use it over another form in the cohesive text of oral interaction. This is grammar at the discourse level (Larsen-Freeman, 2004. p. 63).

The benefit of multiple contexts created in the oral interaction was that it allowed the tutor to elicit the TG and help the learner build a connection between the contexts and the TG

they needed to use when attempting to express a certain meaning. In other words, the learners were assisted in their search for similarities between new problems and those they had already solved; guided by the previous experiences with similar problems and by instruction of how to interpret and solve such problems. Thus, the notion of transfer can be viewed as a collaborative process rather than a cognitive activity of the individual.

The researcher showed that while it was the tutor's EC which was responsible for the beginning learners' gradual recognition and differentiation of the contexts where each grammatical structure was and was not applicable, it was the manner in which the tutor *challenged and assisted* the beginning learner to co-construct the social contexts within the oral interaction and co-elicited the TG which provided the opportunities for that EC.

Third, the learner's gradual improvement in grammar accuracy did not occur in a static sentence-form but developed hand-in-hand with both the learner's increasingly-active participation and expanding discourse¹. In fact, this aspect of the oral conversation was important as it enabled the learners to attempt to apply the TG to very original contexts (i.e., ones unlikely to have been previously seen in the book or experienced in drills or lecture).

The important implication for current SLA research is that the oral conversation is an ideal setting for improving *grammar accuracy*, in addition to pronunciation and participation. That is, not only has this study demonstrated that the learner's appropriation of EC was *compatible* with learner's simultaneous appropriation of RinP, but, indeed, that this was an *optimal* combination.

Finally, by having a part in the co-construction of contexts, the tutor could steer the conversation to enable the learners to use and differentiate all TG apart, until, by the end of the

1 In this sense, the six graphs (i.e., Figures 5.1 to 5.6) are non-linear because the *falling* magnitude of Treg (Y-axis) is graphed across a simultaneous *increase* in complexity of discourse and participation (demonstrated in Figures 5.7 to 5.10 and Figures 5.11 to 5.12, respectively).

study, the learners did not confuse the TG. However, if a new structure is introduced, which the *learner* perceives to be similar to any of the previously-appropriated TG, errors will recur and the tutor's EC will be needed *again*.

7.6. WHERE DO THE PARTICIPATORY PRACTICES COME FROM?

The simplistic answer is that the participatory practices were the result of the learner's appropriation of the tutor's RinP. The longitudinal aspect of this study, of beginning learners, offered insights on the importance of regulation in participation (RinP) and six such insights will be presented.

The first insight is that the aforementioned “simplistic answer” is not intuitive to most language learners because the explicitly-stated goal of language learning is often linguistic accuracy. Thus, while *using* grammatical structures in conversation about different content topics is often understood, this study showed that not only the beginning learners *could not* participate but they were are unaware that they *needed* to participate. What was the tutor to do?

The answer was found to be to invite and guide the learners to participate with the tutor in the goal-oriented conversational activity and that the learners were transformed *through* this participation. That is, the researcher demonstrated that the tutor could guide the learner to participate in socio-cultural activities and that this participation could be steered to transform the learner's participation from being relatively peripheral – only observing and carrying out secondary roles – to one where the learner was responsible for leading that activity.

However, the tutor was walking a fine line when challenging the learner because the beginning learners did not know *how to* participate and some even resisted complying with the tutor's challenges because they *perceived* that that activity was too difficult. In addition, because meaning in the oral conversation was co-constructed by the tutor and the learner, the most

favorable outcome could be only obtained through the tutor's assistance *within* the learner's ZPD during the EC and RinP activities.

That is, the tutor could not simply coerce the learners to comply because that would not motivate them to become engaged in the activity. Instead, to move the learners from non-compliance to compliance (and finally to engagement), the learners were given the opportunity to structure tasks and to establish goals. It was only after the tutor encouraged the learner to structure the dialogic activity and discuss the task and its goals (in English), that the learners were able to orient themselves [jointly], and finally achieve intersubjectivity or shared orientation, which allow them to regulate themselves during the problem-solving activity (Brooks and Donato, 1994).

Protocol analysis showed that the tutor did not simply encourage or coerce the learners to participate but, instead, determined the learner's ZPD and provided the RinP within that ZPD. For example, when the learner could not carry out a particularly difficult task, the tutor needed to explain the goals and why compliance was necessary. If this assistance was insufficient to help the learners *attempt* the activity, the tutor needed to provide question-form *examples* and *demonstrate* what to say or what to ask (Protocol 5.18); *suggest* meanings intended to elicit the TG (Protocol 5.20); and so on.

The second insight found was that without a certain *minimal* level of participation from the learner, there existed little chance for elicitation of the TG or EC. Thus, as the Tutor's Dilemma demonstrated, it was imperative – even *prerequisite* – that the beginning learners' participation be regulated to develop discourse competence with the TG (see Section 4.3, p. 70).

The third insight was that initiation was *much more* challenging for learners (than elaboration) because it was the *learner* who was responsible for originating not only the meaning

(“you, go, where”) but also the vocabulary, question-form (“Where did you go?”), and the context which narrowed down the answer (“Where did you go, this year, for Spring Break?”). In other words, when asking questions, the learner was forced to consider all the aforementioned aspects *before* he or she could formulate an appropriate *and* correct question.

The fourth insight was that the learners did not self-elicite TG unless *challenged* to do so by the tutor for three reasons. First, when attempting to ask questions the learner was forced to consider many different aspects like vocabulary, form, meaning, context, etc. Second, for the type of grammar which lacked an English counterpart, the learners did not elicit those structures because they were *unaware* of the contexts where it was and was not appropriate. Finally, as per their Post-Study Questionnaire, learners were reluctant to employ structures they were not comfortable using for any reasons.

Thus, by co-constructing contexts, regulating the learner's participation, and challenging them to elicit the TG within this increasing number of contexts, the tutor was effectively increasing *opportunities* for EC. The result was a more timely appropriation, which was found to lead to learner's self-elicitation and grammar accuracy, in addition to the increased participation.

The fifth insight was that the tutor's RinP was provided within the learner's ZPD and, as a result, learners were *optimally* challenged to become a better participant (RinP) *and*, through this increasing participation and the opportunities for elicitation and EC it created, a more accurate speaker.

However, different from the provision of EC within ZPD, which, across time, can be viewed as the successive *withholding* of “more” assistance, RinP can be viewed as being opposite¹. That is, while the tutor still provided the minimal level of assistance sufficient to help

¹ While EC had but one goal (i.e., grammar accuracy) and RinP had multiple [successive] goals, this study demonstrated that grammar accuracy was linked with the level of participation (i.e., difficulty of the task). Thus, grammar accuracy dropped when learners were challenged to initiate (see the third insight, above).

the learner participate in the activity, the tutor challenged or *pushed* the learner to achieve a higher level of performance when the learner was deemed to be capable. In other words, participation was a *continuum* of assistance to reach the “present level” of performance and the tutor assessing if the learner was capable of achieving the next-higher level (i.e., if that higher level was within the learner’s ZPD), and, if so, *punctuated* by challenging the learner to make that higher level the “present level”.

The seventh and final insight was that the RinP required the tutor’s continuous attention because the learners were found to abandon the difficult activity – even when the tutor was providing continuous assistance. Thus, the tutor did not merely co-construct a conversation within a certain learner-volunteered context, rather, the tutor needed to remind the learners of the context, challenge them to elicit the TG, provide grammatical forms for such elicitations, and, even, suggest new topics (e.g., Protocol 5.19) to fully engage *and* keep the learner in the conversation within that learner’s ZPD.

Because without the learner’s participation no errors could exist, the more meaning that the learner contributed translated into more meaning which the tutor could potentially help the learner structure with TG. Thus, the learner’s appropriation of the tutor’s RinP led to an increase not only in the numerical quantity and increased depth of the contexts but also an increase in the instances where TG *could be* elicited and potentially corrected. Consequently, the tutor’s two types of assistance enabled the learners to accurately use the grammatical structures while actively participating in the oral conversation.

7.7. WHERE DOES THE EXPRESSIVE DEMEANOR COME FROM?

The simplistic answer is that the expressive demeanor was a direct consequence of the learner's *functional use* of the appropriated tutor's RinP *in participating* within the oral conversation. Here, the complete answer does not differ significantly from the simplistic one.

As each learner conveyed his or her personal story, in addition to the mutual understanding, there developed a sense of self-confidence: the learners discovered that they were being increasingly better-understood (the misunderstanding and explicitness of the EC were decreasing) and that their life-story was being heard *and* empathized. This increasing self-confidence, together with the increasingly-closer inter-personal relationship, allowed the learners to accept the tutor's EC *in stride*. That is, the learner's ability, interest and empathy grew as a result of participation in the dialogic interaction in which the learner's performance was being regulated in both grammar and participation.

Indeed, it was the intertwined increase in the learners' participation or responsibility for maintaining the conversation, together with their increasing grammar accuracy which enabled the inter-personal relationship's growth to accelerate and the learners' confidence to grow further. Consequently, the tutor become even less of a "threat" and more a native-Chinese "friend", thereby significantly reducing the negative impact of the EC. Indeed, the learners' attitude towards EC began to shift from that of "panic" and "embarrassment", in the Pre-Study Questionnaire, to "appreciation" and "guidance", in the Post-Study Questionnaire (Section 5.5, p. 184).

In addition, the data demonstrated another relationship between the learners' grammar accuracy and participation: as the grammar accuracy improved, the depth and expressiveness of their participation increased. For example, by the final TS, because learner A's need for EC was

low, A could pose more probing, deeper questions while also keeping a closer track of the context (Protocol 5.22).

After the tutor's first challenge for the learner to initiate, the conversation took on a more collaborative quality, with the tutor and the learner *more equally* contributing to the meaning. This sharing of personal information *directly* cultivated the inter-personal relationship between the tutor and learner and *indirectly* provided additional incentives for the collaborators to more boldly and actively explore each other's life-experiences – greatly contributing to the increase in both the numerical quantity of contexts and their scope, as previously discussed.

The opening conversation-segment demonstrates more than just grammar accuracy and ability to participate. It also reveals patterns in grammar usage such as SHI..DE and LE appearing within the context of taking one exam; and, elaborating to tell a more vivid story about teachers and classmates. While some of these patterns can be traced to the tutor's strategies (e.g., differentiating SHI..DE from LE within a single context, Section 6.2, p. 209), the learner also shows a willingness to attempt topics for which vocabulary was lacking – a sense of knowing that her friend, the tutor, would be happy to help.

The learners revealed, in their Post-Study Questionnaire, that they were much more likely to strike up a conversation with a Chinese stranger because they especially did not feel as intimidated with the first stages of a new conversation (see Section 5.5, p. 184). That is, they had learned not only the grammar to express their meaning but also attained the confidence to apply that grammar while expressing their meaning in the oral conversation.

7.8. LIMITATIONS AND FUTURE STUDIES

This study was comprehensive and presented a holistic view of the tutor-learner collaboration in terms of learning grammatical structures in the oral conversation. Qualitative

and quantitative data, as well as learners' questionnaire were all considered and shown to demonstrate both the learner's moment-by-moment change and long-term development. Here, the researcher will present the known limitations and make suggestions for further studies.

The first limitation was that this study only considered four beginning English learners of Chinese and of those, only data for two learners was transcribed and analyzed in detail. And, of the two, only one learner outwardly expressed (vocalized) meta-comments – so helpfully providing cues to the appropriation of TG, in Chapter Five. Thus, the sample size was small and future studies should include more participants, and, preferably, favoring participants with a predisposition to meta-comments.

In addition, studies are needed to compare the effectiveness of individual sessions on *not* beginning learners. Of special interest to this researcher are differences between the tutor's two types of assistance of beginners compared to more advanced learners – provided that the individual sessions are provided from the beginning and not merely as remedial assistance.

The second limitation was that, if the native language of participants is something other than English, *different* grammatical structures may have counterparts with Chinese – i.e., while English does have a counterpart for ZAI, it lacks ones for SHI..DE and LE; other languages may differ. Thus, more studies are needed to explore the beginning learners' grammar appropriation for native languages *other than* English. In addition, more studies are needed to test the hypothesis presented in this study: that the EC targeting grammatical structures *with* an English counterpart primarily focused on the *form* while that of TG *without* an English counterpart on the connection of the meaning and grammatical structure in a particular *context*.

The third limitation is that the tutor conducting this study had extensive experience in teaching beginning university-level learners (Section 3.1.2, p. 41). More studies are needed to

establish the effects of the tutor's level of expertise on learners' grammar accuracy and participation.

The final limitation was that these findings were made in individual sessions – i.e., one-on-one tutorials. While this study raises the importance of individual sessions (i.e., combining RinP with EC during the oral interaction), further studies are needed to explore the applicability of these findings to a) other learning situations – e.g., the classroom, learning Chinese as second language in China, etc.; and, b) other institutions – e.g., programs lacking individual sessions or drills, etc.

7.9. CONCLUSION

By presenting the data on the regulation of elaboration and initiation, the researcher demonstrated *how* the learner was effectively changed from being relatively passive and peripheral to that of an active participant, ever-more responsible for leading the conversation. And, by presenting the data on the episodes of the learner's error correction *within* this improving participation, the researcher has situated the EC as being within the collaborative, goal-oriented activity. In this environment, learners appropriated both types of the tutor's regulation through successive challenges and nearly-continuous assistance in both grammatical structure and participation. Effectively, the learners 'became' what they 'did'.

Indeed, it was precisely by challenging and guiding the learners into a more intimate participation within the collaborative interaction and the simultaneous provision of EC therein that the tutor *empowered* the learners to become fully competent and independently-functioning participants – a transfer of both participation and grammar had taken place. While, to beginning

learners and even other teachers, the goal of full participation is seldom as salient as that of “correcting grammatical errors”, this study offers not only convincing evidence for the efficacy of the need for both but also a pragmatic, if only introductory, paradigm of how this goal may be achieved [in nine weeks].

APPENDIX A

APPLICATION TO THE INSTITUTIONAL REVIEW PANEL

I. Research information

Investigator Kun An

Title of project Investigation of negotiated error correction in the Zone of Proximal Development on learning Chinese as a foreign language¹

Project date February to May, 2004

II. Abstract.

This is a descriptive and longitudinal study whose purpose is to investigate the process of error correction and L2 learning as they unfold during the oral communication collaboratively constructed between the tutor and L2 learners in learning Chinese as a foreign language. By observing tutor-learner conversation and the negotiated error correction embedded in the communication, this study attempts to understand the process of the tutor's error correction and L2 learners' use of three grammatical structures in conversation, specifically seeking to find out: (1) what types of assistance (error correction) does the tutor provide during spoken tutorial sessions; (2) how does the tutor's assistance (error correction) change within and across tutorial sessions and what is the relationship of this assistance to the learners' use of the three grammatical structures; (3) how the learners' use of the three grammatical structures develops in

¹ Changed to "An investigation of error correction in the zone of proximal development: oral interaction with beginning learners of chinese as a foreign language".

the immediate and subsequent tutorial sessions; and (4) which grammatical errors are eliminated in each learner's subsequent oral conversation and which are not eliminated.

The review of literature reveals that most of the current second language acquisition research on error correction is unitarily measuring the quantity of a certain type of the teacher's error correction and vigorously debating the effectiveness of one type of error correction over another (explicit correction, recast vs. negotiation of form) in correcting grammar errors in oral production. The effectiveness of error correction is mostly manifested by measuring learners' follow-up or final test scores on using certain grammatical structures. Few have acknowledged the potential collaborative and constructive process of learning created between the teacher and learner during the negotiated interaction. Using Vygotsky's sociocultural theory as the theoretical framework and his notion of the Zone of Proximal Development as the guide in providing error correction to learners, the study hopes to observe the tutor's step-by-step assistance (error correction) and the learners' moment-by-moment development in grammar use during oral communication.

III. Justification

Students in Princeton University's Chinese program are ideal for this study for two reasons. First, students feel that the current individual sessions (one-on-one conversations with the instructor (for 15 minutes every two weeks) are very helpful and they would like more of them but it is too time-consuming for the instructors to comply. This study will offer students two hours every two weeks (the equivalent of eight such sessions in the same time frame). By doing so, the participants will have a greater opportunity to apply and practice what they have learned in the classroom to real-life conversations.

Second, the three grammatical structures selected for this study are best mastered through frequent use. One structure is chosen because it is not salient (frequently not corrected in conversation because its misuse does not interfere with understanding) so the tutorial sessions in this study will offer the best opportunity for error correction. The second structure is chosen because its correct use in conversation is dependent on the mastery of the first structure. If the first structure is misused, part of the second structure will be misused as well. In addition, the second and third structures are both very difficult for American students to use and benefit from learning the above structure. Because they are confusing in usage, it is nearly impossible for students to choose the correct structure during a real conversation without further guidance. This guidance is usually not available in the current classroom, because of time constraints or other reasons, individual sessions may be the only way to provide learners with intensive language use and error correction.

IV. Methodology.

The participants in this study will be four native speakers of American English who do not have any Asian-language background. These participants will meet for the purpose of carrying on conversation in the Chinese language. The content of these conversations will include the vocabulary and grammatical structures that they have learned in their Chinese language class. All the errors (in pronunciation, tones, grammar, and vocabulary) during the conversation will be corrected. But only the error corrections related to the three grammatical structures will be transcribed and analyzed for this study. This study will last for nine consecutive weeks and the participants will meet the tutor once a week with one hour each time. All the tutorial sessions will be audio-taped and video-taped and later transcribed and analyzed.

V. Selection of participants

I will contact the CHI-102 instructors and ask their students for volunteers who are interested in after-class conversation with a Chinese tutor, free of charge. From this pool of volunteers, four participants will be randomly selected. Then, I will meet said students, in person, and explain the purposes of my study.

The participants' rights and responsibilities are detailed in the Informed Consent for Dissertation Research Project Participation.

INFORMED CONSENT FOR PROJECT PARTICIPATION

To: CHI-102 students

Dear Chinese language students:

My name is Kun An and I am a Ph.D. candidate in the Department of Instruction of Learning at the University of Pittsburgh. I am also a Chinese instructor at Princeton University. I would like to invite four monolingual native-speakers of American English to participate in a research project related to conversational Chinese. The purpose of the study is to observe how your language develops with a tutor's error correction through conversations.

In this study, I will be the tutor in our one-on-one conversations on all topics you feel comfortable discussing. I have taught CHI-101 and CHI-102 so I will make sure that I expect from you only the vocabulary and grammar that are appropriate. I will correct all your errors (pronunciation, tones, vocabulary and grammar) and also observe your accuracy and fluency. The study will last for nine consecutive weeks and we will meet once a week for one hour (in addition to any individual sessions).

Your benefits will include: (1) extensive practice in speaking (i.e., increased fluency); (2) expanded and extended vocabulary and grammar use (related to your current learning materials) in real-life conversations; and (3) intensive error correction (i.e., increased accuracy in pronunciation, tones, vocabulary, grammar).

The researcher's benefit will include: (1) audio-taped and video-taped conversations; and (2) the opportunity to observe the impact of tutor-learner conversation on your oral performance concerning fluency and accuracy in pronunciation, grammar and vocabulary.

I ask that you pledge to come to all the scheduled sessions (and be in the mood to talk) because, otherwise, the data's integrity will be compromised. However, you do have the right to withdraw from the study at any time.

Your confidentiality and privacy will be protected in several ways. First, I will use a pseudonym for the duration of the study and after the study is completed, you will have full anonymity. Second, the confidentiality of the oral conversation between you and the tutor will also be pledged. Third, your performance will have no effect on the grade in any of your courses. Last, while sections of the final transcript will be shared with my dissertation committee and other appropriate members of the University of Pittsburgh (and the dissertation results from this work will be published in hard copy and microfiche, which will be housed at the Hillman Library at the University of Pittsburgh), all sections will be screened such that no personal or private information is released.

If you have any questions, please contact me via e-mail: ankun@princeton.edu or call me at (609) 258-5366. Thank you

Kun An (signed)

Please sign below if you are willing to participate in the dissertation research project outlined above.

Print name _____

Signature _____

Date _____

APPENDIX B

PRE-STUDY QUESTIONNAIRE

1. My pseudonym/Identification letter is (e.g., 'A'): _____

2. What is your age? _____

3. What is your gender? ☐ Male ☐ Female

4. Did you learn any foreign languages before coming to Princeton? ☐ No ☐ Yes.

If **Yes**, please fill in below, otherwise skip to Question 5.

NOTE: If you have learned **more** than **two**, please request another page and **indicate** here: ☐

a. Name of **Language**: _____

i. Why did you study it? ☐ requirement ☐ career ☐ pleasure ☐ family **OR**
☐ other + explain: _____

ii. Proficiency reached: ☐ none ☐ minimal ☐ passable ☐ good ☐ fluent

iii. Years studied (number): _____

iv. Motivation level: ☐ none ☐ minimal ☐ some ☐ high ☐ very high

v. How seriously do you still study it ☐ stopped ☐ when needed ☐ actively

vi. Did you seek the assistance of a tutor? ☐ No ☐ Yes

If **Yes**, please answer the next two questions.

(1) Tutor was [☐ very ☐ somewhat ☐ so-so ☐ negligibly ☐ not] helpful.

(2) What was the focus of the tutor: ☐ writing ☐ reading ☐ speaking ☐ listening

OR

☐ everything ☐ other + explain: _____

b. Name of **Language**: _____

i. Why did you study it? ☐ requirement ☐ career ☐ pleasure ☐ family **OR**
☐ other + explain: _____

ii. Proficiency reached: ☐ none ☐ minimal ☐ passable ☐ good ☐ fluent

iii. Years studied (number): _____

iv. Motivation level: ☐ none ☐ minimal ☐ some ☐ high ☐ very high

v. How seriously do you still study it ☐ stopped ☐ when needed ☐ actively

vi. Did you seek the assistance of a tutor? ☐ No ☐ Yes

If **Yes**, please answer the next two questions.

(1) Tutor was [☐ very ☐ somewhat ☐ so-so ☐ negligibly ☐ not] helpful.

(2) What was the focus of the tutor: ☐ writing ☐ reading ☐ speaking ☐ listening

OR

☐ everything ☐ other + explain: _____

5. Did you study Chinese before Princeton? ☐ No ☐ Yes.

If Yes, and not detailed above, please explain: _____

6. Do you intend to study Chinese after CHI-102? ☐ No ☐ Yes ☐ Don't know

7. In addition to CHI-102 classes, how many hours each week do you currently dedicate to studying Chinese? _____

8. Do you speak Chinese outside your classes? ☐ No ☐ Yes. Why or why not? _____

9. Generally, when talking to a stranger in Chinese, I am

☐ very anxious ☐ somewhat anxious ☐ somewhat at ease ☐ very at ease.

10. Please rate your Chinese proficiency in these categories (a-h):

	Excellent	Very good	Satisfactory	Weak	None
a. Reciting:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Speaking:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Listening:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Reading:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Grammar:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Vocabulary:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Writing:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Communication:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. I volunteered for these tutorial sessions to (mark in descending importance, 1=least):

1 ____ raise my grade

5 ____ improve my fluency

2 ____ improve my accuracy 6 ____ take advantage of the unique opportunity

3 ____ talk (I like talking) 7 ____ practice using the vocabulary

4 ____ Other, explain: _____

12. Do you explicitly think of grammar when you are speaking in Chinese? ☐ No ☐ Yes

13. Do you review grammar and try to use as much of it as possible? ☐ No ☐ Yes

14. When do you prefer that your errors are corrected? ☐ in front of class ☐ individually

☐ during conversation ☐ after conversation

15. When your error is corrected by the teacher, do you usually: (mark any that apply) ☐ panic

☐ get embarrassed ☐ ignore it ☐ rephrase ☐ pause and think ☐ repeat correction

16. My self-confidence of using Chinese in communication is: ☐ excellent ☐ good ☐ possible

☐ low ☐ none

17. My motivation for learning Chinese is: ☐ excellent ☐ good ☐ possible ☐ low ☐ none

18. My Chinese grammar accuracy during conversation is: ☐ excellent ☐ good ☐ passable

☐ low ☐ none

19. My fluency in speaking Chinese is: ☐ excellent ☐ good ☐ passable ☐ low ☐ none

20. My self-confidence of Chinese pronunciation is: ☐ excellent ☐ good ☐ passable ☐ low

☐ none

21. My self-confidence of Chinese vocabulary is: ☐ excellent ☐ good ☐ passable ☐ low ☐ none

22. My self-confidence of using Chinese grammatical structures is: ☐ excellent ☐ good

☐ passable ☐ low ☐ none

Thank you.

POST-STUDY QUESTIONNAIRE

1. My pseudonym/Identification letter is (e.g., 'A'): _____
2. Do you intend to study Chinese after CHI-102? ☐ No ☐ Yes ☐ Don't know
3. Generally, when talking to a stranger in Chinese, I am:
☐ very anxious ☐ somewhat anxious ☐ somewhat at ease ☐ very at ease.
4. Please rate your Chinese proficiency in these categories (a-h):

	Excellent	Very good	Satisfactory	Weak	None
a. Reciting:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. <u>Speaking:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Listening:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. <u>Reading:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Grammar:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. <u>Vocabulary:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Writing:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. <u>Communication:</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Do you explicitly think of grammar when you are speaking in Chinese? ☐ No ☐ Yes
6. When do you prefer that your errors are corrected?
☐ in front of class ☐ individually ☐ during conversation ☐ after conversation
7. When your error is corrected by the teacher, do you usually: (mark any that apply)
☐ panic ☐ get embarrassed ☐ ignore it ☐ rephrase ☐ pause ☐ repeat correction
8. After the conversation sessions, my self-confidence of using Chinese in communication: ☐ increased ☐ stayed the same ☐ declined ☐ don't know
9. After the conversation sessions, my motivation for learning Chinese:
☐ increased ☐ stayed the same ☐ declined ☐ don't know
10. After the conversation sessions, my Chinese grammar accuracy during conversation:
☐ increased ☐ stayed the same ☐ declined ☐ don't know
11. After the conversation sessions, my fluency in speaking Chinese:
☐ increased ☐ stayed the same ☐ declined ☐ don't know
12. After the conversation sessions, my self-confidence of Chinese pronunciation:
☐ increased ☐ stayed the same ☐ declined ☐ don't know
13. After the conversation sessions, my self-confidence of Chinese vocabulary:
☐ increased ☐ stayed the same ☐ declined ☐ don't know
14. After the conversation sessions, my self-confidence of using Chinese grammatical structures: ☐ increased ☐ stayed the same ☐ declined ☐ don't know
15. What were the three most helpful aspects of the conversation sessions?
 - a. _____
 - b. _____
 - c. _____

16. Would you participate in a study like this one again? ☐ No, ☐ Yes Please explain
17. I feel that the tutor's feedback helped me improve my grammar: ☐ No, ☐ Yes;
Why or why not? _____
18. I feel that the tutor's feedback helped me improve my vocabulary: ☐ No, ☐ Yes;
Why or why not? _____
19. I feel that the tutor's feedback helped me improve my pronunciation: ☐ No, ☐ Yes;
Why or why not? _____
20. All things considered I was satisfied with these tutorial sessions: ☐ No, ☐ Yes
21. When I make a mistake using ZAI, I sense that I made the mistake [☐ more than
☐ about the same ☐ less than ☐ the same ☐ don't know] as I did before the study.
22. When I self-correct myself on ZAI, I usually: _____ (pick a, b, or c)
a. know the correct answer (don't know why I made the mistake)
b. guess another likely answer (not sure of correct usage in this case)
c. make random guess (don't know usage in this case)
23. Are you more confident using ZAI in conversation? ☐ No ☐ Yes ☐ Unchanged
If **not** Yes, please explain: _____
24. When I make a mistake using LE, I sense that I made the mistake [☐ more than
☐ about the same ☐ less than ☐ the same ☐ don't know] as I did before the study?
25. When I self-correct myself on LE, I usually: _____ (pick a, b, or c)
a. know the correct answer (don't know why I made the mistake)
b. guess another likely answer (not sure of correct usage in this case)
c. make random guess (don't know usage in this case)
26. Are you more confident using LE in conversation? ☐ No ☐ Yes ☐ Unchanged
If **not** Yes, please explain: _____
27. When I make a mistake using SHI..DE, I sense that I made the mistake [☐ more than
☐ about the same ☐ less than ☐ the same ☐ don't know] as I did before the study?
28. When I self-correct myself on SHI..DE, I usually: _____ (pick a, b, or c)
a. know the correct answer (don't know why I made the mistake)
b. guess another likely answer (not sure of correct usage in this case)
c. make random guess (don't know usage in this case)
29. Are you more confident using SHI..DE in conversation? ☐ No ☐ Yes ☐ Unchanged
If **not** Yes, please explain: _____
30. After the conversation sessions, my participation in Chinese classes has: ☐ increased
☐ somewhat increased ☐ remained unchanged ☐ somewhat decreased ☐ declined
31. Did the conversation sessions change your willingness to speak Chinese out of class?
Please explain and cite specific examples, if possible: _____

Thank you.

APPENDIX C

QUESTION-ANSWER WORD ORDER IN CHINESE LANGUAGE

This section provides the reasons why, in this study, the tutor a) asked *omitted questions* (a question which implied the use of TG in the answer but did not, itself, contain that TG); and, b) regulated the learners to initiate (i.e., ask questions of the tutor).

The beginning learners were found to ask questions that predominantly fell into two categories: yes-no and question-word (who, where, when, why, and how). In Chinese, the word order of question does not differ appreciably from the answer¹ for either of these categories. And, because the focus of this study was learners' need for the tutor's EC when using the three TG (Section 3.2.2, p. 42), the tutor found it detrimental to, effectively, *provide* the learner with the correct form – i.e., the very “thing” she was attempting to *assess*.

To pose a yes-no question, the particle “ma”(吗) is appended to the end of a statement sentence without changing word order, as required in English (Table 7.1, below). Similarly, in question-word (who, where, when, why, how) questions, the “wh-word” is replaced with what is being asked for, again, without making any changes in word order.

¹ While there *are* more than two ways of posing such questions (see Yip & Rimmington, 1997), the beginning learners lacked such knowledge.

Table 7.1: Word order of statement versus question, in Chinese

Category	Statement	Question
yes-no	Chinese 这是书。	这是书吗?
	English <i>lit.</i> This is book	This is book <u>ma</u> (question-marker)
	English This is a book.	Is this a book?
question-word	Chinese 这是书。	这是什么?
	English <i>lit.</i> This is book	This is <u>what</u>
	English This is a book.	What is this?

During the conversation, when the tutor asked a yes-no or question-word question, it was *trivial* for the learner to formulate the correct answer by simply removing the question marker “ma” or replacing the “wh-word” without much thought. Indeed, an observant learner could copy the tutor’s sentence-structure *without* understanding what the sentence really means – the learners’ self-remarks in the Post-Study Questionnaire (Section 5.5, p. 184) supported this observation. It was for these reasons that the tutor was so adamant that the learner ask her questions (i.e., initiate).

TG IN YES-NO AND QUESTION-WORD QUESTIONS

The following examples (Tables 7.2 to 7.4) show the differences in word order between yes-no question and question-word question which also employ the three TG¹.

¹ As described in Section 3.2.2 (p. 42), other variations of SHI..DE and LE were not considered to be TG and were ignored from analysis.

Table 7.2: Word order of a Chinese question using the TG ZAI

Statement	Yes-no question	Question-word question
我在 <u>PU</u> 学中文。	你在 <u>PU</u> 学中文吗？	你在 <u>哪儿</u> 学中文？
I <u>PU</u> study Chinese	you <u>at PU</u> study Chinese ma	you <u>at where</u> study Chinese
I study Chinese <u>at PU</u> .	Do you study Chinese <u>at PU</u> ?	Where do you study Chinese?

Table 7.3: Word order of statement and questions using ZAI in combination with SHI..DE

Category	Word order
Statement	我是 在 <u>PU</u> 开始学中文的。 I <u>SHI at PU</u> start learning Chinese <u>DE</u> It was <u>at PU</u> that I started learning Chinese.
Yes-no question	你是在 <u>PU</u> 开始学中文的吗？ you <u>SHI at PU</u> start learning Chinese DE? Was it <u>at PU</u> that you started learning Chinese?
Question-word question	你是在 <u>哪儿</u> 开始学中文的？ you <u>SHI at where</u> start learning Chinese DE? Where was it that you started learning Chinese?

Table 7.4: Word order of statement and questions using the TG LE

Category	Word order
Statement	我学中文 <u>学</u> 了两年。 I <u>study Chinese study LE</u> two years. I studied Chinese for two years.
Yes-no question	你学中文 <u>学</u> 了两年吗？ you <u>study Chinese study LE</u> two years? Did you study Chinese for two years?
Question-word question	你学中文 <u>学</u> 了几年？ you <u>study Chinese study LE</u> how many years? How many years did you study Chinese?

APPENDIX D

TRANSCRIPTION CONVENTIONS

The transcription symbols used for analyzing oral discourse in this study has been partially adopted from the studies by Schegloff, Jefferson, & Sacks (1977, p. 388) and Wells (1999). All references in parentheses (e.g., 11T, 12A) refer to Example Protocol provided below.

T: Tutor

A: The first participant

B: The second participant

Utterances Protocols have two columns: utterances in Chinese on the left and English translation on the right.

Italics The words in English (right column of Protocol) are italicized (11T, 12A).

Layout Turns in the dialogue are numbered consecutively.

Translation The tutor's and learners' utterances of interest (starting with the elicitation of target grammar, continuing through error correction, and until self-correction) will be translated literally. All other utterances will be translated in non-literal English. Words necessary in non-literal English translation but not found in the Chinese sentence appear in brackets (e.g., "[did]" in 17T).

Bold The bolded sentences indicate the *tutor's* elicitation of target grammar (03T) and only the turns contributing to the error correction (05T, 07T, 09T, 11T) – 13T is not error correction and is not bolded.

Underlined The underlined utterances indicate the learner's grammatical error (04A) or the self-correction of the error following the tutor's error correction (14A).

- (Capitalized and Bold)** Target grammar capitalized, bold, and in parentheses (“(SHI) (ZAI)” in 03T) signifies either the target grammar elicited or misused. Subsequent new instances of target grammar are consecutively numbered and suffixed to the marker with a hyphen (e.g., “(SHI-3)”).
- (2) The bold number in parenthesis at the end of sentence indicates tutor’s regulatory scale in spoken setting (see Table 4.3, p. 88). (“(2)” in 05T is Treg Level 2)
- (raising eyebrows) Kinesic features like ‘raising eyebrows’ (05T) or ‘laugh’ (18A) are indicated in parenthesis. When such a kinesic feature is bolded, it was part of the tutor error correction.
- eh... If more than one dot appears in learner’s utterance, each dot corresponds to one second of extension (three seconds in 04A).
- 3:::0::: Each semicolon indicates a perceptible extension or prolongation of a sound and corresponds to one second of extension (three seconds of ‘3’ and ‘0’ in 04A).

Example Protocol

- | | | | |
|-----|---|-----|---|
| 01T | 今天怎么样？ | 01T | How are you today? |
| 02A | 今天我有中文考试。 | 02A | I have Chinese exam today. |
| 03T | 在哪儿？(SHI) (ZAI) | 03T | ZAI [at] where? (SHI) (ZAI) |
| 04A | <u>在 Frist eh..., 3::: 0:::, ... 9::: 考试</u> | 04A | <u>ZAI [at] Frist, eh..., 3::: 0:::, ... 9::: have exam</u> |
| 05T | (Raising eyebrow) (2) | 05T | (Raising eyebrow) (2) |
| 06A | eh? | 06A | eh? |
| 07T | 那是‘past’, can you give me the structure ? (5) | 07T | That is, ‘past’, can you give me the structure? (5) |
| 08A | so, 我有考试以前, 以前, 我有中文课。 | 08A | so, before I had exam, before, I had Chinese class. |
| 09T | 你是在哪儿考试的？(SHI) | 09T | You SHI ZAI [at] where had exam DE? (SHI) |
| 10A | 以前, 我在 Frist 309 考试。 | 10A | before, I ZAI [at] Frist 309 have exam. |
| 11T | It is past emphatic, you should use 是...的? (6) | 11T | It is past emphatic, you should use SHI..DE? (6) |
| 12A | Oh! That one? | 12A | Oh! That one? |
| 13T | Yeh. | 13T | Yeh |
| 14A | Okay. 我 :::, 我:::, 在, <u>我是</u>
<u>在 Frist 309 (silence)</u> | 14A | Okay. I :::, I:::, at, <u>I SHI ZAI [at] Frist 309 (silence)</u> |
| 15T | 考试, 考试是 verb | 15T | have exam, ‘have exam’ is verb |
| 16A | <u>考试的。</u> | 16A | <u>had exam DE.</u> |
| 17T | 那, 你昨天晚上学中文了吗? | 17T | Then, you study Chinese last night? |
| 18A | eh..., (laugh) 对, so, 昨天晚上, use that thing? Or not? Should I use the structure? When do I use it? | 18A | eh..., (laugh) right, so, last night, use that thing? Or not? Should I use the structure? When do I use it? |

APPENDIX E

ABBREVIATIONS AND ACRONYMS

A	Identifier for one of the two participants in this study, female
B	Identifier for one of the two participants in this study, male
DE	(see SHI..DE)
EC	Error Correction, the tutor's (Section 3.3.1, p. 48)
ESL	English as a Second Language
FL	Foreign Language
IS	Individual Session (see TS)
L1	First Language (native language)
L2	Second Language
LE	了, one of the three TG, defined in Section 3.2.2 (p. 42)
<i>Lit.</i>	Literal, word-for-word translation, generally from Chinese to English
PU	Princeton University, the location where data were collected
RinP	Regulation in Participation, the tutor's (Section 4.3, p. 70)
SHI	(see SHI..DE)
SHI..DE	是...的, one of the three TG, defined in Section 3.2.2 (p. 42)
SLA	Second Language Acquisition
TG	Target Grammatical [Structure], as described in Section 3.2.2 (p. 42)
tone[s]	Assistance with Chinese tones, pronunciation
Treg	Tutor's regulation, level of EC in Oral Conversation (Section , p.)
TS	Tutorial Session, one-on-one tutorial, the setting of this study (Section 3.1, p. 40)
ZAI	在, one of the three TG, defined in Section 3.2.2 (p. 42)
ZPD	Zone of Proximal Development, Vygotsky's (Section 2.3.2, p. 29)

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