COMMUNICATIVE LANGUAGE TEACHING IN JAPANESE HIGH SCHOOLS: TEACHERS' BELIEFS AND CLASSROOM PRACTICES

A Dissertation
Submitted to
the Temple University Graduate Board

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in Partial Fulfillment
of the Requirements for the Degree
DOCTOR OF EDUCATION

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by
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August, 2009

Communicative Language Teaching in Japanese High Schools:

Teachers' Beliefs and Classroom Practices

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Doctor of Education

Temple University, 2009

Doctoral Advisory Committee Chair: Dr. David Beglar

This study was an investigation of Japanese high school teachers' (N = 139) beliefs and practices regarding communicative language teaching (CLT). Four research questions were posited concerning the beliefs that Japanese high school teachers hold regarding CLT, how Japanese high school teachers use CLT in the classroom, how Japanese teachers' beliefs and practices differ between academic and vocational high schools, and how the beliefs of Japanese high school teachers, their classroom practices, their learning experience, pre- and in-service training, perceived teaching efficacy, and contextual factors relate to and influence each other regarding the use of CLT.

In order to provide answers to these questions, a survey, classroom observations, and interviews were conducted. Before conducting the quantitative analyses, the questionnaire data were analyzed using the Rasch rating-scale model to confirm the validity and reliability of the questionnaire and to transform the raw scores into equal interval measures.

Regarding the first and second research questions, the descriptive statistics showed that despite holding positive beliefs about CLT, the respondents to the survey did not frequently use communicative activities. With respect to the third research question, a MANOVA indicated that the types of schools (academic and vocational) did not significantly influence the survey respondents' beliefs and practices regarding CLT. Concerning the fourth research question, the Pearson correlation coefficients showed relatively strong correlations between (a) *Classroom Practices* and *Student-related Communicative Conditions* (r = .56) and (b) *L2 Self-confidence* and *CLT Self-efficacy* (r = .55). Also, the best fitting path model indicated that (a) *Student-related Communicative Conditions* impacted *Classroom Practices,* (b) *Positive CLT Beliefs* indirectly influenced *Classroom Practices* via *CLT Self-efficacy*, and (c) *Exam-related Expectations* affected most of the indicator variables and *Classroom Practices*. Related to this, qualitative results indicated that the respondents' learning experience, in-service training, and contextual factors influenced their beliefs and practices.

These findings suggest that the educational context and in-service teacher education need to be re-examined in order for CLT to become a more widely implemented practice in Japanese high schools.

ACKNOWLEDGMENTS

First of all, I would like to thank my main adviser, Dr. David Beglar, from the bottom of my heart for supporting me throughout the dissertation writing process. Dr. Beglar taught me difficult statistics in an accessible manner, encouraged me to conduct a mixed method study, provided continual and helpful feedback, and patiently helped me improve my writing.

I would also like to thank Drs. Christine Pearson Casanave, Steven Ross, Mark Sawyer, and Noel Houck for serving as members on my committee at a very busy time of the year. Dr. Casanave helped me conduct the interview and observation study, write up the narratives, and deepen my description of class observations. She also supported me when I was not able to progress during the writing process. Dr. Ross helped me improve my statistical analysis and elaborate my discussion. Dr. Sawyer gave me insightful comments on the survey study. Dr. Houck thoroughly read my manuscript and gave me helpful advice.

My appreciation also goes to Drs. Kenneth G. Schaefer and Dwight Atkinson. Dr. Schaefer's warm smile and ongoing interest made me feel welcomed as a member of the Temple University Japan community. Dr. Atkinson stimulated my interest in research throughout his doctoral courses, and kindly socialized me into the academic world. He also provided feedback on my dissertation proposal and gave me advice on how to conduct a mixed method study.

I am also grateful to Dr. Miyuki Sasaki for mentally supporting me, carefully reading my dissertation draft, and giving me precious comments and heart-warming encouragement. Dr. Sasaki is my role model as a researcher as well as a teacher.

During the long process of dissertation writing, I always realized that my friends were supporting me emotionally and academically. It was also a great pleasure to share this process with my cohort mates. I thank Hanako Okada, Kumiko Fushino, and Yoko Sabatini for giving me special care and support, and also letting me read their dissertation manuscripts. Eton Churchill and Lyn Churchill gave me warm encouragement and read my early drafts.

I do not know how to express my appreciation to the four participants who let me observe their classes and interview them. I also appreciate the high school teachers who responded to my questionnaire. Without their collaboration, my study could not have been completed.

Last but not least, I would like to give a thousand thanks to my family: my husband, my two daughters, my parents, and my parents-in-law. I could not have finished my dissertation without their understanding and support. My father and my parents-in-law passed away while I was in the doctoral program, but I believe that they must be pleased to know that I have completed my study. This dissertation is dedicated to my family.

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Tokyo, Japan

August, 2009

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CHAPTER 1

INTRODUCTION

The Background of the Issue

What shapes teacher beliefs and practices? Educational researchers have been focusing on this question since they started to regard teachers as active decision-makers in the 1980s. Borg (2003) reviewed 64 studies and reported that teacher cognition (i.e., teacher knowledge, beliefs, and thoughts) played a central role in teachers' lives. He also found that contextual factors influence both teacher cognition and practices when teachers make pedagogical decisions. Other research findings suggest that teacher beliefs potentially exert a strong influence on classroom practices (Nespor, 1987; Pajares, 1992; Richardson, 1994).

In the field of ESL/EFL education, the question of what shapes teacher beliefs led me to a narrower line of inquiry. What influences shape teacher beliefs about the use of novel teaching methods: government policy, pressure to teach to high-stakes entrance examinations, previous learning experience, or other contextual factors? In the Japanese context, this question has been investigated recently in relation to Japanese English teacher perceptions and practices as related to communicative language teaching (CLT) (Gorsuch, 2000b, 2001; Sakui, 2004; Taguchi, 2005), because the majority of Japanese high school teachers have been using traditional teaching methods (Gorsuch, 1998), and most had little knowledge about CLT when it was introduced a few decades ago.

Since 1989, the Ministry of Education, Culture, Sports, Science and Technology (MEXT)[1] has attempted to promote higher achievement in English communicative skills among secondary school students by urging teachers to incorporate communicative language activities into their lessons (MEXT, 1989). In 1999, the Ministry's curriculum guidelines, *The Course of Study,* defined one of the three main goals of secondary school English programs as developing students' practical communicative abilities (MEXT, 1999). Likewise, on March 31, 2003, MEXT officially announced the Action Plan (MEXT, 2003), a five-year project that was designed to establish a system whereby Japanese secondary school students will substantially improve their communicative English abilities (Hato, 2005).

Statement of the Problem

Research on Japanese teachers' classroom practices in the early stage of these MEXT initiatives suggested that communicative language teaching (CLT) was not being used effectively by Japanese secondary school teachers. For instance, Brown (1995) claimed that very little oral English was used during English lessons, and Gorsuch (1998) reported that 70 to 80 percent of the Japanese high school teachers that she surveyed used *yakudoku* (the traditional Japanese method of teaching English through the translation of written passages) in their English classes. In spite of the concerns that these findings

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[1] Japanese Ministry of Education was combined with Ministry of Science and Technology in 2002. Since then, it has been called Ministry of Education, Culture, Sports, Science, and Technology. "The Ministry of Education" or "MEXT" is used in this study.

raise, little research into classroom practices has been conducted since the implementation of the 1999 *Course of Study*. One of the few studies that I am aware of was conducted by Taguchi (2005), who investigated high school teachers' perceptions of and practices in oral communication courses. She found that the teachers' overriding concern with university entrance examinations influenced the content of their teaching and that they tended to use traditional methods, such as choral repetition, even in oral communication classes.

Although a number of conditions specific to the Japanese educational context, including the existence of high-stakes entrance examinations, the prevalence of the *yakudoku* method, and learners' beliefs and expectations, plausibly play a role in shaping classroom practices in Japan, teachers' beliefs are also likely to strongly influence teacher practices (Nespor, 1987; Pajares, 1992; Richardson, 1994). In order for CLT to be used more widely and effectively in Japanese high schools, greater insight into high school teachers' beliefs and practices is needed.

In addition, it should be noted that teachers' beliefs and practices are shaped and reshaped, as those beliefs are influenced by the teachers' learning experiences, pre- and in-service training, and contextual factors (Borg, 2003; Breen, Hird, Milton, Oliver, & Thwaite, 2001; Kinginger, 1997; Meijer, Verloop, & Beijaard, 1999). However, as Borg (2003) pointed out, the majority of the studies on teacher beliefs have been conducted with native speaker teachers working with small groups of motivated adult learners or college students; thus, researchers need to investigate secondary school settings where non-native English teachers teach EFL to large classes of learners who may be studying English in required secondary school courses.

In sum, there is a need to investigate Japanese high school teachers' beliefs and practices regarding CLT *after* the implementation of the revised 1999 *Course of Study* in order to determine whether MEXT's innovations have been carried out successfully. There is also a need to look into teacher beliefs and practices in the secondary school EFL settings to further develop our understanding of teacher cognition.

Purposes of the Study

The primary purposes of this study are to investigate Japanese high school teachers' beliefs and practices regarding the use of CLT and to examine the relationships among their beliefs about CLT, their classroom practices, and other factors such as their learning experience, their experience in pre- and in-service training, their perceived teaching efficacy, and contextual factors.

The secondary purpose is to test a path model of hypothesized relationships among teachers' beliefs, practice, and the other factors. The model is based on Borg's (2003) conceptual framework of teacher cognition that was developed in order to help researchers have an overall understanding of the dimensions of teacher cognition.

Definition of Key Terms

In this section, I define key terms used in this study: teacher beliefs, teacher knowledge, classroom practice, and communicative language teaching (CLT).

Teacher Beliefs

Beliefs are seen as an essential construct influencing human behavior. However, it is difficult to define beliefs because researchers have viewed beliefs or belief systems differently according to their research agendas. For instance, Abelson (1979) defined beliefs as the manipulation of knowledge by humans for a particular purpose. Wenden (1998) stated that beliefs about learning are components of metacognitive knowledge. Both definitions imply that beliefs and knowledge are difficult to distinguish.

Regarding beliefs about SLA, Kalaja and Barcelos (2003) defined them as "opinions and ideas that learners (and teachers) have about the task of learning a second/foreign language" (p. 1). Barcelos (2003) pointed out that in her research on beliefs about SLA, three approaches to defining beliefs have been identified. The first approach is the normative approach whereby beliefs are defined as synonyms for preconceptions, myths, or misconceptions that learners hold about language learning (e.g., Horwitz, 1988). The second approach is the metacognitive approach (e.g., Wenden, 1986). Wenden claimed that beliefs seem to "work as a sort of logic determining consciously or unconsciously what they did to help themselves to learn English" (p. 4). The third approach is the contextual approach, which aims at gaining a better understanding of beliefs in specific contexts (e.g., Kalaja, 1995; Sakui & Gaies, 1999). Researchers conducting studies within this approach have viewed beliefs as contextual, dynamic, and social, and recognized that beliefs are a part of students' experiences that are closely interrelated with their environment.

Barcelos (2003) indicated that all three approaches to beliefs (normative, metacognitive, and contextual approaches) have advantages and limitations and that the types of research questions determine which approach a researcher will employ. He also pointed out that the first two approaches are likely to miss the complex structure of belief systems within which sets of beliefs form a "multilayered web of relationships" (Barcelos, 2003, p. 26) and fail to recognize that beliefs are shaped and reshaped as they are influenced by social factors. I would like to combine the ideas advocated by Kalaja and Barcelos (2003) and Barcelos (2003) and define teacher beliefs about language learning and teaching as teachers' opinions and ideas about learning and teaching a second or a foreign language, constructed by teachers themselves as they respond to their teaching contexts.

Teacher Knowledge

As mentioned above, definitions of belief (e.g., Abelson, 1979; Wenden, 1998) have included the notion of knowledge. As a result, it appears difficult to clearly distinguish knowledge from belief. Shulman (1986) proposed that teacher knowledge has three dimensions: subject-matter content knowledge (basic concepts and principles of the subject), pedagogical content knowledge (subject-matter knowledge *for teaching*), and curriculum knowledge (knowledge about the full range of the program). In addition to these three dimensions, "practical knowledge" (Elbaz, 1981; Fenstermacher, 1994; Meijer, Verloop, & Beijaard, 2001) or "personal practical knowledge" (Clandinin & Connelly, 1987; Beattie, 1995; Golombek, 1998) has been identified as a fourth dimension. Fenstermacher defined practical knowledge as the knowledge that teachers themselves generate as a result of their reflections on their teaching experience, and distinguished it from formal knowledge, which was produced by researchers. Meijer et al. claimed that practical knowledge is personal, contextual, based on experience, mainly tacit, and content-related, and guides teaching practice.

Clandinin and Connelly (1987) expanded the concept of practical knowledge and coined the term *personal* practical knowledge. It was defined as a "moral, affective, and aesthetic way of knowing life's educational situations" (p. 59). Similar to practical knowledge, personal practical knowledge can be considered as teacher knowledge that is deeply rooted in one's life and cultural experiences, situated in one's teaching environment, and closely related to one's behavioral patterns. That is to say, teacher knowledge interacts with and is reshaped by the reconstruction of experiences through reflection (Golombek, 1998).

As mentioned above, it is difficult to draw a clear line between teacher beliefs and knowledge, and the nature of personal practical knowledge might further overlap with the characteristics of beliefs. Clandinin and Connelly (1996) pointed out that personal practical knowledge bridges teacher beliefs and knowledge *if* the two constructs have to be distinguished artificially. Likewise, Sakui and Gaies (1999) used the terms “belief” and “knowledge” interchangeably although they recognized the importance of the fine differences separating beliefs and knowledge. By doing so, they attempted to emphasize the similarities between beliefs and personal practical knowledge: i.e., many beliefs and much personal practical knowledge is experiential, and both consist of a teacher’s personal philosophy. As Clandinin and Connelly (1987) stated, it might be valuable to view beliefs and knowledge inclusively in order to better understand the complexity of teachers’ thought patterns and behaviors.

Other researchers, however, have claimed that beliefs and knowledge cannot be separated. Kagan (1992) assumed that most of a teacher’s professional knowledge of classrooms, students, and content, can be regarded as beliefs. Kagan argued that “a teacher’s reliance on their own experiences and prior beliefs suggests that teacher belief functions like any other form of personal knowledge, the implicitly held assumptions about people and events that individuals bring to a particular knowledge domain” (p. 75).

Woods (1996) also mentioned that beliefs cannot be distinguished from knowledge and proposed a hypothesized construct, BAK (beliefs, assumptions, and knowledge). In the interviews reported in his study, teachers’ use of knowledge in their decision-making process was not clearly differentiated from their use of beliefs. Woods saw knowledge, assumptions, and beliefs as points on a spectrum of meaning, even though they have been treated as distinct concepts in the literature. That is, BAK refers to the spectrum that can be seen as a schema in which beliefs, assumptions, and knowledge are included.

Like Kagan (1992) and Woods (1996), I hold the view that beliefs and knowledge are inseparable. Thus, in this study, the terms *teacher knowledge* and *teacher beliefs* will be used interchangeably.

Classroom Practice

Classroom practice and teaching practice are often used interchangeably. Their meanings seem similar, but Krainer and Goffree (2005) distinguished teaching practice from classroom practice. They defined the terms as follows (p. 294):

> Whereas "teaching practice" more clearly refers to the teacher as a person (perhaps primarily expressing an interest in his or her teaching, or an interest in studying different teaching styles), "classroom practice" more neutrally refers to the classroom as a system that includes more than the teacher's actions (e.g., expressing an interest in the interaction process among students or between the teacher and the students).

I would prefer to use *classroom practice* rather than *teaching practice* because teachers' practices should be seen as the interaction among students and teachers as well as the teachers' actions or behaviors. Thus, classroom practice is defined as what teachers do in classrooms: what teaching methodologies they use, what roles they play and ask their students to play, what activities and materials they use, and how they deal with classroom management issues, such as interpersonal interactions, communication, assessment, and various pedagogical situations.

Communicative Language Teaching

Communicative language teaching (CLT) is defined as an "approach that aims to (a) make communicative competence the goal of language teaching and (b) develop procedures for the teaching of the four language skills that acknowledge the interdependence of language and communication" (Richards & Rodgers, 1986, p. 66). The term communicative competence was coined by Hymes (1972), who had reacted to Chomsky's view that linguistic competence should be distinguished from performance and is the only valid focus of a scientific linguistics. Hymes defined communicative competence as the ability to use language appropriately in a given social context. Later, Canale and Swain (1980) identified four components of communicative competence: grammatical, strategic, sociolinguistic, and discourse competence.

As defined in Richards and Rodgers (1986), CLT is a language teaching approach that aims to develop communicative competence. This definition has allowed a wide range of pedagogical methodologies to be used in foreign language classrooms. In order to understand CLT more specifically, curriculum, principles, and activities of CLT pedagogy will be discussed in the next section.

CLT and a Communicative Curriculum and Syllabus Design

CLT is a learner-centered approach. Learners' communicative needs provide the basis for identifying program goals, and the selection of a methodology requires an understanding of differences in learners' learning styles (Savignon, 2002). Moreover, curricular innovation is best advanced by classroom teachers' developing their own local materials (Markee, 1997). In principle, goals, methodologies, and materials are therefore not prescribed for the purpose of designing a communicative curriculum.

Savignon (1983, 2002) proposed five categories that can be regarded as groups of activities related to curriculum development: (a) language arts (syntax, morphology, phonology, vocabulary, and spelling), (b) language for a purpose (the use of the L2 for real and immediate communicative goals), (c) the use of the L2 for self-expression or personal second language use, (d) theater arts (for role playing and the other activities provided in the situation that a teacher has set up), and (e) the use of the L2 in the world beyond the classroom. According to Savignon (2002), an optimum combination of the five components in the curriculum must be created by individual language teachers based on their teaching contexts.

As the development of a communicative syllabus rests strongly upon the involvement of classroom teachers, there can be various forms of CLT syllabuses. In her discussion of communicative syllabus design, Yalden (1983) listed six types of CLT design alternatives, raging from a syllabus in which communicative exercises are inserted into an existing structural syllabus to a "*learner-generated* or *fully communicative* view" (p. 116, italics in original) of syllabus design such as task-based syllabus.

Related to the wide variety of CLT syllabus design, Howatt (1984) distinguished a "strong" version of CLT from a "weak" version:

> The weak version, which has become more or less standard practice in the last ten years, stresses the importance of providing learners with

> opportunities to use their English from communicative purposes and, characteristically, attempts to integrate such activities into a wider program of language teaching… The strong version of communicative teaching on the other hand, advances the claim that language is acquired through communication so that it is not merely a question of activating an existing but inert knowledge of the language, but of stimulating the development of the language system itself. If the former could be described as 'learning to use English,' the latter entails 'using English to learn it.' (p. 279)

Although the strong and weak versions should be distinguished, both versions interplay with and supplement each other in many language courses that are designed to develop students' communicative competence.

In addition to the six types of CLT syllabuses and the strong and weak versions, CLT has been applied in varied ways due to its different processes of historical development. I will review them in the next section.

European vs. American Traditions of CLT

In the 1970s, while the number of immigrants and guest workers were increasing in Europe, the Council of Europe developed a notional-functional syllabus, one of the origins of CLT pedagogy. The syllabus was derived from functional linguistics (Halliday, 1978), and language functions based on the communicative needs of learners specified program goals. Savignon (2002) pointed out that the term "communicative" was used in the syllabus, and that from this point, the language for specific proposes (LSP) movement was launched.

On the other hand, the American tradition of CLT, which was inspired by Hymes (1971), was focused on language as social behavior. Hymes's view of speech communities and the integration of language, communication, and culture was similar to the British linguistic tradition represented by J. R. Firth and Halliday (Savignon, 2002). Savignon indicated that Hymes's "communicative competence" is equivalent to Halliday's "meaning potential." She went on to say that Halliday and Hymes believed that language needed to be studied in the broader sociocultural context of use based on the studies of two anthropologists, Malinowski and Raymond Firth. Thus, European and American traditions of CLT are similar in that both were focused on communicative and contextual factors in language use.

Although Hymes and Halliday shared similar views of language, European and American traditions of CLT developed somewhat independently in the 1970s. The former focused on the language, which was outlined in the Notional Syllabus proposed by The Council of Europe, whereas the latter focused on the process of learning, similar to other humanistic methods, such as the Silent Way, Suggestopedia, and Community Language Learning (Matsumura, Okihara, Chikudou, Ito, Aoki, & Takahashi, 1987). In addition, practitioners from different educational traditions interpreted and applied CLT in varied ways. Thus, in general, CLT has been considered an approach (i.e., a theory of language and language learning) that functions as a source of principles and practices in language teaching rather than a method that prescribes the design and procedures of ESL/EFL courses (cf. Richards & Rodgers, 1996).

Principles of CLT

CLT is based on a theory of language as a tool for communication, and the goal of CLT is to develop communicative competence. Although a large body of CLT literature about the communicative dimensions of language exists, little has been written about learning theory for CLT. CLT practices could probably have been better developed through the recognition of underlying pedagogical principles than through discussions of learning theory. The underlying pedagogical principles generally advocated are: (a) the communication principle (real communication promotes learning), (b) the task principle (tasks promote learning), and (c) the meaningfulness principle (meaningful language use supports the learning process) (Richards & Rodgers, 1996).

In a more detailed discussion of CLT principles, Berns (1990) suggested that the definition of appropriate communicative competence or the selection of a methodology suited to the development of communicative competence requires an understanding of the sociocultural context of language use and language learning. She proposed the following principles for CLT:

1. Language teaching is based on a view of language as communication. That is, language is seen as a social tool that speakers use to make meaning; speakers communicate about something to someone for some purpose, either orally or in writing.
2. Diversity is recognized and accepted as part of language development and use by second language learners, as it is with first language uses.
3. A learner's competence is considered in relative, not absolute, terms.
4. More than one variety of a language can be used as a potential model for learning and teaching.
5. Culture is recognized as instrumental in shaping speakers' communicative competence, in both their first and additional languages.
6. No single methodology or fixed set of techniques is prescribed.

7. Language use is recognized as serving ideational, interpersonal, and textual functions and is related to the development of a learner's competence in each.
8. It is essential that learners are engaged in doing things with Language—that is, that they use language for a variety of purposes in all phases of learning. (p. 104)

In short, Berns (1990) advocated that the essence of CLT is to develop communicative competence in each learner's context through meaningful language use as social action, and that the teaching methodology employed should be flexible. Those principles suggest that a number of important issues should be considered if CLT is to be implemented in a wide variety of cultures and norms. Misconceptions about CLT might be one of them. This topic is discussed in the next section.

Misconceptions about CLT

Because CLT has been applied in relatively varied ways, there are a number of misconceptions about what is, or is not, involved in CLT (Thompson, 1996). The misconceptions are:

1. CLT does not allow grammar teaching. On the contrary, CLT does not exclude some focus on metalinguistic awareness or knowledge of the rules of syntax, discourse, or social appropriateness.
2. CLT allows only the teaching of speaking. Communication through language happens in both the written and spoken medium and involves at least two people. Learners reading a text silently to themselves are taking part in communication.

3. CLT means pair work, which means role play. Pair work and group work are more than just role plays. Pair and group work can be used to do grammar activities, solve problems, analyze new language structures in a text, and so on. In addition, pair or group work should not be considered an essential feature of CLT; they may be inappropriate in some contexts.
4. CLT means expecting too much from the teacher. Many textbooks now provide practical CLT guidelines and activities. Also, CLT does not require teachers to discard familiar materials such as grammar exercises.

Thompson mentioned that many teachers were confused about the exact nature of CLT. The use of CLT in the foreign language classrooms requires a dramatic change in teachers' perceptions not only about language but also about the roles of learners and teachers. Hence, it is not surprising that some teachers are aware of stereotypical features of CLT but have difficulty accurately describing it. Teachers' misconceptions may hinder the use of CLT in foreign language classrooms, so they should be provided with detailed knowledge of CLT. In this study, those misconceptions will be carefully avoided when CLT is discussed.

CLT vs. Appropriate Methodology

In addition to the misconceptions about CLT, EFL teachers need to be aware of the context-appropriateness of CLT. CLT has been the dominant teaching approach for the past few decades and is the generally accepted methodological norm in the ESL/EFL field (Brown, 2000). However, as CLT was originally developed in Europe and in North America, a subset of researchers have raised questions about implementing the approach in the same way in other areas. Holliday (1994) claimed that CLT was developed in BANA (Britain, Australia, and North America) and would not totally fit TESEP (Tertiary, secondary, and primary school where students generally take foreign language as required courses) contexts. He proposed the strong version of CLT, which can be culture-sensitive and can suit TESEP classrooms. In the strong-version CLT class, students work on solving language problems in order to understand the content of a text. According to Holliday, the students can communicate with a text, and in that sense, the strong version is considered to be communicative.

Regarding appropriateness, Kramsh and Sullivan (1996) maintained that appropriate pedagogy should prepare learners for global and local contexts where they use/will use the language. They investigated a university English class in Vietnam and found that although the teacher used a CLT textbook, interaction among the teacher and students reflected the culture of that particular classroom. They found three characteristics in the local context: classroom-as-family, teacher-as-mentor, and language-learning-as play. Kramsh and Sullivan then concluded that the interaction in this class indicated that teachers could creatively adopt CLT to suit their teaching context.

In succession to Holliday (1994) and Kramsh and Sullivan (1996), Bax (2003) maintained that the dominance of CLT has brought about the neglect of the context. He further argued that context should be firstly taken into account before any methodological decisions are made. He proposed a "context approach" in which (a) whole context must be considered, (b) methodology (including CLT) is one factor in language learning and other factors may be more important, and (c) other methods and approaches may be equally valid to CLT.

Taken together, it should be noted that in spite of the widespread support for CLT, context should be carefully considered when CLT is implemented. In particular, in contexts other than BANA, CLT does not necessarily meet the students' needs or their learning styles. Prabhu (1990) mentioned that "there is no best method,[2] namely, that different methods are best for different teaching contexts" (p. 166). I agree with Prabhu and believe that teachers need to use CLT in a way that suits their own teaching context.

Communicative Activities

As mentioned above, CLT should be adopted in relatively varied ways. Accordingly, the term "communicative activity" has rather a wide range of meanings. Brown (2000) defined the term a*ctivity* as anything that learners do in the classroom including role-play, games, and peer-editing. Smiley (2005) critically analyzed the meaning of the term *communicative* and suggested that "each individual teacher needs to develop their own sense of what 'communicative' means to them" (p. 1). In this study, I define a communicative activity as one in which learners accomplish a social action using English. For instance, when engaging in information gap activities in pairs, responding to the

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[2] Prabhu's (1990) term "method" referred to both activities and the theory, belief, or concept that informs those activities.

teacher's display questions, reading graded readers extensively, and watching a TV drama, the students are engaged in social action in English; thus, these activities can be regarded as communicative activities according to my view.[3] In other words, in this study communicative activities refers to (a) speaking or writing activities in which students convey information or messages to others and (b) listening or reading activities in which they understand others. Thus, items asking about high school teachers' use of techniques that provide students with communicative activities in the questionnaire (see Appendix A or B) correspond to activities (a) (F4 and F5), activities (b) (F1, F2, F7, and F10), or both (a) and (b) (F3, F6, F8, F9, and F11).

Summary

In this section, I defined teacher beliefs, teacher knowledge, classroom practices, and CLT. I hold the views that: (a) CLT is a teaching approach that aims to develop learners' communicative competence in their own context by providing them with opportunities to use English for communicative purposes, and (b) CLT syllabi can be selected from a wide range of program designs, and (c) in the CLT class, a variety of communicative activities in which learners undertake social actions in English are provided.

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[3] A narrow definition of "communicative activity" refers to only activities with an information gap. I use the term "communicative task" to describe such activities in this study.

Conceptual Framework

In this section, I explain Borg's (2003) conceptual framework of teacher cognition and how I have modified it to fit my conceptual framework of teacher beliefs and practices.

Borg's (2003) Conceptual Framework

Teacher's beliefs and practices have attracted the interest of a number of researchers in the fields of second language education and teacher education in the last few decades. Freeman (2002) stated that teachers have been seen as active decision-makers, and that researchers have focused on how teachers' experiences, beliefs, and pedagogical content knowledge influence their classroom practices since the 1980's. Borg (2003) reviewed 64 empirical studies published between 1976 and 2002 and summarized the findings of the studies using his conceptual framework of teacher cognition. Figure 1 presents the framework.

Borg's (2003) conceptual framework consisted of five factors. First, "teacher cognition" was defined as an "unobservable dimension of teaching—what teachers know, believe, and think" (Borg, 2003, p. 81). According to Borg, teacher cognition includes beliefs, knowledge, theories, attitudes, images, assumptions, metaphors, conceptions, and perspectives, and it plays a pivotal role in the teachers' lives.

Second, "schooling" refers to previous learning experiences in both formal and informal situations. Borg mentioned that "teachers' prior language learning experiences establish cognitions about learning and language learning which form the bases of their initial conceptualizations of L2 teaching during teacher education, and which may continue to be influential throughout their professional lives" (p. 88).

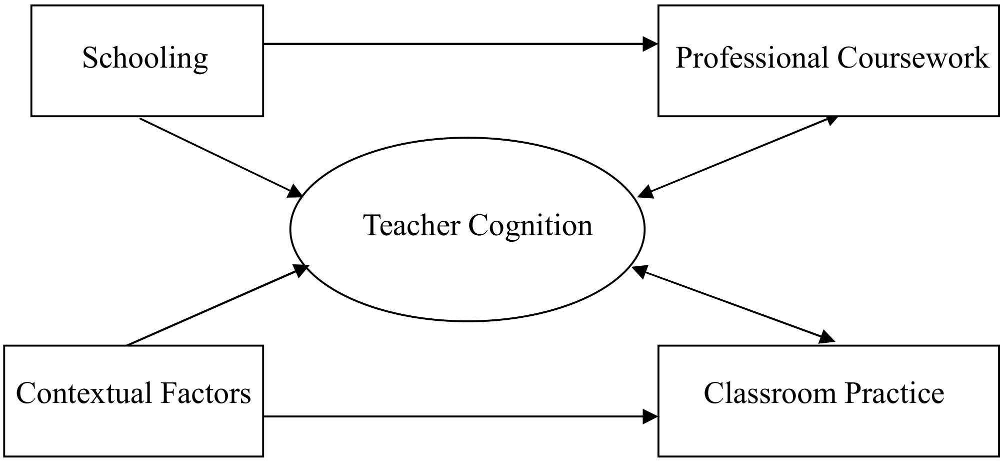

Figure 1. Borg's conceptual framework of teacher cognition.

Third, "professional coursework" refers to experience in both pre- and in-service teacher training programs, for instance in undergraduate teacher education courses and graduate TESOL courses. Borg (2003) stated that "Professional coursework may affect existing cognitions although especially when unacknowledged, these may limit its impact" (p. 82).

Fourth, "contextual factors" can be defined as school and classroom conditions and conditions of the society or the community that the school is situated in. Contextual factors influence both teacher cognition and practice when teachers decide to what extent they are able to implement instruction compatible with their cognitions. In other words, “Contextual factors influence practice either by modifying cognitions or else directly, in which case incongruence between cognition and practice may result” (Borg, 2003, p. 82).

Fifth, “classroom practice” refers to teaching experiences that include practice teaching. Borg (2003) mentioned that classroom practice is affected by cognitions and contextual factors, and that, in turn, “classroom experience influences cognitions unconsciously and/or through conscious reflection” (p. 82).

Using those five factors, I hypothesized a conceptual framework of teacher beliefs and practices that I explain in the next section.

Conceptual Framework of Teacher Beliefs and Practices

Borg’s (2003) conceptual framework of teacher cognition is shown in Figure 1. It should be mentioned here that the framework is not designed as a statistical model, but is intended to help researchers connect their isolated studies to the existing work. Most of the 64 studies that he reviewed were qualitative (e.g., Borg, 1999, 2001); the remainder used statistical treatments such as descriptive statistics (e.g., Numrich, 1996; Peacock, 2001), correlation (e.g., Schulz, 2001; Tercanlioglu, 2001), and a principal components analysis (e.g., Meijer et al., 2001). Also to be noted is that the researchers limited their studies to the areas of grammar and literacy instruction. However, as Borg’s framework is comprehensive and insightful, it is potentially useful for investigating how teachers’ beliefs, classroom practices, and other factors influence each other and impact teachers’ use of CLT. Therefore, I modified Borg's framework as shown in Figure 2, and used it as a conceptual framework in this study.

The modified framework was hypothesized on the basis of a pilot study (Nishino 2008), interviews with Japanese high school teachers, and the knowledge that I gained in seven years of teaching in secondary schools in Japan. In the model (Figure 2), I changed two of Borg's terms: teacher cognition has been changed to *Teacher Beliefs about CLT*, as this construct is focused on beliefs, and schooling has been changed to *Learning Experience*. In addition, professional coursework has been divided into two factors: *Pre-service Training* (what teachers learned about CLT in pre-service training courses) and *In-service Training* (what teachers learned about CLT after becoming a teacher).

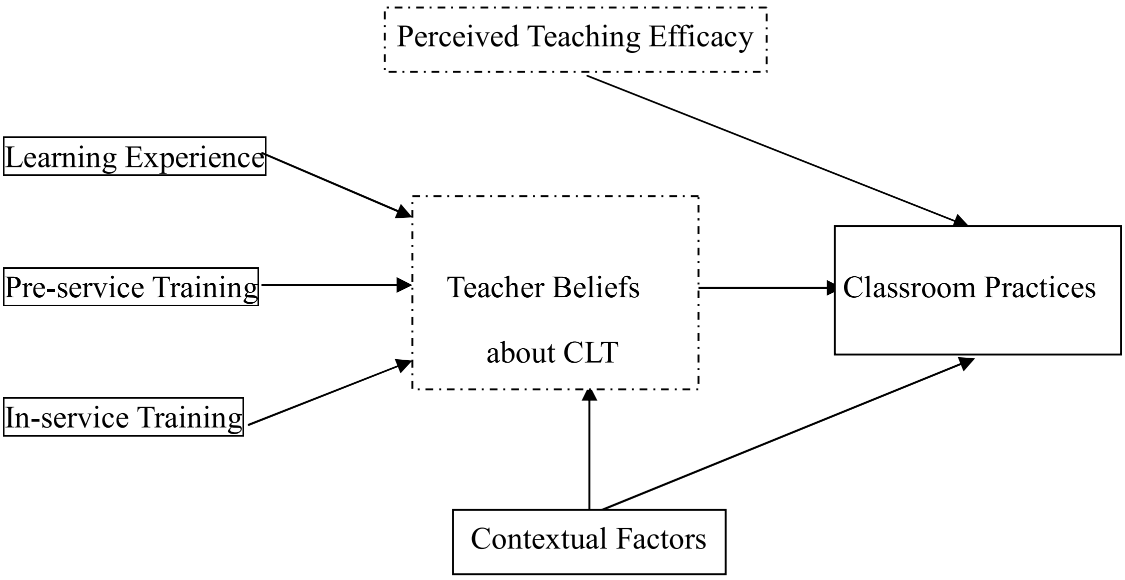

Figure 2. Conceptual framework of teacher beliefs and practices.

Another change in Borg's framework is the addition of *Perceived Teaching Efficacy*. Teacher efficacy can be defined as a "teacher's beliefs in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschman-Moran, Hoy, & Hoy, 1998, p. 233). According to Smylie's (1988) path model, the strongest influence on "change in teacher practice" is personal teaching efficacy. Likewise, teachers' perceived efficacy might have a powerful influence on their use of CLT, especially if the instructor is a non-native speaker of English. Thus, *Perceived Teaching Efficacy,* which should be included in Teacher Cognition in Borg's model, is treated as an independent variable that influences classroom practices in this model.

According to my conceptual framework, *Learning Experience*, *Pre-service Training*, *In-service Training,* and *Contextual Factors* are hypothesized to either directly or indirectly influence *Teacher Beliefs about CLT* and *Classroom Practices*, and *Perceived Teaching Efficacy* is hypothesized to directly affect *Classroom Practices*. As such, based on Borg's (2003) conceptual framework of teacher cognition, I hypothesized a conceptual framework of teacher beliefs and practice consisting of seven variables and investigated the relationships and influences among them.

Delimitations

The respondents to the survey study were randomly selected Japanese high school teachers of English. While their responses to the questionnaire should be generalizable to other Japanese high school teachers, they should be generalized with caution to Japanese teachers of English instructing younger or older students (e.g., junior high school or university teachers). Also, the results cannot be generalized to the beliefs and practices of English teachers working outside Japan.

The Organization of This Study

There are eight chapters in this study. In Chapter 1, I discuss the background of this study, and present a statement of the problems, the purposes of the study, definitions of key terms, the conceptual framework, and delimitations.

Chapter 2 is a review of the literature in which the background of English education in Japan is considered, representative studies on teacher beliefs and practices are reviewed, the gaps that were identified through the literature review are described, and the research questions are presented. The participants, instrumentation, and procedures of this study are descried in Chapter 3. I also explain why I chose a mixed research method for this study. A report of the preliminary analyses in which the questionnaire data were analyzed using a factor analysis and the Rasch rating-scale model to confirm the validity and reliability of the questionnaire and transform the raw scores to equal interval measures is presented in Chapter 4.

After the preliminary analyses, the quantitative and qualitative results are reported in Chapter 5 and Chapter 6, respectively. Key findings are discussed in Chapter 7, and in the final chapter, the implications of the results, limitations, suggestions for future research, and conclusions are presented.

CHAPTER 2

REVIEW OF THE LITERATURE

The purposes of this chapter are to describe the social and historical background of English education in Japan, review previous studies related to teacher beliefs and practices in educational psychology and applied linguistics, present the gap in those fields, and posit research questions.

The Background of English Education in Japan

CLT in EFL Situations

As mentioned in Chapter 1, MEXT has promoted Japanese high school teachers' use of CLT since 1989. However, this goal may not fit the Japanese educational context because CLT was designed to be applied to British Australasia and North American (BANA) contexts (Holliday, 1994). In BANA contexts, many English teachers support a skill-based, discovery-oriented, collaborative approach to education. Classroom language learning usually takes place in small classes through group work and pair work. In contrast, in EFL situations, such as Japan, classroom conditions often differ considerably from those in BANA contexts. Specifically, features common to the Japanese context include large class sizes, a tradition of teacher-centered lessons by non-native teachers, a limited number of weekly classes, limited communicative needs among students, and minimal foreign language input outside the classroom. Under such conditions, it may be ineffective to attempt to use CLT in the same way as it is employed in BANA contexts. For instance, Li (1998) maintained that "inasmuch as many teaching methodologies developed in the West are often difficult to introduce into EFL situations with different educational theories and realities, in the long run EFL countries may be better off developing methods in their own contexts" (p. 698). Holliday (1992) argued that innovation can be effective only if it is appropriate to the actual conditions of host educational institutions. Given the potential incompatibility of CLT in the Japanese context, it may be helpful to review the historical background of English education and recent policy innovations.

Yakudoku and Examination English

English education in Japan has been dominated by the *yakudoku* method (Gorsuch, 1998; Suzuki, 1999). In *yakudoku*, "English is first translated into Japanese word-by-word, and then the resulting translation is reordered to match Japanese word order" (Hino, 1988, p. 45). That is, in lessons taught using the *yakudoku* method, the student's main activity is translating English sentences into Japanese and understanding the content of the text. Except for explicit pronunciation practice or reading aloud, students rarely have a chance to produce oral utterances in English, and grammatical explanations are always provided in Japanese. Consequently, listening or speaking skills are rarely developed through *yakudoku* lessons.

Yakudoku has been a favored teaching method used to help students pass university entrance examinations, which have mainly evaluated students' reading skills. *Juken eigo* (examination English) requires high school students to learn isolated items rather than contextualized language, peripheral grammar rather than core forms, and linguistic knowledge rather than linguistic performance (Law, 1994). Many high school teachers believe that they cannot ignore university entrance examinations and must therefore attempt to teach the finer points of English grammar in their classes, as they believe that this knowledge will be more useful than communicative ability when students take the examinations (Gorsuch, 1998).

Although *yakudoku* and *juken eigo* have a strong impact on English education in Japan, MEXT has never promoted them in any official document or published curriculum guidelines. Instead, under the direct control of MEXT, a listening comprehension section was added to the Center Test in 2006, which was administered throughout the country by the independent national Center for University Entrance Examinations. Also, the reading section in the Center Test has been changing; in the 2004 Center Test, it was found that "very few of the question items demand only discrete grammatical or other decontexualized, sentence-level knowledge, and there are *no items* that focus specifically on arcane vocabulary or discrete grammar minutiae" (Guest, 2006, p. 1188, italics in original).

The situation has been changing as MEXT has attempted to make the Center Test more communicative, and entrance examinations alone are not the reason for high school teachers' use of *yakudoku*. In the following section, I explain how MEXT policy and curriculum guidelines have changed in the past few decades.

MEXT Policy and The Course of Study

The government's curriculum guideline, *The Course of Study*, was first published in 1947. Since then, it has been revised seven times, in 1951, 1955, 1960, 1970, 1978, 1989, and 1999 (Imura, 2003). In 1955, the third revised version of *The Course of Study*, which prescribed the content of textbooks, started to have legally binding force. Since then, secondary school textbooks have been strictly checked and authorized by MEXT. Both public and private school teachers have to use authorized textbooks in the classroom, and syllabus design is constrained by *The Course of Stud*y (Imura, 2003).

Since the first version of *The Course of Study* was published, the development of the four major language skills has been of interest to the Ministry of Education; MEXT has never promoted the *yakudoku* method (Imura, 2003). In the first *Course of Study* (MEXT, 1947), the Ministry stated that listening and speaking were the primary skills of English, and that reading and writing were secondary skills. In the 3rd, 4th, and 5th versions (MEXT, 1955, 1960, 1970), the development of the four skills was specified as the main objective of English education. However, as *The Course of Study* is still only a specification of what teachers are to teach and not how they are to teach, it seems that many teachers use the list of grammatical items and vocabulary in *The Course of Study* as guidelines for courses focused on university preparation (Gorsuch, 2000b).

In the 1980s, the Ministry initiated English-education reform under the leadership of former Prime Minister Nakasone for whom internationalization was an important objective. Educational reform aiming at internationalization was advocated in order to stimulate Japan's technological and scientific development in the future (Shimahara, 1998a). One of the policies, adopted in 1987, was the Japan Exchange and Teaching (JET) program wherein young college graduates were invited from overseas to participate in foreign language education throughout Japan (McConnell, 2000) as assistant language teachers (ALTs).

Generally, the role of ALTs has been roughly characterized as that of a language model and a cultural model; however, Sick (1996) noted that ALTs can also introduce new teaching methods to Japanese Teachers of English and that the daily use of English may stimulate teachers "to use more English in their classrooms and try to motivate their students to seek opportunities to use English" (pp. 207-208). Similarly, Sakui (2004) pointed out that having an ALT makes CLT more salient for both Japanese teachers and students. As Gorsuch (2002) suggested, the presence of ALTs could be viewed as "dynamic in-service teacher education" (p. 34).

Soon after the start of the JET program, *The Course of Study* was revised in 1989. The primary aim was to foster students' positive attitude toward communicating in a foreign language (McConnell, 2000). In this version, the Ministry stated that the goals were "to develop students' abilities to understand a foreign language and express themselves in it, to foster a positive attitude toward communicating in it, to deepen their interest in language and culture, and to cultivate basic international understanding" (MEXT, 1989).

In the 1989 version, seven English courses were offered: English I and II (both were integrated courses), Reading, Writing, and Oral Communication A (speaking), B (listening), and C (public speaking). Individual high school administrators had to select at least one of the Oral Communication courses. From this version onward, the Ministry of Education attempted to focus on communication skills rather than grammatical knowledge.

In the 1990s, the second education reform started. The reformers believed that "Japan's high school education failed to reflect the diversity of industry and economy" (Shimahara, 1998a, p. 735), and they claimed that Japanese education had to catch up with the rapid globalization of the world. Perhaps in part as a result of these sentiments, foreign language courses became required courses for the first time since the end of the World War II. Surprisingly, English and other foreign language courses had been electives from 1947 to 1998.

In the 1999 version of *The Course of Study,* the Ministry stated that the overall objectives of the foreign language program were "to develop students' practical communication abilities such as understanding information and the speaker or writer's intentions, and expressing their own ideas, deepening the understanding of language and culture, and fostering a positive attitude toward communication through foreign languages" (MEXT, 1999). In order to develop students' "practical" communication abilities, language functions and situations to be used for language activities were listed in *The Course of Study*. The 1999 version *Course of Study* was implemented in high schools from 2003.

In the same year, in March, MEXT unveiled a five-year plan designed to cultivate "Japanese with English abilities" stating that it was essential for children living in the 21st century "to acquire communication abilities in English as a common international language" (MEXT, 2003, pp. 1-2). The following seven actions were stated in the plan:

1. Improvement of English classes;
2. Improving the teaching ability of English teachers and upgrading the teaching system;
3. Improving motivation for learning English;
4. Improvement in the evaluation system for selecting school and university applicants;[4]
5. Support for English conversation activities in elementary schools;
6. Improvement of Japanese language abilities; and
7. Promotion of practical research.

The 1999 *Course of Study* and the Action Plan both called for the development of communication ability in English, but neither of them explicitly proposed that CLT should be used in order to achieve that goal. However, MEXT's (2000) guidebook for instructing *The Course of Study* and teachers' reports of the intensive in-service teacher training workshops, which was supported by funds from the Action Plan budget, implied that MEXT aimed to promote CLT as a method to be employed in high school English courses (Edwards, Kawauchi, Oda, & Nozaki, 2008).

[4] As a concrete plan for the fourth action, MEXT implemented a listening component for the Center Test in 2006.

In sum, MEXT has attempted to develop students' communicative abilities by implementing the JET program, revising *The Course of Study*, and executing the five year Action Plan. Various English courses were offered in the most recent version of *The Course of Study* in order to specify those communicative innovations. Those courses are described in the next section.

Japanese High School English Courses

The English courses currently offered in Japanese high schools are shown in Table 1. A one-unit class meets 35 sessions per year for 50-minutes per session. Each school selects at least one of the two required courses (English I and Oral Communication I) and also chooses other English courses after taking the students' academic situation into account.

Table 1. *English Courses and the Number of Units*

Courses	Units
Oral Communication I	2
Oral Communication II	4
English I	3
English II	4
Reading	4
Writing	4

The goals of Oral Communication I and II are to develop students' listening and speaking skills. English I and II are integrated courses focused on the improvement of students' reading, writing, listening, and speaking skills. The Reading course is designed to develop students' abilities to understand information and ideas by reading, and the Writing course is designed to develop students' abilities to write information and ideas.

The common goal for all the courses is to foster students' positive attitudes toward communicating in English (MEXT, 1999).

In the content section of English I and II in *The Course of Study,* we read that "communicative activities using the four skills should be conducted in concrete language-use situation," and that "instruction on pronunciation, grammar, and nonverbal means of communication is to be given when necessary." Also, in this section, several basic sentence patterns and grammar points are listed as language elements. Nevertheless, as Gorsuch (2000b) pointed out, *The Course of Study* addresses content but not instruction, and it has little impact on actual instructional change because such a curriculum document primarily serves a symbolic function.

Generally, the integrated courses (English I and II) are understood by Japanese teachers as courses to be taught with the *yakudoku* method, and the Oral Communication courses are viewed as classes in which communicative listening and speaking activities are provided. In addition, although authorized textbooks provide listening and speaking activities, teachers cannot actually use them in the integrated courses because of a lack of time (they need to prepare students for university entrance examinations) and a lack of knowledge of how to apply communicative activities in the classroom (Takiguchi, personal communication, January 10, 2005). It appears that there is a need to examine how communicative activities using the four skills are conducted in high school classrooms.

Also to be noted is that although *The Course of Study* prescribes the content of high school English courses, high school administrators decide which elective courses will be offered to the students, and their choice is largely determined by the type of high school at which they are working. I describe the types of Japanese high schools and their traits in the next section.

Diversity in High School Education

There are three distinct types of Japanese high schools: day schools, night schools, and correspondence schools. Moreover, school subjects can be broken into three types of courses. Two of them are general education courses (general courses) and specialized education courses (specialized courses) such as agriculture, industry, commerce, fisheries, home economics, nursing, information, and welfare. In April 1994, a newly established integrated course program (integrated courses), which provides students with general and specialized education on an elective basis, was started. The distribution of high school students by type of course, which is shown in Figure 3 (MEXT, 2006), shows that approximately one-fourth of the students go to specialized high schools.

Before 1994, specialized courses were called vocational courses.[5] Vocational high schools were historically intended to educate trained workers in commerce, agriculture, or industry. Yet recently, as more than 95% of middle-school graduates go to high school, vocational high schools have started to enroll students whose academic achievement

[5] In this paper, the term "vocational school" is used for the specialized courses, and "academic school" for general courses.

levels are low (Okano & Tsuchiya, 1999). According to Gorsuch (2000a), most vocational high school students do not enter a university, and thus, the teachers at those schools are unlikely to feel pressure to prepare those students for university entrance examinations.

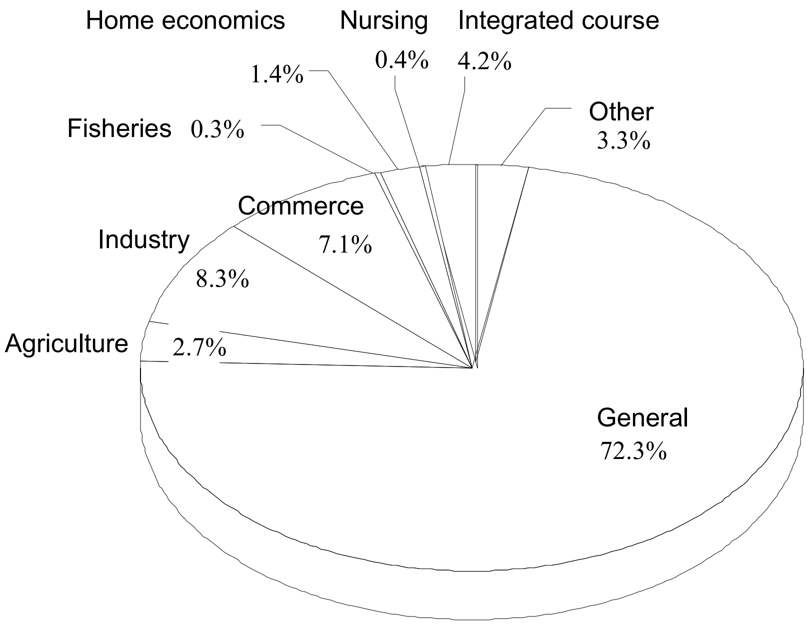

Figure 3. Distribution of high school students by type of course (MEXT, 2006).

On the other hand, general courses were called academic courses before 1994. One of the important purposes of these courses was to prepare students for university entrance examinations. However, students in general night school and correspondence school courses do not usually go to college or university after graduation. Originally, night schools and correspondence schools were opened for students who worked in the daytime, but recently, many students enter those schools after having dropped out of day schools.

In total, there were 5,385 high schools in Japan in 2006 (MEXT, 2006): 4,060 national or public high schools, and 1,325 private high schools. For each category, there were day schools, night schools, and correspondence schools, and they offered general courses, specialized courses, and integrated courses. Therefore, the Japanese high school education system has become strikingly diverse, and the reasons why students choose their schools also vary greatly.

The diversity in high school courses might have resulted in different classroom practices; yet few researchers have examined differences in the implementation of CLT between general courses (academic schools) and specialized courses (vocational schools). Gorsuch (2000a) found that, regarding teachers' approval of communicative activities, private academic high school teachers had lower mean scores than public vocational high school teachers. Browne and Wada (1998) reported mixed results: vocational school teachers used audiotapes in class more often than academic school teachers, but they adopted less pair and group work compared with academic school teachers. Because the majority of vocational high school students work after graduation, university entrance examinations produce weaker washback effects on the students and teachers in vocational high schools than on those in academic schools. To date, however, the influence of the conditional differences between the two types of schools on the implementation of CLT has not yet been investigated.

Japanese Teachers' Beliefs and Practices Regarding CLT

Considering the background of English education in Japan, it appears that various contextual factors, such as the *yakudoku* method and university entrance examinations, have negative effects on the use of CLT activities by Japanese English teachers. Thus, an important question concerns whether teacher classroom practices have been changing given MEXT's active support of CLT methods.

At the level of perceptions, recent research findings suggest that teachers' approval of CLT has been increasing. Gorsuch (2000b) reported that Japanese high school teachers mildly approved of communicative activities, although there were still potent obstacles that kept teachers from actually using CLT activities in their classrooms. Taguchi (2002) found that even though high school teachers were still using exam-oriented teaching methodologies, they had a desire to teach communicative skills. Both researchers suggested that, although there is inconsistency between the teachers' beliefs and practices, teachers' perceptions regarding the use of CLT may be gradually becoming more positive.

There is a need to delve into what might be influencing teachers' beliefs, and thereby their teaching practices. Fang (1996) suggested that contextual factors, including classroom conditions, can have a powerful impact on teachers' beliefs and affect their classroom practice. Gorsuch (2000b) reported that school and classroom conditions influence teachers' perceptions regarding the use of CLT (see more details about Gorsuch's study in the following section). Listening to teachers' voices might help illuminate the relationships between teachers' beliefs, classroom practice, and other factors included in the conceptual framework of teacher beliefs and practices (see Figure 2 for the framework).

Review of Selected Studies on Teacher Beliefs and Practices

In the previous section, I described the context of English education in Japan. In this section, I review empirical studies conducted in the field of language education and general education in order to examine how various factors influence teacher beliefs and practices. The review is focused on the relationship between (a) *Teacher Beliefs* and *Classroom Practices*, (b) *Learning Experience* and *Teacher Beliefs*, (c) *Pre-service Training* and *Teacher Beliefs*, (d) *In-service Training* and *Teacher Beliefs*, (e) *Teaching Experience* and *Teacher Beliefs,* (f) *Contextual Factors* and *Teacher Beliefs* or *Classroom Practices*, and (g) *Perceived Teaching Efficacy* and *Classroom Practices*. After reviewing these issues, I review previous research on Japanese teachers' beliefs and practices regarding the use of CLT.

Teacher Beliefs and Classroom Practices

Research findings support the notion that teacher beliefs have a powerful influence on classroom practice. Burns (1996), Smith (1996), Woods (1996), and Borg (1998, 1999) provided detailed insights into how teachers' beliefs affected their classroom behavior and decision-making.

Burns (1996) examined how teachers' beliefs shaped the process of classroom teaching. She conducted case studies with six experienced ESL teachers in the Australian Adult Migrant English Program (AMEP). During the six week courses, audio-recorded classroom observations and ethnographic interviews were conducted. The teachers were asked to review the transcriptions of the recorded lessons and verbalize their reflections on the lessons. Burns found that the teachers' practices were shaped by interconnecting networks of beliefs about: (a) the school programs, (b) language, learners, and learning, and (c) specific tasks and materials. Burns' results suggested that the networks of belief appear to be foundational to classroom practices. The beliefs, although unconscious and implicit, seemed to "activate and shape patterns of classroom interaction, roles and relationship and, therefore, to create for learners particular kinds of opportunities for learning" (Burns, 1996, p. 175).

Woods (1996) conducted a longitudinal study with eight experienced ESL teachers who were working at four universities in Canada. Woods collected data from interviews, modified longitudinal ethnographic observations, and video-based introspective interviews in an attempt to provide detailed insight into teachers' decision-making processes and the factors influencing those processes. He noted that the teachers' coherent beliefs, assumptions, and knowledge about teaching and learning exerted a pervasive influence on their behaviors, strategies, and decisions.

Smith (1996) also conducted a qualitative study investigating the decision-making processes of nine ESL teachers who attended public adult education courses in Canada.

They had taken undergraduate teacher training courses in TESL and had 8-13 weeks of teaching experience. Four consecutive two-hour classes of each teacher were videotaped and fieldnotes were written during the observation of their lessons. After the classes, the teachers watched the videos and commented on what had occurred in the lessons and what decisions led to the events. Smith found that teacher decisions showed an internal consistency between individual beliefs and practices and that the way that they eclectically blended theoretical ideas with practical needs was based on their individual beliefs and experience. Interestingly, even though the teachers used the same communicative task, the underlying purpose of the task differed according to each teacher's belief: some used it for grammar practice, and others used it for authentic communicative practice.

In addition to those three studies, Borg (1998, 1999) conducted a case study in four experienced teachers' grammar classes at an EFL school in Malta. He investigated the teachers' use of grammatical terminology. Data were collected from interviews and 15 hours of classroom observations (fieldnotes and audio-recording) over a period of two weeks. Borg found that "teachers' decisions in teaching grammar were influenced by their often-conflicting cognitions about language, learning in general, L2 learning, grammar teaching, students, and self" (p. 26).

In sum, research on teacher beliefs and cognition has revealed that teachers' behaviors, decision making, and classroom practices are shaped by their underlying thoughts and beliefs. It has also illuminated the complex relationship between beliefs and practices (Smith, 1996) and the complex structure of the networks of beliefs (Burns, 1996) and of teacher cognition (Borg, 1998; 1999). Moreover, those studies have indicated that teaching practices are also influenced by other factors, such as the classroom context (Smith, 1996; Woods, 1996) as well as learning and teaching experiences (Borg, 1998, 1999).

Learning Experience and Teacher Beliefs

Empirical research has revealed that experienced teachers' beliefs underlying instruction are largely generated by their learning experiences (e.g., Borg, 1998, 1999).

Holt-Reynolds (1992), who examined the beliefs of pre-service student teachers at an American university, also found that the student teachers' beliefs about teaching were derived from their learning experiences to a large extent. The participants were three math majors and six English majors who were engaged in a content reading course that was required for teacher certification. Six interviews with each student teacher suggested that "the personal histories of pre-service teachers appear to function as prior knowledge of what 'good' teaching should look, sound, and feel like" (Holt-Reynolds, 1992, p. 343). The pre-service teachers had spent considerable time as students, and thus, they already had "lay beliefs" (i.e., experience-based beliefs). Holt-Reynolds argued that it might be quite challenging and difficult to change the student teachers' lay beliefs. She suggested that teacher education should first acknowledge the power of experience-based beliefs, and then, they should attempt to foster the professionalization of those existing beliefs.

Beliefs held by in-service training teachers also tend to reflect their learning experiences. Ellis (2006) conducted interview studies with 31 ESL teachers instructing adults in Australian language centers. The participants were categorized into three groups: native English speakers with a second language, native English-speaker monolinguals, and non-native speakers (bilingual). Regarding the bilingual teachers, Ellis found that not only their language learning experience, but also their experience of having faced the challenges of immigration and the identity problems and raising children in bilingual families could “lead to the development of key insights on which teachers appear to draw in framing their approach to learners.” Ellis suggested that teachers’ various learning experiences influenced the development of their professional knowledge and beliefs.

The impact of learning experience on teachers’ beliefs can be related to the pre- and in-service teacher training. In the following sections, I discuss the influence of teacher training courses on teachers’ beliefs, and connect it to their learning experience.

Pre-service Training and Teacher Beliefs

As mentioned above, student teachers already have personal history-based beliefs about learning and teaching. They may have an inappropriate, unrealistic, or naïve understanding of teaching and learning at the start of teacher education programs (Brookhart & Freeman, 2001). Although research suggests that teacher education has an impact on trainees' beliefs, the impact varies among different studies and different trainees.

Bramald, Hardman, and Lear (1995) found that student teachers brought experience-based beliefs with them to a teacher education course and that the older beliefs were changed in various ways through the course. The authors administered a 26-item seven-point Likert scale questionnaire to 162 students enrolled in a Post-Graduate Certification Education (PGCE) at a British university three times: at the start of the course (October), after the first school experience (December), and towards the end of the course (May). The authors interviewed 10 students whose beliefs had changed a great deal and another 10 students whose beliefs had changed little during the course. The results showed that individual student teachers' conceptualization of the teacher training process differed, and thus, their way of making sense of their training experiences tended to vary. That is to say, the impact of the teacher training program differed between the individual students.

Anderson and Bird (1995) investigated three student teachers' learning from a 10-week required training course at a university in the United States and identified some common characteristics of the student teachers. Data were collected from interviews, the participants' essays, and written conversations that the participants wrote after watching three lessons video-recorded in elementary school classrooms. The results showed that the teacher students interpreted each video-recorded lesson through the lens of their initial image of teaching. The first participant admired the ways in which the teachers on the videotape acted as classroom leaders. The second participant expressed a high regard for teachers who indirectly guided students to think for themselves. The third participant was impressed by the fact that teachers created interesting experiences in the class. Their interpretation of the lessons did not change throughout the term. Anderson and Bird concluded that the student teachers' interpretation of their teacher education coursework differed from the one that their instructors had expected because the students' interpretation was influenced by their experienced-based beliefs.

Almarza (1996) conducted a nine-month longitudinal study with four pre-service trainees' change in teaching beliefs and practices while they were taking Post-Graduate Certification Education (PGCE) courses at a British university. She collected data from interviews, classroom observations, stimulated recalls, and students' journals. A specific L2 teaching method was taught in the PGCE courses, and the participants implemented the method in their classrooms during practice teaching. However, although their classroom instruction looked similar, the four participants had different views about language and language learning that were influenced by their own language learning experiences. For example, one participant believed that language is a set of structures and phrases, and another participant believed that language could be learned through a natural learning process in the classroom, not through controlled practice. Almarza concluded that "during the teacher education, student teachers progressed differently despite their similar behavior during teaching practice" (p. 70). She also suggested that teacher educators should legitimatize student teachers' previous knowledge so that the educators can bridge the gap between the student teachers' previous knowledge and the new knowledge that they are expected to acquire.

The three studies reviewed above indicated that pre-service teachers' beliefs were rather stable: the only change that was found concerned the beliefs of half of the participants in the Bramald, et al. (1995) study. Interestingly, the participants in Peacock's (2001) study had much more fixed beliefs about language learning. Peacock conducted a longitudinal study and investigated the changes in the beliefs of 146 student teachers over their three-year BA TESL program in Hong Kong. The results of the Beliefs about Language Learning Inventory (Horwitz, 1988) showed that the students' beliefs about L2 learning were significantly different from experienced teachers' beliefs for only the following three items: (a) learning a foreign language is mostly a matter of learning a lot of new vocabulary, (b) learning a foreign language is mostly a matter of learning a lot of grammar rules, and (c) people who speak more than one language well are very intelligent. The results also revealed that there was little change in the students' beliefs with regard to the three items. Peacock concluded that the data did not support the idea that the student teachers' beliefs were shaped by their pre-service TESL courses.

In summary, the pre-service teacher education research suggests that student teachers' prior beliefs are often stable, and these beliefs tend to limit what they can learn from teacher education courses. In addition, what students learn from teacher education courses and how their prior beliefs change often differs individually. It can be implied that learning experience is more influential than experience in pre-service teacher training in the process of shaping teacher beliefs.

In-service Training and Teacher Beliefs

As noted above, the pre-service education research has suggested that student teachers' experience-based beliefs tend to limit what they can learn from teacher education courses. In contrast, the research on in-service teacher education has shown that experienced teachers' beliefs and practices can be changed through their own teaching experiences including practice teaching.

Richards, Ho, and Giblin (1996) attempted to examine how five teacher trainees responded to the practice teaching experiences provided in a TESOL teacher training program in Hong Kong. The researchers analyzed audio-recorded discussion sessions and interviews and found that the beliefs of the five trainees changed, but not in a homogeneous way. That is, the model of teaching (CLT) that the program employed was interpreted in different ways by individual trainees. The authors concluded that the trainees deconstructed the CLT method "in the light of their teaching experiences and reconstruct it, drawing on their own beliefs and assumptions about themselves, about teachers, about teaching and about learners" (p. 258).

Freeman (1996) viewed in-service trainees' reconstruction of their pedagogical knowledge as joining a new "Discourse [with a capital D]" (Gee, 1990). According to Gee, Discourse is not just a way of using language, but a way of acting, believing, and doing in the world. Freeman conducted longitudinal research on changes in the practices of four FL teachers studying in a TESOL Master's program in the United States. Through interviews, observations, and document analysis, Freeman found that joining the new Discourse (i.e., the Master's program) enabled the four teachers to speak about their teaching practice using professional language. By doing so, the teachers could rename their prior teaching experience. The Master's program allowed the teachers to reshape their prior teaching experience and to construct new practices. Freeman suggested that teacher education had potentially powerful effects on reshaping in-service teachers' beliefs in that it socialized them into the new Discourse.

Cabaroglu and Roberts (2000) reported on the strong impact of in-service training on teacher beliefs. The participants in their study were 20 teachers who attended a course in Post-Graduate Certification Education (PGCE) at a British university. The results showed that the beliefs of only one out of 20 experienced teachers remained unchanged during the 36-week course. The interviews revealed that the beliefs of the other 19 participants changed cumulatively and gradually during the course. The process of change involved realizing that a new belief may conflict with or be coherent with prior beliefs, confirming existing beliefs, reconstructing or re-naming existing beliefs, and integrating new beliefs with prior beliefs. Cabaroglu and Roberts concluded that (a) trainees' beliefs seem to be flexible, (b) their pre-existing beliefs can be reshaped, and (c) belief development varies greatly between individuals.

In addition to the teachers' learning in the formal in-service training, informal learning also plays an important role in the reconstruction of their beliefs and practices. Crookes and Araraki (1999) interviewed 19 ESL teachers who taught students from Asia or Europe in the United States. They found that the teachers preferred listening to their colleagues' opinions to consulting non-teaching researchers. In this regard, several teachers commented that informal talks between colleagues provided a convenient and useful way to get good teaching ideas. They also seemed to have the understanding that experienced teachers are willing to help newcomers. It may be that many teachers learn from their colleagues' teaching, find ways to improve their own teaching practice, and reshape their ideas and beliefs based on the success or failure of the new practice.

The above studies suggest that teachers can have both formal and informal opportunities to learn about pedagogy and that experienced teachers' beliefs may be more flexible than student teachers' beliefs. One of the differences between pre-service education and in-service education is whether trainees have prior teaching experience or not. Also, in addition to the formal in-service training, teachers learn from their colleagues. It appears that both informal and formal training exert impacts on the reconstruction of the teachers' beliefs about teaching and learning.

Teaching Experience and Teacher Beliefs

As Borg's (2003) conceptual framework of teacher cognition suggests (see Figure 1), teacher cognitions not only influence what teachers do, but are in turn affected by teaching experiences. Although a few researchers have specifically examined the latter issue, a subset of studies suggest that teacher beliefs are also guided by classroom practices.

Mok (1994) conducted a case study at an American university in order to investigate 12 experienced or inexperienced ESL teachers' major concerns and changing perceptions over time. Through analyzing the data from interviews, journal entries, and practicum reports, Mok identified five categories of concerns: (a) teacher's self-concept, (b) attitudes, (c) teaching strategies, (d) materials used, and (e) expectations. He reported that the inexperienced teachers started to consider learners' needs, social context, and students' characteristics after experiencing the practicum. Mok stated that "this change in the inexperienced teachers was remarkable, suggesting that teachers are likely to change and make greater gains in the initial stages of their professional development than in the later stages" (p. 106), and suggested that most teachers' beliefs about teaching are guided by their own experience as a learner and as a teacher.

Crookes and Araraki's (1999) study showed similar results to those in Mok (1994). As mentioned above, the researchers interviewed 19 ESL teachers who taught students from Asia or Europe in the United States. The researchers found that accumulated teaching experience was the source of the teachers' ideas and knowledge. It is likely that their teaching experience helps reshape their beliefs about learning and teaching.

Teaching experience had an influential role also in a study conducted by Breen et al., (2001). They observed 18 experienced ESL teachers' lessons in Australia, interviewed them, and described their classroom practices in order to explore the relationships between the teachers' practice and their underlying teaching principles. By principles, Breen et al. meant what ideas teachers hold regarding the nature of educational process, the nature of language, and how languages are learned and taught, which are based on their beliefs and personal theories. Over 300 practices and almost 200 underlying principles were identified. Breen et al. then identified a limited number of principles that were widely shared across the teachers. The findings related to the impact of teaching practices on principles are as follows:

1. On the basis of background knowledge and experience, the relationship between principles and practices is likely to be interactively constructed.
2. A single practice may be an expression of more than one principle.
3. Experienced teachers' principles and practices seem to vary.
4. Teachers who have similar experience or work in a similar situation are likely to hold a shared principle through different practices.

Those findings, especially the third and the fourth, imply that teachers' principles and practices are affected by their teaching experience. That possibility needs to be further illuminated by investigating the work of experienced teachers.

Contextual Factors and Teacher Beliefs and Practices

Educational researchers have found that contextual factors influence classroom practices both directly and indirectly. Borg (2003), in a review of 64 studies on teacher cognition, reported that teachers' practices are shaped by the social, psychological, and environmental conditions of the school and classroom. These factors include parents, principals, colleagues, classroom, school, society, curriculum, and examinations. Borg also mentioned that such factors may hinder language teachers' ability to adopt practices that reflect their beliefs.

Crookes and Araraki (1999) found that difficult working conditions affected classroom practices. Twenty participants in their study, who were ESL teachers in an intensive English program in the western United States, had to work approximately 50 hours a week. They had little time to prepare lessons, and consequently, they could not provide more effective pedagogical activities even though they knew that they were available. The heavy workloads might have exerted a powerful impact on the teachers' pedagogical choices.

Learners' beliefs also impact teachers' practices. Schulz (2001) administered a questionnaire to 122 Colombian FL teachers, 607 Colombian FL students, 92 American FL teachers, and 824 American FL students. The results showed that both groups of students believed that explicit grammar study and corrective feedback are important in FL learning. Also, the majority of the teachers in both cultures agreed that grammar teaching helps language learning. Schulz pointed out that "if teacher behaviors do not mesh with students' expectations, learners' motivation and a teacher's credibility may be diminished" (p. 256). Teachers, thus, may have to modify their teaching practices so that they are generally compatible with students' expectations.

Likewise, Burgess and Etherington (2002) reported that students' characteristics, needs, and wishes influenced teachers' classroom actions. They administered a questionnaire to EAP (English for Academic Purpose) teachers working in British university language centers and received 48 responses. Qualitative data gained from the responses to an open-ended question suggested that students' preference for grammar instruction influenced the teachers' pedagogic decisions.

In addition to working conditions and students' characteristics, various other factors influence teacher beliefs and practices. Richards and Pennington (1998) investigated five novice EFL teachers' instruction through classroom observations, interviews, and questionnaires. The teachers had graduated from BA TESOL courses at City University in Hong Kong and taught at secondary schools. The results showed that the teachers followed their textbooks and rarely provided authentic communicative activities. Richards and Pennington reported that the constraints of their teaching context, large class sizes, the students' low English proficiency, a general lack of discipline, examination pressure, a prescribed syllabus, and the students' resistance to new ways of learning hindered the use of communicative activities. As Smith (1996) pointed out, the classroom context, which includes factors such as learners' learning styles and preferences, tends to have a strong influence on teachers' decisions.

In sum, classroom conditions (e.g., class size and students), school conditions (e.g., syllabus and workload), and broader educational conditions (e.g., examination pressure and educational policy) exert impacts on teachers' beliefs and practices.

Perceived Teaching Efficacy and Classroom Practices

In Borg's (2003) conceptual framework, teachers' perceptions of their teaching efficacy can be included as one aspect of teacher cognition. Research has shown that teachers' efficacy or anxiety can affect teaching practices. Horwitz (1996), in a review of her own studies, stated that foreign language teachers' anxiety is a serious concern because it has the potential to negatively affect the way they teach.

Gibson and Dembo (1984) administered a 30-item Teacher Efficacy Questionnaire to 208 elementary school teachers in the USA and observed classroom behaviors of eight of the 208 teachers (4 high efficacy and 4 low efficacy teachers). The authors reported that the high-efficacy teachers were more likely to provide group work instruction than low-efficacy teachers.

In respect to the change in teaching methods, Smylie (1988) focused on 56 elementary and secondary school teachers in the United States who were involved in staff development programs designed to promote changes in teachers' practices. He gathered data from classroom observations, interviews, and questionnaires and found that changes in teacher practices were strongly influenced by the teachers' self-efficacy. Guskey (1988), who administered a questionnaire to 120 elementary and secondary school teachers reported similar results; teachers with a stronger sense of efficacy are often more flexible and more willing to try new methods in order to meet the needs of their students.

As those studies implied, teacher efficacy seems to work as a motivational construct affecting the amount of effort a teacher makes in teaching (Tschannen-Moran, Hoy, & Hoy, 1998). However, it should be noted here that the participants in the major studies on efficacy were not foreign language teachers. For instance, the participants in Gibson and Dembo's (1984) study were science teachers, and those in Smylie's (1988) study were elementary and secondary school teachers of math, English (as an L1), social studies, and science. Few researchers have investigated the influence of teaching-efficacy on second language or foreign language teachers' practices.

Summary

Previous studies on teacher beliefs and practices are presented in Table 2. To summarize, the review of the previous research on teacher beliefs and practices indicates several gaps in the field. First, although not shown in the table, no comprehensive research on the relationships among the seven variables (i.e., teacher beliefs, classroom practices, learning experience, pre- and in-service training, and contextual factors) was found. Second, a subset of the previous studies showed incompatible results; Peacock (2001) reported that beliefs are extremely difficult to change whereas Bramald, et al. (1995) reported that the beliefs of half of their participants changed a great deal. Third, we have minimal insight into non-native speakers of English teaching required English language courses in classes with a large number of students (Borg, 2003).

In the next section, I review the literature on Japanese teachers' beliefs and practices regarding CLT.

Table 2. *Research on the Relationships Among the Seven Variables*

Source	Participants	Findings
Teacher Beliefs		
Burns, 1996	6 experienced ESL teachers	Classroom practices are shaped by the interconnecting networks of teacher beliefs.
Woods, 1996	8 experienced ESL teachers	Teachers' coherent BAK (beliefs, assumptions, and knowledge) influence their practices.
Smith, 1996	9 experienced ESL teachers	Teachers' decisions show an internal consistency between individual beliefs and practices.
Borg, 1998, 1999	4 experienced EFL teachers	Teachers' decisions in teaching grammar are influenced by their often-conflicting cognitions about language, learning in general, grammar teaching, students, and self.
Learning Experience		
Holt-Reynolds, 1992	3 math-major and 6 English-major	Student teachers have experience-based beliefs about what "good" teachers should be in a content-reading course.
Ellis, 2006	31 ESL teachers	Teachers' various learning experiences influence the development of their professional knowledge and beliefs.
Pre-service Training		
Bramald et al., 1995	162 PGCE students	Students' prior beliefs about learning are changed in various ways through teacher education courses.
Anderson & Bird, 1995	3 training course students	Students' interpretations of their teacher education coursework are influenced by their prior beliefs.
Almarza, 1996	4 PGCE students	During teacher education courses, students' beliefs change differently despite similar behavior.
Peacock, 2001	146 BA TESOL students	Students' beliefs about vocabulary and grammar learning are different from experienced teachers' and hardly changed.
In-service Training		
Richard et al., 1996	5 experienced EFL teachers	Teachers deconstruct and reconstruct the CLT method based on their teaching experience and beliefs.
Freeman, 1996	4 experienced EFL teachers	In a TESOL master's program, teachers reshape their prior teaching experience and construct new practices.

(Table 2 continues)

(Table 2 continued)

Source	Participants	Findings
Cabaroglu & Roberts, 2000	20 PGCE trainees (experienced)	Trainee teachers' beliefs seem to be flexible, their prior beliefs can be reshaped, and their belief development is variable between individuals.
Crooks & Araraki, 1999	19 experienced ESL teachers	Teachers reflect their colleague's teaching on their own teaching, find ways to improve their teaching practice, and the new practice again reshapes their beliefs.
Breen et al., 2001	18 experienced ESL teachers	Teaching practices have an impact on teaching principles, and their relationship is complex.
Contextual Factors		
Crooks & Araraki, 1999	19 experienced ESL teachers	Working conditions (heavy workloads) affect classroom practices.
Schulz, 2001	1431 students and 214 EFL teachers	If teacher behaviors do not mesh with students' expectations, learners' motivation and the teacher's credibility may be diminished.
Burgess & Etherington, 2002	48 experienced EAP teachers	Students' preference for grammar instruction influence teachers' pedagogic decisions.
Richards & Pennington, 1998	5 novice EFL teachers	Large class size, students' low proficiency, examination pressure, a prescribed syllabus, and students' resistance to new ways of learning hinder the use of CLT.
Perceived Teaching Efficacy		
Horwitz, 1996		FL teachers' anxiety has a potential effect on the way of teaching
Gibson & Dembo, 1984	208 elementary school teachers	High-efficacy teachers are more likely to provide group work instruction than low-efficacy teachers.
Smylie, 1988	56 academic-subject teachers	Teachers' self-efficacy strongly influences change in their teaching practices.
Guskey, 1988	120 elementary and secondary school teachers	Teachers with a stronger sense of efficacy are flexible and more willing to try new methods in order to meet the needs of their students.

Note. PGCE refers to Post-Graduate Certification Education.

Seven Factors in the Japanese EFL Context

Having reviewed the literature on the relationships among the seven factors in language teaching or teaching in general, I will now discuss how these factors interrelate regarding the use of CLT in the context of Japanese English education.

The first variable, *Learning Experience*, is likely to play an important role in shaping Japanese teacher's beliefs about CLT. Sato and Kleinsasser (2004) interviewed 19 Japanese high school teachers of English and observed their lessons. They found that personal experience in learning English supported many of the high school teachers' beliefs about language teaching and learning.

The second variable, *Pre-service Training*, might influence teachers' beliefs about CLT to a certain degree. Regarding pre-service teacher education, Okazaki (1996) found that trainee students' responses to 20% of the items on the Beliefs About Language Learning Inventory (Horwitz, 1988) changed and became less form-focused after studying one year in a methodology course. That is, the students regarded repetition practice, accurate pronunciation, and error correction as being less important at the end of the course. However, responses to 80% of the items did not show statistically significant differences compared with the results obtained at the beginning of the course. Okazaki suggested that the trainee students' beliefs about language learning had been mostly shaped before taking the course.

Regarding the third variable, *In-service Training*, Shimahara (1998b) pointed out that advice from senior colleagues, networking with colleagues, and personal experience (e.g., birth of a child) influence professional development. That is, both in-school in-service teaching training/experience and out-of-school in-service teaching training/experience are important factors if teachers are to reshape their beliefs. For instance, secondary school teachers were motivated to engage in lifelong learning through a collaborative CLT study group (Sato, Takaki, Okada, Takahashi, Yamashita & Serikawa, 2004).

The fourth variable, *Contextual Factor*s, including classroom conditions (class size, the number of class hours, students' expectations, and students' English proficiency) and school conditions (vocational vs. academic schools, teachers' workloads, and equipment) can exert a powerful impact on teachers' beliefs and affect their use of CLT. According to Nishino (2008) and Taguchi (2005), secondary school teachers have suggested that class size and class hours should be changed so that CLT can be more widely implemented.

Also, the type of school (academic or vocational) was shown to influence the choice of oral communication courses: conversation courses were chosen at 75% of vocational high schools, whereas listening courses were chosen at 67% of academic high schools (Browne & Wada, 1998).[6] These figures indicated the potential effect of the type of school on the choice of English courses, and as a result, on the implementation of CLT. However, the influence of the type of school on teachers' use of CLT has not been reported since the implementation of the 1999 *Course of Study.*

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[6] When Browne and Wada's (1998) study was conducted, three Oral Communication courses were available, and one or two of the courses were chosen by each high school.

Concerning the influence of *Contextual Factors* on teachers' approval of CLT, Gorsuch (2000b) tested a hypothesized structural equation model based on empirical data from 876 Japanese high school teachers, and examined the influence of school and classroom conditions on their approval of CLT activities in English I and English II. She identified four latent variables from the items on a questionnaire related to school, classroom, examinations, and CLT approval. The results showed that there were strong to moderate relationships between the examination latent variable, and the school and classroom latent variables. The school and classroom variables had positive, though moderate to weak effects on teachers' approval of CLT. However, there was a weak negative relationship between the examination and CLT approval variables. Thus, these findings support the longstanding view of the strong effects of university entrance examinations on secondary school education in Japan. However, they do not show that teachers' attitudes toward the examinations directly influence their approval of CLT.

In her analysis, Gorsuch (2000b) inferred that if university entrance examinations were to include questions that tested students' communicative ability, teachers would think that individual school conditions (e.g., school curriculum) could change (for a discussion of the effect that entrance examinations have on school curricula see also Browne & Wada, 1998). Changes in school conditions might in turn moderately influence the approval of CLT among teachers who work at those institutions.

Gorsuch (2000b) also indicated that teacher beliefs and students' expectations might affect the teachers' use of CLT. She suggested that Japanese teachers might resist

CLT in the classroom because they believe in strong teacher control, memorization, and translation in foreign language learning. Related to this, she wrote that "the influence of students' expectations concerning teachers' instruction is potentially powerful" (2000b, p. 685). She argued that high school students expect to prepare for entrance examinations in English courses and that they might not see the value of communicative instruction. It might be difficult for teachers to effectively use CLT without student cooperation.

In addition to student cooperation, colleague cooperation might be also needed when teachers use the novel teaching method. McKay (2002) conducted a case study of five Japanese graduate students studying in a TESOL program in the United States who taught ESL classes as trainees. Through interviews and observations, McKay found that although novice teachers learned about CLT practices in the program and practiced using them in the ESL classes, they were reluctant to use them after returning to Japan because of the concern that more experienced teachers using the traditional method might not agree or collaborate with their use of CLT. This study indicates that many novice teachers may believe that they have limited power to change the prevailing teaching methodology used in EFL classes in Japan.

As for the fifth variable, *Perceived Teaching Efficacy*, systematic research has not been conducted in Japan. However, one supervisor, who belongs to the prefectural authority that provides in-service training programs for local teachers, pointed out that many Japanese teachers tend to lack ability and confidence in communicating in English (Taguchi, 2002). Also, Taguchi (2005), in her study of high school Oral Communication classes, reported that "listening exercises were largely mechanical with structured language use, focusing on linguistic details and grammatical analysis of the listening texts" (p. 10). She inferred that Japanese teachers did not know how to use speaking and listening exercises in a communicative manner and consequently tended to apply traditional methods.

The last, and probably the most important variable affecting *Classroom Practices*, is *Teacher Beliefs about CLT.* As discussed earlier, recent research findings suggest that teachers' approval of CLT has been changing, although there is inconsistency between the teachers' beliefs and practices in Japan (Gorsuch, 2001; Taguchi, 2002; Sato & Kleinsasser, 2004). Nevertheless, few studies have been conducted on the implementation of CLT in Japanese high school classrooms since the most recent revision of *The Course of Study*. There is thus a need to delve into what is actually happening with regard to high school teachers' use of CLT, as well as the factors influencing their beliefs, and thereby their classroom practices.

In sum, previous research on Japanese high school teachers' beliefs and practices regarding CLT indicates that various factors such as learning experience, in-service teacher training, and contextual factors influence teachers' beliefs and practices. However, most studies were conducted before the implementation of the recent version of *The Course of Study*. Also, no researchers have examined the relationships among teacher beliefs, classroom practices, and other factors comprehensively in the Japanese EFL contexts. In this regard, Sato and Kleinsasser (1999) suggested that "it seems worthwhile to investigate further the perspectives of L2 teachers, that is, how they view, learn about, and implement CLT" (p. 498). In other words, it is necessary to look into the relationships among teacher beliefs, perceived teaching efficacy, classroom practices, learning experience, teacher education, and contextual factors in order to understand how CLT can be widely and effectively implemented in Japanese classrooms.

In the next section, I summarize the gaps that I have found through the literature review and present research questions.

Statement of the Problem

The review on the previous research has shown the following gaps:

1. Few studies have been conducted on the implementation of Communicative Language Teaching (CLT) in Japanese high school classrooms since the last revision of *The Course of Study*.
2. Few researchers have investigated the difference in classroom practices between vocational and academic high schools.
3. To the best of my knowledge, no comprehensive study examining the relationships and interactions among teacher beliefs, classroom practices, and factors such as their learning experiences, pre- and in-service training, perceived teaching efficacy, and contextual factors has been conducted.
4. Equivocal results have been found among previous studies regarding changes in teacher beliefs and practices.

5. With respect to the research on teacher belief and practice, we have minimal insight into non-native speakers of English teaching required EFL courses in classes with a large number of students.

Research Questions

The main purpose of this study is to investigate Japanese high school teachers' beliefs and practices regarding the use of CLT. I also look into the relationships and interactions among the teachers' beliefs, classroom practices, and other factors such as perceived teaching efficacy, learning experience, pre- and in-service training, and contextual factors. In order to do so, I test the hypothesized relationships among teacher beliefs, their classroom practices, and the other factors in a path model. The following research questions have been posited:

1. What beliefs do Japanese high school teachers hold about CLT?
2. How do Japanese high school teachers use CLT in their English I and English II classrooms?
3. How do Japanese teachers' beliefs and practices differ between those teaching in academic high schools and those teaching in vocational high schools?
4. How do the beliefs of Japanese high school teachers, their classroom practices, their learning experiences, pre- and in-service training, perceived teaching efficacy, and contextual factors relate to and influence each other regarding the use of CLT?

CHAPTER 3

METHOD

The purposes of this chapter are to explain my use of a mixed methodology, describe the participants, instrumentation, procedures used for the data collection, the setting for the class observations, and explain how the data were analyzed.

Triangulation and Mixed Method Research

In this study, I used methodological triangulation, which refers to the use of multiple data-gathering procedures and is one of the four categories of triangulation listed by Denzin (1978). Triangulation not only enhances the validity of a research project, but also helps the researcher construct more plausible explanations for the results (Mathison, 1988). I use the term triangulation for this study because I employed more than one method in order to investigate one theme.

Questionnaires or inventories have limitations in investigating psychological constructs, as noted by Pajares (1992), who stated, "traditional belief inventories provide limited information with which to make inferences, and it is at this step in the measurement process that understanding the context-specific nature of beliefs becomes critical" (p. 327). Kagan (1990) also indicated that self-report scales of teacher thinking have at least two limitations: (a) as some teachers' responses are potentially influenced by social desirability, they may choose "correct" answers, and (b) because teachers hold some beliefs unconsciously, they cannot express them on a short-answer questionnaire. Pajares (1992) advocated that "additional measures such as open-ended interviews, responses to dilemmas and vignettes, and observation of behavior must be included if richer and more accurate influences are to be made" (p. 327). Thus, in order to make up for the limitations of the questionnaire used in this study, I conducted interviews and class observations.

I used mixed methodology combining quantitative and qualitative approaches to gather three types of data. Johnson, Onwuegbuzie, and Turner (2007) defined mixed methods research (also called mixed research in this study) as research in which "a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration" (p. 123). The use of mixed methods might also prevent a researcher from committing errors caused by gathering only one kind of data, Labov (1971) stated:

> Since different methods will have different sources of error, even a partial convergence in the results will lead to a higher degree of confidence than we can give to work with one kind of data and one way of dealing with it. (p. 479)

A variety of mixed method studies have been conducted in social science and educational research. Using the taxonomy developed by Tashakkori and Teddlie (1998), this study can be classified as a "dominant-less dominant design (QUAN + qual)" (p. 43).

The main part of the study is a survey study investigating the participant teachers' beliefs and practices regarding CLT, and the relationships among their beliefs, practices, and other variables. The subordinate part of the study is an interview and observation study examining how several teachers *actually* used communicative activities in the classroom, how they shaped and reshaped their beliefs and practices, and why and how their beliefs and practices changed. The four participants in the observation and interview study were not part of the survey study. However, they did complete the questionnaire and their responses to the survey items indicated that they were from the same population as the survey participants.

Having presented an overview of the methodology used in this study, I explain the participants, instrumentation, and procedures in the next section.

Respondents, Participants, Instrumentation, and Procedures

In this section, I describe respondents and instrumentation in the survey study and participants in the observation and interview study. I also explain the procedures of both studies.

Teacher Belief Questionnaire

Respondents

The respondents to the questionnaire were 82 academic Japanese high school teachers and 57 vocational high school teachers who taught English I, English II, or both.

All of those teachers were randomly selected in the manner described below. Among the 139 teachers, 76 were male, 61 were female, and two did not indicate their sex; 109 had bachelor's degrees, 23 had master's degrees, one had a doctor's degree, and six did not respond to the question; 14 belonged to teacher study groups, 112 did not belong to any group, and 13 did not respond to the question. The lengths of their teaching experience and their academic majors in college are shown in Tables 3 and 4, respectively. The respondents' teaching experience ranged from 1 to 44 years, and more than half of them were English literature majors.

Table 3. *Length of the Participants' Teaching Experience (N = 139)*

Years of experience	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-44	No response
No. of mentions	28	28	9	20	19	14	13	5	3

Table 4. *The Participants' University Majors (N = 139)*

Major	English literature	Linguistics/English language/Teaching English	Education	International Issues/Other	No response
Number of mentions	56	28	20	26	9

The random sample was selected as follows:

1. I wrote names of all the prefectures in Japan on 48 pieces of paper. They were folded and placed in a box so that I could not see the names of the prefectures. I then selected five pieces of paper (five prefectures) randomly: Aomori, Miyagi, Aichi, Hiroshima, and Okayama.
2. I downloaded lists of private and public high schools located in the five prefectures from an Internet homepage (Chuoh Publishing, 2006) and printed them

out. For each prefecture's list, I numbered both the academic and vocational high schools.

3. Using a table of random numbers, I selected 20 vocational high schools and 20 academic high schools from each of the five prefectures; a total of 188 high schools were chosen.[7]
4. I sent a letter with 10 questionnaires to the principal of each high school chosen above; thus, a maximum 1880 high school teachers received the questionnaires.

Although I sent 1880 questionnaires to the 188 high schools and received 142 responses, the return rate was not 142/1880 because less than ten English teachers on average were working in the high schools in the five prefectures. The average numbers of English teachers working in the high schools were 2.1 (Aomori), 6.9 (Miyagi), 9.6 (Aichi), 4.7 (Hiroshima), and 5.7 (Okayama) (commyunication with the boards of education of the five prefectures by mail, 2007), and the overall average was 5.7. Thus, the approximate total number of the high school teachers who received the questionnaire was 5.7 x 188 = 1090. The return rate was 142 / 1090 = 13.03%, which is nearly 13%, the average return rate of a questionnaire without reward (Hagiwara, Ota, & Fujii, 2006). Among the 142 respondents, three persons did not answer more than one part of the questionnaire; thus, their responses were deleted from the analyses. The final *N*-size in this study was 139.

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[7] As Hiroshima has 18 vocational high schools and Okayama has 16 vocational high schools, 36 (18 x 2) and 32 (16 x 2) high schools were selected randomly from the two prefectures respectively.

As the return rate was low, it can be inferred that the teachers who responded to the questionnaire were special in some senses. For instance, they may have been interested in CLT, eager to improve their teaching, or they may have had positive attitudes towards educational research. Their responses cannot be considered to reflect those of the entire population (Japanese high school teachers of English), which is one of the delimitations of this study.

For the observation and interview studies, I selected four participants known to me personally who were not part of the sample from the survey. However, the four teachers were selected from the same population (Japanese high school teachers). I also administered the questionnaire to them in order to gain information for the follow-up interviews and to ensure that their responses placed them with 3 standard deviations of the mean of the survey respondents. I handed the questionnaire, an envelope, and a stamp to each of them after the second interview, and asked them to send the completed questionnaire back to me by mail. The respondents returned the questionnaires between October, 2006 and May, 2007. After I received their responses, their Rasch person measures were checked for the 11 constructs identified through the Rasch PCA of item residuals. Their person ability measures ranged from -1.37 to 2.28 standard deviations (SDs) from the mean; thus, they were considered as part of the same population that the survey respondents were drawn from. After that, their measures were excluded from the data, so they did not participate in the survey study.

Instrumentation

I developed a questionnaire based on the following studies: Brown (2001), Gorsuch (2000a), Horwitz (1985), Iida and Wakamoto (2000), Karavas-Doukas (1996), Lamie (2000), Matsuura, Chiba, and Hilderbrandt. (2001), Nishino (2008), Rausch (2000), and Taguchi (2005). I used these studies as the basis for this study because the instrument that Horwitz used was widely used in learner or teacher belief studies, Brown introduced principles and characteristics of CLT, and the other studies were focused on foreign language teachers' beliefs and practices. All of the above studies were conducted in Japan except for Brown, Horwitz, and Karavas-Doukas. In addition to those studies, Sakui and Gaies (1999), who developed a measure of language learning beliefs in the Japanese context, influenced this study in that I used a context-sensitive instrument written in the respondents' first language and conducted interviews to complement questionnaire data.

The questionnaire items covered eight areas: beliefs about CLT, perceived teaching efficacy, learning experience, what was provided regarding CLT in pre-service teacher education programs, what was provided in in-service teacher education programs, contextual factors, and classroom practices. Each area was measured with 8-17 items.

The main section of the questionnaire was made up of eight parts (see below) with 74 close-ended questions and one open-ended question. Research has shown mixed results regarding the effect of the number of scale points on measurement quality, but the optimal scale length has been suggested as between 5-7 points (Lyberg, Biemer, Colins, Leeuw, Dippo, & Schwarz, 1997). In this study, a 6-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = slightly agree; 5 = agree; 6 = strongly agree) was used for parts A to E, and a five-point Likert scale (1 = never; 2 = infrequently; 3 = sometimes; 4 = frequently; 5 = very frequently) was used for parts F and G. The Japanese questionnaire and its English translation are provided in Appendices A and B.

Part A: Teacher Beliefs about CLT (10 items)

Part B: Perceived Teaching Efficacy (11 items)

Part C: Pre-service Teacher Training (6 items)

Part D: In-service Teacher Training (8 items)

Part E: Contextual Factors (17 items)

Part F: Classroom Practices (11 items)

Part G: Learning Experience (11 items)

Part H: Contextual Factors that Should Change (1 item)

At the end of the questionnaire, I requested personal information about the respondents' gender, university major, teaching experience, educational level, experience of teaching with an ALT, TESOL certification, and membership in teachers' associations, and the type of schools where they taught (see Appendix A for the questionnaire items).

In order to confirm the validity and reliability of the questionnaire, I performed a factor analysis to examine content validity, and the internal consistency reliability of each factor was checked by calculating Cronbach's α. The numbers of respondents and questionnaire items were reduced based on both the results of the factor analysis and the Rasch PCA of item residuals. As Likert scale raw scores are not interval, the raw scores were transformed to interval-level logit measures though Rasch analyses.

Procedures

In February 2006, questionnaire items written in English were checked by Dr. Mark Sawyer, a specialist in language learner psychology. Seven items were revised based on his advice. In April, I asked a person fluent both in Japanese and English to read the Japanese translation of the questionnaire. Following her advice, I revised the Japanese version of the questionnaire. I initially piloted the questionnaire with two high school teachers and asked for their comments regarding ambiguously worded items, the presence of difficult technical terms, and the length of the questionnaire.

After revising the questionnaire, I piloted it a final time with 30 high school teachers who attended a meeting held by an English teachers' association in August, 2006. After receiving 27 responses, two aspects mentioned by Dörnyei (2003) were examined: (a) missing responses and other signs that the instructions were not understood correctly and (b) the range of the responses elicited by each item. As no serious problems were identified, I made only minor changes in the final revision.

I named the questionnaire the Teacher Belief Questionnaire (TBQ) and sent it to 188 randomly selected high schools in October, 2006. I asked the respondents to return the questionnaire before the end of November, 2006. In December, I sent a follow-up letter and indicated that the final deadline would be the end of 2006.

When I received 142 responses in January, 2007, I started inputting the data into an Excel spreadsheet. I began the preliminary analyses in August 2007.

Class Observations

Participants

I observed English lessons (English I or II) taught by two vocational and two academic high school teachers. As stated above, they were selected from my personal network of acquaintances, not from the respondents in the survey study. The profiles of the four participants are summarized in Table 5. Rie[8] was introduced to me by my colleague, Jun and Koji were members of a teachers' association that I belonged to, and Gen and I were co-writers of high school English textbooks. I had met them before observing their classes.

Table 5. *Profiles of the Four Participants*

Name	Sex	Age	Teaching experience	Ss' sex	Type of school	Ss' grade	Academic level of Ss
Rie	F	45	Academic Public HSs	F	Academic Private	1	High
Jun	M	48	Public JHSs	M/F	Academic National	1	Mid
Koji	M	50	Academic Public HSs	F	Vocational Public	3	Low-mid
Gen	M	49	Academic Public HSs	M/F	Vocational Public	1	Low

Note. HSs = high schools; JHSs = junior high schools; Ss = Students.

[8] All the participants' first names (Rie, Jun, Koji, and Gen) and names of their schools are pseudonyms.

Rie, the only female participant in the qualitative study, was teaching at a girls' private academic high school in Saitama prefecture, and Jun was teaching at a national co-educational high school in Tokyo. Koji taught students in a vocational course (nursery school teacher training course) in a girls' public high school in Saitama prefecture, and Gen taught in a co-educational public agricultural high school in Nagano prefecture. They were all experienced teachers who had taught at more than two Japanese secondary schools. Their ages ranged from 45 to 50.

Rie presented model English lessons every year to university students who were taking teaching methodology classes taught by my colleague and me. She was also invited, as a guest lecturer, to a workshop that one of the largest Japanese teachers' associations held every year. We had met only once before I asked her to be a participant in this study; she accepted my request with pleasure.

Jun was a member of the English Teachers' Association (pseudonym) and working on the committee of its Tokyo branch that I belonged to. We did not meet often, but I had an opportunity to attend an open school and observed his colleagues' English lessons at the school where he worked. Jun worked at a national secondary school that was affiliated with national universities. Teachers and university professors working in national schools conduct a variety of studies on education, and teachers at national elementary and secondary schools have to contribute to educational research; thus, Jun accepted my request and allowed me to observe his class without hesitation.

I met Koji for the first time when he made a presentation at a conference held by the English Teachers' Association in March, 2007. I asked him to be a participant in my study at the conference, and he was pleased to accept my request. Koji was also a member of the association working at the central office. Before we met, we had exchanged a few e-mails because he wrote a chapter in a teachers' manual about a lesson in a high school textbook that I wrote.

Gen and I had been friends for a year when I obtained his consent to participate in this study. Gen, his wife, I, and other two teachers published a high school textbook used in Oral Communication I classes in 2007. Gen, I, and other three teachers had also published high school textbooks for English I and II in 2006 and 2007, respectively. Before publishing each textbook, we had worked together for a year and had an editorial meeting at least once every few months. We once had an overnight meeting in my house, and the members stayed late at night to discuss the textbook. Therefore, we had known each other well before conducting this study. Gen was the only participant who talked to me without using the formal verb-endings, *desu* or *masu*.

Although the four teachers were willing participants in this study, it was not an easy task to find the right participants. It especially took a great deal of time to find a second vocational high school teacher participant; thus, Koji's first class observation day was one year later than the other participants'. One technical high school teacher told me that he could not be a participant because he was having problems with class management, although he wanted to help me with the project. It appears that the four participants were more or less confident that their English classes were going well.

Procedures

I observed each of the four participants' classes (English I or II) three times: Rie (June, 2006; November, 2006; February, 2007), Jun (July, 2006; October, 2006; February, 2007), Koji (twice in May, 2007; September, 2007), and Gen (February, 2006; January, 2007; February, 2007). I observed one lesson on each observation day, but I observed two lessons taught by Koji on the first day because we could not arrange another day for a class observation.

Before visiting the schools for the first time, I wrote letters to the principals and obtained permission to observe and video-record the lessons. I also asked the four participants to sign consent forms in which they allowed me to use their video- and audio-recorded lessons and audio-recorded interviews (see Appendix C). Every time I visited the schools, I greeted the principals if they were in their offices and gave them some sweets to show my appreciation for their cooperation. Giving a small gift is customary in this situation in Japan.

Each lesson was 50 minutes long, and I video- and audio-recorded the entire lesson. I entered the classroom a few minutes before the start of the class and set the video camera behind the students so that the students' faces would not be recorded. Also, an MD recorder was placed on the teacher's desk. The participants were supposed to talk about my visit before the class, but the students looked at me and my video camera curiously in the first class. However, although the video recording initially created an unnatural classroom situation, the students seemed to become relatively indifferent to the existence of the camera and me in the second and third observations. Also, Jun's class was video-recorded several times per year, Rie's model lessons were recorded on DVDs to be released for sale, and the other two teachers' had been observed by other teachers, so they did not appear nervous or sensitive towards the students' reactions, the video, or me. During the class, I sat beside the video camera and took fieldnotes regarding the classroom atmosphere, teachers' and students' activities, and their utterances. I gathered handouts used in the lesson, copies of the students' work, and school documents, such as school brochures.

Based on the fieldnotes, I wrote up observation accounts soon after coming home from the class observations. In the observation accounts, I described the process of the lesson and the teacher and students' activities and utterances. I did not transcribe the videotapes that I recorded in the classes.

Interviews

Procedures

I conducted semi-structured interviews with the four teachers whose lessons I observed after observing their lessons. Rie and Koji were interviewed twice because Rie was busy on the second observation day and Koji's class observations were conducted over two days. The other two participants were interviewed thee times. Each interview was 30-70 minutes long, and they were audio-taped. The total length of the interviews for each participant was approximately 90 minutes (Rie), 110 minutes (Jun), 140 minutes (Koji), and 190 minutes (Gen). Rie's interview was short, but we had lunch together at the school cafeteria after the class observations or the interviews and talked for about 30 minutes each time. When she visited my university to show her model lessons, I took a train with her, and we talked for about one hour. After such meetings, I took fieldnotes when returning home.

I interviewed Rie in a school guest room, Jun in an English teachers' room where several teachers were preparing for their classes, Koji in an English teachers' room where one of his colleagues was working silently, and Gen in an office for teachers who were in charge of students' placement. Only Rie's interview was conducted in a quiet room. As mentioned above, I had known them before the interviews, so the participants and I could talk candidly with one another.

In the first interview sessions, I asked the participants' about their learning experiences, professional history (including pre-service and in-service training), beliefs about language learning and classroom practices, and contextual factors in their schools. I also asked questions regarding the lessons that I had observed. In the second and third sessions, I asked follow-up questions about the previous interviews, additional questions about their teaching and learning experiences, and questions about their lessons. The following questions used in teacher interviews (Borg, 1998) and a questionnaire (Law, 1995) were asked in the first interviews:

1. What do you recall about your experiences learning English (or a foreign language) at secondary school and university?
   - What kinds of methods were used?
   - Were there any communication activities (spoken or written)?
   - Did you enjoy the lessons?
   - Do you feel that your own education as a student has had any influence on the way that you teach?
2. How do you teach English?
   - What kind of teaching methods and materials do/did you use?
   - What kind of teaching method/activities do you believe best promotes SLA?
   - What are the major objectives of your English classes?
3. Tell me about your formal pre- or in-service teacher training experiences.
   - Did they promote a particular way of teaching?
   - Which aspect(s) of the course(s) did you find most useful for teaching?
4. What teacher or researcher association(s) do you belong to?
5. What have the greatest influences on your development as a teacher been?
6. Does the school that you work for promote any particular style of teaching?
7. Are there any restrictions on the kinds of materials that you can use or on the content and organization of your lessons?

8. Do students expect a particular type of language course?
9. How much has the New *Course of Study* affected your teaching?
10. What kind of teaching approach do you think CLT is?
11. What do you feel your strengths and weaknesses as an EFL teacher are?
12. What is your idea of a "successful" lesson?

Although I prepared the questions before the interviews, I did not ask them mechanically from Question 1 to Question 12. When responding to my questions, the participants frequently provided long answers, which sounded like short stories. I tried not to interfere with the flow of the story, carefully changed the topic, and tried to connect each new question to what they were talking about. The interviewees and I co-constructed the conversation interactively.

I audio-recorded the interviews and took notes while the participants were talking. I roughly transcribed the audio-recorded tape after the interviews, and in fall, 2007, I re-transcribed the interviews. In the second transcribing session, I wrote down what the interviewee and interviewer said as precisely as possible, but I did not transcribe fillers, backchannels, false starts, or pauses unless they were salient.

The four participants told me that they had published articles, textbooks, or book chapters in the interviews, so I bought or downloaded and read them as data sources.

Having described the participants and the procedures of the survey, interview, and observation studies, I illustrate the settings of the class observations in the next section.

Settings for the Class Observations

In this section, I describe Rie's school first, and then, Jun's, Koji's, and Gen's.

Rie's School

Rie taught at St. Mary's Secondary School (a pseudonym), a girl's Catholic school, which was located in a small quiet town in Saitama Prefecture. The school campus is surrounded by fields and new houses. A picture of Mother Mary and the school motto "Be your best and truest self" appear on the cover page of the school brochure. The school is also known as a *chuukoo-ikkan* (students who have entered St. Mary's Junior High School all go to St. Mary's High School). It is famous for its students' success on university entrance examinations. According to the school brochure, among the 210 graduates, 75 passed entrance examinations to the two top-level private universities in 2005. The school curriculum was designed to prepare students for passing highly competitive university entrance examinations. Students are supposed to finish learning the content of the six year curriculum prescribed in *The Course of Study* in five years, so that sixth year students can complete extra courses designed to prepare them for the entrance examinations. Consequently, first year students at St. Mary's High School used a textbook intended for second year public high school students (English II) from the first or second semester.

In St. Mary's High School, first year students have six English classes per week: four English I classes and two Oral Communication classes. English I is further divided into two reading and two grammar classes. Rie was in charge of the reading class and I observed it three times. The first observation was conducted during the second period on June, 8, 2006; the second observation, during the fourth period on November 24, 2006; and the third observation, during the fourth period on February 9, 2007. Rie used the *Crown English Series I* textbook in the first class that I observed, and *Crown English Series II* in the second and third classes. The topics of the lesson that she taught were *Charlie Brown* (the first class), *Doctors without Borders* (the second), and *Jurassic Park* (the third).

I observed English lessons in classroom 1-C (the first year students' homeroom). The students wore dark-blue skirts, white blouses and socks, and dark-blue vests or jackets. They looked neat and clean in their uniforms. There were 44 students in classroom 1-C (Appendix D). It was arranged as a traditional teacher-fronted class, and the chairs were movable. Two desks were attached, placed in four rows across and six rows deep. The desks were only four rows deep on the left side of the teacher, so I set up the video camera behind the fourth row. Rie had told the students about my visit and the video-recording; the students swiftly looked back and cast glances at me and the camera only at the beginning of the class.

Jun's School

Jun taught at Japan National Secondary School (a pseudonym), which is located a few kilometers from central Tokyo. Like St. Mary's, Japan National Secondary School is a *chuukoo-ikkan*, so the students spend six years there. Most of them go to universities after graduation, but their academic achievement level is not as high as that of the St. Mary's students (Nichinoken, 2008). The school is co-educational, and the numbers of male and female students are almost the same. As a national school, one of its important roles is to contribute to research in education. The school is basically open for those who want to visit and observe classes, and the students are supposed to participate if a teacher or researcher wants to conduct a study there. The students' parents are told about this policy before their children apply for the school.

Japan National Secondary School started a Cooperative Learning (hereafter CL)[9] project in 2005 under the principal's initiative. The school invited a professor from T University who specialized in education as an adviser. The professor wrote a book about his ethnographic research in a Japanese junior high school and showed how CL could be effectively used in the junior high school. Following his advice, the teachers used CL in class. They had a class observation and a discussion session about it approximately once a month.

The school curriculum of Japan National Secondary School followed *The Course of Study.* First-year students took five English classes per week: three English I classes and two Oral Communication classes. I observed English I in classroom 1-A (the first year students' homeroom). My first observation was conducted during the fourth period on July, 6, 2006; the second, during the fifth period on October 27, 2006; and the third,

[9] Cooperative Learning is a teaching method used in general education (see Fushino, 2008 for more information about CL).

during the second period on February 28, 2007. Jun used *Pro-Vision English Series I* as the course textbook. The topics of the lesson that he taught were Alzheimer's patients (the first class), pandas (the second), and racial discrimination (the third).

There were 37 students (19 girls and 18 boys) in the class, and the desks were arranged so that the students could see each other's faces. When engaged in group work, their seats were arranged in groups of four (Appendix D).

I entered classroom 1-A a few minutes before class started and set up a video camera in the back corner when I observed Jun's class. The students were chatting in groups. Jun said that he had not told them about my visit because he was not aware of what day I was coming. He also thought that it would not be particularly special for his students to be observed and video-recorded, as this occurred several times every year. The students sitting near the video looked at me, but did not appear uncomfortable. Most of the boys wore school uniforms, while the girls' wore casual clothing. (They were not required to wear school uniforms). The classroom had a relaxed and friendly atmosphere.

Koji's School

Koji taught at Kanto Women's High School (a pseudonym), which is located in Saitama prefecture. The school offers three courses: a general course, a home economics course, and a nursery school teachers' course. A few decades ago, students who graduated from the nursery school course soon became kindergarten teachers, but recently, most of the graduates go to a junior college before working at a kindergarten or nursery school. Kanto Women's High School is the only high school in the Kanto area in which students can study preschool children's education, so the nursery school course is the most popular of the three. Motivated students apply for the course every year, and approximately half of the applicants are accepted. The home economics course is also popular, but the general course tends to lack applicants. According to Koji, when looking at the school as a whole, the students' academic achievement level is low, but the level of the students in the vocational courses (i.e., the nursery school and home economics courses) is a little higher, and most importantly, they entered the high school with a dream or a vision for their future.

The school curriculum in Kanto Women's High follows *The Course of Study*. As the students in vocational courses have to take specialized courses, they are required to take only three English courses: English I (first year), Oral Communication I (second year), and English II (third year). Third-year students have three English II classes per week; I observed English II classes in classrooms 3-A (nursery school) and 3-B (home economics). The first and second observations were conducted during the third and fourth periods on May, 2, 2007, and the third observation took place during the third period on September 19, 2007. Koji used *Vista English Series II,* a textbook for low proficiency students. The titles of the lesson that he taught were *Whistle Communication* (the first and second classes) and *Adobe Houses* (the third class). One class was generally 50 minutes, but the third class was 40 minutes because the school's sports festival was held on the following day.

There were 38 students in class 3-A, and 36 students in class 3-B. The classroom was arranged for a teacher-fronted class; there were six rows of desks with six or seven desks in each row (Appendix D). I put the video camera behind the students. Although Koji had told the students about my visit, most of the students looked back at me, while whispering something to their friends. The students wore white blouses and dark blue skirts. Both classes had cheerful and active atmospheres partly because there were only girls in the classroom.

Gen's School

Gen taught at Asama Agricultural High School (a pseudonym), a public vocational high school that is located in a small town approximately 30 minutes from Nagano Station by local train. The school has a large field where students grow vegetables and plants. Behind the school building, I could see the beautiful Northern Japanese Alps.

Gen had been a high school teacher for 25 years. Before teaching at the vocational school, he had taught at two public academic high schools. Gen reported that at Asama Agricultural High School, the students' average academic level was low, and that some students had been unable to establish good relationships with their teachers or make friends in junior high school. Students' low academic achievement was a serious problem not only for Asama Agricultural High School but also for other vocational high schools, because for the past few decades, students who cannot enter academic high schools have tended to go to vocational high schools in Japan (Okano & Tsuchiya, 1999). Gen complained that many students had not studied English grammar and vocabulary in junior high school; thus, he felt constrained to use a very basic textbook, *New World English Course I*, as it allowed the learners to review the alphabet and the canonical word order of English. He had co-authored the textbook.

In Asama Agricultural High School, English I and Oral Communication I are required courses for first and second year students. They have two English I classes and one Oral Communication I class every week. Although third-year students can take English II, Reading, and Oral Communication II as elective courses, only about 30% of the students take those courses because only about 25% go on to study in a university or junior college after graduation (Interview with Gen). In order to improve the students' English skills in small class settings, each homeroom was divided into two classes based on the students' English proficiency level for English I class. Gen taught the lower level classes.

I observed the first year students' classes three times. My first observation was conducted during the first period on February 15, 2006; the second, during the fifth period on January 24, 2007; and the third, during the fifth period on February 16, 2007. As the Japanese school year begins in April, the students who participated in the first observation were different from those who participated in the second and third observations. The topics of the lesson in *New World English Course I,* were the famous Japanese comic book writer Osamu Tezuka (the first and second classes) and whales (the third).

There were 23 students (16 boys and seven girls) in classroom 1-A, the first class that I observed. My second and third observations were conducted in classroom 1-B, where there were 24 students (17 boys and eight girls). Both classes were arranged as traditional teacher-fronted classes, and the chairs were movable. In the first class, the students were sitting in the four central rows. In the second and third classes, they were sitting in the four front rows (Appendix D). Gen assigned the students their seats. They were wearing school uniforms: dark blue jackets with white shirts, and dark blue pants or skirts. They looked gentle and obedient in their uniforms. I remembered that before the first class observation, Gen had explained to me that the students became gentler as they studied at Asama Agricultural High School, perhaps because they had chances to be in close contact with nature and take care of plants.

In the first class, I placed a video camera in the central row on the left side of the teacher and video-recorded the whole lesson. Although Gen had told the students about my visit and the video recording, a few male students initially expressed their discomfort through their facial expressions, but after that, they did not look at the camera often. Five English teachers were sitting behind the students and observing the class: two of them were Gen's colleagues and the other three, including me, were his textbook co-authors. In the second and third classes that I observed, I put the video camera behind the students. I was the only observer on these occasions.

In this section, I have described the participants, procedures, and settings of the data collection. In the next section, I explain the data analyses.

Analyses

I explain how I analyzed the survey data in the first section, and the next section concerns the qualitative analyses of the observation and interview data.

Quantitative Analyses

As the first step in the quantitative analyses, I conducted preliminary analyses using a factor analysis of the questionnaire data. These data were then analyzed using the Rasch rating-scale model to confirm the validity and reliability of the questionnaire items and to transform the raw scores to equal interval measures. Eleven variables were identified through the preliminary analyses (cf. Chapter 4).

Second, descriptive statistics were calculated for the items in Parts A (Teacher Beliefs) and F (Classroom Practices). Frequencies and percentages were used to summarize the respondents' responses in order to answer the first and second research questions.

Third, in order to answer the third research question, a multivariate analysis of variance (MANOVA) was carried out for each one of the two dependent variables (DVs): *Teacher Beliefs* and *Classroom Practices*. The independent variable (IV) was the type of school (academic or vocational). The respondents were assigned to Group 1 (academic high school teachers) or Group 2 (vocational high school teachers) based on the type of school they were teaching.

Fourth, Pearson product-moment correlation coefficients were calculated for the 11 variables with statistical significance set at $p < .01$ in order to answer the fourth research question.

Finally, a path analysis was performed in order to examine the influence of the ten variables on *Classroom Practices*. The path model was hypothesized on the basis of Borg's framework of teacher cognition (2003) and previous research regarding the implementation of CLT (see Figure 4).

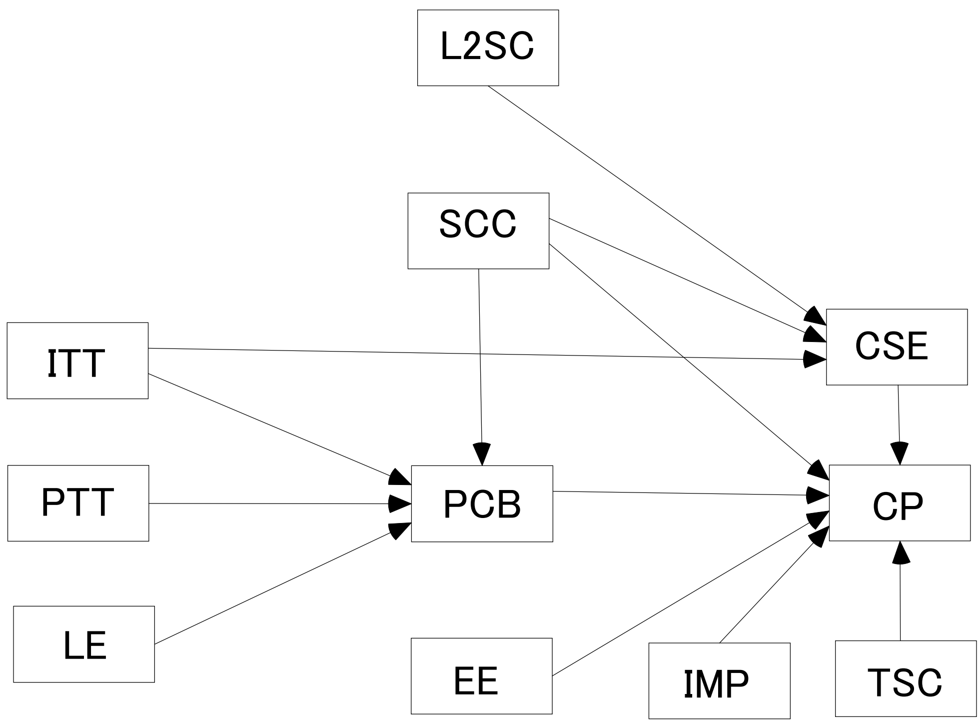

Figure 4. Teacher Beliefs and Practice Model 1.
PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; PST = *Pre-service Teacher Training*; IST = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Classroom Conditions*; TSC = *Teacher-related School Conditions*; CP = *Classroom Practices*; LE = *Learning Experience*.

Qualitative Analyses

I collected the data shown in Table 6 through class observations and semi-structured interviews.

Table 6. *Data Collected through Class Observations and Interviews*

Interviews	Class Observations
Audio-recorded interviews	Video- and audio-recorded lessons
Transcriptions (in Japanese)	Observational accounts (in Japanese)
Fieldnotes	Fieldnotes
Books and articles the participants wrote	Handouts
Emails	Students' work (comments, notes, etc.)
	School documents

Interviews

I used narrative analysis[10] as a research tool when analyzing the interview data. The term *narrative* refers to both a person's "talk organized around consequential events" (Riessman, 1993, p. 3) and a research tool for understanding and making sense of the person's experience through interpreting his or her talk. I was planning to code the interview data when writing the proposal for this dissertation; however, I decided not to do so after I repeatedly listened to the audio-recorded interviews while and after transcribing and reading the transcriptions. Narrative (or story telling) was selected as a research tool for the qualitative analysis instead of coding for three reasons. First,

[10] In this study, I use *narrative* or *narrative study* instead of *narrative inquiry* (except for the direct quotes) because philosophical issues such as identity and intersubjectivity are included in the term *narrative inquiry*.

narratives have become a popular and useful means of data collection in teaching and teacher education (Doyle, 1997). Connelly and Clandinin (1990) stated:

> Narrative inquiry is increasingly used in studies of educational experience. It has a long intellectual history both in and out of education. The main claim for the use of narrative in educational research is that humans are storytelling organisms who, individually and socially, lead storied lives. The study of narrative, therefore, is the study of the ways humans experience the world. (p. 2)

The advantages of using narratives in educational research have been noted by a number of researchers (e.g., Beattie, 1995; Bruner, 1996; Doyle, 1997; Johnson, 2006; Pavlenko, 2007). Doyle viewed the classroom as a place where events and actions take place and claimed that the use of narratives in research on teaching and teacher education bring forth rich knowledge of the complex reality of classrooms. Doyle also indicated that narratives capture the meaning and perspective of teachers and their learning. Beattie proposed that narrative studies could bring new meaning "to the continuous experiences of change, of growth and of professional development in a teacher's life" (p. 65). As such, narratives can be a significant tool for interpreting teachers' experiences and for giving meaning to them.

Second, while reading the transcripts, I found that the participants' utterances had a structure that was similar to Labov's (1982) "full formed" narrative structure. For instance, Gen responded to my question "How was an English class when you were in high school?" by saying:

> Gen: <u>The English course was divided into reading, grammar, and composition classes in my high school (a)</u>. Maybe I got six credits for

the three courses. Five credits for the first year, five for the second year, six for the third year, I guess. (Pause) The English courses were taught by using what was called pure "gura-tora" [grammar-translation method] in my high school. I remember that a native speaker of --

Researcher: During the three years?

Gen: Yeah, during the three years. At that time, it was big news if a foreigner was living in the town where I lived (b). My teacher could not make himself understood in English when speaking to the native speaker. (c) I looked down on him. I said to him in my mind, "Come on!" (d) But now, I could understand the situation of my teacher. (e)

This segment is short, but it can be seen as consisting of (a) an abstract (summary of the content of the narrative), (b) orientation (time, place, situation, participants), (c) complicating action (sequence of events), (d) evaluation (attitude of the narrator), and (e) coda (returns the perspective to the present).[11] I found a number of such short narratives in each participant's utterances while transcribing, and realized that they were parts of a story. I then attempted to combine the short segments into the story as a whole.

Third, although coding helps researchers identify salient patterns in and interpret participants' experiences, words and phrases have different meanings in different contexts. For example, if a participant talks about an ALT (assistant language teacher), the ALT might be an experienced language teacher sent by a company, a young teacher who has just graduated from a college and come to Japan as a member of JET Program, or a full-time teacher employed by a high school where she was teaching. Also, nuances of the term ALT will differ in each context: e.g., cooperative, friendly, kind, professional, unmotivated, hard to communicate with, and selfish. As Mishler (1986) pointed out,

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[11] Narratives do not necessarily have the "full formed" narrative structure. There are other structures: e.g., flashbacks and flashforwards (cf., Bruner, 1996).

although meaning is contextually grounded, coded responses in the interviews are independent from the contexts. Like Mishler, I thought that, through coding, it might be difficult to describe the complex relationship between the participants' beliefs or practices and their experiences. I therefore determined to use the technique of narrative studies.

I repeatedly listened to and read the interviews and identified important experiences that seemed to have influenced the participants' beliefs and practices. I identified five key experiences: (a) they experienced *yakudoku* when they learned English in secondary schools, (b) after entering their profession, the participants learned about teaching methodology by reading books and journals, speaking with their colleagues, and attending workshops, (c) they had taught at more than two different schools, and in each school, their classroom practices changed because of the students' different proficiency levels, (d) they had experience improving their English skills in places other than schools, and (e) two of them had experience learning a third language.

I took notes in the margins of the transcriptions in Japanese in addition to the memos that I made while transcribing. I then wrote up the participants' learning and teaching experiences into short stories. In order to protect the confidentiality of the participants, I used pseudonyms for their names, schools, and the associations to which they belonged. The story that I had written about each participant was read by the participant himself or herself. They made a few corrections about the facts that I had misunderstood, such as dates and years. When a participant commented on my interpretation, I reported it in a footnote. Regarding the sections in which I quoted the participants' words directly, I translated them into English and asked the participants, who had adequate English proficiency, to check if the translation conveyed the meaning that they had intended.

I collected nine hours of interview data, which was not sufficient for a narrative analysis. Moreover, semi-structured interviews are not considered optimal for narrative studies (Clandinin & Connelly, 2000). Thus, I did not attempt to write the teachers' whole life stories. Instead, I focused on the participants' experiences that related to the quantitative results and on combining them into coherent stories. As mentioned above, the qualitative section is subordinate to the quantitative section in this study.

Interpretation of Narratives and My Position

The interpretation of narratives should be conducted through the collaborative work of a teller (participant), a listener/analyst (researcher), and a reader (Riessman, 1993). As mentioned above, I asked the four participants to read their stories that I wrote, so that they could check for accuracy and interpretation. Even though the participants corrected my misunderstandings or imprecise descriptions, my view of language learning and teaching, constructed and reconstructed through my experiences, might have influenced my interpretation of narratives, so I briefly explain my view.

I was educated in national junior high and high schools in Tokyo. Around that time, the audiolingual method was popular among innovative English teachers, and my teachers used both pattern practice and *yakudoku* in the class. In contrast, my high school teachers mainly used *yakudoku*, so I had few opportunities to speak English in high school. I went to an international university where I intensively studied the four skills of English. As I wanted to be an English teacher, I took two teaching methodology courses when I was a junior. Both were taught by a professor who was an authority of the Graded Direct Method (GDM).[12] When I was a senior, I studied linguistics and teaching methodology as an exchange student in the United States for one year.

After graduating from the international university, I became a full-time English teacher at public junior high school in downtown Tokyo. I tried to use GDM there, but it was very difficult; I had to struggle with classroom management issues. I changed my teaching style and began to use GDM activities in the first half of the class in which the students enjoyed authentic communication in English. In the second half, I used the grammar-translation method. After teaching for five years, I quit the job and began to write exercise books and resource books at home.

I started to take courses in a TESOL graduate program at an American university in Japan in 2000. I also started teaching in high schools, a kindergarten, and universities. Through learning about TESOL in the graduate courses, my teaching experience, and probably through my own learning experience, I held the belief that both grammar teaching (including skill training) and real-world communication were crucial for foreign language learning. Considering the Japanese public secondary school curriculum

[12] Graded Direct Method, developed by I. A. Richards, is categorized as the direct method of teaching a second or a foreign language.

whereby students have only three or four 50-minute English classes a week during the 35-week school days, Japanese students' learning styles and their English proficiency, and examination pressures, I now believe that it is important to keep a good balance between the two types of activities in high school English classes. The rate of the two types of activities in one lesson depends on the teaching context, but ideally speaking, I think that teachers should use as much time as possible for communicative activities. Otherwise, public high school students cannot develop their communicative competence; they generally learn English at school for only around 100 hours per academic year (cf., MEXT, 1999). At the same time, students need to acquire grammatical knowledge and language skills that would can used when they have chances to communicate in English outside the classroom or in the future.

Although I believe that grammar should be taught, I would not say that language learning is linear: e.g., students learn grammar and vocabulary first, use them in communicative activities, and acquire the language accumulatively. I support the view that language learning is holistic, non-linear, and dynamic, and I believe that dynamic aspects of language learning are found even when learners engage in grammar exercises (cf., Atkinson, Churchill, Nishino, & Okada, 2007). As regards the benefit of grammar teaching, MacWhinney (1997) mentioned that students can "use explicit instruction to allocate attention to specific types of input…, narrow their hypothesis space…, tune the weights in their neural networks…, or consolidate their memory traces" (p. 1997). Also, Larsen-Freeman (2003) speculated that providing explicit grammar rules might have merit, and van Lier (2004) proposed that skill training such as rote memorization and repetitive drilling may be beneficial at some point. Like them, I hold the view that grammar instruction and skill training play certain roles in foreign language learning, so I did not disagree with the participants who provided grammar instruction or skill training in my qualitative analysis. However, that does not mean that I support a linear view about SLA.

Since getting a master's degree in 2002, I have been teaching English teaching methodology courses at three Japanese universities. In the courses, I have emphasized the importance of helping students enjoy communication and self-expression using English, as well as of teaching them grammar. In 2003, I enrolled in a doctoral program at the American university where I had obtained my master's degree. I chose the topic of this study for my dissertation because of my realization of a gap between MEXT's innovation and the classroom reality in Japan. I conducted a pilot study in 2003 (cf., Nishino, 2008) and started this main study in 2006.

I have belonged to the English Teachers' Association for about 30 years. Most of the members are secondary school teachers who believe that students' self-expression (or communication) in English is crucial for foreign language learning and are eager to change Japanese *yakudoku*-style English lessons. I agree with the direction that the association has been heading. As a junior high school teacher, I learned teaching and class management techniques from the members of the association. When I began to teach teaching methodology courses, the association became the place where I could obtain information about the situation in Japanese secondary schools, as well as about classroom teaching techniques.

My experience of learning and teaching English and being a member of the English Teachers' Association (strictly speaking, other experiences and conditions such as my gender, personality, nationality, learning styles, and language ability also) strongly influenced my view of language teaching, and as a result, my interpretation of the narrative data and my whole project.

Class Observations

When analyzing the classroom observation data, I repeatedly read observation accounts with a focus on the teachers' and students' activities and utterances. I also watched the video and wrote additional information or made corrections in the observation accounts. I identified four recurring patterns in each participant's lesson: (a) a teacher-fronted teaching style, (b) classroom communication in English, (c) L1 and L2 use, and (d) traditional-method-oriented practices and activities. I then summarized the procedure of the lessons and described the classroom activities. The observation results were used in order to more deeply understand the quantitative results and interview results, especially regarding (a) how the teachers' classroom practices reflected their teaching beliefs (RQ1), (b) how they actually used communicative activities (RQ2), and (c) what kinds of differences or similarities were found among their classroom practices (RQ3 and RQ4). The four teachers whose classes that I observed completed the questionnaire before the second interviews, but their responses were not included in the quantitative data. I used the responses to help formulate supplemental or follow-up questions to the first interviews and to confirm that their responses were similar to those of the participants in the quantitative study (see the participants' section in this chapter for further details).

Summary

In this chapter, I explained why I chose mixed methodology and described the participants, instrumentation, procedures, and settings of the data collection. I also accounted for how I analyzed the quantitative and qualitative data. In the next chapter, I report on the preliminary analyses of the quantitative data.

CHAPTER 4

PRELIMINARY ANALYSES

The purpose of this chapter is to examine the validity and reliability of the questionnaire through SPSS (15.0) factor analysis, confirm the hypothesized constructs, and convert the Likert scale scores to interval measures using the Rasch rating scale model.

Validity and Reliability of the Teacher Belief Questionnaire (TBQ)

In this section, the results of the SPSS factor analysis are reported. A maximum likelihood factor analysis for Parts A-G was conducted in order to obtain an initial confirmation of the constructs that the questionnaire was designed to measure. Maximum likelihood factoring is useful for confirmatory factor analysis (Tabachnick & Fidell, 2001). The items in each part, except for those in Part E, were expected to form a single factor, whereas the items in Part E were hypothesized to form multiple factors. Using the criteria presented in Stevens (2002), items that did not load on each factor at a critical value of .45 were deleted from the analysis. I report the assumption check for the factor analysis first, and then describe the factors identified through the analysis.

Data Screening and Assumption Check for the Factor Analysis

Factor analysis requires meeting the following six assumptions: no outliers among cases, large sample size, factorability of R, normality and linearity of variables, and absence of multicollinearity and singularity (Tabachnick & Fidell, 2001). First, missing values were checked. The TBQ consisted of seven parts with 72 items. One hundred forty-two teachers responded to the questionnaire, but three of them were excluded from further analysis because they did not answer more than one part. As a result, the *N*-size was reduced to 139. The sample size of 139 (after screening) was between poor and fair for conducting a factor analysis (Tabachnick & Fidell, 2001). Next, the data were inspected for missing data and improbable values. There were 22 missing values for E13, probably because the item had an additional request ("Please write down the number of class hours"). Item E13 was deleted, and consequently, the number of items was reduced to 71. Less than 5% of the remaining data were missing; thus, they were not deleted. The item mean was substituted for the missing data prior to running the factor analysis.

Second, univariate outliers were checked using SPSS EXAMINE. Seven persons were found to have extreme values, defined here as cases that were more than 3.29 standard deviations above or below the mean (Tabachnick & Fidell, 2001). The seven persons were adjusted to the values that were closest to the unadjusted ones and within the |3.29|-*SDs* distributions.

Third, the adjusted data were checked for multivariate outliers using Mahalanobis distance in SPSS REGRESSION. From one to four outliers were found for each part, but they were not deleted from the data, because (a) the data will be examined again using a Rasch PCA after the factor analysis, and (b) the sample size (*N* = 139) was already barely adequate for conducting a factor analysis.

Fourth, normality was checked with SPSS DESCRIPTIVE STATISTICS. Seven items in Part G (G3, G4, G5, G7, G8, G10, and G11) showed skewness values greater than 2.00, and histograms for them showed floor effects. Therefore, a logarithmic transformation was applied. After the transformation, all seven items in Part G had skewness statistics that did not exceed 2.00.

Out of the distributions of the 71 items that included the seven transformed items, 40 had skewness and/or kurtosis statistics that exceeded two times the absolute value of the standard error of skewness/kurtosis even after adjusting for univariate outliers. However, with large samples, the shape of the distribution is more important than the value itself (Tabachnick & Fidell, 2001). With an *N*-size of more than 100, I regarded the sample size as fairly large and examined histograms for all items. The histograms for F4, F5, and F7 (all concerning the use of CLT in the classroom) indicated the existence of floor effects. Yet, all items were retained at this point because the data will be examined using a Rasch PCA of item residuals before the main analyses.

Fifth, the differences in skewness for some items suggested the possibility of curvilinearity for some pairs of items, particularly F4, F5, F7, G3, G4, G5, G6, G7, G8, G10, and G11. Therefore, a spot check was conducted with 10 randomly selected combinations out of 55 combinations among the 11 items. No curvilinear relationships were identified.

Sixth, the factorability of R was checked by examining Kaiser's measure of sampling adequacy. SPSS PCA identified the Kaiser value as .702, which is considered good (Tabachnick & Fidell, 2001); thus, the assumption of the factorability of R was met.

Lastly, multicollinearity and singularity were checked by examining the Pearson product-moment correlation matrix of all items. All the correlations were below .70, which Tabachnick and Fidell (2001) set as the problematic level of collinearity. This result also confirmed the absence of singularity that occurs when variables are perfectly correlated with each other.

In sum, after the deletion of one item, the adjustment of seven cases, and the logarithmic transformation for the seven items in Part G, no serious violations of the assumptions of a factor analysis remained.

Results of the Factor Analysis

A maximum likelihood factor extraction with promax rotation was performed for Parts A-G through SPSS FACTOR for a sample of 139 respondents after screening the data. A minimum eigenvalue of 1.0 and item loadings of no less than .45 were used in determining factors. I selected an 11-factor solution because the scree test confirmed the adequacy of the extraction. As shown in Table 7, factor correlations for eight extracted factors were around .32 or above. This shows that there is more than 10% overlap in variance among the factors, which is enough variance to warrant oblique rotation (Tabachnick & Fidell, 2001).

Table 7. *Factor Correlation Matrix*

Factor	1	2	3	4	5	6	7	8	9	10	11
1	-										
2	-.04	-									
3	.21	.16	-								
4	.10	.16	.07	-							
5	.03	**.33**	**.36**	.30	-						
6	.25	.11	**.43**	-.02	.19	-					
7	.03	**.33**	**.36**	.06	.16	.27	-				
8	.06	**.42**	.28	.08	**.37**	.22	.25	-			
9	-.07	.17	.20	.01	.21	.09	**.33**	.19	-		
10	.07	.20	.18	.12	.20	.10	.30	.15	.26	-	
11	.17	.12	.22	.07	.01	.17	.01	.17	.04	.00	-

Note. Bold numbers indicate correlations of .32 or above.

The loadings of the items on the factors are shown in Table 8. As only two items loaded on factors 9-11, they were eliminated from further analyses (Stevens, 2002). Consequently, eight factors were extracted by the factor analysis. The 28 items loading less than .45 on the eight factors (A1, A6, A8, A9, A11, B7, B10, C2, E2, E4, E5, E7, E8, E9, E10, E11, E12, E14, E15, E16, E17, F4, F5, F7, F9, F10, G2, and G7) were eliminated. The reliability for each factor was estimated using Cronbach's alpha. The results are shown in Table 9. The alpha values for Factors 1, 2, 3, 4, 5, 6, and 8 can be regarded as adequate as they exceeded .70, and that for Factor 8 (α = .69) can be regarded as acceptable (Garson, 2006).

The eight factors were tentatively labeled based on the constructs hypothesized to be measured by the Teacher Belief Questionnaire. Nine items from Part G of the questionnaire loaded on Factor 1, which was named *Learning Experience*. Representative items were G11 (My teachers used group pair or/and group work in my high school English classes) and G8 (My teachers used task based activities in my high school English classes).

Seven items from Part B of the questionnaire formed Factor 2, *L2 Self-confidence*. Representative items were B3 (I believe that I have adequate English reading ability in order to be a high school English teacher) and B4 (I believe that I have adequate English writing ability in order to be a high school English teacher.)

Six items from Part F loaded on Factor 3, *Classroom Practices*. Typical items were F6 (I ask students questions in English) and F1 (I use classroom English[13]).

Five items from Part C loaded on Factor 4, *Pre-service Teacher Training.* Typical items were C6 (The teacher education courses I took at university/college provided chances to give practice lessons using Communicative Approaches) and C5 (The teacher education courses I took at university/college provided chances to observe lessons using Communicative Approaches).

Factor 5, *In-service Teacher Training*, consisted of the six items from Part C. Characteristic items were D3 (Workshops/seminars of teacher education courses I attended after becoming a teacher improved my skills of managing group/pair work) and D4 (Workshops/seminars of teacher education courses I attended after becoming a teacher provided materials for communication activities).

[13] "Classroom English" refers to directions and instructions in English that teachers give in their English lesson.

Table 8. *Pattern Matrix of 71 Items on the Teacher Belief Questionnaire*

	Factor										
	1	2	3	4	5	6	7	8	9	10	11
Part G-11	**.95**	.02	.04	-.02	-.05	-.01	-.03	-.01	.13	-.05	.06
Part G-8	**.89**	-.03	.11	.02	.05	-.05	.05	.00	.01	-.03	-.05
Part G-9	**.87**	-.01	-.05	.03	.05	-.04	-.10	-.03	.05	-.02	.00
Part G-10	**.85**	-.07	-.19	-.01	-.06	.00	-.05	.05	.15	.04	.07
Part G-3	**.72**	-.02	-.11	-.02	.01	.08	-.04	.14	-.05	.09	-.08
Part G-6	**.67**	.02	.09	-.02	.04	-.08	.07	-.05	-.19	-.01	-.09
Part G-4	**.66**	.05	.12	.01	.00	.03	-.06	.05	-.04	.01	-.14
Part G-5	**.53**	-.03	-.13	.00	.02	.06	.03	.06	-.08	-.11	.03
Part G-1	**.52**	.00	-.06	-.09	.06	.00	-.05	-.12	.00	.02	.03
Part B-3	.04	**.94**	.04	.03	.02	-.14	.01	.03	.03	-.12	.04
Part B-4	.01	**.88**	-.01	.05	-.04	-.05	.01	.06	-.01	-.02	-.02
Part B-5	-.04	**.85**	.02	.05	.00	-.08	.05	-.08	.03	.03	.04
Part B-1	-.04	**.76**	-.01	-.02	.00	.04	-.08	.01	-.05	.06	-.12
Part B-2	-.11	**.72**	.01	-.07	.07	.02	-.03	.02	.00	.06	-.04
Part B-6	.01	**.68**	-.04	-.01	.00	.00	-.07	.07	.13	.08	.13
Part F-2	-.06	.03	**.90**	-.04	-.06	-.07	-.03	-.04	.04	.03	-.06
Part F-1	-.06	.00	**.80**	-.06	-.08	.07	-.13	.12	.10	-.01	.01
Part F-8	.13	.00	**.75**	.05	-.03	-.06	-.22	.14	-.06	.03	.07
Part F-11	-.08	.04	**.69**	.03	-.06	.12	-.05	.06	-.11	.04	-.06
Part F-3	-.06	-.08	**.64**	.07	.06	-.10	.08	-.01	.05	-.04	.09
Part F-6	.05	-.01	**.58**	-.05	.06	-.13	.11	-.07	.01	.05	.02
Part C-6	.00	.06	.03	**.97**	.06	-.03	-.02	.01	.05	-.02	-.04
Part C-5	-.07	-.01	-.04	**.89**	.03	.01	-.02	.10	.07	.06	.00
Part C-4	.03	.04	-.06	**.78**	.04	.01	.00	.00	-.04	.02	-.03
Part C-3	.08	-.01	.09	**.74**	.01	.02	-.01	-.02	-.02	.07	-.03
Part C-1	-.15	-.08	-.06	**.59**	-.07	.10	.11	-.05	.01	-.14	.06
Part D-3	.04	-.15	.09	-.06	**.98**	-.13	.09	.11	.11	-.07	-.01
Part D-4	-.03	-.09	-.08	.02	**.93**	.01	-.08	.08	.03	-.01	-.02
Part D-2	.02	.08	-.07	.02	**.84**	.06	.05	-.07	-.04	.03	.04
Part D-5	.10	.05	-.03	.05	**.74**	.02	.01	-.03	-.09	.06	.05
Part D-1	-.01	.18	-.09	.03	**.63**	.16	-.11	-.08	.01	.01	-.01
Part D-6	-.08	.05	.12	.12	**.51**	-.02	-.12	.05	-.21	.04	.06
Part A-3	-.05	-.09	.00	-.05	.08	**.77**	-.09	.19	-.01	.12	.05
Part A-4	.02	-.03	-.16	.04	.03	**.71**	.17	.01	.02	.05	.05
Part A-7	-.05	-.06	.10	.05	.02	**.62**	-.18	.10	-.04	-.12	-.06
Part A-5	-.05	-.12	.01	.04	.01	**.61**	-.16	-.02	.15	-.08	-.11
Part A-10	.00	-.04	.04	-.03	.06	**.57**	.03	-.10	.00	.04	-.02

(Table 8 continues)

(Table 8 continued)

	Factor										
	1	2	3	4	5	6	7	8	9	10	11
Part E-1	-.06	.02	.02	.01	-.01	-.08	**1.05**	-.05	-.02	.00	-.04
Part E-6	-.12	-.08	-.11	.02	-.07	.02	**.97**	-.07	.12	-.02	.08
Part E-3	.12	.08	-.18	-.02	.00	-.03	**.62**	.17	-.13	.12	-.13
Part B-9	.08	.08	.08	-.01	.07	.05	-.10	**.95**	-.03	.01	-.04
Part B-8	-.09	.14	.06	-.01	.00	.13	-.09	**.66**	.00	-.12	.05
Part B-11	.00	-.01	-.07	.09	-.05	.05	.12	**.63**	-.20	.23	.10
Part E-17	.05	.08	.00	.12	-.09	.06	.02	-.10	**.96**	.10	-.03
Part E-16	.01	.04	.05	-.06	.03	.04	.04	-.04	**.83**	.06	.02
Part E-15	.03	.05	.04	.00	-.01	-.07	-.08	.07	.21	**.80**	-.03
Part E-14	-.02	-.05	.03	.04	.04	.07	.10	.03	.03	**.76**	.01
Part F-9	-.09	.01	-.03	-.05	.02	-.06	.06	.04	-.04	.01	**.97**
Part F-7	-.02	.07	.20	-.02	.06	.11	-.17	.03	.05	-.06	**.63**

Note. Bold numbers indicate items with loadings of .45 or higher; total variance after oblique rotation cannot be computed due to correlation of factors; loading that exceeds 1.0 can occur when oblique rotation is performed (Yoshida, 2009).

Factor 6, *Teacher Beliefs about CLT*, consisted of the six items from Part A. Characteristic items were A3 (Classroom activities should engage students in meaningful communication) and A4 (Developing students' fluency is as important as developing their accuracy).

Factor 7 consisted of items E1 (Students have to study hard for university entrance exams), E3 (Students expect to study grammar and translation), and E6 (Parents expect their children to study hard for university entrance exams). All the items were related to the students' situations, and thus, Factor 7 was labeled *Contextual Factors Regarding Students*.

Three items from Part B, B8 (I believe that I provide activities in which my students can enjoy communicating in English), B9 (I believe that I adequately facilitate my students' English communicative activities), and B11 (I believe that I gave students autonomy when they do communicative activities), loaded on Factor 8. As they were related to teachers' ability to use CLT, Factor 8 was named *CLT Self-efficacy*. As a result, items from Part B loaded on Factor 2 and Factor 8.

In summary, the eight factors extracted by the FA were as follows:

Factor 1: *Learning Experience* (LE): G1, G3, G4, G5, G6, G8, G9, G10, G11

Factor 2: *L2 Self-confidence* (L2SC): B1, B2, B3, B4, B5, B6

Factor 3: *Classroom Practices* (CP): F1, F2, F3, F6, F8, F11

Factor 4: *Pre-service Teacher Training* (PTT): C1, C3, C4, C5, C6

Factor 5: *In-service Teacher Training* (ITT): D1, D2, D3, D4, D5, D6

Factor 6: *Teacher Beliefs about CLT* (TB): A2, A3, A4, A5, A7, A10

Factor 7: *Contextual Factors Regarding Students* (CFS) 1: E1, E3, E6

Factor 8: *CLT Self-efficacy* (CSE): B8, B9, B11

Table 9. *Cronbach's Alpha Reliabilities of the Eight Factors*

Factor	1	2	3	4	5	6	7	8
Reliability	.79	.92	.84	.92	.90	.79	.69	.78

Rasch Analysis of Item Fit and PCA of Item Residuals

As a second step to examine the construct validity of the Teacher Belief Questionnaire, the Rasch measurement model (Rasch, 1960) was employed using WINSTEPS version 3.64.2 (Linacre & Wright, 2007). The Rasch measurement model investigates dimensionality and orders persons and items on the same logit (logarithm of odds unit) scale.

In this section, a Rasch analysis of item fit and a Rasch PCA of item residuals were performed on the seven factors that the questionnaire was designed to measure (Parts A-G). Although two factors were identified from Part B (Factor 2 and Factor 8) through the SPSS factor analysis, all of the items in Part B were initially submitted to the Rasch analysis together. Also, in order to analyze the items with the Rasch model, (a) the mean values that had been inserted for the missing data were deleted, (b) the data for the seven univariate outliers whose values were adjusted for the FA were returned to their original state, and (c) item, E13, which had been deleted from the data, was included in the analysis.

Definition of Terms and Criteria for Dimensionality

Before reporting the results, the criteria used for item fit analysis and Rasch principal components analysis (hereafter PCA) will be defined. The definitions were mainly cited from the glossary in Bond and Fox (2007).

Rasch person reliability is an estimate of the replicability of person placement that can be expected if the same respondents were to be given another set of items measuring the same construct, whereas Rasch item reliability is an estimate of the replicability of item placement within a hierarchy of items along the measured variable if these same items were to be given to another sample of comparable ability. Both reliability indices are analogous to Cronbach's alpha, and they range from 0 to 1.00.

The Rasch person separation index is an estimate of the spread or separation of persons on the measured variable, and the item separation index is an estimate of the spread or separation of items on the measured variable. These indices provide a more sensitive measure of reliability as they are not bound by 1.00. Higher values are better. A desirable value for item separation is above 2.00, as this indicates that item difficulties cover a range of at least two statistically distinct groups.

Item fit statistics are used to detect the extent to which the items match the predictions made by the Rasch model; items that fit the model well imply, but do not guarantee, the unidimensionality of the measured variable. Two Rasch fit statistics are commonly used: infit and outfit mean-square statistics. The item infit mean-square statistic is sensitive to the unexpected behavior of persons whose ability is at or near the item's difficulty estimate, and the item outfit mean-square statistic is sensitive to the responses of persons far above or below the item's difficulty. Both range from 0 to positive infinity. Fit criteria for infit and outfit mean-square differ depending on the *N*-size (Smith, Schumacker, & Bush, 1998), but a value of 1.0 indicates that the data fit the Rasch model perfectly. In this study, relatively lenient infit and outfit mean-square criteria of .50-1.50 were adopted (Linacre, 2007).

While good fit to the Rasch model is one indicator of unidimensionality, a more effective approach to assessing the dimensionality of a set of items is through the use of a PCA of item residuals, as this approach identifies common variance among the items as well as the relationships among the residuals that remain after accounting for the primary component represented by the Rasch measures. In other words, a PCA of item residuals illuminates contrasting sub-structures in the data by decomposing the residual variance (Wright, 2000). If the variance explained by the Rasch measures is above 60% and the first residual contrast accounts for less than 3% of the variance, the construct is considered fundamentally unidimensional (Linacre, 2007). In cases in which the person separation statistic is below 2.00, the critical value for the variance can be lower than 60%, and the assumption of unidimensionality can still hold.

In sum, the conditions for unidimensionality are (a) item reliability and item separation are sufficiently high, (b) no items misfit the model, (c) the correlation between items in contrasting sub-groups are acceptably high, (d) the variance explained by the Rasch measures is sufficiently high and the variance in the residual contrasts are sufficiently low, and (e) the items are logically related to each other. Using these criteria (Table 10), I checked the dimensionality of each variable.

Table 10. *Criteria for Unidimensionality*

Criteria	Critical Value
Item reliability (IR)	Above .90
Item separation	Above 2.00
Infit and outfit mean square	.50-1.50
Disattenuated Correlation between sub-groups	Above .80 (correlation/square root of [IR1 x IR2])
Variance	Above 60%: becomes lower if person separation is below 2.0
The first residual	Below 3%

Part A: Teacher Beliefs about CLT (TB) (Factor 6)

This factor was hypothesized to be made up of ten items from Part A: Teacher Beliefs about CLT. A Rasch analysis was conducted for the ten original items. The amount of variance explained by the Rasch measures was 37.1%, which was less than the suggested value of 60%. The first residual contrast accounted for 13.0% of the variance, which was well above the 3% criterion. Item separation was 4.99 (above 2.0), and person separation was low, at 1.25.

As shown in Table 11, the outfit mean square statistic for TB8 and TB6 were above 1.50. When the most misfitting response strings for those two items were checked, it was found that 15 and 13 persons, respectively, made responses that contributed to the item misfit. As the numbers of persons with surprising responses were approximately 10% of the *N*-size, both items were considered problematic and eliminated. After deleting those two items, the infit and outfit mean square statistics for the remaining items were checked; all mean-square statistics were under the 1.50 criterion (Table 12).

Table 11. *Rasch Item Fit Statistics for Part A*

	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
TB8	.01	.12	1.57	3.66	1.58	3.93	.32
TB6	-.09	.12	1.47	3.13	1.51	3.54	.22
TB1	-1.01	.13	1.17	1.38	1.14	1.15	.42
TB10	.31	.11	1.11	.82	1.10	.76	.58
TB4	.90	.10	.93	-.45	1.02	.16	.53
TB9	-1.19	.14	.90	-.84	.89	-.95	.47
TB2	-.14	.12	.83	-1.32	.85	-1.24	.56
TB7	.45	.11	.81	-1.41	.80	-1.53	.60
TB3	.74	.11	.71	-2.21	.76	-1.90	.67
TB5	.01	.12	.60	-3.44	.59	-3.73	.65

Table 12. *Rasch Item Fit Statistics for Part A after Deleting TB6 and TB8*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
TB1	-1.22	.14	1.43	3.24	1.39	2.86	.43
TB10	.35	.13	1.24	1.65	1.19	1.43	.63
TB9	-1.43	.15	1.19	1.58	1.17	1.32	.43
TB4	1.08	.11	1.05	.41	1.12	.92	.60
TB7	.53	.12	.90	-.68	.93	-.50	.64
TB2	-.19	.13	.86	-1.09	.85	-1.28	.65
TB3	.88	.12	.70	-2.42	.76	-1.93	.75
TB5	.00	.13	.73	-2.20	.73	-2.34	.66

As shown in Table 13, items TB3 and TB10 had positive residual loadings and items TB8, TB9, and TB6 had negative residual loadings above .40. These loadings suggested that the two sets of TB items were possibly measuring two factors. This possibility was investigated by calculating the Pearson correlation between the person measures using the items with positive residuals and those with negative residuals; the resulting correlation was low, at .36. The items with positive residual loadings were related to teacher beliefs about CLT (TB2: real-world communication; TB3: meaningful communication; TB4: fluency development; TB7: group/pair work; and TB10: motivation and communicative activities), whereas the items with negative residual loadings were related to language learning (TB1: effective language acquisition; TB5: teacher's role as a facilitator; TB6: importance of memorization; TB8: comprehensive pronunciation; TB9: errors as a part of learning). Because of the low correlation between the person ability estimates and the logical differences between the two sets of items, the items were not considered to be measures of the same construct. Thus, Part A (Factor 6) was divided into two constructs: items related to teacher beliefs about CLT and items related to teacher beliefs about language learning. Because one aim of this study is to examine the relationship between teacher beliefs about CLT, classroom practices, and other factors, the former construct was retained; it was labeled *Positive CLT Beliefs*. *Positive CLT Beliefs* (PCB) was made up of five items: TB2, TB3, TB4, TB7, and TB10.

Table 13. *Rasch PCA of Item Residuals for Part A*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
TB3	.70	.74	.71	.76
TB10	.40	.31	1.11	1.10
TB7	.38	.45	.81	.80
TB4	.35	.90	.93	1.02
TB2	.32	-.14	.83	.85
TB8	-.63	.01	1.57	1.58
TB9	-.58	-1.19	.90	.89
TB6	-.50	-.09	1.47	1.51
TB1	-.27	-1.01	1.17	1.14
TB5	-.06	.01	.60	.59

A Rasch PCA of item residuals was conducted again for the five items (TB2, TB3, TB4, TB7, and TB10) (Table 14). The variance explained by measures was 50.1%, which was an improvement over the first PCA. The first residual contrast accounted for 17.2% of the variance. Although the variance was under 60%, the value was considered

Table 14. *Rasch PCA of Item Residuals for Positive CLT Beliefs*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
TB10	.69	-.22	1.23	1.17
TB7	.68	-.01	.93	.93
TB4	-.68	.65	1.15	1.19
TB2	-.54	-.84	1.00	.90
TB3	-.17	.41	.66	.70

acceptable because the person separation statistic was below 2.0. Item separation of the five items was good at 3.62. *Positive CLT Beliefs,* was considered fundamentally unidimensional because the items' fit to the Rasch model was acceptable, the variance accounted for by the Rasch model was acceptably high, and item separation was good.

Part B: Perceived Teaching Efficacy (PTE) (Factors 2 and 8)

Eleven items from Part B were written to measure *Perceived Teaching Efficiency*; however, two factors were identified through the SPSS factor analysis. A Rasch analysis was conducted using the eleven original items. The amount of variance explained by the Rasch model was 47.5%, and the first residual contrast accounted for 15.8% of the variance. The person separation and item separation statistics for the ten items were 2.19 and 4.60, respectively.

Table 15. *Rasch Item Fit Statistics for Part B*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
PTE10	.98	.11	2.50	9.11	2.63	9.59	.10
PTE6	.00	.11	1.20	1.53	1.17	1.33	.71
PTE11	.45	.11	1.13	1.08	1.14	1.15	.54
PTE9	.58	.11	1.00	.05	1.03	.25	.66
PTE8	.58	.11	.96	-.29	.99	-.01	.66
PTE1	-.33	.11	.80	-1.74	.77	-1.99	.75
PTE7	-.24	.11	.78	-1.88	.78	-1.91	.72
PTE5	-1.04	.12	.72	-2.58	.70	-2.82	.74
PTE2	-.05	.11	.66	-3.11	.66	-3.13	.81
PTE4	-.27	.11	.65	-3.29	.64	-3.31	.80
PTE3	-.67	.12	.56	-4.34	.54	-4.50	.78

As Table 15 shows, the item infit mean square and ZSTD for PTE10 were 2.50 (above 1.50) and 9.1, respectively. When the most misfitting response string for the item was checked, it was found that 28 persons made responses that contributed to the item misfit. As the number of persons with surprising responses was more than 10% of the

N-size, PTE 10 was eliminated. After the deletion of this item, the infit and outfit mean square statistics for the remaining items were below 1.50 (Table 16).

Table 16. *Rasch Item Fit Statistics for Part B after deleting PTE10*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
PTE6	.13	.13	1.37	2.75	1.34	2.51	.73
PTE11	.67	.12	1.36	2.75	1.36	2.72	.56
PTE9	.83	.12	1.23	1.80	1.27	2.06	.67
PTE8	.83	.12	1.16	1.34	1.22	1.70	.67
PTE1	-.29	.13	.85	-1.22	.82	-1.50	.78
PTE7	-.18	.13	.94	-.46	.93	-.55	.73
PTE5	-1.14	.13	.91	-.73	.88	-.96	.73
PTE2	.06	.12	.71	-2.60	.71	-2.60	.84
PTE4	-.21	.13	.73	-2.39	.74	-2.33	.81
PTE3	-.69	.13	.65	-3.19	.64	-3.33	.79

As shown in Table 17, items PTE8, PTE9, and PTE11 had positive residual loadings and items PTE1, PTE2, PTE3, PTE4, and PTE5 had negative residual loadings above .40. The Pearson correlation between the person measures first using the items with positive residual loadings and then the items with negative residual loadings was low at .53. In addition, the items with positive residual loadings were related to perceived efficacy regarding skills and knowledge (PTE1: listening, PTE2: speaking, PTE3: reading, PTE4: writing, and PTE5: grammar, and PTE6: culture), whereas the items with negative residual loadings were related to perceived efficacy of using CLT in class (PTE7: supervising the classroom during the pair/group work, PTE8: providing enjoyable activities, PTE9: facilitating students' communication, PTE10: preference for teacher-fronted teaching, and PTE11: giving autonomy). Because of the low correlation and the logical differences between the two sets of items, the items were not considered measures of the same construct; thus, Part B was divided into two constructs: items loading on *L2 Self-confidence* (Factor 2) and the items loading on *CLT Self-efficacy* (Factor 8).

Table 17. *Rasch PCA of Item Residuals for Part B*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
PTE9	.73	.58	1.00	1.03
PTE8	.61	.58	.96	.99
PTE11	.54	.45	1.13	1.14
PTE7	.35	-.24	.78	.78
PTE10	.26	.98	2.50	2.63
PTE3	-.71	-.67	.56	.54
PTE4	-.66	-.27	.65	.64
PTE5	-.59	-1.04	.72	.70
PTE2	-.52	-.05	.66	.66
PTE1	-.49	-.33	.80	.77
PTE6	-.34	.00	1.20	1.17

Table 18. *Rasch Item Fit Statistics for L2 Self-confidence*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
PTE2	.83	.63	.75	.74
PTE1	.72	.11	1.03	.98
PTE6	.08	.74	1.71	1.71
PTE3	-.65	-.51	.61	.61
PTE5	-.59	-1.20	.98	.93
PTE4	-.58	.23	.75	.72

A Rasch PCA of item residuals was conducted again for the six items (PTE1, PTE2, PTE3, PTE4, PTE5, and PTE6) loading on Factor 2, *L2 Self-confidence* (Table 18). The variance explained by measures was 80.2%, and the first residual contrast accounted for 7.6% of the variance. The person separation and the item separation of the six items were 2.7 and 3.94, respectively.

The third Rasch PCA of item residuals was performed for the four items (PTE7, PTE8, PTE9, and PTE11) that loaded on Factor 8, *CLT Self-efficacy* (Table 19). The

Rasch model accounted for 65.1% of the variance, and the first residual contrast accounted for 13.7% of the variance. The person separation and item separation statistics for the four items were 1.92 and 3.74, respectively.

Table 19. *Rasch PCA of Item Residuals for CLT Self-efficacy*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
PTE11	.90	.18	1.19	1.18
PTE7	.05	-.99	1.04	1.06
PTE8	-.83	.41	.96	.92
PTE9	-.26	.40	.74	.73

In sum, the two factors were considered fundamentally unidimensional because the items' fit to the Rasch model was acceptable, the variance accounted for by the Rasch model was adequately high, and item separation was good. The items in Part B were divided into two factors: *L2 Self-confidence* (L2SC), consisting of PTE items 1-6, and *CLT Self-efficacy* (CSE), consisting of PTE7, PTE8, PTE9, and PTE11. L2SC and CSE corresponded to Factor 2 and Factor 8, respectively.

Part C: Pre-service Teacher Training (PTT) (Factor 4)

This factor was hypothesized to be made up of the items from Part C: Pre-service Teacher Training. A Rasch analysis was performed for the six original items (Table 20). The amount of variance explained by the Rasch measures was 80.2%, and the first residual contrast accounted for 7.6% of the variance. The person separation and item separation statistics for the ten items were 2.54 and 6.51, respectively.

Table 20. *The First Rasch PCA of Item Residuals for Part C*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
PTT6	.80	1.06	.89	.82
PTT5	.67	.73	.79	.83
PTT4	.38	.09	.67	.73
PTT3	.18	.27	.58	.58
PTT2	-.79	-1.44	1.71	1.74
PTT1	-.64	-.70	1.23	1.21

As shown in Table 21, PTT2 had high infit mean square and infit ZSTD values of 1.71 and 4.8, respectively. When the most misfitting response strings for the item were checked, it was found that 16 persons made responses that contributed to the item misfit. As the numbers of persons with surprising responses was more than 10% of the *N*-size, PTT2 was eliminated.

Table 21. *Rasch Item Fit Statisticss for Part C*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
PTT2	-1.44	.12	1.71	4.84	1.74	5.01	.69
PTT1	- .70	.12	1.23	1.79	1.21	1.69	.79
PTT6	1.06	.12	.89	- .84	.82	-1.34	.81
PTT5	.73	.12	.79	-1.78	.83	-1.34	.84
PTT4	.09	.12	.67	-3.02	.73	-2.40	.87
PTT3	.27	.12	.58	-4.09	.58	-3.96	.87

After the deletion of this item, the infit and outfit mean square statistics for PTT1 were above 1.50 (Table 22); however, the Pearson correlation between the person measures estimated using Items 1, 3, 4, 5, and 6 and then items 3, 4, 5, and 6 was very high at .97. Thus, it was concluded that item PTT 1 was part of the same construct as the other items, and it was therefore retained.

Table 22. *Rasch Item Fit Statistics for Part C after Deleting PTT2*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
PTT1	-1.28	.13	1.74	4.96	1.75	4.96	.78
PTT3	- .03	.14	.71	-2.50	.71	-2.50	.89
PTT4	- .26	.13	.75	-2.18	.76	-2.09	.90
PTT5	.57	.14	.84	-1.28	.84	-1.20	.88
PTT6	1.00	.14	.88	- .97	.80	-1.47	.86

According to the second Rasch PCA, the Rasch model accounted for 82.2% of the variance, and the first residual contrast accounted for 6.9% of the variance. The person separation and the item separation statistics for the ten items were 2.69 and 5.25, respectively.

Table 23 indicates that the residuals for PTT5 and PTT6 had positive loadings, while those for PTT1, PTT3, and PTT4 had negative loadings. However, the Pearson correlation between the person measures using the items in the former group and the items in the latter group was high at .78. The disattenuated correlation (.78 / the square root of .88 x .94 =) was adequately high at .86; thus, the five items were considered to form one construct. In sum, all five items (PTT 1, PTT3, PTT4, PTT5, and PTT 6) were retained as measures of Factor 4, *Pre-service Teacher Training* (PTT).

Table 23. *The Second Rasch PCA of Item Residuals for Part C*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
PTT6	.81	1.00	.88	.80
PTT5	.78	.57	.84	.84
PTT1	-.66	-1.28	1.74	1.75
PTT3	-.44	-.03	.71	.71
PTT4	-.19	-.26	.75	.76

Part D: In-service Teacher Training (ITT) (Factor 5)

This factor was hypothesized to be made up of the items from Part D: In-service Teacher Training. A Rasch analysis was conducted with the six original items. The variance explained by the Rasch measures was 71.5%, and the first residual contrast accounted for 8.7% of the variance. The person separation and the item separation statistics for the ten items were 2.22 and 4.95, respectively. Table 24 indicates that the infit and outfit mean square statistics for the six items are all below the 1.50 criterion.

Table 24. *Rasch Item Fit Statistics for Part D*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
ITT1	-1.10	.13	1.29	2.04	1.23	1.69	.73
ITT6	.93	.12	1.06	.49	1.15	1.13	.76
ITT2	.36	.11	1.10	.82	1.07	.60	.77
ITT5	- .22	.12	.95	- .38	.93	- .54	.81
ITT3	.20	.11	.77	- .02	.70	-2.59	.81
ITT4	- .18	.12	.70	- .57	.65	-3.07	.84

As shown in Table 25, the residuals for ITT2, ITT3, and ITT4 had positive loadings, while those for ITT1, ITT5, and ITT6 had negative loadings. However, the correlation between the person measures using the items in the former group and the items in the latter group was relatively high at .72. The item reliabilities for the positively loading group and the negatively group were .81 and .98, respectively. The disattenuated correlation (.72 / the square root of .81 x .98 =) was .81; thus, the five items were considered to be measures of one construct. In sum, the six original items (ITT1, ITT2, ITT3, ITT4, ITT5, and ITT 6) were retained as measures of Factor 5, *In-service Teacher Training* (ITT).

Table 25. *Rasch PCA of Item Residuals for Part D*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
ITT3	.86	.20	.77	.70
ITT4	.58	-.18	.70	.65
ITT2	.21	.36	1.10	1.07
ITT5	-.53	-.22	.95	.93
ITT6	-.46	.93	1.06	1.15
ITT1	-.46	-1.10	1.29	1.23

Part E: Contextual Factors (CF) (Factor 7)

This factor was hypothesized to be made up of the items from Part E: Contextual Factors. CF13 was deleted for the SPSS factor analysis, and only three items (CF1, CF3, and CF6) were found to load on this factor. A Rasch analysis was conducted using the seventeen original items. The variance explained by the measures was 41.7%, and the first residual contrast accounted for 9.3% of the variance. The person separation and the item separation statistics for the seventeen items were 1.83 and 3.71, respectively.

As shown in Table 26, the item infit mean square and ZSTD statistics for CF5 were 1.55 and 4.31, respectively, and those values for CF4 were 1.54 and 3.76. When the most misfitting response strings for those items were checked, it was found that 10 and 13 persons made responses that contributed to the item misfit. As the numbers of persons were approximately 10% of the *N*-size, both items were eliminated. After the deletion of these items, although the infit mean square statistics for the remaining items were below the 1.50 criterion, the outfit mean square statistics for CF7 was above 1.50 (Table 27). However, the Pearson correlation between the person measures first using CF items 7, 1-3, and 6-17 and then the items 1-3, 6, and 8-17 was high at .99. Thus, CF 7 was considered to belong to the same construct with the other CF items, and it was therefore retained.

Table 26. *Rasch Item Statistics for Part E*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
CF5	- .4	.09	1.55	4.31	1.79	5.75	.20
CF4	.91	.11	1.54	3.76	1.63	3.74	.21
CF7	.39	.09	1.27	2.27	1.35	2.64	.30
CF1	.38	.09	1.29	2.39	1.18	1.45	.58
CF6	- .25	.09	1.20	1.70	1.18	1.54	.61
CF10	- .57	.09	1.08	.77	1.08	.74	.54
CF12	- .24	.09	1.03	.34	1.05	.49	.38
CF16	- .14	.09	1.04	.42	1.03	.33	.50
CF11	.59	.10	.96	- .29	.90	- .78	.55
CF17	- .18	.09	.96	- .35	.94	- .46	.54
CF13	- .09	.10	.91	- .71	.92	- .62	.46
CF3	- .32	.09	.81	-1.77	.85	-1.32	.52
CF2	.04	.09	.82	-1.68	.82	-1.58	.49
CF15	- .23	.09	.72	-2.76	.72	-2.68	.55
CF14	- .21	.09	.70	-2.98	.71	-2.80	.54
CF8	.18	.09	.70	-3.00	.70	-2.89	.59
CF9	.14	.09	.66	-3.50	.66	-3.35	.53

Table 27. *Rasch Item Fit Statistics for Part E after Deleting CF5 and CF4*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
CF7	.46	.10	1.44	3.44	1.64	4.41	.27
CF1	.45	.10	1.29	2.37	1.17	1.38	.59
CF10	- .58	.09	1.21	1.75	1.20	1.73	.53
CF12	- .22	.09	1.14	1.25	1.20	1.64	.39
CF6	- .24	.09	1.19	1.63	1.18	1.54	.63
CF13	- .06	.11	1.03	.24	1.07	.59	.44
CF16	- .11	.09	1.07	.60	1.05	.46	.53
CF11	.67	.10	1.05	.49	.99	- .06	.51
CF3	- .31	.09	.85	-1.29	.99	- .06	.53
CF17	- .16	.09	.96	- .30	.94	- .44	.58
CF2	.08	.09	.92	- .71	.93	- .54	.47
CF15	- .21	.09	.77	-2.14	.78	-2.03	.57
CF14	- .19	.09	.76	-2.30	.77	-2.12	.55
CF8	.24	.09	.73	-2.57	.73	-2.49	.59
CF9	.19	.09	.68	-3.10	.68	-3.03	.55

After conducting the first PCA (Table 28), the Pearson correlation between the person measures first using the items with positive residual loadings and then the items with negative residual loadings was calculated and found to be .50. In addition, the items with positive residual loadings were related to conditions influenced by entrance examinations (e.g., CF6: parents' expectation for exam preparation and CF 16: influence of the Center Test on English I or II; the other items will be explained in the next section), whereas the items with negative residual loadings were related to conditions for CLT (e.g., CF11: materials for CLT and CF 12: students' conditions; the other items will be explained in the next section). Because of the low correlation and the logical differences between the two sets of items, the items were not considered measures of the same construct; thus, Part E was divided into two constructs: items loading on conditions influenced by entrance exams and the items loading on conditions for CLT.

Table 28. *The First Rasch PCA of Item Residuals for Part E*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF17	.80	-.18	.96	.94
CF16	.75	-.14	1.04	1.03
CF15	.57	-.23	.72	.72
CF14	.45	-.21	.70	.71
CF6	.18	-.25	1.20	1.18
CF1	.06	.38	1.29	1.18
CF3	.02	-.32	.81	.85
CF7	-.58	.39	1.27	1.35
CF5	-.42	-.40	1.55	1.79
CF11	-.40	.59	.96	.90
CF8	-.30	.18	.70	.70
CF4	-.27	.91	1.54	1.63
CF10	-.24	-.57	1.08	1.08
CF2	-.13	.04	.82	.82
CF12	-.12	-.24	1.03	1.05
CF13	-.05	-.09	.91	.92
CF9	-.05	.14	.66	.66

A second Rasch PCA of item residuals was conducted for the seven items (CF1, CF3, CF6, and CF items 14-17) that loaded positively in the first PCA. The variance explained by measures was 62.4%, and the first residual contrast accounted for 8.6% of the variance. The person separation and the item separation of the six items were .75 and 2.48, respectively.

After conducting the second PCA (Table 29), the Pearson correlation between the person measures first using the items with positive residual loadings and then the items with negative residual loadings was calculated and found to be .47. In addition, the items with positive residual loadings were related to the Exam-related Expectations on students or parents (CF1: students have to study hard for university entrance examinations, CF3: students expect to study grammar and translation in English I and II, and CF6: parents expect their children to study hard for university entrance examinations), whereas the items with negative residual loadings were related to the influence of MEXT policy on classroom practices (CF 14: *The Course of Study* influence classroom practices in English I or II, CF15: *The Course of Study* influence classroom practices in Oral Communication I or II, CF16: the implementation of the listening comprehension exam in the 2006 Center Test influence classroom practices in English I or II, and CF16: the implementation of the listening exam influence classroom practices in Oral Communication I or II). Because of the low correlation and the logical differences between the two sets of items, the items were not considered measures of the same construct; thus, the original construct was divided into two constructs: items loading on

Exam-related Expectations (EE) and the items loading on *Influence of MEXT Policy* (IMP).

Table 29. *The Second Rasch PCA of Item Residuals for Part E (Dimension 1)*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF1	.85	.68	1.32	1.16
CF6	.78	-.16	1.18	1.16
CF3	.36	-.24	1.00	1.08
CF16	-.62	.01	1.01	.98
CF17	-.62	-.06	.84	.82
CF15	-.60	-.13	.82	.84
CF14	-.44	-.10	.88	.87

The third and fourth PCAs were conducted for the two constructs identified through the second PCA (Tables 30 and 31). The Rasch measures explained 77.0% of the variance for *Exam-related Expectations* (EE), and the first residual contrast accounted for 15.0% of the variance. The person separation and item separation statistics for the ten items were 1.61 and 4.83, respectively.

Table 30. *The Third Rasch PCA of Item Residuals for Exam-related Expectations*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF3	1.00	-5.7	1.35	1.43
CF6	-.74	-4.3	.88	.87
CF1	-.64	1.0	.67	.62

Table 31. *The Fourth Rasch PCA of Item Residuals for Influence of MEXT Policy*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF16	.86	.12	1.07	1.04
CF17	.84	.02	.88	.85
CF14	-.85	-.04	1.16	1.09
CF15	-.82	-.10	.84	.83

The Rasch measures explained 57.5% of the variance for *Influence of MEXT Policy* (IMP), and the first residual contrast accounted for 30.3% of the variance. The person separation and item separation statistics for the ten items were 1.45 and 0.00, respectively. Although the item separation was extremely low, the construct was considered fundamentally unidimensional because (a) the variance accounted for by the Rasch model was adequately high, (b) all the items were logically related to each other, and (c) the low item separation was due to the fact that the four items were almost the same difficulty as shown in Figure 5.

The fifth Rasch analysis was conducted for the second construct (conditions for CLT) identified in the second PCA (Table 32). The variance explained by the Rasch measures was 44.9%, and the first residual contrast accounted for 11.2% of the variance. The person separation and item separation statistics for the ten items were 1.31 and 4.41, respectively.

Table 32. *The Fifth Rasch PCA of Item Residuals for Part E (Dimension 2)*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF2	.73	-.06	.84	.84
CF12	.67	-.37	1.04	1.06
CF8	.39	.09	.74	.76
CF9	.37	.05	.74	.73
CF10	-.49	-.71	1.09	1.11
CF11	-.41	.53	.88	.80
CF5	-.36	-.54	1.36	1.45
CF7	-.33	.31	1.07	4.08
CF13	-.32	-.18	.98	.96
CF4	-.12	.88	1.36	1.39

```
more able persons | more difficult items
2                 +
                  |
                  |
                  |
                  |
                  |
                . |
                  |
1                 +
                  |  CF4
               . T|T
                . |  CF11
                  |
                # |S CF1   CF7
            ##### |
               ## |  CF8   CF9
0            #### S+M CF2
           .##### |  CF13  CF16  CF17
           .##### |  CF12  CF14  CF15  CF6
           .##### |S CF3   CF5
         .####### |
          .##### M|  CF10
            ##### |T
             .### |
-1             ## +
           ###### |
              .# S|
                . |
               ## |
              .## |
                . |
               # T|
-2                +
                . |
                  |
                . |
                  |
                  |
                  |
                  |
-3                +
                  |
                . |
                  |
                  |
                  |
                  |
                  |
-4         .      +
less able persons | less difficult items
```

Figure 5. Item-person map for the Contextual Factor sub-scale.

The Pearson correlation between the person measures first using the items with positive residual loadings and then the items with negative residual loadings was low at .31. In addition, the items with positive residual loadings were related to the student-related communicative conditions (CF2: students expect to do communication activities in English I or II, CF8: students can understand and use English in pair or /and group work, and CF9: the MEXT authorized textbook for English I or II is useful for communication activities, and CF12: students prefer pair or/and group work to teacher-centered instruction), whereas the items with negative residual loadings concerned teacher-related school conditions (CF4: the class size is appropriate for doing communication activities, CF5: each teacher can design his/her syllabus, CF7: teachers have time for material development, CF10: each classroom has audio-visual equipment, and CF11: materials for communication activities are provided, and CF 13: the number of class hours of English I and II is adequate). Because of the low correlation and the logical differences between the two sets of items, the items were not considered measures of the same construct; thus, the second dimension of Part E (conditions for CLT) was divided into two constructs: items loading on *Student-related Communicative Conditions* (SCC) and *Teacher-related School Conditions* (TSC).

The sixth and seventh PCAs were conducted for the two constructs identified through the fifth PCA. For *Student-related Communicative Conditions* (SCC) (Table 33), the variance explained by the Rasch measures was 51.7%, and the first residual contrast accounted for 20.8% of the variance. The person separation and the item separation statistics for the ten items were 1.12 and 1.84, respectively.

Table 33. *The Sixth Rasch PCA of Item Residuals for Student-related Communicative Conditions*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF12	.74	-.51	1.09	1.09
CF2	.54	.02	.91	.91
CF8	-.67	.29	.98	.98
CF9	-.66	.21	.99	1.04

The Rasch measures explained 55.9% of the variance for *Teacher-related School Conditions* (TSC) (Table 34), and the first residual contrast accounted for 12.6% of the variance. The person separation and item separation statistics for the ten items were .97 and 5.43, respectively. As shown in Table 35, the infit and outfit mean square statistics for items CF4 and CF5 were below the 1.50 criterion; thus, CF4 and CF5 were both considered part of this construct and were therefore retained.

In sum, four factors were identified from Part E. The names of the factors are: *Exam-related Expectations* (EE), *Influence of MEXT Policy* (IMP), *Student-related Communicative Conditions* (SCC), and *Teacher-related School Conditions* (TSC). The items that make up the four factors, the variance explained by measures, the first residual contrast, person separation, and item separation are shown in Table 36, and the results of these PCAs are summarized in Figure 6.

Table 34. *The Seventh Rasch PCA of Item Residuals for Teacher-related School Conditions*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CF10	.73	-.65	1.00	.96
CF11	.70	.40	.69	.68
CF5	-.62	-.53	1.28	1.27
CF7	-.33	.23	.94	.93
CF4	-.23	.75	1.26	1.22
CF13	-.01	-.20	.86	.85

Table 35. *Rasch Item Fit Statistics for Teacher-related School Conditions*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
CF5	-.53	.08	1.28	2.2	1.27	2.1	.47
CF4	.75	.09	1.26	2.1	1.22	1.8	.50
CF10	-.65	.09	1.00	.0	.96	-.3	.66
CF7	.23	.08	.94	-.5	.93	-.6	.60
CF13	-.20	.09	.86	-1.1	.85	-1.1	.58
CF11	.40	.08	.69	-3.1	.68	-3.1	.70

Table 36. *The Four Factors Identified from Part E*

Name	Item	Variance accounted for by the Rasch model (%)	Variance of the First Residual (%)	PS	IS
Exam-related Expectations	1, 3, 6	77.0	15.0	1.61	4.83
Influence of MEXT Policy	14, 15, 16, 17	57.5	30.3	1.50	0.00
Student-related Classroom Conditions	2, 8, 9, 12	51.7	20.8	1.12	2.30
Teacher-related School Conditions	4, 5, 7, 10, 11, 13	55.9	12.6	.97	5.43

Note. PS = person separation; IS = item separation.

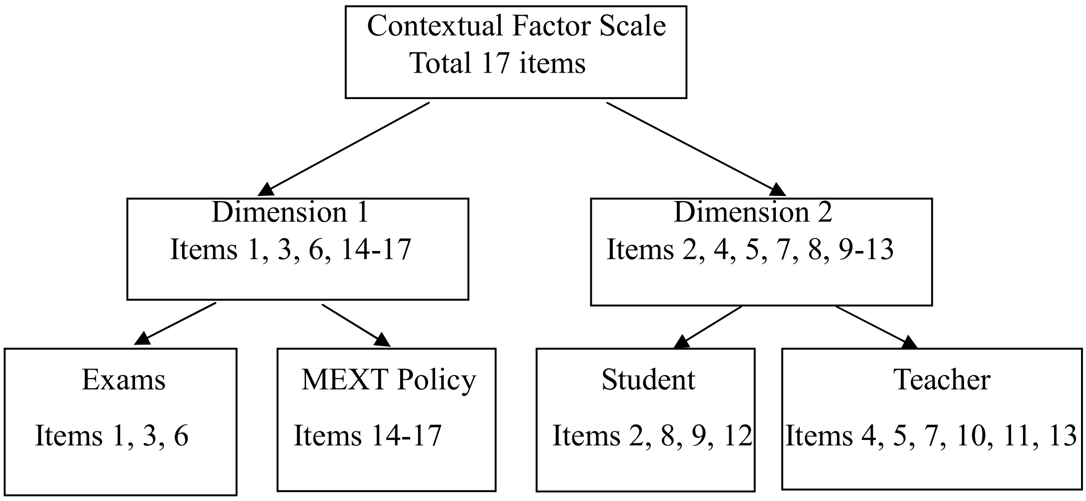

Figure 6. Summary of PCAs for Part G (Contextual Factors).

Part F: Classroom Practices (CP) (Factor 3)

This factor was hypothesized to be made up of the items from Part F: Classroom Practices. A Rasch analysis was conducted for the six original items. The variance explained by the Rasch measures was 63.6%, and the first residual contrast accounted for 7.0% of the variance. The person separation and item separation statistics for the ten items were 1.92 and 5.17, respectively.

Table 37 shows that the item infit mean square and the item outfit mean square statistics for item CP7 were 1.87 and 1.85, respectively. When the most misfitting person response strings for the item were checked, it was found that 12 persons made responses that contributed to the item misfit. As the number of persons with surprising responses was approximately 10% of the *N*-size, item CP7 was eliminated. After the deletion of this item, the infit and outfit mean square statistics for the remaining items were below the 1.50 criterion (Table 38).

Table 37. *Rasch Item Statistics for Part F*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
CP7	.77	.12	1.87	5.23	1.85	4.25	.42
CP10	.02	.11	1.31	2.26	1.37	2.47	.50
CP5	.94	.13	1.22	1.57	1.08	.54	.44
CP6	- .85	.10	1.02	.23	1.20	1.61	.63
CP9	- .44	.10	1.08	.72	1.11	.87	.59
CP4	.85	.12	1.10	.79	.90	- .60	.50
CP2	- .13	.10	.91	- .72	.88	- .88	.61
CP11	- .44	.10	.83	-1.46	.80	-1.69	.66
CP1	- .78	.10	.79	-1.91	.80	-1.76	.69
CP3	.35	.11	.64	-3.16	.76	-1.76	.62
CP8	- .28	.10	.68	-2.89	.68	-2.72	.67

Table 38. *Rasch Item Statistics for Part F after Deleting Item CF7*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
CP10	.11	.11	1.40	2.81	1.46	3.04	.51
CP5	1.10	.13	1.32	2.23	1.16	.94	.44
CP6	- .84	.10	1.11	.97	1.26	2.10	.63
CP9	- .40	.10	1.11	.93	1.13	1.02	.61
CP4	1.00	.13	1.22	1.63	.99	.01	.49
CP2	- .06	.11	.95	- .33	.93	- .50	.62
CP11	- .40	.10	.92	- .67	.87	-1.02	.66
CP1	- .76	.10	.81	-1.73	.81	-1.68	.71
CP3	.46	.12	.70	-2.54	.81	-1.38	.63
CP8	- .22	.11	.67	-3.00	.67	-2.85	.70

As shown in Table 39, items CP10 and CP4 had positive residual loadings and items CP2, CP1, and CP11 had negative residual loadings above .40. The Pearson correlation between the person measures first using the items with positive residual loadings and then the items with negative residual loadings was not high at .60. In addition, the items with positive residual loadings were related to communicative activities that could be used in English I and II (CP1: classroom English, CP2 oral introduction of the textbook, CP3: speech/presentation, CP6: questions and answers, CP8: task-based activities, and CP11: group/pair work), whereas the items with negative residual loadings were related to activities that could be mainly used in writing or oral communication class (CP4: essay writing, CP5 summary writing, CF7: grammar explanation in English, CP9: songs/games, and CP10: movies/dramas). Because of the low correlation and the logical differences between the two sets of items, the items were not considered measures of the same construct; thus, Part F was divided into two constructs: items related to activities used in English I and II and the items related to activities used in writing or oral communication classes. Because all the research questions in this study concern English I and II (integrated courses), the former construct was retained. As a result, Factor 3, which was labeled *Classroom Practices* (CP), was made up of five items: CP1, CP2, CP3, CP6, CP8, and CP11.

Table 39. *Rasch PCA of Item Residuals for Part F*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CP10	.65	.02	1.31	1.37
CP4	.59	.85	1.10	.90
CP9	.37	-.44	1.08	1.11
CP5	.21	.94	1.22	1.08
CP7	.21	.77	1.87	1.85
CP2	-.63	-.13	.91	.88
CP1	-.61	-.78	.79	.80
CP11	-.45	-.44	.83	.80
CP8	-.34	-.28	.68	.68
CP6	-.13	-.85	1.02	1.20
CP3	-.02	.35	.64	.76

A second Rasch analysis was conducted for items CF1, CF2, CF3, CF6, CF8, and CF11 (Table 40). The variance explained by the Rasch measures was 69.2%, and the first residual contrast accounted for 8.0% of the variance. The person separation and item separation statistics for the six items were 1.90 and 4.66, respectively. The factor, *Classroom Practices,* was considered fundamentally unidimensional because the items' fit to the Rasch model was acceptable, the variance accounted for by the Rasch model was acceptably high, and item separation was good.

Table 40. *Rasch PCA of Item Residuals for Classroom Practices*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
CP8	.70	.13	.84	.87
CP11	.53	-.12	1.01	1.00
CP3	.26	1.03	.94	1.02
CP6	-.60	-.73	1.32	1.36
CP2	-.58	.33	.93	.91
CP1	-.13	-.63	.88	.87

Part G: Learning Experience (Factor 1)

This factor was hypothesized to be made up of the items from Part G: Learning Experience. A Rasch analysis was conducted for the six original items. The variance explained by the Rasch measures was 50.8%, and the first residual contrast accounted for 10.4% of the variance. The person separation and item separation statistics for the ten items were 1.32 and 2.02, respectively.

As shown in Table 41, the item infit mean square and the item outfit mean square for LE7 were 1.87 and 1.85, respectively. When the most misfitting response strings for the item was checked, it was found that 15 persons made responses that contributed to the item misfit. As the number of persons with surprising responses was more than 10% of the *N*-size, item LE7 was eliminated. After the deletion of this item, the outfit mean square statistics for item LE5 was above 1.50 (Table 42), but the most misfitting response string for the items showed that only six persons made responses that contributed to the item misfit; therefore, item LE5 was retained.

Table 41. *Rasch Item Statistics for Part G*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
LE7	.03	.14	3.13	8.00	3.29	7.24	.42
LE5	.25	.15	1.15	.83	1.53	2.15	.60
LE1	- .53	.12	.96	- .21	1.29	1.61	.69
LE6	- .72	.12	.88	- .76	1.07	.48	.73
LE9	- .35	.13	.80	-1.26	1.01	.12	.70
LE4	.42	.16	.77	-1.25	.98	- .01	.65
LE2	.07	.14	.87	- .73	.75	-1.23	.69
LE10	.14	.15	.78	-1.32	.70	-1.53	.68
LE3	.39	.16	.66	-2.00	.77	-1.01	.67
LE8	.17	.15	.63	-2.36	.65	-1.77	.70
LE11	.14	.15	.64	-2.30	.58	-2.25	.71

Table 42. *Rasch Item Statistics for Part G after Deleting LE7*

Item	Measure	*SE*	Infit Mean Square	Infit ZSTD	Outfit Mean Square	Outfit ZSTD	Part-Measure Correlation
LE5	.32	.17	1.50	2.64	1.75	2.95	.62
LE1	- .67	.14	1.26	1.57	1.42	2.40	.72
LE6	- .92	.14	1.19	1.24	1.30	1.80	.76
LE2	.10	.16	1.12	.75	.92	- .35	.72
LE4	.53	.18	.92	- .39	1.08	.42	.69
LE9	- .44	.15	.89	- .69	1.01	.11	.76
LE3	.50	.18	.80	-1.16	.88	- .48	.71
LE10	.18	.16	.87	- .74	.77	-1.18	.73
LE8	.23	.17	.68	-2.10	.69	-1.62	.75
LE11	.18	.16	.67	-2.18	.60	-2.21	.76

As shown in Table 43, five items had positive residual loadings and five items (excluding item LE7) had negative residual loadings. The Pearson correlation between the person measures first using the items with positive residual loadings and the items with negative residual loadings was .70. The disattenuated correlation (.70 / square root of .83 x .92 =) was .80. Based on this finding, the ten items were considered measures of a single construct. In sum, ten items (LE items except for LE7) were retained as measures of Factor 1, *Learning Experience* (LE).

Table 43. *Rasch PCA of Item Residuals for Part G*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
LE11	.75	.14	.64	.58
LE10	.65	.14	.78	.70
LE9	.64	-.35	.80	1.01
LE8	.55	.17	.63	.65
LE3	.07	.39	.66	.77
LE7	-.51	.03	3.13	3.29
LE2	-.33	.07	.87	.75
LE1	-.30	-.53	.96	1.29
LE6	-.28	-.72	.88	1.07
LE5	-.24	.25	1.53	1.53
LE4	-.01	.42	.77	.98

It is important to note that although the items in Part F and Part G were the same, the numbers of constructs identified from them differed: two constructs from Part F (i.e., a construct related to English I/II and one related to oral/writing courses) and one factor from Part G. This might be due to the fact that the majority of the respondents had more than 5 years of teaching experience (see Table 3). When they were high school students, English courses were not divided into English I and II, Oral Communication, reading, and writing; they had a single English course.[14] This might account for the differences between the item loadings in Part F and Part G.

A Rasch PCA analysis was conducted again for the ten items loading on *Learning Experience* (Table 44). The variance explained by the Rasch measures was 60.7%, and

[14] Before the implementation of Oral Communication in the 1989 version of *The Course of Study*, a course named English Conversation (an elective course) was implemented in the 1970 version, but it was deleted in the 1978 version.

the first residual contrast accounted for 8.9% of the variance. The person separation and item separation statistics for the six items were 1.66 and 2.64, respectively. This factor was considered fundamentally unidimensional because the items' fit to the Rasch model was acceptable, the variance accounted for by the Rasch model was acceptably high, and item separation was good.

Table 44. *Rasch PCA of Item Residuals for Part G after Deleting Item LE7*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
LE11	.72	.18	.67	.60
LE10	.63	.18	.87	.77
LE9	.62	-.44	.89	1.01
LE8	.49	.23	.68	.69
LE2	-.53	.10	1.12	.92
LE1	-.46	-.67	1.26	1.42
LE6	-.37	-.92	1.19	4.30
LE5	-.28	.32	1.50	1.75
LE4	-.12	.53	.92	1.08
LE3	-.05	.50	.80	.88

Comparison between the Rasch PCA and the SPSS Factor Analysis (FA) Results

A comparison of the factors identified by the SPSS FA and the Rasch analyses is shown in Table 45. Through the Rasch PCA, one new factor was identified in Part B and three new factors were identified in Part G. For the other analyses, the factor analysis and Rasch results identified the same seven factors. Moreover, there were only two differences in the items loading on each of the seven factors (items TB5 and LE2: bolded in Table 45). The similarity between the factor analysis and Rasch results supports the validity of the constructs.

Furthermore, in order to improve construct validity, a Rasch PCA was performed for *Teacher Beliefs about CLT* and *Learning Experience* using the items loading the two factors identified SPSS factor analysis. In regards to *Teacher Beliefs about CLT*, the dimensionality criteria did not improve after adding item TB5; thus, the item was not added to the TB items. However, as all values of the criteria improved after deleting item LE2 (the variance: 60.7 → 64.6, the first residual: 8.9 → 8.5, and item separation: 2.64 → 2.81), the item was eliminated from the *Learning Experience* component (Table 46).

Summary

Through the use of the Rasch model item statistics, 11 factors were identified and regarded as fundamentally unidimensional constructs. They are summarized in Table 47. In the following sections, the category function of the Likert scale and misfitting persons is examined.

Table 45. *A Comparison of the Constructs Identified by the SPSS Factor Analysis and Rasch Analyses*

Name	Rasch PCA Item loading on each factor	Factor Analysis Item loading on each factor
Positive CLT Beliefs	TB items 2, 3, 4, 7, 10	TB items 2, 3, 4, **5,** 7, 10 (Factor 6)
L2 Self-confidence	PTE items 1, 2, 3, 4, 5, 6	PTE items 1, 2, 3, 4, 5, 6 (Factor 2)
CLT Self-efficacy	PTE items 7, 8, 9, 10	
Pre-service Teacher Training	PTT items 1, 3, 4, 5, 6	PTT items 1, 3, 4, 5, 6 (Factor 4)
In-service Teacher Training	ITT items 1, 2, 3, 4, 5, 6	ITT items 1, 2, 3, 4, 5, 6 (Factor 5)
Contextual Factors: Influence of Entrance Examinations	CF items 1, 3, 6	CF items 1, 3, 6 (Factor 7)
Contextual Factors: Exam-related Expectations	CF items 14, 15, 16, 17	
Contextual Factors: Students-related Communicative Conditions	CF items 2, 8, 9, 12	
Contextual Factors: Teacher-related School Conditions	CF items 4, 5, 7, 10, 11, 13	
Classroom Practices	CP items 1, 2, 3, 6, 8, 11	CP items 1, 2, 3, 6, 8, 11 (Factor 3)
Learning Experience	LE items 1, **2**, 3, 4, 5, 6, 8, 9, 10, 11	LE items 1, 3, 4, 5, 6, 8, 9, 10, 11 (Factor 1)

Table 46. *Rasch PCA of Item Residuals for Part G after Deleting Item LE2*

Item	Loading	Measure	Infit Mean Square	Outfit Mean Square
LE11	.71	.20	.64	.56
LE10	.64	.20	.84	.71
LE9	.60	-.44	.84	.91
LE8	.47	.25	.64	.66
LE5	-.50	.34	1.54	1.67
LE6	-.48	-.94	1.22	1.28
LE1	-.28	-.68	1.39	1.60
LE4	-.28	.55	.92	1.04
LE3	-.13	.52	.81	.85

Table 47. *The 11 Factors Identified from the Teacher Belief Questionnaire*

Name	Label	Item	Variance accounted for by the Rasch model (%)	Variance of the First Residual (%)	PS	IS
Positive CLT Beliefs	PCB	TB items 2, 3, 4, 7, 10	50.1	17.2	1.59	3.62
L2 Self-confidence	L2SC	PTE items 1, 2, 3, 4, 5, 6	69.8	11.7	2.7	3.94
CLT Self-efficacy	CSE	PTE items 7, 8, 9, 11	65.1	13.7	1.92	3.74
Pre-service Teacher Training	PTT	PTT items 1, 3, 4, 5, 6	82.2	6.9	2.69	5.25
In-service Teacher Training	ITT	ITT items 1, 2, 3, 4, 5, 6	71.5	8.7	2.22	4.95
Exam-related Expectations	EE	CF items 1, 3, 6	77.0	15.0	1.61	4.83
Influence of MEXT Policy	IMP	CF items 14, 15, 16, 17	57.5	30.3	1.50	0.00
Student-related Communicative Conditions	SCC	CF items 2, 8, 9, 12	51.7	20.8	1.12	2.30
Teacher-related School Conditions	TSC	CF items 4, 5, 7, 10, 11	55.9	12.6	.97	5.43
Classroom Practices	CP	CP items 1, 2, 3, 6, 8, 11	69.2	8.0	1.90	4.66
Learning Experience	LE	LE items 1, 3, 4, 5, 6, 8, 9, 10, 11	64.6	8.5	1.60	2.81

Note. PS = person separation; IS = item separation.

Rating Scale Analysis

The rating scales used on the Teacher Belief Questionnaire were analyzed in order to determine whether they were psychometrically optimal. A 5-point rating scale (1 =

never; 2 = infrequently; 3 = sometimes; 4 = frequently; and 5 = very frequently) was used for Component 10 (*Classroom Practices*) and Component 11 (*Learning Experience*), and a 6-point rating scale (1 = strongly disagree; 2 = disagree; 3 = moderately disagree; 4 = moderately agree; 5 = agree; and 6 = strongly agree) was used for the other components of the questionnaire.

Criteria for Rating Scale Functioning

Six criteria for optimizing rating sale category effectiveness were proposed by Linacre (1999). They are:

1. a minimum of ten observations should be in each category;
2. the shape of probability curve should be peaked for each category;
3. the average category measures increase with the rating scale categories;
4. outfit mean squares should be less than 2.0;
5. threshold calibrations should increase with the rating scale category; and
6. the category threshold should be between 1.4 and 5.0 logits apart.

These criteria were applied to the rating scales used to measure the 11 components extracted by the Rasch analyses described above. However, in regards to criterion 6 above, the following values were applied: 1.1 logits for the 4-point scale and .81 logits for the 5- and 6-point scales (Wolfe & Smith, 2007).

Component 1: Positive CLT Beliefs (PCB)

The category structure of the six original categories for Component 1 (*Positive CLT Beliefs*) was examined. Category 1 had the lowest observed count (six responses); thus, the first criterion of a minimum count of 10 responses was not met. Linacre (2002) suggested two options for optimizing rating scale effectiveness in this case. One is to omit data in low frequency categories that may not be indicative of the main trait of the variable. Another is to combine adjacent categories to obtain a higher number of responses in the resulting category. The latter solution was selected, and categories 1 and 2 were combined. As a result, the observed count for the new category 1 was 14; thus, the first criterion was met for the 5-point scale.

After combining the first and second categories, the other criteria were checked for the resulting 5-point scale. The average category measures were ordered, progressing from -2.00 for category 1 to 2.88 for category 5, and the outfit mean square statistics were in the acceptable range. Thus, the third and fourth criteria were met. The threshold measures were properly ordered (-2.46, -2.09, 1.15, and 3.41, respectively), but the thresholds for categories 1 and 2 were not distinctly different. Thus, the second and sixth criteria for rating scale optimization were not met. After combining categories 1 and 2, the category thresholds were all between .81 and 5.0 logits (Table 48), and the shape of the probability curves was peaked for each category (Figure 7).

Table 48. *Summary of the Category Structure for the 4-point Rating Scale for Positive CLT Beliefs*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Disagree	69	-2.40	.94	NONE
2 Moderately Agree	275	-.59	1.09	-2.88
3 Agree	250	.90	.98	.29
4 Strongly Disagree	85	2.08	.97	2.59

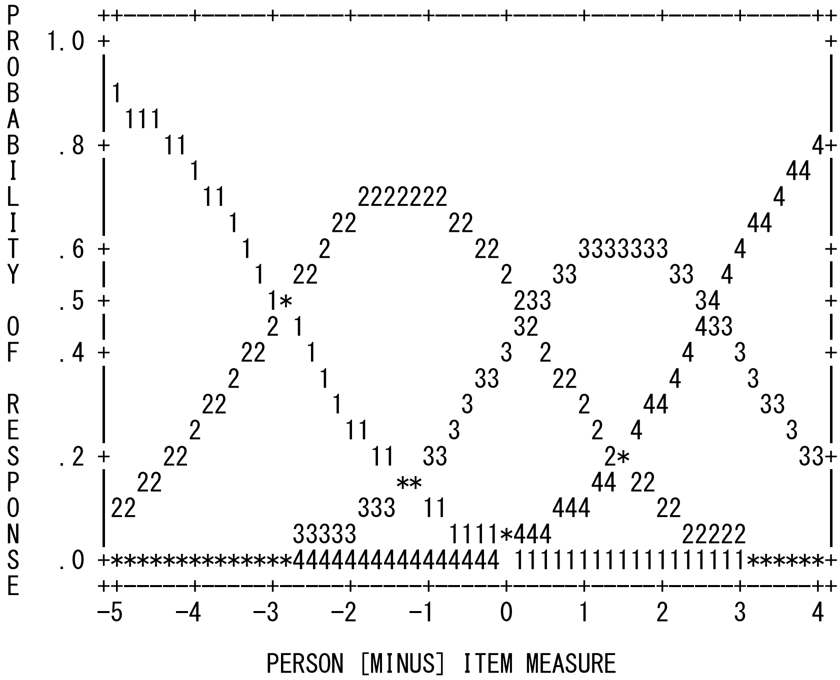

Figure 7. Category probability curves for the 4-point rating scale for *Positive CLT Beliefs*.

The results are summarized in Table 49. As the six criteria were met, the 4-point rating scale was considered optimal for Component 1. Table 50 provides the item and person separation and reliability estimates for the original 6-point rating scale, the 5-point rating scale, and the 4-point rating scale. Item separation and item reliability for the 4-point rating scale were good or very good according to Fisher's (2007) criteria (Table 51). In contrast, person separation and person reliability for the 4-point rating scale were poor or fair, but they were similar for the 6-point scale. The 4-rating scale was therefore used for Component 1.

Table 49. *Results of the Rating Scale Categorization for Positive CLT Beliefs*

Categorization	Criteria met #1	#2	#3	#4	#5	#6
6-point rating 123456	no	no	yes	yes	yes	no
5-point rating 112345	yes	no	yes	yes	yes	no
4-point rating 111234	yes	yes	yes	yes	yes	yes

Table 50. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Three Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.68	1.98	.74	.80	3.62	3.76	.93	.93
112345	1.58	1.90	.71	.78	3.63	3.76	.93	.93
111234	1.56	1.45	.71	.78	3.66	3.75	.93	.93

Table 51. *Rating Scale Instrument Quality Criteria*

Criterion	Poor	Fair	Good	Very Good	Excellent
Person and Item Measurement Reliability	< .67	.67-.80	.81-.90	.91-.94	> .94
Person and Item Strata Separated	2 or less	2-3	3-4	4-5	> 5

Component 2: L2 Self-confidence (L2SC)

The category structure of the six original categories for Component 2 (*L2 Self-confidence*) was examined. Category 1 had the lowest observed count (five responses), which was below the minimum count of ten; thus, categories 1 and 2 were combined. As a result, the observed count for the new category 1 was 53, and the first criterion was met for the 5-point scale. Next, the other criteria were checked regarding the resulting 5-point scale (Table 52). The average category measures were ordered, progressing from -4.21 for category 1 to 3.57 for category 5, and the outfit mean square statistics were in the acceptable range. Thus, the third and fourth criteria were met. Also, the threshold measures were properly ordered (-4.27, -2.52, 1.56, and 5.23, respectively), the category thresholds were all within .81 to 5.0 logits (Table 52), and the shape of the probability curves for each category was peaked (Figure 8). Thus, the second, fifth, and sixth criteria for rating scale optimization were met.

Table 52. *Summary of Category Structure of the 5-point Rating Scale for L2 Self-confidence*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Disagree	53	-4.21	1.14	NONE
2 Moderately Disagree	128	-2.68	.79	-4.27
3 Moderately Agree	360	-.25	.82	-2.52
4 Agree	227	2.51	.85	1.56
5 Strongly Disagree	33	3.57	1.61	5.23

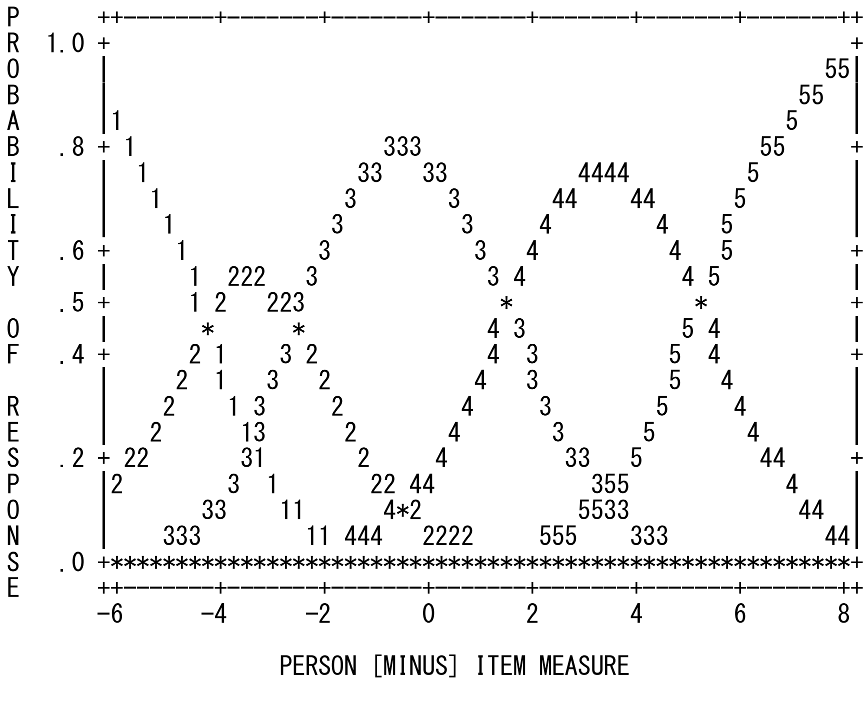

Figure 8. Category probability curves for the 5-point rating scale for *L2 Self-confidence*.

The results are shown in Table 53. As the six criteria were met, the 5-point rating scale was considered optimal for Component 1. Table 54 provides the item and person separation and reliability for the original 6-point rating scale and the resulting 5-point rating scale. Although half of the values became slightly lower after combining categories 1 and 2, all of the item and person separation and reliability estimates were good, very good, or excellent using the criteria proposed by Fisher (2007).

Table 53. *Results of the Rating Scale Categorization for L2 Self-confidence*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
6-point scale 123456	no	yes	yes	yes	yes	yes
5-point scale 112345	yes	yes	yes	yes	yes	yes

Table 54. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	2.70	3.23	.88	.91	3.94	4.19	.94	.95
112345	2.60	3.10	.87	.91	3.93	4.16	.94	.95

Component 3: CLT Self-efficacy (CSE)

Table 55 shows the category structure of the six original categories for Component 3, *CLT Self-efficacy*. None of the categories had an observed count below ten; the average category measures were ordered, progressing from -3.81 for category 1 to 4.29 for category 6; and the outfit mean square statistics were in the acceptable range. Thus, the first, third, and fourth criteria were met. The threshold measures were properly ordered (-4.88, -3.03, -.43, 3.23, and 5.11, respectively), the category thresholds were all within .81 to 5.0 logits, and the shape for the probability curves for each category was peaked (Figure 9); thus, the other criteria for rating scale optimization were met. Consequently, the original 6-point rating scale was considered optimal for Component 3.

Table 55. *Summary of Category Structure of the Original 6-point Rating Scale for CLT Self-efficacy*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	11	-3.81	1.63	NONE
2 Disagree	49	-2.95	.70	-4.88
3 Moderately Disagree	169	-1.04	.76	-3.03
4 Moderately Agree	236	1.06	.87	-.43
5 Agree	64	2.74	1.21	3.23
6 Strongly Disagree	17	4.29	1.54	5.11

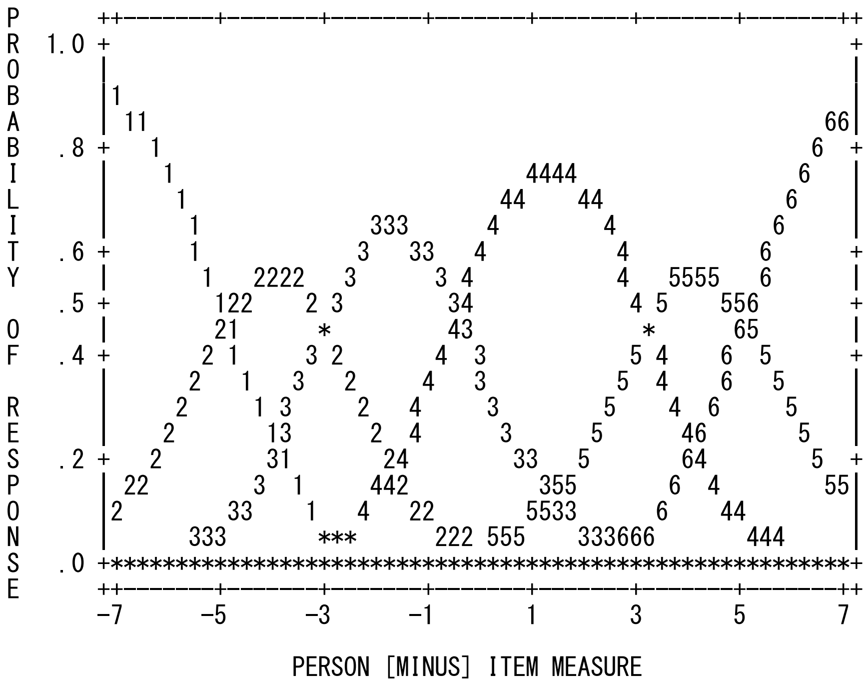

Figure 9. Category probability curves for the 6-point rating scale for *CLT Self-efficacy*.

Table 56 provides the item and person separation and reliability for the 6-point rating scale. Person separation, person reliability, item separation, and item reliability were all fair, good, or very good using Fisher's (2007) criteria.

Table 56. *Person Separation, Person Reliability, Item Separation, and Item Reliability of the Rating Scale Categorization*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.92	2.33	.79	.84	3.74	3.85	.93	.94

Component 4: Pre-service Teacher Training (PTT)

Table 57 shows the category structure of the six original categories for Component 4, *Pre-service Teacher Training*. None of the categories had an observed count below ten, and the average category measures were ordered, progressing from -4.72 for category 1 to 3.53 for category 6; thus, the first and the third criteria were met. Although the outfit

Table 57. *Summary of Category Structure of the Original 6-point Rating Scale for Pre-service Teacher Training*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	106	-4.72	.91	NONE
2 Disagree	162	-3.00	.82	-4.18
3 Moderately Disagree	183	-1.13	.58	-2.22
4 Moderately Agree	117	.47	1.07	-.04
5 Agree	52	1.96	1.59	2.02
6 Strongly Disagree	15	3.53	2.17	4.42

mean square statistic of 2.17 for category 6 did not satisfy the fourth criterion, it was only slightly higher than the critical value of 2.00, so category 6 was retained. Also, the threshold measures were properly ordered (-4.18, -2.22, -.04, 202, and 4.42, respectively), the category thresholds were all between .81 to 5.0 logits, and the shape of the probability curves for each category was peaked (Figure 10). Thus, the second, fifth, and sixth criteria for rating scale optimization were met. Consequently, the original 6-point rating scale was considered optimal for Component 4.

```
P      ++---------+---------+---------+---------+---------+---------++
R  1.0 +                                                             +
O      |                                                             |
B      |                                                             |
A      |11                                                          6|
B   .8 +  1                                                        6 +
I      |   11                                                     6  |
L      |     1                                                  66   |
I      |      1                                                6     |
T   .6 +       1              333                  555555     6      +
Y      |        1  222222     33    33     4444444    55      5  6     |
    .5 +        1 2      22 3         33 4         4 5        5*       +
O      |         *         *          *          *             65      |
F   .4 +       22 1        3 2        4 3        5 4        6  5       +
       |      2    1      3   2      4   3      5   4      6    5      |
R      |     2      1    3     2    4     3    5     4    6      5     |
E      |   22        1 3        2 4        3 5       44 6        55    |
S   .2 +  2           *          *4         *          *6          5 +
P      |22          33 11       4 22      55 33      6 4             5|
O      |          33     11  44    22  55     33   66   444           |
N      |      3333       44**1     5**2      6***        444          |
S   .0 +*************************************************************+
E      ++---------+---------+---------+---------+---------+---------++
       -6        -4        -2         0         2         4         6

                      PERSON [MINUS] ITEM MEASURE
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Figure 10. Category probability curves for the 6-point rating scale for *Pre-service Teacher Training.*

Table 58 provides the item and person separation and reliability estimates for the 6-point rating scale. Person separation, person reliability, item separation, and item reliability were all good, very good, or excellent according to Fisher's (2007) criteria.

Table 58. *Person Separation, Person Reliability, Item Separation, and Item Reliability of the Rating Scale Categorization*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	2.69	3.19	.88	.91	5.25	5.62	.96	.97

Component 5: In-service Teacher Training (ITT)

The category structure of the six original categories for Component 5, *In-service Teacher Training,* was examined. None of the categories had an observed count below ten, the average category measures were ordered, progressing from -2.04 for category 1 to 3.36 for category 6, and the outfit mean square statistics were in the acceptable range. Thus, the first, third, and fourth criteria were met. However, the threshold measures (-3.29, -1.15, -1.01, 1.44, and 4.00, respectively) showed that the distance between category thresholds for categories 3 and 4 was less than .81 logits; thus, the second and sixth criteria for rating scale optimization were not met. Category 3 (moderately disagree) cannot be logically combined with category 4 (moderately agree), so categories 2 and 3 were combined. As a result, the category thresholds all met the .81-5.0 logit criterion (Table 59), and the shape of the probability curves was peaked for each category (Figure 11).

The results are summarized in Table 60. As the six criteria were met, the 5-point rating scale was considered optimal for Component 5. Table 61 provides the item and person separation and reliability estimates for the original 6-point rating scale and the resulting 5-point rating scale. Person separation, person reliability, and item separation showed lower values after the categories were combined. Yet the three criteria were considered fair, good, or very good, and item reliability was estimated as excellent using Fisher's (2007) criteria.

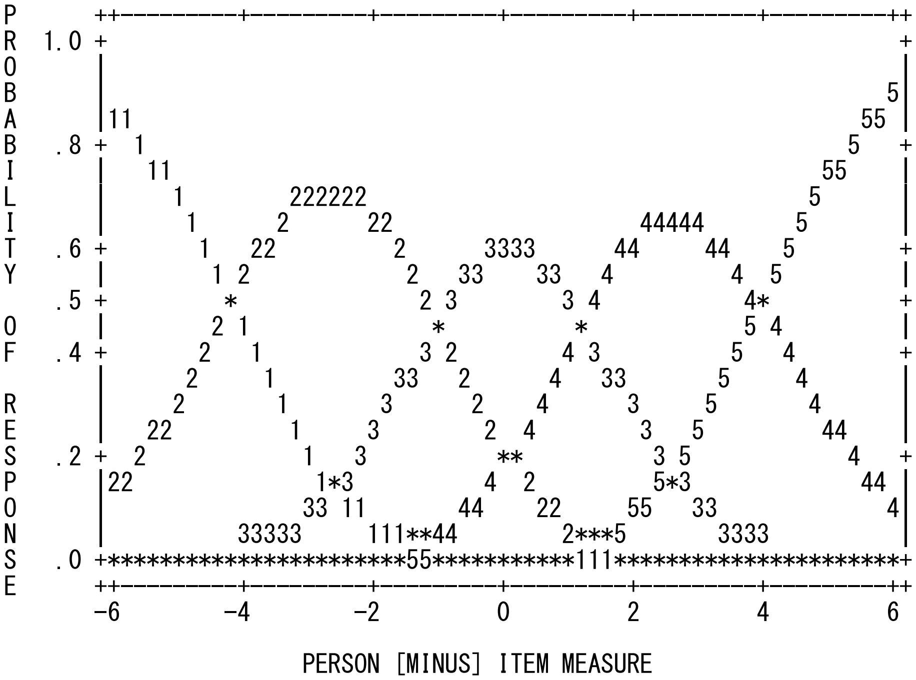

Figure 11. Category probability curves for the 5-point rating scale for *In-service Teacher Training.*

Table 59. *Summary of Category Structure of the 5-point Rating Scale for In-service Teacher Training*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	32	-2.60	1.17	NONE
2 Disagree	237	-1.65	.88	-4.21
3 Moderately Agree	285	.03	.98	-.99
4 Agree	166	1.48	.91	1.22
5 Strongly Disagree	37	3.42	1.24	3.97

Table 60. *Results of the Rating Scale Categorization for In-service Teacher Training*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
6-point rating 123456	yes	no	yes	yes	yes	no
5-point rating 122345	yes	yes	yes	yes	yes	yes

Table 61. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	2.22	2.64	.83	.87	4.95	5.15	.96	.96
122345	1.99	2.40	.80	.85	4.63	4.87	.96	.96

Component 6: Exam-related Expectations (EE)

The category structure of the six original categories for Component 6, *Exam-related Expectations,* was examined. None of the categories had an observed count below ten, the average category measures were ordered, progressing from -3.20 for category 1 to 3.29 for category 6, and the outfit mean square statistics were in the acceptable range. Thus, criteria 1, 3, and 4 were met. However, the threshold measures (-2.71, -2.10, -.58, 1.53, and 3.86, respectively) showed that the distance between the category thresholds for categories 2 and 3 was less than .81 logits. The second and sixth criteria for rating scale optimization were not met, so categories 2 and 3 were combined. As a result, the category thresholds all met the .81-5.0 logit criterion (Table 62), and the shape of the probability curves was peaked for each category (Figure 12).

Table 62. *Summary of Category Structure of the 5-point Rating Scale for Exam-related Expectations*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	52	-4.07	.73	NONE
2 Disagree	152	-1.96	.99	-4.02
3 Moderately Agree	103	-.21	1.08	-.79
4 Agree	63	1.69	1.14	1.23
5 Strongly Disagree	22	3.08	1.23	3.58

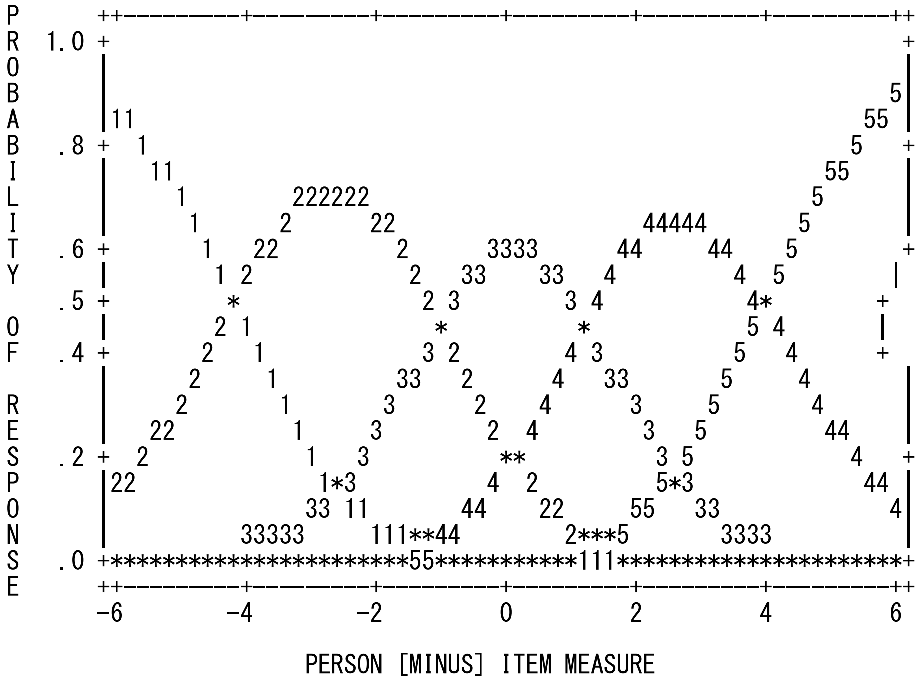

Figure 12. Category probability curves for the 5-point rating scale for *Exam-related Expectations.*

The results are summarized in Table 63. As the six criteria were met, the 5-point rating scale was considered optimal for Component 6. Table 64 provides the item and person separation and reliability estimates for the original 6-point rating scale and the resulting 5-point rating scale. Person separation, person reliability, item separation, and item reliability showed lower values after the categories were combined, but they were all considered fair, good, or very good using Fisher's (2007) criteria.

Table 63. *Results of the Rating Scale Categorization for Exam-related Expectations*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
6-point rating 123456	yes	no	yes	yes	yes	no
5-point rating 122345	yes	yes	yes	yes	yes	yes

Table 64. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.93	2.35	.79	.85	5.17	5.52	.96	.97
122345	1.62	2.05	.72	.81	4.09	4.41	.94	.95

Component 7: Influence of MEXT Policy (IMP)

Table 65 shows the category structure of the six original categories for Component 7, *Influence of MEXT Policy*. None of the categories had an observed count below ten, and the average category measures were ordered, progressing from -2.81 for category 1 to 3.07 for category 6; thus, the first and the third criteria were met. Also, the outfit mean square statistics were in the acceptable range, the threshold measures were properly ordered (-3.38, -1.98, -.79, 2.34, and 3.82, respectively), the category thresholds were all within .81 to 5.0 logits, and the shape for the probability curves for each category was peaked (Figure 13). Thus, the other four criteria for rating scale optimization were met. Consequently, the original 6-point rating scale was considered optimal for Component 7.

Table 65. *Summary of Category Structure of the Original 6-point Rating Scale for Influence of MEXT Policy*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	24	-2.81	1.51	NONE
2 Disagree	65	-1.98	.86	-3.38
3 Moderately Disagree	125	-.87	.69	-1.98
4 Moderately Agree	219	.53	.83	-.79
5 Agree	72	1.88	1.14	2.34
6 Strongly Disagree	20	3.07	.91	3.82

```
P      ++---------+---------+---------+---------+---------+---------++
R  1.0 +                                                             +
O      |                                                         6666|
B      |                                                      666    |
A      |1                                                    6       |
B   .8 + 1                                                 66        +
I      |  1                                               6          |
L      |   1                       4444                  6           |
I      |    1                     4    44               6            |
T   .6 +     1                  44       44            6             +
Y      |      1                4           4          6              |
    .5 +       1  222         4             4 555555 6               +
O      |        *2   22  33334              45      *                |
F   .4 +       2 1     *3    *3            554     6 55              +
       |     22   1   3 2   4  3          5   4   6    5             |
R      |    2     1  3   2 4    33       5     4 6      5            |
E      |   2       13     *       3     5       46       55          |
S   .2 + 22        31    4 2       3  55       664         5         +
P      |2        33  11 4   22      3*        6   44        55       |
O      |       33     4*      2   555 33    66      44        555    |
N      |    333    444  111  5***2      3***          444        5555|
S   .0 +*************************************************************+
E      ++---------+---------+---------+---------+---------+---------++
       -5        -3        -1         1         3         5         7

                       PERSON [MINUS] ITEM MEASURE
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Figure 13. Category probability curves for the 6-point rating scale for *Influence of MEXT Policy.*

Table 66 provides the item and person separation and reliability estimates for the 6-point rating scale. Although person separation and person reliability were considered fair or good according to Fisher's (2007) criteria, item separation and item reliability were 0.00. As mentioned above, this was due to the fact that the four items of Component 7 were almost the same difficulty (Figure 5) and was not caused by a problem with the rating scale categories; thus, the 6-rating scale was used for Component 7.

Table 66. *Person Separation, Person Reliability, Item Separation, and Item Reliability of the Rating Scale Categorization*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.74	2.13	.75	.82	0.00	0.00	.00	.00

Component 8: Student-related Communicative Conditions (SCC)

The category structure of the six original categories for Component 8, *Student-related Communicative Conditions,* was examined. None of the categories had an observed count below ten; thus, the first criterion was met. The average category measures were ordered, progressing from -2.49 for category 1 to 1.68 for category 6, and the outfit mean square statistics were in the acceptable range. Thus, the third and fourth criteria were met. However, the threshold measures (-2.49, -1.65, -.39, .41, 1.29, and 1.68, respectively) showed that the distance between the category thresholds for categories 5 and 6 was less than .81 logits. The second and sixth criteria for rating scale optimization were not met, so categories 5 and 6 were combined. As a result, the category thresholds all met the .81-5.0 logit criterion (Table 67), and the shape of the probability curves was peaked for each category (Figure 14). The results are summarized in Tables 68. As the six criteria were met, the 5-point rating scale was considered optimal for Component 8.

Table 67. *Summary of Category Structure of the 5-point Rating Scale for Student-related Communicative Conditions*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	30	-1.87	.93	NONE
2 Disagree	83	-1.05	.82	-2.40
3 Moderately Agree	164	.27	.83	-1.05
4 Agree	211	1.19	1.09	.42
5 Strongly Disagree	57	2.21	1.15	3.03

```
P      ++-----+-----+-----+-----+-----+-----+-----+-----+-----++
R  1.0 +                                                         +
O      |                                                         |
B      |                                                        5|
A      |                                                      55|
B   .8 +11                                                  55   +
I      |  11                                               5     |
L      |    1                                            55      |
I      |     1                              4444        5        |
T   .6 +      1                           44    444      5       +
Y      |       1                        44         4   5         |
    .5 +        1   222       3333    4             445          +
O      |         *22    22   33     334             554          |
F   .4 +        2 1        **        433            5    44      +
       |      22    1     3  2      4   3          5       4     |
R      |     2       1   3     22   4    33       5         4    |
E      |   22         1*        *4        3   55             44  |
S   .2 + 22          33 1      4 2         335                 44 +
P      |2           3     1  44    22      5533                 44|
O      |         333       **        22   55    33                4|
N      |    3333       444   1111    55***2       33333           |
S   .0 +*************555555555***111111**********************+
E      ++-----+-----+-----+-----+-----+-----+-----+-----+-----++
       -4    -3    -2    -1     0     1     2     3     4     5
```

Figure 14. Category probability curves for the 5-point rating scale for *Student-related Communicative Conditions.*

Table 68. *Results of the Rating Scale Categorization for Student-related Communicative Conditions*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
6-point rating 123456	yes	no	yes	yes	yes	no
5-point rating 123455	yes	yes	yes	yes	yes	yes

Table 69 provides the item and person separation and reliability estimates for the original 6-point rating scale and the resulting 5-point rating scale. Item separation and item reliability showed lower values after combining the categories, but they were considered fair or good using the criteria proposed by Fisher (2007). Also, although person separation and item separation were regarded as poor and fair, respectively, they improved slightly after combining categories 5 and 6, so the 5-point scale was used for Component 8.

Table 69. *Comparison of Person Separation, Person Reliability, Item Separation and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.39	1.74	.66	.75	2.55	2.59	.87	.87
123455	1.43	1.71	.67	.75	2.38	2.41	.85	.85

Component 9: Teacher-related School Conditions (TSC)

The category structure of the six original categories for Component 9 *(Teacher-related School Conditions)* was examined. None of the categories had an observed count below ten. Also, the average category measures were ordered, progressing from -1.28 for category 1 to .97 for category 6, and the outfit mean square statistics were in the acceptable range. Thus, criteria 1, 3, and 4 were met. However, the threshold measures (-1.50, -.83, -.32, 1.08, and 1.57) indicated that the distance between category thresholds for categories 2 and 3, that for 3 and 4, and that for categories 5 and 6 were .67, .51, and .39, respectively; thus, they did not satisfy the second and sixth criteria for rating scale optimization. As categories 5 and 6 showed the least separation among the three pairs, category 5 was combined with category 6 first.

After collapsing those categories, however, the threshold measures (-1.10, -.39, .18, and 1.31) still showed that the distances between the category thresholds for categories 2 and 3 and categories 3 and 4 were less than .81 logits. As category 3 (moderately disagree) cannot be logically combined with category 4 (moderately agree), categories 2 and 3 were combined. As a result, the category thresholds were all within the .81-5.0 logit range (Table 70), and the shape of the probability curves was peaked for each category (Figure 15).

```
P      ++-------+-------+-------+-------+-------+-------+-------++
R  1.0 +                                                         +
O      |                                                         |
B      |1                                                        |
A      | 111                                                     |
B   .8 +    11                                                 44+
I      |      11                                             44  |
L      |        11                                         44    |
I      |          11            2222                      4      |
T   .6 +            1       2222    222                 44       +
Y      |             11   22           22              4         |
    .5 +               1*2               22           4          +
O      |              22 1                 2    3333 44          |
F   .4 +            22    11                **3     *33          +
       |           2        1             333  2   4   333       |
R      |         22          11          33     2*4       33     |
E      |      222              11     33        4 2         333  |
S   .2 +    22                   1133       44    22          33 +
P      | 222                    33311     44        22          3|
O      |2                    333     111 44           222        |
N      |              3333333      4444*11111            22222   |
S   .0 +**************44444444444444          111111111111111***+
E      ++-------+-------+-------+-------+-------+-------+-------++
       -4      -3      -2      -1       0       1       2       3
        PERSON [MINUS] ITEM MEASURE
```

Figure 15. Category probability curves for the 4-point rating scale for *Teacher-related School Conditions.*

Table 70. *Summary of Category Structure of the 4-point Rating Scale for Teacher-related School Conditions*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Strongly Disagree	91	-1.44	1.03	NONE
2 Disagree	304	-.39	1.04	-2.10
3 Moderately Agree	177	.52	.90	.63
4 Agree	111	1.50	.97	1.47

The results are summarized in Table 71. As the six criteria were met, the 4-point rating scale was considered optimal for Component 9. Table 72 provides the item and person separation and reliability estimates for the original 6-point rating scale, the 5-point rating scale, and the 4-point rating scale. Item separation and item reliability for the 4-point rating scale were slightly lower than those for the 6-point rating scale, but both were considered excellent according to Fisher's (2007) criteria (Table 10). In contrast, person separation and person reliability for the 4-point rating scale were poor, but they were similar for the 6-point scale. The 4-rating scale was therefore used for Component 9.

Table 71. *Results of the Rating Scale Categorization for Teacher-related School Conditions*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
6-point rating 123456	yes	no	yes	yes	yes	no
5-point rating 123455	yes	no	yes	yes	yes	no
4-point rating 122344	yes	yes	yes	yes	yes	yes

Table 72. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Three Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
123456	1.13	1.41	.56	.67	5.48	5.72	.97	.97
112355	1.09	1.36	.54	.65	5.40	5.68	.97	.97
122344	1.01	1.27	.51	.62	5.30	5.51	.97	.97

Component 10: Classroom Practices (CP)

The category structure of the five original categories for Component 10, *Classroom Practices,* was examined. None of the categories had an observed count below ten. Also, the average category measures were ordered, progressing from -2.66 for category 1 to 1.84 for category 5, and the outfit mean square statistics were in the acceptable range.

Thus, the first, third, and fourth criteria were met. However, the threshold measures (-2.42, -.77, 1.22, and 1.97, respectively) showed that the distance between category thresholds for categories 4 and 5 was less than .81 logits. Because the second and sixth criteria for rating scale optimization were not met, categories 4 and 5 were combined. As a result, the category thresholds all met the .81-5.0 logit criterion (Table 73), and the shape of the probability curves was peaked for each category (Figure 16).

Table 73. *Summary of Category Structure of the Original 5-point Rating Scale for Classroom Practices*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Never	155	-1.98	1.01	NONE
2 Infrequently	251	-.57	.92	-1.74
3 Sometimes	253	.51	1.00	-.03
4 Frequently	124	1.61	1.09	1.77

```
P      ++---------+---------+---------+---------+---------+---------++
R  1.0 +                                                               +
O      |                                                               |
B      |                                                               |
A      |                                                               |
B   .8 +                                                               +
I      |111                                                         444|
L      |   11                                                     44   |
I      |     11                                                 44     |
T   .6 +       11                                              44      +
Y      |         11        2222               33333333       44        |
    .5 +           11 22222    22222       333        333  4           +
O      |             22*            22333                **3           |
F   .4 +          22   11           3322               44   333        +
       |       222       11       33    222          44        33      |
R      |    22             11   33         22      44           333    |
E      |  222                1133            2244                  33  |
S   .2 +2                    33311           4422                    3+
P      |                  333      111     444   222                   |
O      |              3333           111 444        2222               |
N      |       3333333              444444*111111       22222222       |
S   .0 +*****4444444444444444444             111111111111111111*****+
E      ++---------+---------+---------+---------+---------+---------++
       -3        -2        -1         0         1         2         3

                     PERSON [MINUS] ITEM MEASURE
```

Figure 16. Category probability curves for the 4-point rating scale for *Classroom Practices.*

The results are summarized in Table 74. As the six criteria were met, the 4-point rating scale was considered optimal for Component 10. Table 75 provides the item and person separation and reliability estimates for the original 5-point rating scale and the resulting 4-point rating scale. Although they all showed lower values after combining the categories, item separation and item reliability for the 4-point rating scale were very good or excellent, and person separation and person reliability were fair using Fisher's (2007) criteria.

Table 74. *Results of the Rating Scale Categorization for Classroom Practices*

	Criteria met					
Categorization	#1	#2	#3	#4	#5	#6
5-point rating 12345	yes	no	yes	yes	yes	no
4-point rating 12344	yes	yes	yes	yes	yes	yes

Table 75. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
12345	1.90	2.23	.78	.83	4.66	4.78	.96	.96
12344	1.77	2.06	.76	.81	4.40	4.54	.95	.95

Component 11: Learning Experience (LE)

The category structure of the five original categories for Component 11, *Learning Experience,* was examined. None of the categories had an observed count below ten; thus the first and fifth criteria were met. The average category measures were ordered, progressing from -3.05 for category 1 to 1.61 for category 5, and the outfit mean square statistics were in the acceptable range; thus, the third and fourth criteria were met.

However, the threshold measures were not properly ordered (-1.81, -.66, 1.81, and .66, respectively), and category 4 did not display distinct peaks. Criteria 2, 5, and 6 were not met, so categories 4 and 5 were combined. As a result, the threshold measures were properly ordered (-1.48, -.26, and 1.74, respectively), the category thresholds were all within .81 to 5.0 logits (Table 76), and the shape for the probability curves for each category was peaked (Figure 17).

Table 76. *Summary of Category Structure of the 4-point Rating Scale for Learning Experience*

Category label	Observed count	Average measure	Outfit Mean square	Threshold estimate
1 Never	485	-2.73	.92	NONE
2 Infrequently	256	-1.31	.72	-1.48
3 Sometimes	129	-.56	1.42	-.26
4 Frequently	38	1.69	1.44	1.74

```
P      ++---------+---------+---------+---------+---------+---------++
R  1.0 +                                                             +
O      |                                                             |
B      |                                                             |
A      |                                                             |
B   .8 +111                                                          +
I      |   11                                                     444|
L      |     11                                                 44   |
I      |       11                                             44     |
T   .6 +         11                                         44       +
Y      |           11                    33333333333      44         |
    .5 +             1                 33           333344           +
O      |              1*22222222222 333               4433           |
F   .4 +            222 11        3*22               4    333        +
       |         222      1      3    22           44        33      |
R      |      222          11  33       222      44            33    |
E      |    22               **            22  44                333 |
S   .2 +2222              333  11           4**2                    3+
P      |               333       111      44    222                  |
O      |            333             11*444         2222              |
N      |     3333333           4444444 111111          2222222       |
S   .0 +*****444444444444444444              1111111111111111*******+
E      ++---------+---------+---------+---------+---------+---------++
       -3        -2        -1         0         1         2         3

                 PERSON [MINUS] ITEM MEASURE
```

Figure 17. Category probability curves for the 4-point rating scale for *Learning Experience.*

The results are summarized in Table 77. As the six criteria were met, the 4-point rating scale was considered optimal for Component 11. Table 78 provides the item and person separation and reliability estimates for the original 5-point rating scale and the resulting 4-point rating scale. Item separation and item reliability for the 4-point rating scale were considered fair or good according to Fisher's (2007) criteria. On the contrary, although person separation and person reliability for the 4-point rating scale were poor or fair, they became slightly higher after combining the categories; therefore, the 4-rating scale was used for Component 11.

Table 77. *Results of the Rating Scale Categorization for Learning Experience*

Categorization	Criteria met #1	#2	#3	#4	#5	#6
5-point rating 12345	yes	no	yes	yes	no	no
4-point rating 12344	yes	yes	yes	yes	yes	yes

Table 78. *Comparison of Person Separation, Person Reliability, Item Separation, and Item Reliability of the Two Rating Scale Categorizations*

Categorization	Person Separation		Person Reliability		Item Separation		Item Reliability	
	Real	Model	Real	Model	Real	Model	Real	Model
12345	1.60	1.89	.72	.78	2.81	2.99	.89	.90
12344	1.69	1.97	.74	.80	2.83	3.00	.89	.90

Summary

Having examined the rating scale category effectiveness for the 11 components, the rating scales were optimized as shown Table 79. In the next section, the person fit analysis is conducted.

Table 79. *Rating Scale Optimization*

Component	Changes in the Rating Scale
Component 1	123456 → 111234
Component 2	123456 → 112345
Component 3	123456 → No change
Component 4	123456 → No change
Component 5	123456 → 122345
Component 6	123456 → 122345
Component 7	123456 → No change
Component 8	123456 → 123455
Component 9	123456 → 122344
Component 10	12345 → 12344
Component 11	12345 → 12344

Person Fit to the Rasch Model

In this section, person fit statistics were used to estimate the extent to which the responses of the respondents match the predictions made by the Rasch model (Bond & Fox, 2003). Two types of person fit statistics, infit and outfit mean-square statistics, are provided. As mentioned above, the fit criteria for infit and outfit mean-square differ according to the *N*-size (Smith, Schumacker, & Bush, 1998). In this study, a relatively lenient criterion of 3.00 was adopted (Linacre, 2007). Using the criterion, misfitting persons were checked for each component. As shown in Table 80, a total of 69 misfitting people were identified. Participants #46 and #63 misfit five and four components, respectively. As they provided unpredictable responses, both were deleted from further analyses, so the sample size became 137.

Table 80. *Rasch Person Fit Statistics for Misfitting Persons*

Component	Entry Number	Infit mean square	Outfit mean square
Component 1	11	3.58	3.54
	112	3.23	3.25
	97	3.15	2.92
	35	3.03	2.97
Component 2	129	5.31	4.56
	47	5.51	4.98
	17	4.52	4.84
	63	4.33	4.34
	46	3.92	4.22
	33	3.63	3.97
	27	3.66	3.63
	97	3.29	3.18
	38	3.24	3.21
	78	3.24	3.21
Component 3	58	9.61	9.83
	46	9.35	9.30
	36	6.30	6.15
	63	5.99	5.94
	32	3.77	3.73
	44	3.45	3.54
	39	3.19	3.16
	27	3.12	3.05
Component 4	64	6.60	6.56
	32	4.77	5.02
	46	4.39	3.82
	2	4.15	3.62
	80	4.00	3.99
	65	3.60	3.39
	87	3.60	3.36
	30	3.13	3.11
	93	3.03	3.05
Component 5	73	6.16	6.10
	84	5.24	5.01
	17	4.90	4.97
	7	4.44	4.48
	13	3.39	3.42

(Table 80 continues)

(Table 80 continued)

Component	Entry Number	Infit mean square	Outfit mean square
Component 6	53	6.15	6.26
	69	5.59	5.51
	120	5.59	5.51
	5	5.10	5.06
	39	3.82	3.71
	52	3.82	3.71
	62	3.44	3.55
	93	3.21	3.21
Component 7	93	9.71	9.63
	35	5.74	5.75
	46	5.35	5.35
	32	4.18	4.22
	64	4.21	4.22
	126	4.21	4.22
	33	3.52	3.51
	7	3.02	3.02
	92	3.02	3.02
Component 8	46	5.59	5.39
	33	4.06	4.10
	35	3.42	3.38
	92	3.34	3.28
	138	3.31	3.33
	95	3.26	3.25
Component 9	84	3.74	3.12
	73	2.85	3.01
Component 10	63	3.97	3.96
	12	3.69	3.68
	134	3.10	3.09
	75	1.25	3.05
Component 11	63	3.59	4.53
	62	2.33	3.74
	73	2.32	3.62
	70	2.26	3.01

Summary of the Rasch Analyses

Through the Rasch analyses, (a) the unidimensionality of the factors identified in the SPSS FA was investigated, (b) item and person fit statistics were examined, and (c) the rating scale was adjusted for each variable. As a result, 11 components were identified in the Teacher Belief Questionnaire, and the final *N*-size was 137. In order to use the revised questionnaire data for SPSS applications, logits provided by WINSTEPS were transformed into *t*-scores and exported to a SPSS 15.0 data file.

In the SPSS data file, five missing values were found because these persons did not respond to the items that formed a single component. However, because the sample size of the data was not large and no person had more than one missing value, the cases were kept and the mean for the variable was substituted for the missing data.

Descriptive statistics using the data before the Rasch analyses were examined regarding the first and second research questions. A one-way MANOVA was performed to answer the third research question, and a Pearson product-moment correlation coefficient and a path analysis were performed to answer the fourth research question. The results are reported in the next chapter.

CHAPTER 5

QUANTITATIVE RESULTS

The purpose of this chapter is to show the quantitative results for the four research questions. Raw scores were transformed to interval-level Rasch logit measures in the previous chapter, and *t*-scores of the Rasch measures, which are also interval measures, are used for the statistical analyses in this chapter.

Research Question 1

The first research question asked what beliefs Japanese high school teachers hold about CLT. This question is answered by presenting (a) the descriptive statistics for Part A (Teachers Beliefs about CLT) of the questionnaire, (b) the distribution of the responses to Part A, and (c) a summary of the responses to the open-ended questions in Part H. The 10-item 6-point Likert scale questionnaire data will be used in this section.

Responses to Part A (Teacher Beliefs about CLT)

Descriptive Statistics

Descriptive statistics for Part A (Teacher Beliefs about CLT) of the questionnaire are shown in Table 81. Item A9 (Foreign languages are learned through a process of trial and error) was the easiest item to endorse and it was followed by item A1 (Language is acquired effectively when it is used as a vehicle for doing something else). Item A4

(Developing students' fluency is as important as developing their accuracy) was the most difficult item to endorse. Although the survey respondents reported that they considered that errors should be seen as a natural part of learning, many of them also wrote that they also believed that accuracy is important.

Table 81. *Descriptive Statistics for Part A of the Questionnaire (N = 139)*

Item	*M*
A1 Language is acquired effectively when it is used as a vehicle for doing something else.	39.9
A2 It is important to develop students' ability to communicate in real world situation.	48.6
A3 Classroom activities should engage students in meaningful communication.	57.4
A4 Developing students' fluency is as important as developing their accuracy.	59.0
A5 The teacher's role in the classroom is to facilitate students' activities of communicating in English.	50.1
A6 Rote-memorization should play an important role in the foreign language classroom.	49.1
A7 Group/pair work activities play an important role in helping students acquire English.	54.5
A8 The development of comprehensible pronunciation in English is an appropriate goal.	50.1
A9 Foreign languages are learned through a process of trial and error, so errors should be seen as a natural part of learning.	38.1
A10 Students' motivation to use the English language will be increased through the use of communicative activities.	53.1

Note. Item means are expressed in Rasch logits that were converted to *t*-scores.

Distributions of the Responses

Table 82 presents the distributions of the responses regarding the teachers' beliefs about CLT. The graphs indicate that more than 80% of the high school teachers reported that they agreed (including slight or strong agreement) with all the items. Even with item A4, which was the most difficult item to endorse among the ten items, 84% of the teachers expressed some form of agreement, while 99% of the teachers agreed with item

A9, which was the easiest item to endorse. All the items in Part A, except for item A6, were derived from CLT principles and characteristics (Brown, 2001); thus, the respondents to the survey reported that they held positive beliefs about CLT. However, although item A6 (the role of rote-memorization) was incompatible with CLT principles, approximately 95% of the respondents agreed with it; thus, many of the teachers also believed that memorization is an important part of learning English. The teachers appeared to regard both CLT and traditional language teaching methods positively.

Table 82. *Distributions of the Responses to Part A of the Questionnaire (N = 139)*

Item	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
A1	0 (0%)	0 (0%)	3 (2%)	20 (15%)	57 (41%)	58 (42%)
A2	0 (0%)	0 (0%)	4 (3%)	46 (33%)	58 (42%)	31 (22%)
A3	1 (1%)	3 (2%)	16 (12%)	62 (44%)	41 (30%)	15 (11%)
A4	2 (2%)	4 (3%)	15 (11%)	64 (47%)	40 (30%)	10 (7%)
A5	1 (1%)	0 (0%)	3 (2%)	42 (30%)	75 (54%)	18 (13%)
A6	0 (0%)	1 (1%)	6 (4%)	38 (28%)	64 (47%)	28 (20%)
A7	1 (1%)	3 (2%)	8 (6%)	54 (39%)	57 (42%)	15 (10%)
A8	2 (1%)	0 (0%)	7 (5%)	41 (30%)	60 (43%)	29 (21%)
A9	0 (0%)	0 (0%)	1 (1%)	15 (11%)	64 (46%)	59 (42%)
A10	2 (1%)	3 (2%)	7 (5%)	49 (35%)	54 (40%)	24 (17%)

Responses to the Open-ended Questions in Part H

The respondents were asked three questions in Part H of the questionnaire:

1. Do you want to change the teaching method that you are using in English I or II in the future?
2. If yes, what would you like to change?

3. In order to change your teaching method, what conditions do you think need to be changed?

In response to the first question, 110 teachers answered "yes (I want to change my teaching method)," 24 answered "no," and five answered "I don't know." Among the 110 teachers, 75 teachers reported that they wanted to make their lessons more communicative in response to the second question (Table 83), e.g., to improve students' communication abilities [15 teachers (hereafter 15)], to use more English in the class [14], and to use more communicative activities [10].

Table 83. *Teaching Methods/Practices that the Teachers Wanted to Change (1) (N = 75)*

Method/practice	Number of mentions
Improve students' communication abilities	15
Use more English in the class (teacher)	14
Use more communicative activities	10
Improve students' reading comprehension skills (without using *yakudoku*)	7
Keep well-balanced teaching of the four skills'	6
Make students speak more English	6
Make the lesson more learner-centered	4
Use more pair work	2
Use more listening activities	2
Expose students to more English	2
Keep a good balance between input and output	2
Improve students' ability to understand in English	1
Focus on spoken language	1
Have students express themselves in English	1
Teach more about culture	1
Have students practice summary writing	1

Another important point is that seven teachers reported that they wanted to improve their students' reading comprehension skills without using the traditional *yakudoku* method. Comments such as "expose students to more English [2]" and "improve students' ability to understand in English [1]" imply that, instead of using *yakudoku,* the teachers they expected to provide students with a large amount of input in English. It should be also noted that six teachers reported that they wanted to keep a good balance between teaching the four skills (two of them used the term "input and output"). Related to maintaining the four-skill balance, 15 teachers wrote that they needed to provide students with more time for speaking and listening activities, learner-centered activities, or pair and group work.

Table 84. *Teaching Methods/Practices that the Teachers Wanted to Change (2) (N = 22)*

Method/practice	Number of mentions
Use more time for reading aloud	3
Teach what students need to learn	3
Try not to adhere to the authorized textbook	2
Teach English at a level that is appropriate for the students' proficiency	2
Teach grammar in a way that is easy to understand	1
Make explanations easy to understand	1
Increase students' basic English proficiency	1
Improve students' English proficiency	1
Provide students with problem-solving activities	1
Change the method of evaluation	1
Make the syllabus coherent throughout the three years	1
Enable students to have sense of achievement	1
Other (e.g., lesson procedure, discipline, students' studying at home)	4

In regard to the second question in Part H of the questionnaire, responses that did not directly relate to CLT were also given (Table 84), yet respondents who wrote "try not to adhere to the authorized textbook" and "provide students with problem-solving activities" (the respondent did not specify if that is to be done in English or in Japanese) were possibly thinking of promoting the use of communicative activities. In addition, five teachers reported that they wanted to make grammar explanations easier to understand, increase the students' basic proficiency in English, or change the evaluation system, as it was largely focused on assessing decontextualized grammatical knowledge.

The third question was answered by the 71 teachers who wrote that they wanted to change their teaching methods. As shown in Table 85, 20 teachers reported that class sizes should be smaller, a finding that is compatible with the results in Nishino (2008). Ten teachers commented that university entrance examinations need to be changed. Also to be noted in Table 85 is that 20 teachers referred to changes in their own teaching situations, e.g., teachers' preparation time [6], teachers' perceptions of or attitudes towards language teaching [6], teachers' English proficiency [5], in-service teacher training [2], and ALTs [1].

Table 85. *Conditions to Be Changed to Make Classes More Communicative (N = 71)*

Conditions to be changed	Number of mentions
Class size	20
University entrance examinations	10
Teachers' time to prepare for the class	6
Teachers' perceptions of and attitudes towards language teaching	6
Students' English proficiency and their attitudes toward studying	6
Teachers' English proficiency	5
Number of class hours	4
Syllabus	2
Colleagues consensus	2
In-service teacher training	2
The Course of Study (Curriculum)	1
MEXT authorized textbooks	1
Equipment (Audiovisual room, Language laboratory, etc.)	1
ALTs (Need more teachers who are native speakers of English)	1
Recruit system of teachers	1
Other (Japanese language education, society, national character)	3

Regarding class size, Figure 18 summarizes the respondents' answers to item E13 (Part E). Interestingly, the distribution has two peaks: class sizes of 20-24 and 40-44 students were most common. Considering that the average number of students in one high school class is around 40 (Shimizu, 2006), many of the classes consisting of 20-24 students might have been arranged especially for English lessons by dividing the original large class into two smaller classes. However, still, approximately half of the respondents reported that they were teaching more than 40 students in one lesson, and this might be one reason why numerous teachers believed that it is important to reduce class sizes.

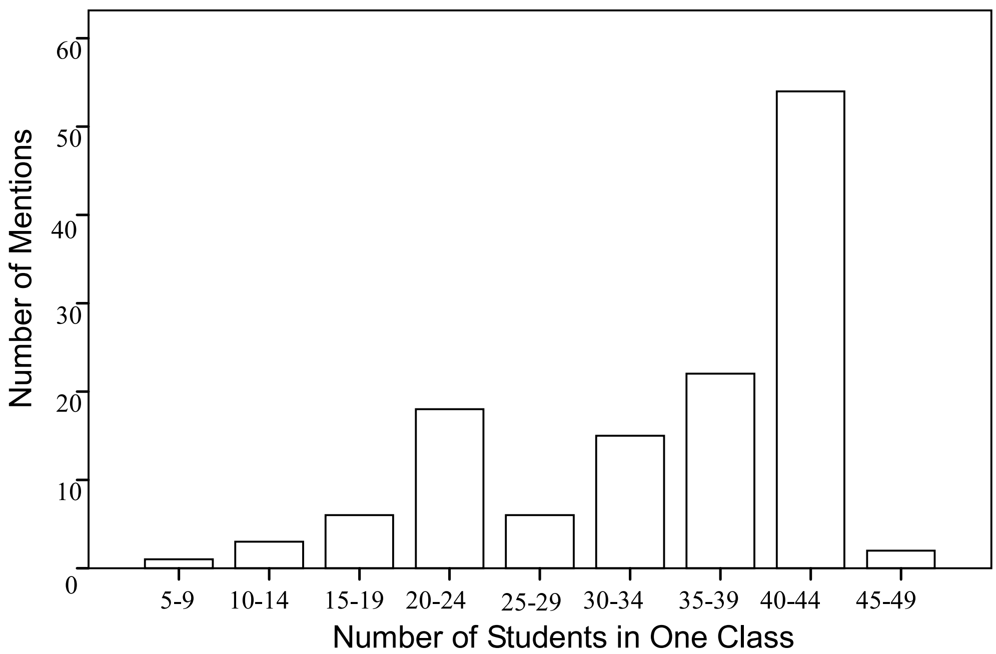

Figure 18. Distribution of class size (N = 127).

Summary

The respondents to the survey study expressed very positive beliefs about CLT. They also reported that they wished to change their teaching methods to more communicative ones, and in order to do so, they wanted to change contextual factors, such as class sizes and university entrance examinations. It seems that, although the teachers generally believed that CLT was an effective teaching approach, they were dissatisfied with their use of CLT and expected to improve their teaching. In the next section, I report how they said they used communicative activities in their classes.

Research Question 2

The second research question was "How do Japanese high school teachers use CLT in their English I and English II classrooms?" This question is answered by presenting (a) descriptive statistics for Part F (Classroom Practices) of the questionnaire and (b) the frequency distributions for Part F. The 11-item 5-point Likert scale questionnaire data is used in this section.

Responses to Part F (Classroom Practices)

Descriptive Statistics

Table 86 shows how frequently the respondents reported that they use communicative activities in English I and II classes. Item F6 (asking questions in English) was the easiest item to endorse, and item F1 (using classroom English) was the second easiest. In contrast, item F5 (Summary writing) was the most difficult item to endorse and it was followed by item F4 (Essay or story writing).

Table 86. *Frequency of Employing Communicative Activities (N = 139)*

Item	*M*
F1 I use classroom English.	42.2
F2 I orally introduce the contents of the textbook (do "oral introduction").	48.7
F3 I have my students make a speech or a presentation.	53.5
F4 I have my students write an essay or a story.	58.5
F5 I have my students write a summary of English textbook passages.	59.4
F6 I ask my students questions about the content of the textbook in English.	41.5
F7 I explain English grammar in English.[15]	57.7
F8 I use task-based activities (e.g., information gap).	47.2
F9 I use English songs or games.	45.6
F10 I use English movies or dramas.	50.2
F11 I use pair or/and group work.	45.6

Note. Item means are expressed in Rasch logits that were converted to *t*-scores.

Frequency Distributions

Table 87 presents the frequency distribution for the use of communicative activities. More than 50% of the respondents wrote that they *never* provide activities such as essay writing (F4), summary writing (F5), or grammar explanations in English (F7). Also, around one-third of the teachers reported that their students *never* make speeches or presentations (F3), or watch English movies or dramas (F10) in English I and II classes. Regarding items F8 (communicative tasks) and F11 (group and pair work), the activities in which students' negotiation of the meaning is expected to take place, about half of the respondents reported that they never or infrequently use them. There were only two types

[15] Grammar explanation in the target language can be seen as a communicative activity if a grammar is a resource to be used in the comprehension and production of oral and written discourse (cf., Celse-Murcia, 1991).

of communicative activities that were frequently or very frequently used by more than 20% of the respondents: classroom English (F1) and asking questions in English (F6). It appears that communicative activities were not widely and frequently employed in English I and English II classes by the respondents to the survey.

Table 87. *Distribution of the Responses to Part F (N = 139)*

Item	Never	Infrequently	Sometimes	Frequently	Very frequently
F1	20 (14%)	44 (32%)	39 (28%)	24 (17%)	12 (9%)
F2	37 (27%)	50 (36%)	33 (24%)	17 (12%)	2 (1%)
F3	49 (36%)	56 (40%)	27 (20%)	4 (3%)	2 (1%)
F4	70 (51%)	51 (37%)	13 (9%)	2 (1%)	3 (2%)
F5	74 (54%)	50 (36%)	9 (6%)	3 (2%)	3 (2%)
F6	28 (20%)	23 (17%)	51 (36%)	23 (17%)	14 (10%)
F7	83 (61%)	29 (21%)	13 (9%)	5 (4%)	7 (5%)
F8	31 (22%)	43 (31%)	52 (38%)	9 (7%)	3 (2%)
F9	33 (24%)	33 (24%)	54 (39%)	10 (7%)	8 (6%)
F10	47 (34%)	44 (32%)	33 (24%)	8 (6%)	6 (4%)
F11	32 (23%)	35 (25%)	51 (38%)	14 (10%)	6 (4%)

Research Question 3

MANOVA

The third research question was "How do the teachers' beliefs and practices differ between academic high schools and vocational high schools?" In order to examine the effect of the type of schools on teachers' beliefs and practices, a multivariate analysis of variance (MANOVA) procedure was conducted. The dependent variables (DVs) were *Positive CLT Beliefs* (PCB) and *Classroom Practices* (CP). MANOVA works acceptably well with positively and moderately correlated DVs (Tabachnick & Fidell, 2001). As *Positive CLT Beliefs* was moderately correlated with *Classroom Practices* (r = .31), a

MANOVA was performed. The independent variable (IV) was the type of school: academic high school teachers (Group 1) and vocational high school teachers (Group 2).

Prior to running the MANOVA, the assumptions were checked. MANOVA requires meeting the following assumptions: (a) a sample size of 35 cases per group or larger, (b) no univariate and multivariate outliers for each group, (c) normality of sampling distributions, (d) homogeneity of variance-covariance matrices, (e) linearity, and (f) the absence of multicollinearity and singularity (Tabachnick & Fidell, 2001).

First, the sample sizes of 80 for the academic high school teachers and 57 for the vocational high school teachers were larger than the critical value of 35. Second, no univariate outliers were found for Group 1 and Group 2 using a criterion of $z = |3.29|$. Multivariate outliers were checked for each group with a criterion $\alpha = .001$, critical $\chi^2 = .13.816$ using Mahalanobis distance in SPSS REGRESSION. No multivariate outliers were found. Third, normality was checked for each group using SPSS DESCRIPTIVE STSTISTICS (Table 88). No violation of normality was found for Group 1 (academic high school teachers). In regards to Group 2, the *Classroom Practices* variable had kurtosis statistics exceeding two times the absolute value of the standard error of kurtosis. A histogram for the variable was checked, and the distribution showed no problematic shape, so the normality assumption was met. Fourth, Box's *M* test for homogeneity of dispersion matrices, performed through SPSS MANOVA, produced $F = .873$ ($df = 3$), $p > .05$, confirming homogeneity of variance-covariance matrices. Lastly, the pooled within-cell correlation matrices that were calculated with SPSS MANOVA showed that the correlation between the two DVs was .31; thus, neither multicollinearity nor singularity was found. In sum, all the assumptions for conducting the MANOVA were met.

Table 88. *Descriptive Statistics for PCB and CP for Group 1 (N = 80) and Group 2 (N = 57)*

				95%						
Group	Variable	*M*	*SE*	Lower limit	Upper limit	*SD*	*Skewness*	*SES*	*Kurtosis*	*SEK*
1	PCB	50.44	.94	30.08	75.00	8.42	.00	.27	-.10	.53
	CP	47.97	1.02	27.48	72.85	9.08	-.19	.27	.20	.53
2	PCB	51.29	.99	34.56	75.00	7.49	.05	.32	.87	.62
	CP	48.91	1.05	27.48	66.80	7.93	-.94	.32	1.53	.62

Note. PCB = *Positive CLT Beliefs*; CP = *Classroom Practices.*

Table 89 shows the results of the MANOVA. Multivariate Pillai, Wilks, Hotelling and Roys statistics all indicate a lack of statistical significance ($p < .05$) between the academic and vocational high school teachers regarding *Positive CLT Beliefs* and *Classroom Practices*; thus, the type of school (academic and vocational) did not significantly influence the Japanese high school teachers' beliefs and classroom practices regarding CLT.

Table 89. *MANOVA Results for Positive CLT Beliefs and Classroom Practices*

	Effect	*F*	Hypothesis *df*	Error *df*	*p*	η^2
Pillai's Trace	.004	.290	2	134	.749	.004
Wilks' Lambda	.996	.290	2	134	.749	.004
Hotelling's Trace	.004	.290	2	134	.749	.004
Roy's Largest Root	.004	.290	2	134	.749	.004

Research Question 4

The fourth research question was “How do the beliefs of Japanese teachers, their classroom practices, their learning experiences, pre- and in-service training, their perceived teaching efficacy, and contextual factors relate to and influence each other regarding the use of CLT?” This question is answered by presenting the results of (a) Pearson product-moment correlation coefficients for the eleven variables and (b) a path analysis.

Pearson Product-Moment Correlations Among the 11 Variables

As mentioned in the previous chapter, Part B of the questionnaire (Perceived Teaching Efficacy) was divided into two variables, and Part E (Contextual Factors) was divided into four constructs after inspecting the results of the former analyses and the Rasch analyses. This resulted in a total of eleven variables: *Positive CLT Beliefs* (PCB), *L2 Self-confidence* (L2SC), *CLT Self-efficacy* (CSE), *Pre-service Teacher Training* (PTT), *In-service Teacher Training* (ITT), *Exam-related Expectations* (EE), *Influence of MEXT Policy* (IMP), *Student-related Communicative Conditions* (SCC), *Teacher-related School Conditions* (TSC), *Classroom Practices* (CP), and *Learning Experience* (LE). In order to examine how the 11 variables are related to each other, Pearson Product-moment correlation coefficients were calculated.

Prior to running the correlations, the assumptions of the analysis were checked. A Pearson-moment correlation coefficient requires meeting the following assumptions: no outliers, normality of the distribution, and absence of nonlinearity (Green & Salkind, 2004). Univariate outliers were checked using SPSS EXAMINE. Four participants produced extreme values that were more than 3.29 standard deviations above or below the mean. Their measures were adjusted to values that were within the |3.29|-*SDs* distributions.

Second, univariate normality was checked using SPSS DESCRIPTIVE STSTISTICS (Table 90). Out of the distributions of the 11 variables, (a) EE, CP, and LE had skewness statistics that exceeded two times the absolute value of the standard error of skewness, and (b) ITT, IMP, SCC, and TSC had kurtosis statistics that exceeded two times the absolute value of the standard error of kurtosis. Therefore, histograms for the seven items were checked. Only LE showed a problematic distribution (floor effect); thus, logarithmic and inverse transformations were conducted. However, as the transformations did not solve the problem, the original data were used for LE.

Third, linearity among pairs of variables was assessed through an examination of the bivariate scatterplots. The differences in skewness for some variables (Table 90) suggested the possibility of nonlinearity for some pairs of variables, particularly LE, whose distribution showed a floor effect. Therefore, a spot check was conducted with ten combinations of LE and the other variables. No nonlinear relationships were identified.

In sum, all the assumptions of the Pearson-moment correlation coefficient, except for the normality of the distribution for LE, were met.

Table 90. *Descriptive Statistics for the Eleven Variables (N = 137)*

Variable	*M*	*SE*	95% Lower limit	95% Upper limit	*SD*	*Skewness*	*SES*	*Kurtosis*	*SEK*
PCB	50.79	.69	30.08	75.00	8.03	.00	.21	.19	.41
L2SC	49.68	1.18	15.14	89.63	13.83	.06	.21	.33	.41
CSE	51.75	1.03	12.89	87.50	12.03	-.08	.21	.59	.41
PTT	40.82	1.09	16.64	73.28	12.81	.00	.21	-.19	.41
ITT	48.59	.88	15.86	82.85	10.27	-.35	.21	2.61	.41
EE	46.25	1.02	21.07	76.92	11.91	.44	.21	.08	.41
IMP	49.45	.82	22.58	80.20	9.61	-.07	.21	.85	.41
SCC	52.39	.63	28.02	75.94	7.38	.01	.21	.94	.41
TSC	50.42	.41	34.32	66.58	4.77	-.15	.21	1.45	.41
CP	48.36	.73	27.48	72.85	8.60	-.45	.21	.52	.41
LE	37.72	.78	26.77	68.37	9.15	.69	.21	.59	.41

Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; PTT = *Pre-service Teacher Training*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; TSC = *Teacher-related School Conditions*; CP = *Classroom Practices*; LE = *Learning Experience*.

Table 91 shows the Person-moment correlation coefficients computed among the 11 variables. Nineteen out of the 55 correlations were statistically significant at $p < .01$ and 14 of them had a moderate relationship: $r = \pm 0.31$ to ± 0.70 (Elifson, Runyon, & Haber, 1998).

Among the 14 moderately related pairs, two had relatively strong correlations above .50: (a) *Classroom Practices* and *Student-related Communicative Conditions* ($r = .56$) and (b) *L2 Self-confidence* and *CLT Self-efficacy* ($r = .55$). This suggests that (a) Communicative activities are likely to be used more frequently when the classroom conditions are more optimal for the use of CLT and (b) teachers with a strong sense of efficacy regarding their English skills (listening, speaking, reading, and writing) and grammatical or cultural knowledge tend to perceive themselves as good at managing CLT classes.

Table 91. *Intercorrelations Among the Eleven Variables (N = 137)*

	1	2	3	4	5	6	7	8	9	10	11
1. PCB	--										
2. L2SC	.06	--									
3. CSE	**.35***	**.55***	--								
4. PTT	.05	.20	.20	--							
5. ITT	.18	.26*	**.42***	**.36***	--						
6. EE	.09	**.31***	.26*	.13	.05	--					
7. IMP	.17	.28*	.24*	.25*	.22	**.38***	--				
8. SCC	**.41***	.21	**.45***	.16	.25*	**.44***	**.36***	--			
9. TSC	.04	.25*	**.33***	.17	.14	.23*	.17	.30*	--		
10. CP	**.31***	.14	**.35***	.14	.28*	.12	.30*	**.56***	.14	--	
11. LE	.14	-.06	.08	.09	.05	-.12	.03	.08	.15	.16	--

Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; PTT = *Pre-service Teacher Training*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; TSC = *Teacher-related School Conditions*; CP = *Classroom Practices*; LE = *Learning Experience*.
*$p < .01$.

Student-related Communicative Conditions also had a moderate correlation with (a) *Positive CLT Beliefs* (r = .41), (b) *Exam-related Expectations* (r = .44), and (c) *CLT Self-efficacy* (r = .45). This implies that when the classroom conditions are more optimal to the use of CLT, (a) teachers tend to believe that CLT is an efficient approach to teaching English, (b) the lessons are likely to be influenced by MEXT policy, and (c) the teachers consider themselves as being more capable of using CLT.

In addition, *CLT Self-efficacy* displayed a relatively strong correlation with *In-service Teacher Training* (r = .42), an indication that teachers who feel confident using CLT appear to have learned about CLT from in-service teaching training programs.

Also to be noted is that *Positive CLT Beliefs* and *Classroom Practices* have a moderate correlation (r = .31), suggesting that when teachers believe that CLT is an effective approach to teaching English, they frequently use communicative activities in class. However, it is also important to note that the correlation between *Student-related Communicative Conditions* and *Classroom Practices* (r = .56) was much stronger than the correlation between *Positive CLT Beliefs* and *Classroom Practices*. Although research suggests that teachers' beliefs might have the strongest influence on classroom practices (cf., Pajares, 1992; Richardson, 1994), this finding indicates that the relationship between the teacher belief variable and the classroom practice variable was not consistent as far as the survey respondents were concerned.

In sum, *Student-related Communicative Conditions* had the strongest correlation with *Classroom Practices*, and it was also moderately correlated with four other variables: *Positive CLT Beliefs, CLT Self-efficacy, Exam-related Expectations,* and *Influence of MEXT Policy*. *Student-related Communicative Conditions* seems to be an important variable when investigating CLT beliefs and practices. That variable is examined in greater detail in the next section.

Path Analysis

In order to investigate the influence of the variables on each other, a path analysis was conducted to test the hypothesized model of teacher beliefs and practices (Figure 2 in Chapter 2) using AMOS Version 7.0J. The model was derived from Borg's (2003) conceptual framework of teacher cognition. As shown in Chapter 4, the Contextual Factor variable in the original model was divided into four constructs. Likewise, Perceived Teaching Efficacy was divided into two constructs. The correlation results (Table 18) were partly used to hypothesize a path model. As a result, the original model was modified as shown in Teacher Belief Path Model 1 (see Figure 19). The number of variables and parameters were 11 and 13, respectively.

A path analysis requires meeting the following assumptions: (a) large *N*-size (*N* exceeds ten times the number of paths in the model), (b) normality, linearity, and homoscedasticity of residuals, (c) no univariate and multivariate outliers, and (d) no multicollinearity or singularity (Tabachnick & Fidell, 2001). First, with 13 parameters to be estimated in the hypothesized model, the *N*-size of 137 is slightly larger than the criterion of 10 times the number of parameters; thus, it was considered to be large enough for the path analysis.

Second, the normality of the 11 variables was checked in the previous section (see Table 90). In addition, scatterplots of the residuals of the variables showed that the plot of each value scattered symmetrically from the center (normality), that the overall shape of the scatterplot was not curved (linearity), and that the band enclosing the residuals was approximately equal in width at all values of the predicted DVs (homoscedasticity) (cf., Tabachnick & Fidell, 2001).

Third, the person measures for two univariate outliers were adjusted before running the Pearson correlations. Multivariate outliers were checked for the adjusted data with two variables and a criterion of $\alpha = .001$, critical $\chi^2 = 31.264$ using Mahalanobis distance in SPSS REGRESSION. No multivariate outliers were found.

Lastly, multicollinearity and singularity were checked by examining the Pearson product-moment correlation matrix of the 11 variables (Table 89). All the correlations were below .90, which Tabachnick and Fidell (2001) defined as the problematic level of collinearity. This result also confirmed the absence of singularity that occurs when variables are perfectly correlated with each other.

To summarize, no violations of the assumptions of the path analysis were identified except for the normality of the distribution for LE.

Model Estimation of Teacher Belief Path Model 1

Maximum likelihood estimation was employed to estimate Teacher Belief Path Model 1 (hereafter Model 1). Table 92 and Figure 19 present the results of the path analyses. The χ^2 statistic: (= CMIN, $df = 42$, $N = 137$) was 172.54, $p = .00$, which rejected the model. Moreover, the goodness of fit index (GFI, .773) and the comparative fit index (CFI, .558) showed poor model fit, as both were well below the .90 criterion (Arbuckle, 2007). In addition, the root mean square error of approximation (RMSEA) of .151 was considerably greater than the critical value of .05 (Byrne, 2001). Therefore, model modifications were made in order to improve model fit.

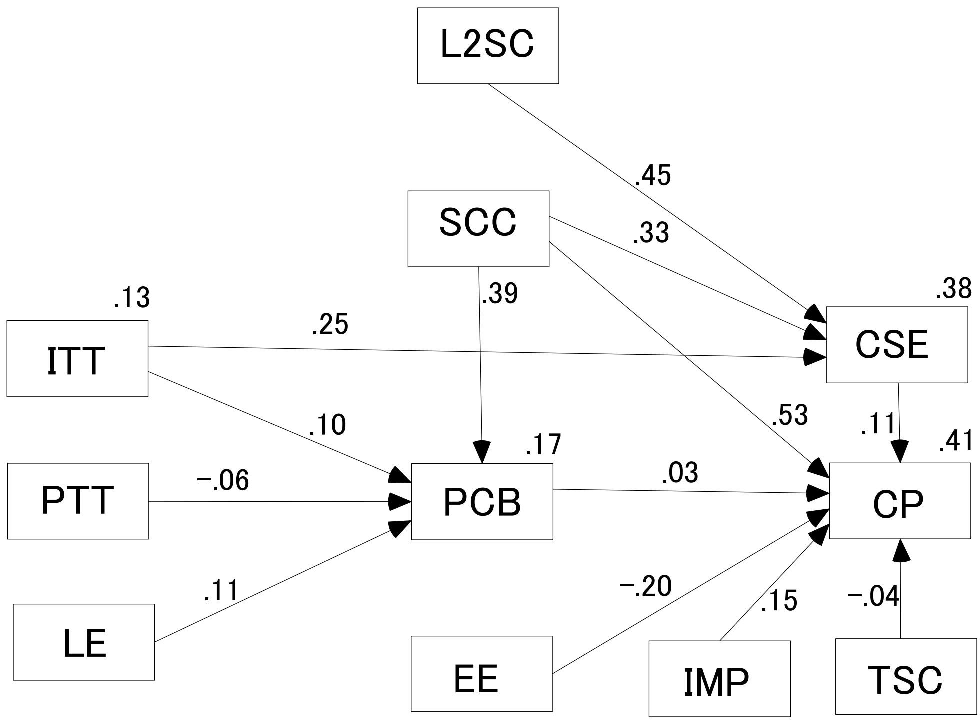

Figure 19. Path analysis results of Teacher Belief Path Model 1 with standardized estimates.
PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; PTT = *Pre-service Teacher Training*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; TSC = *Teacher-related School Conditions*; CP = *Classroom Practices*; LE = *Learning Experience*.

Table 92. *Selected Fit Statistics for Teacher Belief Path Model 1 (N = 137)*

	χ^2	df	χ^2 /df	GFI	AGFI	CFI	PCFI	RMSEA	RMSEA 90%CI Low	RMSEA 90%CI High
Model 1	153.794	41	3.751	.798	.644	.618	.461	.142	.119	.167

First, based on the coefficient table in AMOS output, five non-significant paths were dropped from the model: *Learning Experience* → *Positive CLT Beliefs, Pre-service Teacher Training* → *Positive CLT Beliefs, In-service Teacher Training* → *Positive CLT*

Beliefs, Positive CLT Beliefs → *Classroom Practices,* and *Teacher-related School Conditions* → *Classroom Practices.* As a result, three variables, *Learning Experience, Pre-service Teacher Training,* and *Teacher-related School Conditions,* were deleted from the model. Although the parameter, from *CLT Self-efficacy* to *Classroom Practices,* was not statistically significant (p = .106), it was retained because (a) it is logically probable that teachers' perceived efficacy of CLT influences their use of CLT , (b) the p-value is small (.106), so deletion of the parameter would possibly cause a Type II error, and (c) if the N-size were larger, the parameter would likely be statistically significant because of the additional statistical power.

Second, using the modification indices provided in Amos, seven paths were added to the model. The directions of the paths were determined as follows:

1. *Exam-related Expectations* → *L2 Self-confidence*: Representative items of *Exam-related Expectations* are "students work hard for entrance exams," "students expect to study grammar and translation," and "parents expect their children to prepare for entrance exams." Indicators of *L2 Self-confidence* are "I have adequate English listening ability (1), speaking ability (2), reading ability (3), and writing ability (4) in order to be a high school English teacher," and "I have adequate knowledge of grammar in order to be a high school teacher (5)." If students aim to successfully pass high-level university entrance examinations, they expect to study complicated grammar and translation of difficult texts, so teachers may plausibly believe that they need to have good knowledge of grammar and higher reading

proficiency. Generally, Japanese high school teachers are more confident in reading than speaking in English (cf. Nishino, 2007). It is possible that students' expectation for learning grammar and translation makes teachers more confident in their English proficiency. As such, *Exam-related Expectations* might influence *L2 Self-confidence.*

2. *Exam-related Expectations* → *Influence of MEXT Policy: Influence of MEXT Policy* includes items concerning "the listening test in the 2006 Center Test influenced English I class" and "the listening test influenced Oral Communication class." Students studying hard to pass entrance exams (*Exam-related Expectations*) appear to be more sensitive to the inclusion of the listening comprehension section on the Center Test and expect their teachers to prepare them for the listening test; thus, the teachers might attempt to provide more listening activities in the class. It is likely that *Exam-related Expectations* affects *Influence of MEXT Policy*.

3. *Exam-related Expectations* → *Student-related Communicative Conditions:* As mentioned earlier, *Exam-related Expectations* includes items concerned with students' studying hard for entrance examinations and their expectations for classroom instruction on grammar and translation. Those students are usually studying at academic high schools; their English proficiency and motivation to study English are high (Okano & Tsuchiya, 1999). As a listening test is included in the Center Test, they might be also motivated to practice listening and speaking. It is likely that they expect to engage in communicative activities as well as grammar-translation exercises because both are considered important for passing entrance

examinations. Also, those students appear to have adequate knowledge of grammar and vocabulary, which might help them do pair and group work in English. Thus, *Exam-related Expectations* is likely to affect *Student-related Communicative Conditions.*

4. *Influence of MEXT Policy* → *Student-related Communicative Conditions*: If English classes are influenced by the communicatively-oriented MEXT policy or the inclusion of the listening examination on the Center Test, teachers might provide more communicative activities or listening practices. Students are therefore likely to become familiar with those activities, which possibly enables them to use English more fluently in pair and group work or evokes their interest in communicative activities. As such, *Influence of MEXT Policy* might have an effect on *Student-related Communicative Condition*
5. *Positive CLT Beliefs* → *CLT Self-efficacy*: Teachers' beliefs and their professional knowledge overlap to some extent (Kagan, 1992). Teachers who believe that CLT is an effective teaching approach (*Positive CLT Beliefs*) might have learned about CLT and gained considerable practical knowledge about it. Thus, teachers who have positive beliefs about CLT likely have more confidence in using CLT than those who do not know much about it; thus *Positive CLT Beliefs* may affect *CLT Self-efficacy*.
6. *In-service Teacher Training* → *L2 Self-confidence:* Items included in *In-service Teacher Training* are: workshops and seminars (a) promoted CLT, (b) deepened knowledge about SLA, (c) improved skills of managing group and pair work, (d)

provided materials for communicative activities, (e) provided CLT class observations, and (f) provided CLT practice lessons. In such programs, teachers had many chances to use English while listening to lectures or presentations and giving practice lessons, which might increase their confidence in using English. *In-service Teacher Training* therefore possibly influences *L2 Self-confidence.*

7. *In-service Teacher Training* → *Influence of MEXT Policy:* As mentioned above, items included *In-service Teacher Training* relate to teachers' experience learning CLT both theoretically and practically. Such experience in workshops and seminars might facilitate teachers use of CLT and enhance the implementation of MEXT's communicative innovation; therefore, *In-service Teacher Training* is likely to affect *Influence of MEXT Policy.*

Having added seven paths, there were a total of 15 paths in the modified model (Teacher Belief Path Model 2: hereafter Model 2) shown in Table 93. As mentioned above, the parameter from *CLT Self-efficacy* to *Classroom Practices* was a non-significant predictor in Model 2.

Model Estimation of Teacher Belief Path Model 2

Model 2 was tested, and the results of the χ^2 (= 14.744, df = 13, p = .324), GFI (.974), CFI (.993), and RMSEA (.031) indicated that model fit was far better than that of Model 1 (Tables 92 and 94). The χ^2 statistic indicated good model fit. GFI and CFI were well above the .90 criterion (Arbuckle, 2007), and RMSEA was less than the critical value of .05 (Byrne, 2001). In addition, AGFI (adjusted goodness of fit index) was .928 (> .90), thus, Model 2 shows adequate fit to the data. Based on the criteria for well fitting path models, Model 2 was selected as the best fitting path model.

Table 93. *Statistical Significance of the Paths in Teacher Belief Path Model 2*

Outcome		Predictor	Unstandardized Coefficients (*B*)	*SE*	*t*	Sig.
IMP	<---	EE	.301	.062	4.832	.000
IMP	<---	ITT	.188	.072	2.606	.009
SCC	<---	EE	.220	.050	4.406	.000
SCC	<---	IMP	.173	.062	2.787	.005
L2SC	<---	EE	.347	.091	3.791	.000
L2SC	<---	ITT	.329	.106	3.107	.002
PCB	<---	SCC	.448	.085	5.269	.000
CSE	<---	ITT	.255	.074	3.461	.000
CSE	<---	SCC	.369	.110	3.357	.000
CSE	<---	PCB	.289	.100	2.884	.004
CSE	<---	L2SC	.373	.055	6.741	.000
CP	<---	EE	-.156	.057	-2.752	.006
CP	<---	SCC	.639	.095	6.752	.000
CP	<---	CSE	.088	.055	1.612	.107
CP	<---	IMP	.138	.068	2.040	.041

Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; CP = *Classroom Practices*.

Table 94. *Selected Fit Statistics for Teacher Belief Path Model 2 (N = 137)*

	χ^2	df	χ^2/df	GFI	ACFI	CFI	PCFI	RMSEA	RMSEA 90% CI Low	RMSEA 90% CI High
Model 2	14.744	13	1.134	.974	.928	.993	.461	.031	.000	.094

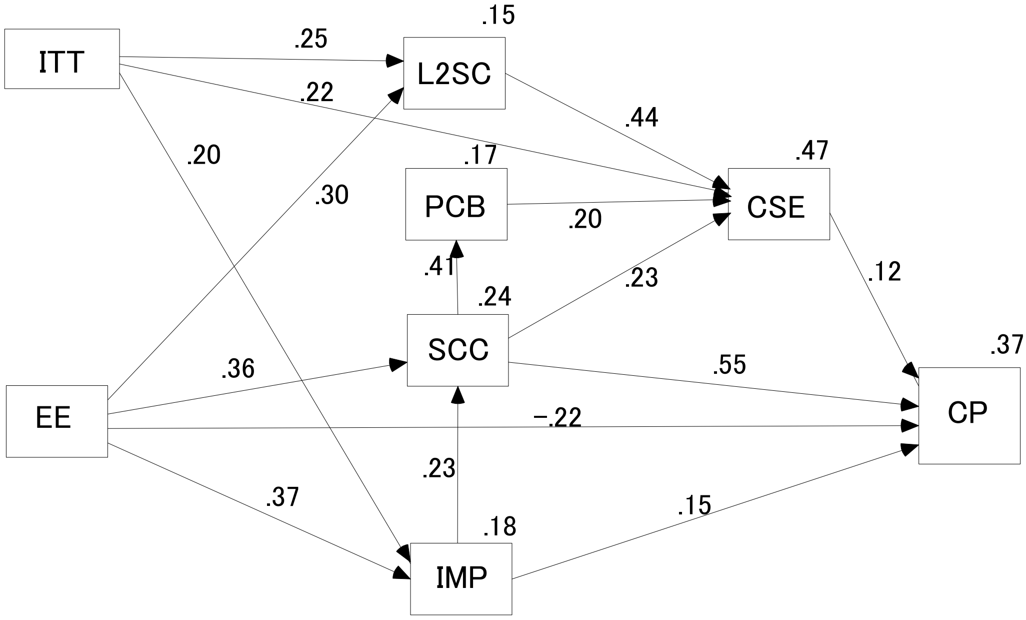

Figure 20. Path analysis results of Teacher Belief Path Mode 2 with standardized estimates.
Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; CP = *Classroom Practices*.

Direct Effects: Teacher Belief Path Model 2

The best fitting path model (Teacher Belief Path Model 2) is shown in Figure 20. All paths were significant predictors ($p < .05$, two-tailed) except for the path from *CLT Self-efficacy* to *Classroom Practices*. Four variables that had direct effects on *Classroom Practices* combined to explain 37% of the variance in *Classroom Practices.* Among them, *Student-related Communicative Conditions* had the strongest effect: the standardized regression weight (β) was .55. The other three direct effects were weak; their standardized regression weights were .12 (*CLT self-efficacy*), .16 (*Influence of MEXT policy*), and -.22 (*Exam-related Expectations*). It should be noted that *Exam-related Expectations* had a negative direct effect on *Classroom Practices.*

Indirect Effects: Teacher Belief Path Model 2

As shown Figure 20, six variables (*Positive CLT Beliefs*, *L2 Self-confidence*, *In-service Teacher Training*, *Exam-related Expectations*, *Influence of MEXT Policy*, and *Student-related Communicative Conditions*) had indirect effects on *Classroom Practices.*

First, *Positive CLT Beliefs* had an impact on *CLT Self-efficacy,* which is a predictor of *Classroom Practices*. The indirect effect of *Positive CLT Beliefs* on *Classroom Practices* was .02.

Second, *L2 Self-confidence* had an indirect effect on *Classroom Practices* via *CLT Self-efficacy*; the indirect effect was .05.

Third, the relationship between *In-service Teacher Training* and *Classroom Practices* was mediated by *L2 Self-confidence, CLT Self-efficacy*, *Influence of MEXT Policy, Student-related Communicative Conditions,* and *Positive CLT Belief*. The total indirect effect was .10.

Fourth, *Exam-related Expectations* had an indirect effect on *Classroom Practices* via *L2 Self-confidence, Student-related Communicative Conditions*, *Positive CLT Beliefs ,* *CLT Self-efficacy*, and *Influence of MEXT Policy*. The total indirect effect was .33.

Fifth, the relationship between *Influence of MEXT Policy* and *Classroom Practices* was mediated by *Student-related Communicative Conditions, Positive CLT Beliefs,* and *CLT Self-efficacy*; the indirect effect was .13.

Sixth, *Student-related Communicative Conditions* had an indirect effect on *Classroom Practices* via *Positive CLT Belief* and *CLT Self-efficacy*; the indirect effect was .04

In sum, among the six variables that had indirect effects on *Classroom Practices, Exam-related Expectations* had a weak but notable effect on *Classroom Practices* (.33).

Alternative Model: Teacher Belief Path Model 3

Model 1 was modified by locating *L2 Self-confidence* in the extreme left as shown in Figure 21 (Teacher Belief Path Model 3, hereafter Model 3). The four non-significant paths were dropped from Model 1 and six paths were added to the model based on the coefficient table in AMOS output. The directions of the five paths *(In-service Teacher Training → L2 Self-confidence, Exam-related Expectations → Student-related Communicative Conditions, Exam-related Expectations → Influence of MEXT Policy, Influence of MEXT Policy → Student-related Communicative Conditions, and Positive CLT Beliefs → CLT Self-efficacy)* were determined in the previous section. The directions of the other two paths were determined as follows:

1. *L2 Self-confidence → Exam-related Expectations*: Many teachers who had confidence with their skills in using English and their knowledge of grammar (*L2*

Self-confidence) might have had experience doing well in English class at academic high schools and successfully passing university entrance examinations. Their experience possibly makes them encourage students to study hard for university entrance examinations and to learn grammar and translation (*Exam-related Expectations*), thus, *L2 Self-confidence* may have an impact on *Exam-related Expectations*.

2. *L2 Self-confidence* → *Influence of MEXT Policy*: Advanced English proficiency, especially in speaking, facilitates teachers' use of CLT activities. Thus, teachers who are confident in their language skills and knowledge (*L2 Self-confidence)* tend to use more communicative activities than those who are not, and their class is more likely to be influenced by the MEXT's communicative innovations. As such, *L2 Self-confidence* might affect *Influence of MEXT Policy.*

Having added seven paths, there were a total of 15 paths in Model 3 shown in Table 95. The parameter from *CLT Self-efficacy* to *Classroom Practices* was a non-significant predictor in Model 3, but it was retained due to the reasons mentioned above: i.e., the logical probability, the small p-value (.106), and the small N-size.

Model Estimation of Teacher Belief Path Model 3

Model 3 is also a good fitting model as shown in Table 96: χ^2 (= 16.298, df = 13, p = .233), GFI (.971), CFI (.987), RMSEA (.043), and AGFI .920. The results indicate that the fit of Model 2 is a slightly better than that of Model 3. Model 2 was therefore selected as the final model and Model 3, as the alternative model.

Table 95. *Statistical Significance of the Paths in Teacher Belief Path Model 3*

Outcome		Predictor	Unstandardized Coefficients (*B*)	*SE*	*t*	Sig.
C2	<---	C5	.348	.111	3.124	.002
C6	<---	C2	.267	.070	3.805	.000
C7	<---	C2	.128	.057	2.243	.025
C7	<---	C6	.263	.066	3.985	.000
C8	<---	C7	.173	.062	2.787	.005
C8	<---	C6	.220	.050	4.390	.000
C1	<---	C8	.448	.085	5.274	.000
C3	<---	C1	.289	.100	2.884	.004
C3	<---	C2	.373	.056	6.706	.000
C3	<---	C8	.369	.110	3.345	.000
C3	<---	C5	.255	.074	3.449	.000
C10	<---	C6	-.156	.057	-2.739	.006
C10	<---	C7	.138	.068	2.037	.042
C10	<---	C8	.639	.095	6.750	.000
C10	<---	C3	.088	.055	1.607	.108

Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; CP = *Classroom Practices*.

Table 96. *Selected Fit Statistics for Teacher Belief Path Model 3 (N = 137)*

	χ^2	df	χ^2 /df	GFI	AGFI	CFI	PCFI	RMSEA	RMSEA 90% CI Low	RMSEA 90% CI High
Model 3	16.298	13	1.254	.971	.920	.987	.458	.043	.000	.100

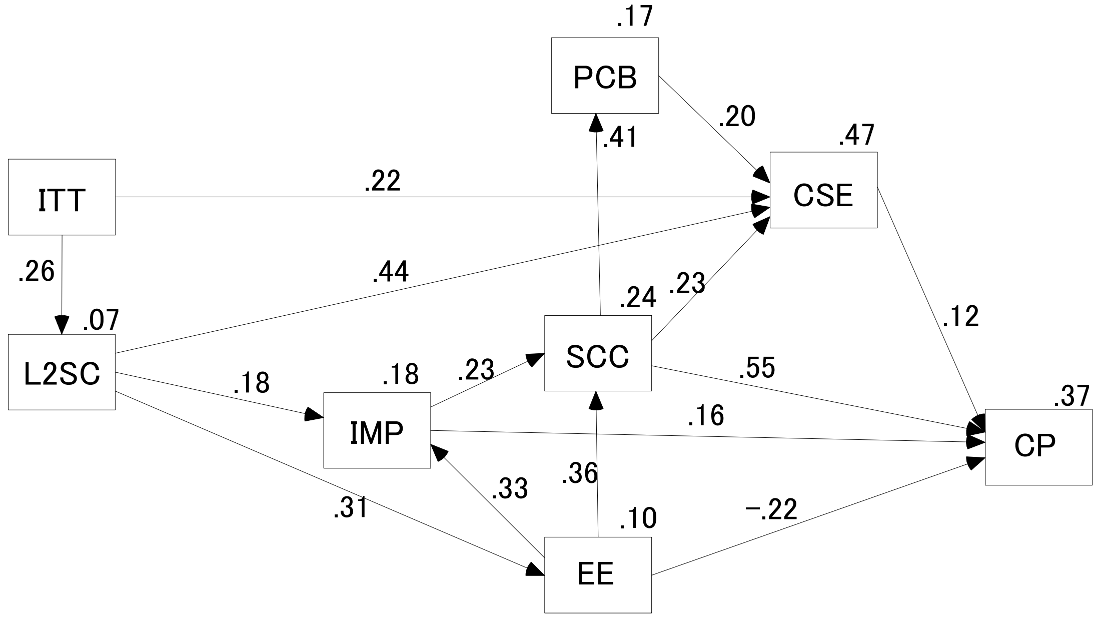

Figure 21. Path analysis results of Teacher Belief Path Model 3 with standardized estimates.
Note. PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; CP = *Classroom Practices*.

Direct Effects: Teacher Belief Path Model 3

The alternative model (Teacher Belief Path Model 3) is shown in Figure 21. All paths were significant predictors ($p < .05$, two-tailed) except for the path from *CLT Self-efficacy* to *Classroom Practices*. Four variables that had direct effects on *Classroom Practices* in Model 3 are the same as those directly influenced *Classroom Practices* in Model 2. They combined to explain 37% of the variance in *Classroom Practices,* and their standardized regression weights were the same as they were in Model 2.

Indirect Effects: Teacher Belief Path Model 3

As shown Figure 21, six variables (*Positive CLT Beliefs*, *L2 Self-confidence*, *In-service Teacher Training*, *Exam-related Expectations*, *Influence of MEXT Policy*, and *Student-related Communicative Conditions)* had indirect effects on *Classroom Practices.*

First, the relationship between *Positive CLT Beliefs* and *Classroom Practices* was mediated by *CLT Self-efficacy*. The indirect effect was .02.

Second, *L2 Self-confidence* had an indirect positive effect on *Classroom Practices* via *CLT Self-efficacy*, *Exam-related Expectations, Influence of MEXT Policy, Student-related Communicative Conditions* and *Positive CLT Beliefs*. Yet at the same time, *L2 Self-confidence* negatively affected *Classroom Practices* via *Exam-related Expectations.* The total indirect effect was .13.

Third, the relationship between *In-service Teacher Training* and *Classroom Practices* are mediated by all the other indicator variables. However, the indirect effect was .06, which is weaker than that in Model 2 (.10).

Fourth, *Exam-related Expectations* had an indirect effect on *Classroom Practices* via *Student-related Communicative Conditions*, *Student-related Communicative Conditions, Positive CLT Beliefs*, and *CLT Self-efficacy*. The indirect effect was .30, slightly weaker than that in Model 2 (.33).

Fifth, the relationship between *Influence of MEXT Policy* and *Classroom Practices* was mediated by *Student-related Communicative Conditions*, *Positive CLT Beliefs,* and *CLT Self-efficacy*. The total indirect effect was .13.

Sixth, *Student-related Communicative Conditions* have an indirect effect on *Classroom Practices* via *Positive CLT Belief* and *CLT Self-efficacy*. The indirect effect was .04.

In sum, among the six variables that had indirect effects on *Classroom Practices, Exam-related Expectations* had a weak but notable indirect effect on *Classroom Practices* (.30).

Summary

In this chapter, quantitative results were reported for the first four research questions. Regarding the first and second research questions, the descriptive statistics showed that despite holding positive beliefs about CLT, respondents to the survey did not frequently use communicative activities. With respect to the second research question, the MANOVA result indicated that the type of school (academic and vocational) did not significantly influence the Japanese high school teacher respondents' beliefs and classroom practices regarding CLT. Concerning the fourth research question, relatively strong Pearson correlation coefficients were found between *Student-related Communicative Conditions* and (a) *Classroom Practices* and (b) *Positive CLT Beliefs*. Also, as regards the fourth research question, the best fitting path model indicated that (a) *Student-related Communicative Conditions* exerted a relatively strong direct effect on *Classroom Practic*es, (b) *Positive CLT Beliefs* had a very weak indirect effect on

Classroom Practices via *CLT Self-efficacy*, and (c) *Exam-related Expectations* had a moderate indirect effect on *Classroom Practices*.

In the next chapter, I report on the qualitative results in order to illuminate how four high school teachers *actually* used communicative activities and how their beliefs and practices were shaped and reshaped through their learning and teaching experience.

CHAPTER 6

FOUR HIGH SCHOOL TEACHERS' BELIEFS AND PRACTICES: QUALITATIVE RESULTS

In the previous chapter, I reported the quantitative results. What I learned from them leads me to further inquiry: What is happening in the local context? What beliefs do individual teachers hold? How do Japanese high school teachers actually teach in the classroom? How do individual teachers' beliefs connect to their practices? In order to answer these questions, I report the findings from my interviews and observations of four participants. I write about Rie in the first section, and then Jun, Koji, and Gen in the subsequent sections. I note the sources (I = interview, V = video, and E = email) and the dates of direct quotes (see Appendix E). What we will see from these descriptions is that the participants' teaching beliefs and practices were influenced by their previous learning and teaching experiences and that they were also contextualized in their particular teaching situations.

Rie: Use English as Much as Possible

Rie's Story

Rie is teaching at St. Mary's High School, a private academic high school in Saitama prefecture. When I conducted the first interview with her, she had been teaching at high school for 24 years. Her strong voice and the fluent English that she spoke in the classroom gave me the impression that she was a confident English teacher.

Learning Experiences in Secondary School: Yakudoku and Studying Abroad

Rie grew up in Niigata Prefecture and was educated in Japanese secondary school. She did not clearly remember how she had learned English in class, but she recollected that most classes had been taught by the *yakudoku* method and that no communicative activities were provided. She said, "I loved English, a:nd surprisingly, at that time, I was not aware of [four different skills such as] reading and writing. I thought that reading was enough [for learning English]." (I: 2/9/07)

Rie went to the United States when she was 17 years old. She stayed with an American host family and studied at an American high school for one year. Rie said that her experience studying abroad influenced her teaching later. For instance, she reported:

> I took a speech class in the US, but a debate course was not offered. When providing a speech activity to my students now, I can teach with confidence. But [regarding teaching debate] a good idea doesn't come to me even though I read a book on it. I sometimes try to use it, but I cannot give advice to students when they got stuck. So I try to avoid using it. (I: 2/9/07)

Rie also reported that when some of her colleagues wrote scripts of their lessons in English and memorized them before the class, she did not need to prepare particularly thoroughly because she could teach in English without a script. After becoming a teacher, however, she believed that the best way for her to improve her English speaking ability was to use English when teaching. She said, "I have three or four classes a day. Using

English in class is a good speaking practice" (I: 2/9/07). She believed that it was possible to improve speaking ability by using the language while teaching.

Learning Experiences after Secondary School: L3 and L4

Rie entered G University, which was a top-level national university of foreign language studies in Tokyo. She majored in Russian and took methodology courses for teaching English and Russian. She had obtained two certificates, one for teaching English and the other for teaching Russian, by the time that she graduated from the university.

Rie did not report how she studied Russian in the university, but she was excited to tell me about her journey to Russia with her friend four years after graduating from the university. Before her departure for the one month trip, Rie reviewed a Russian textbook that she had studied at the university and memorized 30 sentences every day for three months; thus, she had memorized more than 2,000 Russian sentences. She said:

> In Russia, I found myself a fluent speaker. I had no problem with listening because Russians spoke the sentences that I had memorized. I thought that I could make myself understood in Russian better than in English. (I: 6/8/06)

Rie seemed to have convinced herself that memorization was crucial for conducting everyday conversations in the foreign language. She said to me after the episode, "Memorization is important. Right?" (I: 6/8/06).

Rie started learning Korean three years before the first interview. She told me that always learning something was her strength as a teacher. She also said:

> When we learn a foreign language, we adore the people who speak the language fluently. So I think if [people] learn Korean, they will surely like Korean people. I think that the reason why we are attracted by America would be that we are learning English" (I: 6/8/06).

She wanted her students to be interested in Asian countries and to learn Asian languages. For Rie, learning a foreign language meant not only memorizing a large number of sentences, but also learning to love and respect the people who spoke the language.

Pre- and In-service Teacher Training and Teaching Experience

Rie took only one English teaching methodology course at G University. She recalled the course and said that it was not useful at all. The course was taught by a famous Japanese linguist. She learned transformational generative grammar in the course, but not the pedagogical implications of the theory.

The first school where Rie taught was a public academic high school in Saitama. She said, "As a novice teacher, I was teaching as I had been taught, I guess. I had no other image [of English class] than that [*yakudoku*]. Then I went to various workshops, read books, and adopted a variety of things little by little" (I: 6/8/06). The first students she taught disliked English, and their English proficiency level was low. Rie was eager to find teaching methods other than *yakudoku* because her students had been learning only grammar and translation and they hated those classes. She tried to make her English classes enjoyable by providing games and avoiding grammar instruction.

Rie had worked in the first school for eight years when she moved to the second school, which was a public academic high school in Saitama. The school administrators hoped to make the school a pioneer of novel English teaching methodologies, and this seemed possible because the students' academic level was high. The teachers tried to observe their colleagues' classes when they had time, and Rie did likewise. She found that oral communication classes were taught mainly in English, whereas the regular English classes were focused on preparing the students for university entrance examinations. She tried not to use Japanese in either the oral communication or the regular English classes. Rie said, "I believed in "100% English" class. I thought that English teachers had to teach in English" (I: 6/8/06).

Rie's belief changed when she attended a one-week teacher training program. In a discussion session during that program, English teachers from various academic high schools formed groups of five or six and designed a lesson plan using a given set of materials. One teacher said that she would skip the explanation of the grammar point in the lesson because it was so easy, and another teacher said that he would need more than 10 minutes to explain it to his students. As a result, they could not arrive at a consensus on creating a lesson plan. Rie was very surprised to know that classroom practices differed considerably in different teaching contexts. Rie stated:

> I was satisfied with my "100% English" class. How presumptuous I was!... Some say that teachers should use only English in class. That works well in top-level high schools, but might not in a different context. Even if we attend a workshop and learn a new methodology, we cannot use it as it was presented. We have to modify it, so that it can be fit to our students' need. (I: 6/8/06)

Rie also came to doubt whether her students really understood her explanations in English. Even if one student could answer Rie's question, that did not necessarily mean that other students could have answered it, so she started to teach some grammatical points using Japanese before she quit the second school. Rie also recognized that there were some cases where translation worked. One student at St. Mary's translated "Judy is near the locker" to "*Judy no soba ni locker ga arimasu* (There is a locker near Judy)." Rie said, "I was shocked, and thought that I should have provided translation" (I: 6/8/06). She might have been learning that grammar teaching and translation worked effectively in certain contexts.

During her 18 years of teaching in the first and second schools, Rie attended a few required teacher training programs held by the board of education and voluntarily attended a variety of workshops. She also learned from her colleagues, especially in the second school. However, in St. Mary's, Rie had few chances to observe other teachers' classes, as the teachers at St. Mary's did not generally want their classes to be observed by their colleagues. Also, the school administrators did not give the teachers time to study, so Rie attended workshops only when she was invited as a lecturer or a presenter.

Rie also became unmotivated to participate in workshops and seminars because they tended to introduce special teachers' extraordinary techniques, such as a puppet show or demonstrations of fantastic Power Point slides. Rie said,

> There are a number of famous teachers. I went to listen to their lectures. They are interesting but it's impossible to imitate them. You might know the funny teacher who is like a comedian. Only that teacher can [use his

> technique]. So what I can imitate is common, ordinary teachers' technique. [In such a lecture] I think, 'OK, I'll use it [in class]' (I: 2/9/07).

Having learned from the experience, she came to introduce activities that any teacher could use in her workshop.

In the second semester in 2007, Rie tried *Wayaku-sakiwatashi* (Hand out a translation first) proposed by Kanatani (2004), who suggested that teachers hand out a Japanese translation of the English text to maximize time for communicative activities. Rie tried the method for about three months and administered a questionnaire to her students. To her surprise, 60% of the students wrote they would not prepare for the class if they had no need to translate the text in class, and therefore, Rie decided to drop this method. She said that she would not use a novel teaching method unless her students thought it useful. When I asked if she listened to her students' voices, she answered "Yes! Yes, I do" (I: 2/9/07). Nevertheless, she wanted to try this method again sometime.[16]

Rie's Stated Beliefs and Practices Regarding CLT

In St. Mary's, as in other academic high schools, most of the students thought that preparation for university entrance examinations was all important. After the start of the listening section on the Center Test, a university entrance examination which was administered throughout the country by the independent national Center for University Entrance Examinations, the students tended to think that listening and speaking would be

[16] Rie wanted me to add the sentence from the interview, and wrote a note: "This is true. I was not satisfied with the result of the questionnaire" (E: 6/2/08).

important for passing entrance examinations. Rie believed that it was wonderful for her students to study at the universities of their choice, so she never denied the importance of passing entrance examinations. She said, "[The goal] for the third-year students is definitely passing entrance examinations" (I: 6/8/06). However, she taught English not because she wanted to prepare her students for the examinations but because she believed in their future needs to communicate in English. She explained her reasons for having students do impromptu speeches from the following perspective:

> [All my students] will have opportunities to converse in English [in the future]. Well, I'm hoping that impromptu speeches would prepare them for the opportunities. Roughly speaking, everyday conversation is like a one-minute speech without a draft. (I: 2/9/07)

She assigned speeches and one-minute conversations in order to prepare the students for potential opportunities to use English.

Rie reported that her classroom practices changed when she learned a new method or when students' conditions changed. When *The Course of Study* was revised by the government in 1999, she read it with interest, but her way of teaching did not change. Rie said laughingly, "It doesn't matter whether MEXT uses the term 'communication' or not. I have been aiming at this [developing communicative competence] before [1999]. I believe that I am going in the right direction" (I: 6/8/06). Rie also said enthusiastically, "Suppose the pleasure of understanding in Japanese to be 50%, the pleasure of understanding in English would be 80%. My students and I are accumulating such pleasure in class" (I: 2/9/07).

In the process of her professional development, certain aspects of Rie's beliefs changed, but her beliefs about the importance of communication seemed stable.

Summary

What Rie said in her interviews can be summarized as follows:

- Rie learned English through *yakudoku* in her secondary school, so she could use only the *yakudoku* method as a novice teacher. However, she later developed the ability to use communicative activities. She had learned such activities from colleagues, books, and workshops.
- She once believed that 100% English class is ideal, but her belief changed after moving to a new teaching context.
- Students' voices were important for her when she tried a new teaching method.
- Through her experiences in Russia, she confirmed her belief that memorizing phrases would help her communicate in real situations.
- Her learning and teaching experience led her to believe that both teachers and learners could improve their English through using it.
- As a teacher at an academic high school, Rie believed that it was important for the students to pass university entrance examinations. However, she held the belief that communicating in the target language was the primary pleasure that could be derived from foreign language learning. She also believed that students would love and respect people who speak a foreign language that they are learning.

Rie's Lessons

The interview data revealed that Rie believed in the importance of communication as well as the necessity of memorization. Then how did her practice reflect her beliefs?

In every lesson that I observed, Rie started the class without a greeting. She gave the students a written quiz to check if they had memorized key sentences in the textbook. The quiz took about five minutes. Rie gave all instructions in fluent English. The students were also expected to use English. When a girl murmured *tsuzuri ga wakaranai* (I forgot the spelling) in Japanese, Rie said to her, smiling, "I don't understand Japanese. Please use Korean or English!" (V: 6/8/06).

After the quiz, Rie provided students with speech or pair-work tasks. Two students made speeches in every lesson during the first and second semesters. In the first semester, the students chose a favorite topic (e.g., my family), wrote a draft and memorized it, and gave a show-and-tell presentation. In the second semester, the students selected a topic from a box (e.g., my favorite animal) and made a one-minute spontaneous speech on the topic. In the first observation, two students made well-prepared speeches, but Rie advised them, after praising their well-written drafts, to completely memorize the drafts. In the second observation, two students made spontaneous speeches with Rie's help; she asked questions when the students got stuck. In both classes, the students reacted to the speech, laughing, nodding, and back-channeling.

In the third semester, instead of making a speech, the students role-played in pairs on topics that Rie selected from a box (e.g., A is a boy who will be 5 years old tomorrow, and B is his grandmother). There were about 80 topics in the box: Rie proposed 40 of them and each student proposed one. The topics were changed several times during the one-minute pair-work, and each time, the partners were also changed. Therefore, the students talked to five or six different partners during the activity. They actively participated in the role-plays; they smiled and talked to each other in animated voices.

The speech or pair-work lasted 5-10 minutes. Then Rie usually assigned pre-reading activities. For example, in the first class that I observed, Rie asked the students to translate a *Charlie Brown* cartoon strip in the textbook into Japanese. In the third class, she asked what movies the students liked, connecting the question to a topic in the new lesson. After the pre-reading activity, Rie used 15-20 minutes to explain the main part of the lesson, which concerned a reading passage in the textbook. She read one sentence aloud, translated it into Japanese, and explained the grammar or vocabulary in English or Japanese; she code-switched often. If the sentence included key expressions from the lesson, she asked the students a question or asked them to translate it into Japanese. She also tried to elicit the students' opinions regarding the content of the text in English. Also, when explaining about prepositions using the blackboard, she drew a face of a woman with long hair, followed by "is known *as* a writer," "is known *for* writing *Pillow Book*," and "is known *to* all the students." Rie asked who she was, and several students answered "Seishonagon" (the famous female essay writer who wrote *Pillow Book* in the 10th century). She then briefly explained about *Pillow Book* in English. The students listened to her, nodding. In this way, Rie tried to interact with her students in English even when explaining the usage of prepositions.

After studying grammar and translating a reading passage, the students read the passage aloud. This activity had a few variations, but usually, the students listened to someone (on CD or Rie) read once, then practiced the pronunciation of new words and read the passage after Rie. In the first observation, when they read a passage that they were reviewing, the students looked at the passage while Rie read aloud and looked up while repeating after Rie (read-and-look-up). The students then read the passage together with Rie without looking at the textbook (shadowing).

The choral reading took about 5-10 minutes. Before closing each class, Rie provided an activity related to the topic or key points of the textbook passage. In the first class that I observed, the students saw a three-panel *Charlie Brown* comic strip and completed the speech balloon in the third panel in English. In the second class, they took part in an information gap activity in English using a vocabulary exercise.

In sum, the procedure that Rie followed is summarized in Table 97. As mentioned above, Rie's learning and teaching experiences influenced her teaching beliefs and practices. As she had learned that memorization was important, Rie required her students to memorize their speech drafts. She also made them remember parts of the textbook through reading aloud and shadowing. She occasionally used Japanese and checked the Japanese translation of a passage of the textbook in order to avoid any misunderstandings. Believing that her students should prepare for future opportunities to speak in English, she asked them to perform role-plays and give speeches. For Rie, communicating in English was the main purpose and the primary pleasure of language learning; therefore, she used (and made her students use) English as much as possible in the class.

Table 97. *Procedure of Rie's Lessons*

Activity	Time (minutes)
Quiz	5-7
Speech/pair work	5-10
Grammar and translation	15-20
Reading aloud	5-10
Pair work/quiz related to the textbook	5

Jun: "We *Should* Make Our Class Communicative"

Jun's Story

Jun is teaching at Japan National Secondary School. He had been teaching for 27 years when I conducted the first interview with him. He spoke quietly and politely both when he was interviewed and when he taught in the classroom.

Learning Experiences in Secondary School: Yakudoku

Jun grew up in Tokyo and was educated in a private secondary school. Jun's only memory of his secondary school English classes was that his teachers used the *yakudoku* method. When I asked him if he had experienced communicative activities, he answered that he had sung an English song once in class. He then said, "Singing songs improved my English skills. I am now 48, so I was growing up with 70's pop songs, beginning with the Carpenters. I learned English [from songs]" (I: 7/6/06). He seemed to feel that listening to and singing songs enhances language development. Also, when I asked if his learning experiences in secondary school had influenced his own classroom practices, he firmly said, “No, the experience did not influence my teaching. I am teaching in a completely different way” (I: 7/6/06).

Pre- and In-service Teacher Training and Teaching Experience

Jun majored in English at J University, a school whose students are well-known for their high English proficiency. When asked about the teaching methodology courses that he took, he replied, “I don’t remember what kind of courses I took. My professor was an old man who used an o:ld textbook on pedagogy. He taught us nothing useful. Nothing” (I: 7/6/06).

Jun remembered that he developed a strong interest in teaching after attending volunteer group activities supported by J University. The members of the group visited a number of junior high schools far from Tokyo and taught English to the students there for about a week. They enjoyed teaching and playing with the children so much that they formed a study group later to learn about English teaching methodology.

Jun spent his teaching practicum at the secondary school that he had graduated from. He remembered that he had always spoken loudly because there had been many noisy students in the school, but he did not recall what he had taught there.

Since beginning his studies at the university, Jun has been subscribing to two journals on pedagogy: *The English Teachers’ Magazine* and *The New English Classroom*, both of which are published in Japanese. After becoming a teacher, he joined the English Teachers' Association (pseudonym), which published the latter journal. He attended a monthly seminar held by the Tokyo branch of this association and studied other teachers' teaching practices. He said:

> Reports I read in the journal were summarized, so I could not get detailed [information]. When I actually saw the lessons in the workshop in Tokyo or listened to the teachers' reports in detail at annual meetings, I could have a better image of how to apply their practices in class. (I: 2/28/07)

Jun learned techniques such as providing his own materials and songs, and tried them out in his class. However, like Rie, he did not appreciate the super teachers' workshops. He said laughingly, "It's not that I couldn't imitate their lessons. I once saw Mr. K. and admired him, but his lesson did not appeal to me so much. I wonder why" (I: 10/27/06).

Jun had had taught at three public junior high schools before moving to the Japan National Secondary School. He had taught six years in the first school, nine years in the second, and four years in the third. When he was in the first school, Jun actively attended teachers' meetings and learned about class and group-work management. While in the second school, he voluntarily participated in the seminars held by the board of education, where he got ideas for teaching English. He said that the board invited good lecturers and selected interesting topics, although he did not remember them in detail.

Jun also said that the situation in his school was much better than that in public junior high schools. Jun had nine colleagues, all of whom agreed that communication and student participation were important in English class. They freely observed each others' classes and held meetings during the spring and summer vacations in which they shared good teaching ideas. They could ask questions of each other in the English teachers' room anytime. They could also read various journals that the department subscribed to. Jun learned novel teaching methods from these journals.

The student environment was also different. In public junior high schools, Jun was more concerned with establishing good relationships with the students than about teaching English effectively. He believed that pair work could enhance students' active participation, but in public junior high schools, Jun found it difficult to use pair work effectively:

> I used pair work in public junior high schools, but I had difficulty many times. If a student had a problem, not related to English proficiency, but related to something like establishing personal relations, he/she couldn't do pair work. As Mr. N. proposed, I made pairs using a sociometry-chart-like method, but it didn't work well. I couldn't use pair work effectively. (I: 2/28/07)

He also said that he could use group or pair work successfully in his new school, especially after the students had become accustomed to it through the cooperative learning project that had been carried out at the school.

Jun's Stated Beliefs and Practices Regarding CLT

Jun tried various activities other than translation tasks in his classes in order to avoid using the *yakudoku* method. When discussing CLT, he said wryly, "Well, umm, how should I say this? If we have to decide whether to teach communicatively or not, I think that we <u>should</u> [emphasis on *subeki* (should)] make our class as communicative" (I: 7/6/06). At the same time, he believed that his students needed "skill training." By "skill training," Jun meant repeated oral practice, such as reading aloud, an activity through which he believed that grammar could be internalized. He explained:

> Meanings and forms are connected to each other. I want to let my students focus on the meaning, but [unless they know how the meaning relates to the form,] they cannot use the language as well as they want to use it. (I: 7/6/06)

In addition, Jun pointed out that high school students have to read a great amount of English in the textbook; he thought that it was difficult to teach the whole textbook communicatively. Jun believes that reading aloud is an efficient way for students to learn the English in the text provided that they are aware of its meaning. Jun also stated that reading aloud will improve the students' listening skills, so he has used it as a strategy for teaching the listening section of the Center Test. For Jun, skill training is important both for communication and for passing entrance examinations.

Jun took university entrance examinations into consideration when designing the course syllabus because all the students were planning to go to universities. He said:

> [We] consciously started to prepare students for entrance examinations when they were in the second year, but actually that was late… I started thinking of the examinations when they were in the first year. That doesn't mean I make them answer the examination questions. But for example, I have them read English extensively or make them used to reading a great amount. (I: 7/6/06).

He seemed to believe that it was best to begin preparing early for the entrance examinations.

Under the constraints imposed by the entrance examinations, Jun set an ideal goal for teaching English. He said, “I am afraid that my lessons don’t reflect [my belief], but you know, I am from the English Teachers’ Association, so I think that the goal of English education is peace education” (I: 7/6/06). Although I did not observe any of his peace education classes, I assumed that Jun occasionally used this content for lessons because he presented the ideas at a conference (Japanese Society for Developing the Culture of Peace, 2000). “Self-expression and peace education” was the slogan of the English Teachers’ Association that he belonged to. However, while most of the teachers in the association taught English using Japanese explanations, Jun attempted to change this. One method that he used was to ask the students questions in English that helped them interpret the possible meanings of the text. The students understood the text more thoroughly after engaging in the process of formulating answers to the questions in English. It worked well, but he was looking for another method.

Around that time, Jun read Kanatani (2004), who proposed the *Wayaku-sakiwatashi* (hand out a translation first) approach. In this approach, teachers hand out a Japanese translation of the English text at the beginning of the class to streamline the translation process and to guarantee more time for communicative activities. Jun found the approach useful and started to use it in 2005. The activities that Jun primarily used involved asking the students to (a) find words or sentences that he had translated from the text, (b) ask questions and formulate answers about the content of the text, (c) put key sentences in the order that they appear in the text, and (d) fill in blanks in a summary of the text. The students completed these activities individually or in pairs. Jun soon found that although the students could develop a general understanding of the text through *Wayaku- sakiwatashi*, they did not accurately understand some idioms and grammatically important phrases. In order to help the students understand them, Jun provided them with fill-in-the-blank worksheets after finishing one part of the textbook. Moreover, Jun told them to read their grammar books at home and review the grammar that they had learned in class. Although Jun used *Wayaku-sakiwatashi* in order to provide communicative activities, he also cared about grammar.

Summary

What Jun said in his interviews can be summarized as follows:

- Jun's experiences of learning English through *yakudoku* appeared to act as a negative influence on his later teaching beliefs. He firmly stated that he was using a completely different method than grammar translation. In order to avoid spending class time on textbook translation, he adapted *Wayaku-sakiwatashi.*
- He held a belief that his students needed skill training (e.g., reading aloud) in order to connect language forms to the meaning.
- He let his students listen to pop music in the class because he believed that listening to English songs had helped him develop his English skills.

- Being a member of the teachers' association, he learned about other teachers' practices and tried to use their techniques. The teachers' association also led him to believe that the goal of English education is peace education.
- Contextual factors influenced his beliefs and practice: e.g., he had little difficulty using pair work in the national high school, but the academic high school environment made him concerned about preparing his students for the upcoming university entrance examinations.

Jun's Lessons

In the previous section I reported that Jun believed that both communication and skill training were important for his students. In this section, I discuss how his beliefs about language learning are connected to his teaching.

During each of my three class observations, the students stood up when a chime rang. Jun and the students greeted each other in English, they sat down, and Jun checked attendance. One boy was absent in the first class, so he said to a girl in the seat next to his, "Where is he?" She said, "*Kaze de yasumi*" (He is absent; he has a cold) (V: 7/6/06). Jun let his students use the language that they preferred when interacting with them.

The first activity in every class was a vocabulary review. For this activity, Jun used a textbook or a book that listed some of the words believed to be necessary for passing university entrance examinations. In the first lesson, the students played Bingo; in the second and third lessons, they practiced the pronunciation of words and phrases. After that, they formed pairs and checked to see if they could say the English equivalent when their partners gave them a Japanese word. During this pair work task, the students did not interact in English.

The vocabulary review took about 10 minutes, during which time Jun gave directions such as “take out the worksheet” in English, but he code-switched: e.g., “Let’s move on to next page [sic]. *Sen o hiite okimasho* (Let’s draw underlines).” He also spoke to the students in English. For instance, when translating “be anxious about” into Japanese, he pointed out a girl, Sumi, slumped on her desk. He said to the class, “I am anxious about Sumi.” Then Sumi sat up. Jun walked to over her, saying, “Because she was lying [sic]. Maybe she was sleeping.” Jun asked Sumi something in English, and she responded to him (I could not hear what they said). Jun occasionally had authentic communication like this in English (All: V: 10/27/06).[17]

In the second activity, the students read an English passage in the textbook. In every class, Jun used the *Wayaku-sakiwatashi* approach, whereby students read a Japanese translation of the text first, and then completed activities such as filling in the blanks in the summary (first class) and putting passages in order (second class). In addition to these activities, the students did choral reading, (a) reading a passage in the textbook aloud after Jun, (b) reading the passage simultaneously with him (overlapping), or (c) reciting the passage with him (shadowing).

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[17] (All: V: 10/27/06) means “all quotations in this paragraph are from the video that recorded on October 27, 2006” (see Appendix E).

In the first lesson, when the students were having difficulty with a grammar problem, Jun wrote down three optional answers on the blackboard and told them to discuss which answer was correct in groups of four. The students quickly arranged their desks, formed groups, and started a discussion. In this way, explanations or discussions about grammar were provided when necessary, but they were carried out in Japanese.

Before closing, the students sang English songs such as *Rain Drops Are Falling on My Head* (first class) and *Change the World* (second class). They usually sang a song of the month at the end of each class. Before closing, the students submitted their homework. On their homework worksheets, a textbook passage with blanks was printed. The students were supposed to fill in the blanks with the help of the Japanese translation of the passage.

The procedure that Jun followed is summarized in Table 98. Jun believed that he should not use *yakudoku*, and because the CL project at his school facilitated his use of pair and group work, he tried to use pair and group work tasks as well as activities suggested by *Wayaku-sakiwatashi*, but they were generally done in Japanese. Interaction took place frequently between Jun and his students in English, but it occurred infrequently among the students. Although he tried to enable the students to communicate effectively by connecting the meaning to the form through skill training, he also hoped to prepare his students for their upcoming university entrance examinations through the training. When he found that the students had not understood the textbook in detail through *Wayaku-sakiwatashi*, he gave them a fill-in-the-blank task homework. As a whole, Jun's classroom practice reflected his beliefs about the importance of university entrance examinations, as well as his beliefs about communicative language teaching. Jun's dilemma over the prioritization of the two goals of his English class, communication or entrance examinations, could be seen in his words that referred to his ideal belief: "We *should* make our class communicative."

Table 98. *Procedure of Jun's Lessons*

Activity	Time (minutes)
Vocabulary review	10
Reading the textbook with a grammar explanation	20-30
Choral reading	5-10
Song	5

Koji: "Happy Communication Time!"

Koji's Story

Koji is teaching vocational courses (home economics and nursery school teachers' courses) at Kanto Women's High School. He has been a high school teacher for 26 years. He is a dedicated teacher, who is primarily involved in teaching English and English literature.

Learning Experiences in Secondary School

Koji grew up in Yamanashi prefecture and went to public junior and senior high schools. He remembered that in junior high school, he had enjoyed English class although his female English teacher had been very strict and provided no communicative activities. He studied grammar by himself using two reference books. He also reported:

> When I was a third-year student, I asked my father to buy me an audio-tape in which *Horizon* [textbook] was recorded, and spent my spare time listening to it as background music. Listening means memorizing, not reading aloud. I listened to it again and again, so even now I remember quite a lot of passages [in the textbook] for the third year students. (I: 5/2/07)

Koji voluntarily studied grammar and practiced listening outside the class.

In high school, Koji studied for university entrance examinations. All the students bought a book named *150 Basic Sentences* and a grammar book. The grammar book was too thick for him to study it cover to cover, but he found the basic sentences interesting. He said, "It was a pleasure for me to translate *150 Basic Sentences*" (I: 5/2/07). He was unable to pass the university entrance examination, so he studied at a preparatory school for one more year, after which time he was accepted at K University, one of the top national universities in northwest Japan.

Learning Experiences in the University

When I asked Koji if his learning experience influenced his teaching, he said, "Hmm, one possible answer, if I talk about university, is that actually, I was a member of the ESS [English Speaking Society]" (I: 5/2/07). He belonged to the ESS in K University. ESS members had lunch together and chatted in English every day. Koji said:

> We practiced speech. We had debates and discussions. On graduation day, my friends said to me 'when you become a teacher, be sure to speak English. If not, we will be disillusioned with you!' I felt the same way. I wanted to treat English conversation as important. And another important thing, you know, is that when making a speech or having a discussion, we wrote drafts. That was a good training [for my students]. I tend to make my students do what I did at university. For example, I have students read texts on current

> topics and write about difficult political issues, consulting dictionaries. (I: 5/2/07)

He appeared to expect his students to do as he had done in the ESS activities.

With regard to the course work at the university, Koji said that his experience reading English and American literature was useful for his teaching. He stated:

> When reading this [novel in English], there are some sections that I cannot understand. Inferring the meaning of such sections and continuing reading, I come across the part I can comprehend, and I finally understand the story… When I understand a critical plot, I feel I can read the book. (I: 5/2/07)

Believing that this kind of whole-language approach was effective, Koji was dreaming that he could introduce beautiful literature in English to his students some day in the not too distant future from the moment of the interview.

Pre- and In-service Teacher Training and Teaching Experience

Koji majored in English literature, and took a teaching methodology class in which a professor gave lectures using a textbook written in English. He learned little about pedagogy and never experienced practice lessons in the class.

Soon after becoming a teacher, at his colleague's invitation, he joined the English Teachers' Association (pseudonym). He attended the annual meeting of the association three times, and learned about a number of effective pedagogical materials and teaching techniques. However, he said, "At the beginning, I attended them [meetings] like observations. They gave me good materials, but I didn't know how to use them effectively" (I: 5/2/07).[18] He soon lost interest in those meetings and stopped attending the association meetings for ten years.

When he was 35, Koji read books on pedagogy written by famous Japanese teachers and thought more about his teaching life. He realized that providing effective lessons was all important and that he should learn more about teaching. As a result, he returned to the teachers' association and attended meetings and workshops organized by the English Teachers' Association after a ten year interval. He tried to use the various communicative activities, such as debate, essay writing, and drama, that he learned at the meetings. He reported on class debates at an English Teachers' Association Annual Meeting in 1995.

Around that time, Koji began to modify the activities that he had learned at the workshops. When I conducted the first interview, Koji had had 28 years experience teaching in public high schools: 12 years in a co-educationsl academic high school, ten years in a co-educational commercial high school, and six years in Kanto Women's High School. He reported:

> In F High School [the second school], I tried various difficult self-expressing activities. Debate, writing a long essay, and umm, group-project writing. I tried to use them in the first year after I had moved here [Kanto Women's High School]. But comparing F with this [school], the level of general courses in this school was a little lower, so I had difficulty. A few years had passed, and I started to change my teaching methods a little. (I: 5/2/07)

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[18] After reading this chapter, he explained, "I did not have ability to make good use of those high-level teaching techniques" (E: 9/14/08).

Koji found that the students at Kanto Women's High School liked conversing in English and drawing pictures, so he used picture stories. After seeing the students in the Oral Communication class actively participate in a skit, he decided to use it also in English II class. In addition, Koji provided "Happy Communication Time" (students briefly conversed in English in pairs) and "Triangle Discussion" (three students presented their conversation to the class). He learned those activities in the workshops. He said:

> The influence [of the association on my teaching practices] was strong. I tried to use various novel teaching techniques. The period for such trials lasted for about ten years. I sometimes read books on classroom practices and imitated them, of course, but I aimed to create my own method. (I: 5/2/07)

After the period of imitation, he started to modify the activities that he had learned, and finally he seemed able to create original communicative activities.

In addition to communicative activities, Koji was trying to use extensive reading in class. At the meeting of the teachers' association, he learned about 10-minute reading sessions that the presenter, Ms. T, provided at the end of every English lesson (I conducted an extensive reading workshop in 2006 and Ms. T was there). Ms. T very much liked extensive reading (i.e., reading for pleasure) and let her junior high school students enjoy reading graded readers in English. Koji said to me:

> Ms. T revised and arranged how to use extensive reading that you had lectured on and used [the idea in her class]. I was impressed by her presentation. I will also modify the method in my own way. In this way, [good ideas about teaching can] spread and [we can all] improve, I hope. (I: 9/19/07)

Koji also participated in all in-service training programs held by the board of education. The training program started when he was a novice teacher and was held once every five or ten years. He also attended an intensive training seminar supported by MEXT. The seminar was designed to (a) advocate the revised *Course of Study*, (b) broaden the participants' knowledge about CLT, and (c) improve their English skills. Koji commented:

> The program was a stimulus to some extent, but I am skeptical if it had sufficient effect [on our teaching practice] to deserve the time and the money MEXT spent. In all honesty, the contents were not so informative. (I: 5/2/07)

He felt that the program was not as useful as the workshops that he had attended.

Koji's Stated Beliefs and Practices Regarding CLT

Koji mentioned that he had three main goals for teaching English at this point in his career. He said:

> One of the goals is that [students] will learn what they don't know. For example, they learned about 9.11 today… Another goal is that [they] will develop their ability to think, or...umm, through self-expressing activities, have experience of considering about the things that they usually don't think about…Also recently, I like this, poem…, well, it doesn't matter whether I use English literature or not, but [the other goal is that students] will become gentle- and broad-minded persons through reading literature written in beautiful English. It's something like self-development, you know. (I: 5/2/07)

Regarding how to develop students' communicative competence, he stated:

> As expected, I think that teachers need to provide a situation in which students can actually use English. In such contexts, what students do is not

> just memorizing text, but writing skits or reports, and presenting them based on their writing. A student will write and talk, an audience will listen and ask questions, and a presenter will answer them. (I: 5/2/07)

Related to communicative competence, Koji said that he did not think that it was very important for his students to improve their speaking fluency. He explained, "I think that meaningfulness is more important than fluency. Even though [my students are] not fluent speakers, it is satisfying if they can construct meaningful communication" (I: 9/19/07).

As mentioned above, the academic level of Kanto Women's High School was not high. However, Koji felt that the vocational course students were highly motivated to communicate in English. He had discovered this when he had taught them the previous year. He said, "I was surprised. I have never met students like them in my life ((laughing)) who could react to my words and concentrate on the tasks, I thought. We'd better think that they were special" (I: 5/2/07). He reported that when he used "Happy Communication Time" for general course students, they did not enjoy the activity. They soon became unmotivated to talk to classmates that they did not know well. Some would not even stand up to find partners. The class members in the general courses changed once a year, whereas the members in vocational courses did not change; so the vocational classes became like communities where members could interact in a free and friendly manner. This also might have facilitated the use of the pair activity.

In addition to communication, Koji cared about grammatical competence. He made a handout entitled "One Point English Grammar" that explained one basic grammar point. He used a different handout once a week for grammar review. He told me that although vocational course students liked to speak English, they had not acquired basic grammar. He said, “Thinking about the case in which students take entrance examinations, I provide One Point Grammar as I did before. I started this when they were second year students” (I: 5/2/07). Although his students may easily pass the entrance examination for junior colleges, Koji wanted to prepare his students for the more difficult entrance examinations at four-year universities.

Summary

What Koji said in his interviews can be summarized as follows:

- Koji learned English through *yakudoku* in secondary school, but he believed that oral communication and writing activities that support it are important. This belief appeared rooted in his learning experience in the university ESS and in the private workshops that he voluntarily attended. The workshops were influential in that they made him realize that good ideas about teaching spread from teacher to teacher.
- He also held a belief that developing communicative competence and fluency alone was not the goal of English education. His students’ self-development through learning meaningful English was also important for him.
- Students’ preference for communication in English and their English proficiency had a strong impact on his use of communicative activities. Types of communicative activities that he used changed in accordance with his teaching context.

- He tried to prepare his students for the university entrance examinations even in the vocational high school environment.

Koji's Lessons

The interview data revealed that Koji believed that both speaking and writing were important for language learning. I examine how Koji's beliefs affected his practices in this section.

In all three classes that I observed, Koji started his class by talking in English about current issues or interesting news for six or seven minutes; the topics were *National Holidays* (the first class that I observed), a DVD titled *9.11* (the second), and *A Loving Chimpanzee* (the third).

In the first class, after exchanging greetings with the students, Koji asked a question: "Did you have a nice weekend?" The students said yes, and he asked, "What did you do?" The students answered randomly; some spoke English and others spoke Japanese. Koji said, "I watched three DVDs." Then he wrote down "April 29" on the blackboard and asked, "What do you call this day?" He wrote "*midori no hi* (Green Day)" and "*Showa no hi* (Showa Day)" with an arrow. Some students wondered why the name had changed in Japanese. "That's a good question," said Koji, "the law changed." He explained in English that Culture Day (November 3) is the Meiji Emperor's birthday and April 29 is the Showa Emperor's birthday. He said that some national holidays were related to celebration days for former emperors and that the Japanese government wanted to show this by changing the name of April 29. "*Jidai ga kawatte kita noka na"* (I wonder if the times are changing) muttered Koji. (All: V: 5/2/07)

Next it was time for poetry. During spring vacation, Koji selected about 30 poems written in English and made a handout titled "Plum Times" for each poem. In the handout, he printed a poem, its translation, and notes about difficult expressions and cultural references. On the top of the handout, Koji wrote, "*Shi o okuri masu* (Here is a gift of poems for you)." "Plum Times" introduced Thomas Nashe's "Spring" and Ben Jonson's "It is growing like a tree." Koji said, "When I read a poem, students will become very quiet, being involved in the world of poetry" (I: 5/2/07). The poetry time lasted for five minutes.

The third activity was a communicative one: Happy Communication Time (the first and the second classes) or Triangle Discussion (the third class). When Koji shouted "Happy communication time," the students swiftly stood up holding handouts and trotted over to a classmate that they wanted to talk to. Their conversation started with greetings: "Hi, how are you?" Then the students asked a couple of questions to each other. Sample questions on various topics were printed on the handout. They looked at these when they forgot words that could be used in their conversations. The students talked in English loudly and cheerfully, so the classroom became very noisy during this activity. In the Triangle Discussion, the presenters talked in front of the class for two minutes based on their script. These two activities took several minutes each.

In the next activity, the students read an English passage in the textbook. Koji called on one student and asked her to translate a sentence in the textbook and indicate what words functioned as the subject and verb. If the sentence included key expressions, he explained the grammar in Japanese. Before or after this translation activity, the students read a textbook passage aloud after Koji or after the model reading CD. The translation task and choral reading took about 15-25 minutes. He told me that he could not finish all the lessons in the textbook every year. He said, "It will be accepted [if I don't finish all lessons]. But in a higher level school near here, students take the same test, so teachers have to follow the same syllabus" (I: 5/2/07). He reported that teachers at academic schools must follow the same syllabus, which is designed to prepare the students for university entrance examinations.

In the first and second classes that I observed, Koji provided a skit-making activity. The students used key expressions that they had learned in previous lessons and made a dialogue about their plans for the weekend. The students worked in pairs, some of them saying, "*Gambaroo ne* (Let's do our best)!" (V: 5/2/07). Koji put a basket full of dictionaries on the teacher's desk and walked around the class. Some pairs picked up dictionaries, and others asked Koji questions. He advised them in Japanese to write about their real plans. At the end of the activity, two pairs presented their skits. One of them talked about their club activities, and the other talked about their homework.

The procedure that Koji used in his classes is summarized in Table 99. Except for reading the textbook, communication took place between Koji and the students or among the students in English. Talking about current issues and reciting poems might have reflected his beliefs that English education should develop more than communicative competence. Also to be noted is that Koji had students write drafts before they engaged in communicative activities. It appears that his classroom practices were based on his belief that both speaking and writing were important for communication, which was influenced by his learning experiences in university and seminars. Also to be noted is that the classroom conditions (students' preference for communication) and school condition (teacher's autonomy in syllabus design) allowed him to use communicative activities frequently. Thanks to his teaching context, Koji's practice reflected his beliefs to a considerable extent.

Table 99. *Procedure of Koji's Lessons*

Activity	Time (minutes)
Talk about news	6-7
Poem	5-6
Happy Communication Time (or Triangle Discussion)	5-10
Textbook reading (translation, grammar and choral reading)	15-25
Skit (the first and the second lessons)	20

Gen: Teaching in an Agricultural High School

Gen's Story

Gen is teaching at Asama Agricultural High School. When I first interviewed him, he had been teaching for 26 years. Before the interviews, I had met him several times because we had coauthored three high school English textbooks. Although he was younger than I, I felt as if he were my older brother; he was a warm-hearted person.

Learning Experiences in Secondary School: Yakudoku

Gen grew up in Nagano Prefecture and studied at a public junior high school there. Around that time, Gen stated that English class meant reading (reading aloud) and writing (copying English sentences). He said that he memorized grammar rules and vocabulary in the class and that he copied English sentences into his notebook for homework every day.

He went to a highly competitive academic public high school in Nagano where he took reading, grammar, and composition classes. He said, "The English courses were taught by using what was called pure *gura-tora* (grammar-translation method)" (I: 2/15/06). As in junior high school, his teachers never provided communicative activities. An ALT (Assistant Language Teacher) visited his high school once in the three years that he was attending the school, but the students in his class just listened to his English. Gen said, "My teacher could not make himself understood in English when speaking to the native speaker" (I: 2/15/06). Even in composition class, the main activity involved translating Japanese sentences into English. Gen reported that his way of teaching might have been influenced by his own learning experiences because he usually provided students with reading aloud and translation activities.

Learning Experiences after Secondary School: L3 and Speaking English

After becoming an English teacher, Gen studied Korean with his wife for about a year. Gen and the other students studying Korean enjoyed talking about cross-cultural issues in Japanese rather than in Korean, but even in such a relaxed atmosphere, Gen worried about how terrible he would feel if he could not understand Korean in class. He said:

> How miserable we would feel if we couldn't understand a foreign language!... And I felt very frustrated when I was unable to pronounce [Hangul] letters. If learners couldn't read at all, they wouldn't feel like studying [the language any more]. (I: 1/24/07)

As a result of this experience, he wanted to enable his students to connect English spellings to their pronunciation. Gen's provision of choral reading tasks was partly due to this experience.

Gen began to practice listening and speaking when the JET (Japan Exchange and Teaching) Program started in 1987. At that time, many Japanese teachers did not know how to team-teach, and they also had difficulty communicating with the ALTs working at their schools. Gen was one of those teachers. He had to make up an English sentence in his mind first and then utter it, so he could not keep up with real-time conversation. Gen thought that he should improve his listening and speaking skills in order to team-teach effectively, so he repeatedly listened to tape-recorded English texts every day. He visited the ALTs' home once or twice a month, and sometimes stayed overnight with them. He reported, "I think that [my teaching method] changed…[My students] read the textbook passage and translated it, but more, what should I say, I became more sensitive to [English] sounds, more careful about them" (I: 2/15/06). In responding to my question about whether the ALTs influenced his teaching, Gen said, "[The ALTs' techniques] affected my use of English [in the class]. From them, I learned a lot about what words to use and what expressions to use" (I: 2/15/06). It appears that Gen learned not only English but also how to use English in the class from the ALTs.

Pre- and In-service Teacher Training and Teaching Experience

Gen had taken teacher education courses while a university student. When I asked him if the courses were useful, he answered, "No. Not at all" (I: 2/15/06). Moreover, during his teaching practicum, his supervisor did not make any comments or give him advice. However, he enjoyed the practicum a great deal and decided to become a teacher by the end of it.

He obtained his teaching license in 1981. In the beginning of his career, Gen used his energy mainly to assist students' club activities. However, he changed his way of thinking through the influence of his wife, Michi. Gen met her at a teachers' meeting in 1986 and married her in 1992. Michi was a high school English teacher with a master's degree in TESOL who was interested in peace education. Gen said, "[She had an impact on] my, what should I say, my view of English education, my English skills as well, and my [professional] knowledge" (I: 2/15/06). As a result of Michi's influence, he tried to improve his English proficiency, learn from his students, and teach English more effectively. Michi also helped Gen learn about TESOL and SLA. Gen read Michi's books and among them, found Dörnyei (2001) interesting. He said:

> I thought that this person [i.e., the author] could publish books and become a professor because he was good at putting the things together. Teachers all

> know about these [strategies]…[but] the book covers all the strategies [teachers are using]…very useful for me. (I: 1/24/07).

Gen might have reconfirmed that he was using various strategies that had been discussed in the professional literature.

Gen learned from teachers and researchers as well as from Michi. He did not find formal workshops useful, so he joined the Nagano High School English Teachers' Association (pseudonym) in 1986 and attended its seminars. He has been chairman of the association since 1991. The association invited famous teachers and scholars to the meetings, and Gen had opportunities to listen to them. One of the most impressive presentations, given by a university professor, was on the MERRIER[19] approach in which a teacher explained the content of an English text in English (oral introduction).

Gen said in the first interview, "I want to increase the amount of English I use in the class" (I: 2/15/06). He was thinking that the MERRIER approach would enable him to do this, but in order to accomplish this, he had to find out how to make low proficiency students understand the textbook using English. Then a good idea came to him: numbering the sentences and having students write down key words while listening. Gen finally started to use the MERRIER approach in April, 2007. He was surprised that most of the students understood his English and that his own speaking skills had

[19] The name of the approach came from its seven principles: Mime (Use non-linguistic information such as gestures and realia), Example (Show a concrete example), Redundancy (Express the same message from different angles), Repetition (Repeat important information), Interaction (Interact with students or make students interact with texts), Expansion (Paraphrase students' utterances), and Reward (Provide positive feedback)

improved through using this approach. He realized that the degree to which the approach worked depended on the teacher's speaking skills. He was going to continue to use it.

Another person who made an impressive presentation was Prof. Kunihiro, who claimed that we need "motion memory" when mastering skills such as swimming, driving, and language. Gen listened to Prof. Kunihiro's lecture twice, talked to him personally, and admired his way of living as well as his teaching approach. When I asked about the most effective way for his students to learn English, he answered, "Reading aloud. Umm, like *Shikan roodoku* [intently reading aloud: *shikan* is a term of Zen Buddhism] proposed by Prof. Kunihiro, doing it repeatedly, I guess" (I: 2/15/06)

Because Gen believed that teachers could also learn from their colleagues, he invited his young colleagues to the first class that I observed. Gen wanted to improve his teaching skills by getting feedback from them, although it is unusual that teachers open their classes to colleagues in Japan (Furuya, 2008). Gen said that class observation is the best way to learn about pedagogy, but as they almost always taught in the same periods, Gen and his colleagues rarely had the opportunity to observe each other's classes. Gen therefore shared his classroom practices with them in different ways, such as by giving them his class handouts.

Gen also learned from his students. He said, "It is important to talk to students outside the class. It is very important to become friends with various students. They tell me everything: good and bad news" (I: 2/15/06). Every time he tried a new teaching technique, he would ask the students whether they enjoyed and understood the lesson. He administered a questionnaire once a semester to learn from the students' comments. Students' voices helped him improve his teaching

Gen's Stated Beliefs and Practices Regarding CLT

I asked Gen about the goal of teaching English in the first interview. He answered:

> One of the goals of English education is, umm, one of them is [to make students] connected to the world. For example, even if some students said they would not use English [in the future], no one knows what will happen. So, you know, even for such students, English [class] would be a start. They will be connected to the world through [using] it, I think…And also, [I] want my students to be, umm, independent through [learning] English. (2/15/06)

Like Koji, Gen seemed to believe that developing communicative competence was not the only goal of English education. Important goals also included being connected to the world through communicating in English and becoming increasingly independent through learning.

Related to communication, Gen said that it was stimulating for foreign language learners to interact with people who spoke the foreign language. He believed that his students might feel the same way, even though they could not converse in English yet. Seeing this, Gen thought that he needed to develop the students' proficiency to the level that would enable them to enjoy communicating in English. When I asked him if this idea was influenced by MEXT's innovations, he firmly said no, but he admitted that his motivation to teach speaking was increased by the presence of ALTs. MEXT started the JET Program, so Gen was indirectly influenced by its policy.

Gen believed that the degree to which students enjoyed communicating in English largely depended on their motivation. As mentioned in Chapter 2, many agricultural high school students select those schools because no academic schools accept them. By this stage in their academic careers, they might already have become unmotivated to study. Gen complained that it was difficult to use communicative activities, such as pair or group work, even in Oral Communication class. Eventually, he did not use them in English I class, and he even skipped tasks in the textbook. He confessed:

> I didn't [use the tasks]. I had time, but unless I provided it effectively, the classroom would degenerate into chaos. My ability to control them would matter. I wish [my students] would have interest [in the tasks]. (2/16/07)

In the difficult teaching conditions that often exist in Japanese agricultural high schools, teachers tend to think of themselves as being incapable of using communicative activities effectively. He said, "In a teacher-fronted class, I feel more *comfortable*. My students and I feel more *comfortable* [He said *comfortable* in English]" (I: 1/24/07)

However, Gen was not satisfied with this situation. He mentioned:

> To tell the truth, I am hoping to use more student-centered activities and have them speak more [English], but it is really hard to develop their ability to the extent [that they could do pair work in English]. I think I need more skills. Skills in teaching, yes, methodology and techniques, too. Devices, you know. And [I need to learn more about] activities. There are activities I can do and those I cannot do because of my personality. Songs, for example... I cannot sing [English songs] in front of my students. (I: 1/24/07)

> At the workshop [held by the university teacher education program], I thought that even if the presenter could use the method, that doesn't mean I could do so. I had to modify a method. Considering what I can do, I changed it to a style that fit my own way [of teaching]. (I: 2/15/06)

Gen clearly wanted to learn more teaching skills, and when implementing a new pedagogy, he considered his ability and personality as well as his students' motivation and proficiency.

Summary

What Gen said in his interviews can be summarized as follows:

- Gen perceived that his *yakudoku* experience carried over into his classroom practices such as reading aloud and translation activities.
- He believed that his students should be connected to the world by using English. In order to help his students do this, he thought that he should use more student-centered activities. However, in the context of the agricultural high school, it was very difficult to accomplish because of the students' low motivation and low English proficiency.
- He believed that the best way to learn English for his students was reading the text aloud because it would enable them to connect the spoken text to written English.

His teaching beliefs were influenced by his learning experience of Korean, by his wife, the ALTs that he worked with, the professors who introduced teaching approaches, his students' voices, and by his teaching context.

Gen's Lessons

As stated above, Gen believed that he should use more English and more student-centered activities, and that reading aloud would help his students learn English. In this section, I report on how his classroom practices were connected to his beliefs.

In every lesson that I observed, Gen used the first 25-30 minutes to review a passage in the textbook that the students had studied in the previous lesson. In the first review task, the students took part in choral reading. Gen read each sentence twice: the first time he read the sentence by himself (model reading) and the second time, he read the sentence together with the students. Gen explained that without his voice, the students would not have read aloud because they did not want their voices to be heard by their classmates. Choral reading took about five minutes.

The second task was a quiz on the students' understanding of the content of the passage. The quiz consisted of three sections: reading comprehension check, vocabulary review, and English composition. While the students were writing answers, Gen walked around the class and talked to almost all the students, giving them advice in Japanese. After that, Gen checked the answers with the students. The quiz took 20-25 minutes.

In the first class that I observed, Gen provided pair work as a way to review the textbook passage. The students read the passage aloud as fast as possible, while their partners listened to them and checked how many words they could read in a minute. In the second and third observations, pair work was not provided. Gen said that he was not able to use pair work at that time because the students' motivation was not high enough.

After the review activities, Gen explained the content of a new passage in the textbook on a comic writer (the first and the second class) and whales (the third class). In the first class that I observed, he told the story in Japanese. In the second and third classes, he explained the story in English (Oral Introduction). He first handed out a worksheet, in which grids for key words and a Japanese summary were printed. A number was put next to each line, following the order of the sentences in the textbook. He simplified the text, repeated and paraphrased the sentences, added information, and code-switched, so that the students could comprehend the passage in English. Listening to his story, the students wrote down key words on the handout. After Gen's explanation, they helped each other to write Japanese summaries of the passage. While they were writing the summaries, Gen walked around the class to give advice individually again.

In addition to repeating and paraphrasing, Gen used strategies that enhanced the students' listening comprehension. One of them was asking questions in English. When explaining that there were two types of whales, Gen said, "Group 1 have teeth ((pointing to his own teeth)). Group 2 have no teeth. Group 1 eat fish or other animals. How about Group 2? What do you think? If they don't eat fish or animals, what do you think they eat? Do you know? *Shitteru ka* (Do you know?). Yeah, what do you think? They don't eat fish or animals." One student voluntarily responded to him, "Milk!" Gen said to the class, "*Miruku ka* (Milk, well…). When they are babies, they eat milk from mother [sic]. When they become adult, *miruku janai wa na* (not milk, right?)." As this example shows, Gen's oral introduction involved interaction with the students. (All: V: 2/16/07). The other strategy that he used was to write hints about the meaning of difficult words on the blackboard. Gen showed me worksheets that the students had filled in, and I found that most students had written key phrases in English and a Japanese summary.

In addition to oral introductions, Gen provided various extra activities. In the first class that I observed, the students memorized two English passages, part of Dr. King's "I have a dream" speech (68 words) and a poem (45 words). They were going to recite one of them in the next class. In a book chapter that he wrote, Gen introduced activities such as the "Photo Journal" (taking pictures at school and presenting them with English notes) and "News on my birthday" (select three articles from the newspapers published on a student's birthday and introduce them with a brief comments in English). He stated in the chapter that it is important for teachers to share memorable experiences with students in English.

The procedure of Gen's lessons is summarized in Table 100. As he believed that it was difficult to successfully employ pair or group work with unmotivated, low proficiency level students, he used them infrequently although he wanted to do so more often. However, authentic communication took place in English during the oral introduction. Through the activity, the students understood the content of the textbook passage, and in the next class, they connected the content (spoken English) to the written passage. Also, during the oral introduction, Gen and the students conversed in English. Gen could not have used his *own* style of oral introduction if he had not married a wife who helped him learn about teaching, and had experiences such as teaching at an agricultural high school, learning Korean, interacting with ALTs, and attending seminars. His outside-of-class experiences, as well as in-class ones, likely impacted his practices.

Table 100. *Procedure of Gen's Lessons*

Activity	Time (minutes)
Review (choral reading)	5
Review (quiz)	20-25
Oral introduction (new part)	20
Choral reading and translation (new part)	Next lesson

Summary

In this chapter, I have reported the results of the interviews and observations that were part of this study. Four high school teachers selected from the whole population, not from the sample in the survey, participated in this part of the study (cf. Chapter 3). However, the findings in this chapter partly illuminated what was happening in the local context, by providing information about individual teachers' beliefs and practices, and about how their beliefs and practices were situated in their particular teaching contexts. I found similarities and differences in their beliefs and classroom practices. I also discovered differences in aspects that looked superficially similar. Let me summarize the key findings of the interview and observation studies.

First, the four participants believed that one of the goals of English education is to develop students' communicative competence, which MEXT advocated in the 1999 *Course of Study*; however, they all believed that developing communicative competence was not the only educational goal worth pursuing. They all had their own goals, some of which (e.g., self-development) may have overlapped with those of school education.

They might have regarded English as part of the school curriculum and hoped for each student's self-development as a whole person. In that sense, their beliefs were situated in the school environment.

Second, the participants also believed that non-communicative activities, such as reading aloud, memorization, and translation, helped students acquire English in certain situations. This type of belief did not completely conflict with their CLT-oriented beliefs because the participants expected that those activities would facilitate communication. It is likely that superficially conflicting beliefs co-existed, interplayed, and were related to each other in the participants' complex belief systems.

Third, the participants provided various communicative activities in their classes, yet their basic teaching processes were based on teacher-centered traditional methods. The core part of the courses consisted of three activities: reading aloud, translation, and grammar instruction. Communicative activities were inserted among them. It should be noted that the teachers did not use activities such as reading aloud, translation, and grammar instruction without consideration. They employed them because they believed that these activities exerted positive effects on language learning. Also to be noted is that this core part of the courses was deeply rooted in the method of learning classical Chinese texts, employed by the translators in the 19th century (Imura, 2003). The participants' beliefs and practices appeared to be historically located.

Fourth, the participants' beliefs and practices were both positively and negatively affected by their learning experiences. They first started from *yakudoku,* and later changed their teaching styles. While novice teachers, their learning experiences in secondary schools strongly affected their teaching, but later, the impact of their experiences outside the classroom, such as studying abroad and learning with ALTs, became stronger. They all experienced improvements in their English language skills, especially speaking, through using the language. Thus, most of their language acquisition might have occurred outside their *yakudoku* experience.

Fifth, the participants learned most of the teaching methods or techniques that they use from their colleagues, books, and workshops *after* becoming teachers. It must be noted here that they modified the new techniques that they had learned, and then used them with their students. That is, when they used the activities, they considered their teaching context, including their own English proficiency and personality, university entrance examination pressures, as well as their students' English proficiency and motivation to study and communicate in English. This implies that when teachers decide to use, not to use, or how to use a CLT activity, they carry out a complex analysis of their teaching context.

Sixth, students' feedback was important, especially when the teachers were trying a new activity. The teachers talked to their students in and outside the class in order to check the degree to which they understood the content of their classes. They also administered questionnaires and elicited the students' reactions to the new method, and activities that they tried. Interestingly, Rie quit using *Wayaku-sakiwatashi* based on the results of the questionnaire, but she tried to modify the method in order to use it again. They used students' voices as hints on how to improve their teaching.

Last, it is important to note that even though the teachers used the same activities, the reason why they used them and the process of how they had come to use them differed for each participant (see Smith, 1996 Chapter 2 regarding a similar issue). For example, Jun believed that his students would improve their listening skills through reading aloud, Rie wanted her students to memorize English through the same activity, and Gen believed that his students would become able to connect English sounds to the written text by reading it aloud. This finding suggests that teachers' beliefs and practices cannot be understood only by looking at the types of the activities that they use.

From this chapter, it should be clear that individual teacher's beliefs and practices are complex and situated in their local teaching contexts, and that their core practices are rooted in the particular local and historical contexts of Japanese foreign language education as well as in their own previous learning and teaching experiences. Without knowing the details of such local contexts and the complexities of individual teachers' cognition and behaviors, we cannot discuss how to change and improve their beliefs and practices. Also, reforming English education in Japan can never be successfully accomplished if such local contexts are ignored.

The interviews and observations provided me with details about the local context of teachers' beliefs and practices. In the next chapters, I summarize the quantitative and qualitative results, interpret them, and discuss theoretical and pedagogical implications.

CHAPTER 7

DISCUSSION

The purposes of this chapter are to summarize the key findings for each research question and interpret them. In this chapter, the quantitative part of the study is referred to as the survey study or the quantitative study, and the qualitative part is called the interview and observation study or the qualitative study.

Research Question 1

The first research question asked about Japanese high school teachers' beliefs about CLT. The descriptive statistics indicated that the respondents to the survey expressed positive beliefs about CLT, while also believing that rote-memorization plays an important role in learning English (Table 82). About half of the respondents reported that they wished to change their teaching methods to more communicative ones, and in order to do so, they wanted to change contextual factors, such as class sizes and the pressure exerted by university entrance examinations (Table 85).

Beliefs about CLT

Table 82 indicates that the majority of the respondents agreed (from "slightly" to "strongly") with the nine questionnaire items (A1-A5, A7-A10) that are related to the principles and characteristics of CLT (cf. Brown, 2001). The items are language acquisition through using it (A1), the importance of communication in real world situations (A2), the need for meaningful communication (A3), the importance of both fluency and accuracy development (A4), teachers as facilitators (A5), the importance of group/pair work (A7), comprehensible pronunciation as a goal (A8), errors as a natural learning process (A9), and motivating students through communicative activities (A10). The approval rates ranged from 85% to 99%, which indicated that the respondents had very positive beliefs about the CLT principles listed above.

As noted in Chapter 2, Gorsuch (2000b) reported that Japanese high school teachers (N = 876) expressed mild approval of CLT; the mean scores of the four CLT items measured on the 5-point Likert scale ranged from 3.36 (SD = .88) to 3.69 (SD = .90). Compared with Gorsuch's results, the results reported in this study indicated more widespread approval of CLT.

These high approval rates might be partly due to innovations implemented by MEXT after the publication of Gorsuch's (2000b) study. In 2003, the revised *Course of Study* was implemented, new editions of the authorized textbooks were published, and the 5-year Action Plan was started. As prescribed by the Action Plan, listening comprehension was included on the Center Test in 2006. Those changes might have increased teachers' opportunities to learn about CLT. Moreover, one-week intensive compulsory English teacher training programs were held by the prefectural boards of education from 2003 to 2007. During that period, approximately 60,000 secondary school teachers attended the training programs (Nishino, 2008), which were designed to promote high school teachers' use of CLT with the help of university professors and teachers with TESOL backgrounds. The questionnaire used in the survey study was administered in the fall of 2006; thus, more than 75% of the respondents should have attended the programs and learned about CLT. It is possible that they gained knowledge about CLT through the intensive training programs and realized that CLT was a potentially effective teaching approach.

The second possible reason for the high approval rates is the fact that the respondents to the survey were 13% of the randomly selected sample, and they voluntarily responded to the questionnaire about CLT. Many of them might have responded because they had been interested in CLT or had knowledge about CLT, and may have had beliefs that were compatible with CLT principles.

The third reason can be found in the different questionnaire items used in the two studies. Gorsuch (2000b) asked her participants about their approval of the appropriateness of specific communicative tasks (e.g., picture strip story, information gap, and opinion gap tasks), whereas in this study, the participants were asked whether they agreed with the general principles of CLT. It can be speculated that high school teachers agree with CLT at the abstract level of principles, but once they actually consider using specific CLT activities in the class, their approval declines. This speculation is supported by the fact that the respondents to the survey tended to agree with beliefs related to SLA theory more strongly than those related to actual classroom practices. Items A4 and A9 concern the perception of errors and accuracy, and items A3 and A1 concern the importance of meaningful communication. As shown in Table 81, item A9 (Foreign languages are learned through a process of trial and error, so errors should be seen as a natural part of learning) is the easiest item to endorse, whereas item A4 (Developing students' fluency is as important as developing their accuracy) is the most difficult item to endorse. Item A1 (language is acquired effectively when it is used as vehicle for doing something else) is the second easiest to endorse while item A3 (classroom activities should engage students in meaningful communication) is the second most difficult. Thus, the items related to classroom practices (items A3 and A4) were more difficult to agree with than the items concerning CLT theory (items A1 and A9).

To summarize, the respondents had positive beliefs about CLT, but they appeared to hold more positive abstract beliefs about CLT compared with their beliefs about CLT and its relationship with classroom practices. This relates to what will be discussed in the next section.

CLT-oriented Beliefs and Traditional-oriented Beliefs

Table 82 shows that 95% of the respondents to the survey agreed (slightly agreed, agreed, and strongly agreed) with item A6 (Rote-memorization should play an important role in the foreign language classroom). This item is incompatible with CLT principles,[20]

[20] It was expected that item A6 would have a negative loading on the CLT belief variable, but it had a positive loading on the variable. When conducting the MANOVA and the path analysis, item A6 was not used because the Rasch PCA of item residuals indicated that the item measured a different dimension than the CLT belief variable.

and suggests that the respondents hold beliefs related to traditional teaching methods (grammar translation and audiolingual methods). Similar results were reported by Gorsuch (2000b); many Japanese teachers still believed the need for strong teacher control, memorization, and translation in foreign language learning although they mildly approved of CLT.

The participants in Gorsuch's (2000b) study and those in my study appeared to hold both CLT-oriented beliefs (hereafter CLT beliefs) and traditional-oriented beliefs (hereafter traditional beliefs). Such teacher beliefs or teacher cognition have been reported by a number of researchers (e.g., Borg, 1998; Burns, 1996; Nespor, 1987; Woods, 1996). Borg (2006) mentioned that teachers have systems of beliefs, which resemble networks. In the network, some beliefs are stronger than others (i.e., primary beliefs and secondary beliefs). Borg also pointed out that teachers have "ideal" (or idealistic) beliefs that reflect their views of what *should* be done and "practical" (or realistic) beliefs that reflect what they actually do. Whether CLT beliefs are ideal or practical beliefs cannot be judged before examining the respondents' classroom practices, but previous research (e.g., Sakui, 2004) conducted in Japan suggests that the CLT beliefs that the participants held are idealistic ones and they do not necessarily reflect what the teachers actually do in the classroom.

Both CLT and traditional beliefs were also found in the interview study: the four participants believed that teaching English for communication is important, while simultaneously believing that traditional methods such as memorization and reading aloud are necessary for language learning. However, careful examination of the interview data revealed that CLT beliefs and traditional beliefs did not completely conflict with each other. Rie, the participant who stated that memorization was a crucial aspect of foreign language acquisition, held the belief that memorizing sentences would help her students communicate in real-world situations. Concerning this case, beliefs about memorization did not contradict her CLT beliefs. However, it should be also noted that Rie mentioned that when she taught the third year students, she believed that the goal of her English class was to prepare them for the upcoming university entrance examinations. Thus, memorization was viewed as an important strategy for passing the examinations, and CLT beliefs did not operate as the primary beliefs when she taught those students. It is possible that the relationship between CLT beliefs and other types of beliefs within her belief system would change if her teaching situation was altered. As such, teachers' belief systems are situated in their teaching context.

The quantitative results showed that the respondents appeared to hold both CLT beliefs and traditional beliefs. The qualitative results revealed that the participants' belief systems were contextualized. In the next section, I examine the teachers' actual classroom practices regarding CLT and see how the practices reflected their beliefs.

Research Question 2

The second research question asked about the Japanese high school teachers' use of CLT. The descriptive statistics showed that the respondents to the survey did not frequently use communicative activities (Table 87). Among the items in the questionnaire, item F6 (asking questions about the textbook in English) was the easiest item to endorse, and item F1 (using classroom English) was the second easiest. In contrast, item F5 (Summary writing) was the most difficult item to endorse and it was followed by item F4 (Essay or story writing) (Table 86). These results indicated that teacher-initiated activities such as using classroom English and asking questions were easier to use whereas complex or creative writing activities were harder to use.

In this section, I focus on the inconsistency between the teachers' beliefs and practices, and the classroom practices of the four participants in the observation study.

Inconsistency between Beliefs and Practices

As Table 87 shows, more than 85% of the respondents reported that they never or infrequently used activities such as essay writing (F4) or summary writing (F5). Also, regarding task-based activities (F8) and group and pair work in English (F11) in which students are expected to engage in negotiation of meaning, approximately 50% of the respondents said that they never or infrequently used them. In contrast, as mentioned in Chapter 5, no less than 85% of the respondents agreed with all the items concerning CLT principles and characteristics. Thus, there is an inconsistency between the respondents' beliefs and practices regarding CLT. This finding is not surprising because a number of researchers investigating Japanese teacher beliefs have already reported gaps between the teachers' beliefs and practices (e.g., Sato & Kleinsasser, 2004; Taguchi, 2002).

Such gaps were also reported by teacher cognition researchers working outside Japan (e.g., Borg [1999] in Malta and Orafi [2008] in Libya). Borg (2008) suggested that teachers reconcile the tensions between what they think is ideal and what they think they can do in the real-world teaching context, and that during the process of reconciliation, constraints and opportunities that the teachers encounter in their teaching contexts influence their teaching practices. The inconsistency between the teachers' beliefs and practices found in this study, therefore, raises an important question: what constraints made the teachers resist using communicative activities in their classrooms? This question is partly answered by the survey responses shown in Table 85.

The first constraint might be classroom conditions. Approximately 28% of the teachers who wished to make their teaching methodologies more communicative wanted smaller class sizes. Although Willis (1996) stated that CLT can be effectively used even with large classes, a number of studies have reported that many teachers find it difficult to employ communicative activities in large classes (e.g., Holliday, 1994, Nishino, 2008, Taguchi, 2005). Considering that about half of the respondents to the survey taught classes consisting of 40 or more students (Figure 18), it is not surprising that they wanted smaller classes. Other than the class size, a number of the survey respondents reported that they wanted classroom conditions such as "students' English proficiency and attitudes" and "number of class hours" to change. In total, approximately 42% of the teachers who wished to change their teaching practices wanted the classroom conditions to change.

The second constraint involves the teachers' concerns about university entrance examinations. About 14% of the teachers who wanted to teach more communicatively hoped that university entrance examinations would change. It is interesting to note that this percentage was smaller than that of those who wanted classroom conditions to change. As mentioned in Chapter 2, Gorsuch (2000b) suggested that a change in the nature of university entrance examinations would not directly affect secondary school teachers' approval of CLT, but would affect classroom or school conditions first, and then, those changes would influence the teachers' perceptions. Similarly, the respondents to the survey might have felt that changes in the university entrance examinations would not directly impact their teaching practices; thus, the majority of the respondents prioritized improvements in the classroom conditions over changes in the university entrance examinations.

It must be also noted that the university entrance examination system in Japan has not been completely unified; a candidate's success is determined by the scores that she gets on the Center Test and in the *Niji* examination (examinations that each university provides). The Center Test had started to change before the survey study was conducted. In addition to the inclusion of listening comprehension, the reading comprehension questions had been also revised, and in the 2006 Center Test, there were fewer questions that demanded discrete, decontexualized knowledge or skills at the sentence level or lower (Guest, 2008). However, *Niji* examinations had not yet changed in 2006; they were still focused on discrete knowledge and translation (Kikuchi, 2006). The ratio of the *Niji* examination score to the Center Test score was determined by each university, but students have to do well on both examinations in order to enter highly competitive universities. Mori (2002) indicated that "institutions of high academic prestige are and will remain selective and the severity of the competition associated with college entrance examination [sic] will persist" (p. 29). This fact might have placed pressure on many academic high school teachers and hindered their use of communicative activities, which they likely perceived as having little to do with *Niji* examinations.

Related to the problem of university entrance examinations, we should pay attention to the influence of economic issues on entrance examinations in Japan. The major cram schools and publishing companies benefit greatly by university entrance examinations (cf. Sasaki, 2008) and their interest is not in promoting communicative assessment, but in selling strategies and techniques they have developed for test takers to get high scores in high-stakes entrance examinations. Also, some universities rely on the examination fee as an important source of income. For example, one of the biggest universities in Japan earns 50 billion yen from the *Niji* examination fee every year, which amounted 5% of the annual income of the university (Murai, 2008). Changing to a communicative curriculum requires a change in assessment, and ideally speaking, as there is the Center test, there is no need for schools to give *Niji* examinations, but it is hard to abolish them because of the influence of the examination industry and the financial problems that some universities are facing. It appears that MEXT's attempt to promote communicative innovations were not successful in part because of the economic interests of companies and the universities themselves.

In sum, the inconsistency between the respondents' beliefs and practices were partly due to the pressure of university entrance examinations and classroom conditions that did not encourage the use of CLT. It appears that those social, economical, and institutional constraints were strong and made it difficult for many teachers to act on their CLT beliefs. This finding was based on teachers' self-reports, so it is necessary to look into what teachers actually do in the local context, an issue that will be discussed in the next section.

Class Observations

As stated in the previous section, the survey results pointed out the inconsistency between the participating teachers' beliefs and practices. They also showed that item F6 (asking questions in English) was the easiest item to endorse, and item F1 (using classroom English) was the second easiest. In this section, I discuss (a) whether the four participants' classroom practices observed in their classes were similar to what the survey respondents reported, (b) whether their practices reflected their beliefs, and (c) how the participants used communicative activities in their local contexts and why they did so.

I observed English I or II class three times for each of the four participants and described my observations in Chapter 6. The communicative activities that I observed being used are summarized in Table 101. The activities that were not actually used in the class are unmarked even though the four participants reported using them in their classes. The first finding is that the participants all used a variety of communicative activities. This implies that they practiced their CLT beliefs to a considerable extent, which is different from the findings of the survey study. As mentioned in Chapter 3, it was extremely difficult to find teachers who would allow me to observe and video-record their classes, so the four participants are likely more confident about their teaching methods than teachers who did not accept my request. They are also possibly much more interested in learning more about teaching methods and in CLT than survey respondents. They may have been making an effort to improve their teaching, especially concerning their use of CLT.

Second, it is worth mentioning that the majority of communicative activities that the participants used were teacher-fronted. In particular, the four teachers all used classroom English and asked questions in English, both of which were initiated by the teachers themselves. These two activities were the easiest and the second easiest items to endorse by the survey respondents; thus, in this case, the survey results and the qualitative results are in agreement. Regarding the use of student-centered activities, although Jun felt it much less difficult to employ pair work after the cooperative learning project had started at his school, I did not observe his students doing pair work in

English in his class. Also, the role-play activity that I observed in classes taught by Rie and Koji took only five minutes. Based on the 12 classes that I observed, it appears that the four participants preferred to use teacher-fronted activities to student-centered ones.

Table 101. *Communicative Activities Used in the Observed Classes*

Activities	Rie	Jun	Koji	Gen	Style
Classroom English	+	+	+	+	T-Fronted
Asking questions about Ss*	+	+	+	-	T-Fronted
Asking questions about the text	+	-	-	+	T-Fronted
Oral Introduction	+	-	-	+	T-Fronted
Authentic reading materials*	+ (cartoon)	-	+ (poem)	-	T-Fronted
Songs/games	-	+	-	-	T-Fronted
Speeches/presentations	+	-	+ (skit)	-	S-Centered
Pair/group work in English	+ (role-play)	-	+ (role-play)	-	S-Centered

Note. +: the activity was used; -: the activity was not used; T: teacher; S: student; Ss: students; *: not asked in the questionnaire.

A teacher-fronted approach to foreign language instruction still seems dominant in East Asian countries (maybe in other countries as well as in certain contexts). A number of studies conducted in those countries, including Japan, indicated that teachers resisted or could not deal with using student-centered group or pair activities (e.g., Hu, 2005; Sullivan, 2000). The reasons for this might be the teachers' perceived need to maintain control over the classroom (Carless, 2004; Li, 1998), social institutional constraints such as the presence of high-stakes entrance examinations (Butler & Iino, 2005; Gorsuch 2000b), and cultural historical norms such as a strong respect for teacher authority (Hu, 2005; Samimy & Kobayashi, 2004). These situations might be difficult to change in Japan, and that raises another question: Are student-centered activities always better than teacher-fronted ones for achieving communicative goals?

When thinking about this question, it is important to note that previous researchers have reported that communication can occur in teacher-fronted classes, too (e.g., Holliday, 1997; Kramsch & Sullivan, 1996; Sullivan, 2000). This finding was supported in this study also; I observed that students were involved in communicating in English with their friends or teachers even in the teacher-fronted classes. For example, Gen's students, although their English proficiency was low, comprehended his story and responded to his questions in English. As Sullivan argued, "group and pair work do not in themselves ensure communicative involvement, and the teacher-fronted class does not in itself conflict with communicative goals" (p. 130). Whether a student-centered activity works better than teacher-fronted one may depend on the context; for instance, it may be influenced by what class style is preferred by students and teachers and the students' English proficiency.

The third point is that, as mentioned in the previous chapter, the four teachers' core classroom practices were primarily based on non-communicative activities, such as reading aloud, translation, and grammar instruction, which originated in the traditional method of learning classical Chinese texts, *yakudoku*. Communicative activities were occasionally inserted, and two types of communicative activities were employed relatively frequently by the four teachers: asking questions in English and an oral introduction of textbook passages. When employing a question-and-answer activity and oral introduction, the teachers mainly used textbook passages as reading material. Rie and Gen asked students' their opinions about the textbook passage during the question-and-answer activity. Their oral introduction was designed to help the students understand the English texts by interacting with the texts (or the authors) as well as with their teachers. It appears that one aspect of successful communicative involvement in the four participants' classes was seen in the activities conducted with the textbook passages, which is compatible with Holliday's (1997) findings in his observations of classrooms in China and India.

Fourth, the four qualitative participants had reasons for using non-communicative activities. For instance, Jun stated that through reading aloud, students can connect sentence forms to meaning, and that doing so helped them engage in meaningful language use, and Rie stated that memorizing large numbers of phrases enhances real world communication ability. Moreover, Jun and Rie avoided the traditional *yakudoku* method by handing out a Japanese translation first in order to maximize the class time that could be used for communicative activities. Taken together, even though teachers use non-communicative activities that bear a relationship to traditional methods, their practices also clearly reflect their CLT beliefs.

The fifth point is that successful communicative involvement was also observed in the pair work activities provided by Rie and Koji. Noteworthy in this regard is that the teachers had students talk about themselves in speeches, role-plays, or in skit presentations. There was no information gap in those activities, yet there seemed to be a joy of sharing information among peers. It may be that successful communication takes place when students express themselves to important others and understand them through using English. Furthermore, such experiences might constitute one of the biggest pleasures of learning English for the students, as Rie mentioned in the interview.

To summarize, the qualitative participants used both non-communicative and communicative activities, and they were largely teacher-fronted, which is likely due to the local context of English education in Japan. However, although their use of group or pair work was infrequent, communication in English took place between the teacher and the students or among the students. The teachers attempted to improve the students' skills by providing non-communicative activities and by connecting them to communication. Furthermore, adapting Sullivan's (2000) words, if I use frequency or length of the pair or group work used by the four qualitative participants as an indicator of communicative classroom practices, their classes would have to be judged as "mostly 'uncommunicative' since the class was generally teacher-fronted…and there was little pair or group work or use of authentic material" (p. 130). Researchers need to keep in mind that investigating classroom practice should not be conducted *only* by checking the labels of activities or types of activities used in the class, their frequency of use, and their length. It is also important to describe what teachers do in detail, and consider why they use the activities and how they have come to use them.

In the next sections, I will discuss how the type of school, academic and vocational, impacted the teachers' beliefs and practices.

Research Question 3

The third research question asked whether academic high school teachers' beliefs and practices differ from those of vocational high school teachers. In this section, I summarize the survey results and discuss why the quantitative results were statistically non-significant.

In order to examine the difference in teachers' beliefs and practices between academic and vocational high schools, a MANOVA was conducted. The independent variable (IV) was type of schools (academic and vocational) and the dependent variables (DVs) were *Positive CLT Beliefs* and *Classroom Practices*. The results indicated a lack of statistical significance between the academic and vocational high school teachers regarding the two DVs (Table 89), although the means for the vocational high school teachers were higher than those for the academic high school teachers concerning both DVs (Table 88). Thus, the two types of schools (academic and vocational) did not influence the Japanese high school teachers' beliefs and classroom practices to a significant degree as far as the survey respondents were concerned.

This result did not support my hypothesis that the distinction between academic high schools and vocational high schools would influence the respondents' beliefs and practices regarding the use of CLT. According to Okano and Tsuchiya (1999), academic high schools are focused on preparing students for passing university entrance examinations, and vocational high schools, are designed to prepare students for entry into the workplace. Also, MEXT (2008) reported that less than 10% of the vocational high school students went to universities in the 1980's, whereas approximately 40% of the academic high school students entered a university. These statistics imply that university entrance examinations place less pressure on vocational high school teachers than on academic high school teachers, so vocational high school teachers were more able to use activities other than translation tasks or grammar exercises, both of which are considered necessary for preparing students to pass university entrance examinations. Gorsuch (2000a) reported that public vocational high school teachers showed more approval of CLT activities than private academic high school teachers; thus, I expected that vocational high school teachers in the survey study would have more positive CLT beliefs and use communicative activities more frequently than academic high school teachers. However, the MANOVA results did not support this hypothesis. This might have occurred for several reasons.

The first reason concerns changes that have taken place in the university entrance examinations in the last decade. A listening section was included on the Center Test in 2006, so students' aural skills became more important for passing entrance examinations. Also, the decreasing number of high school graduates made college admissions less competitive; as a result, universities developed more alternative admission procedures (e.g., essay writing in Japanese and self-recommendation). Consequently, many academic high school teachers, especially those whose students were not trying to enter prestigious universities, might have felt less pressure from the entrance examinations than before.

The second reason concerns the change in the future goals of vocational high school students. Recently, the number of vocational high school graduates going on to higher education has been increasing. According to MEXT (2008), 59.9% of the academic high school students entered universities whereas 22.2% of the vocational school students went to universities (including junior colleges) in 2007. Considering that less than 10% of the vocational high school students went to universities in the 1980's, the percentage has doubled. Although the number of university applicants is still much smaller than that of academic high school students, it appears that vocational high school teachers' perception of university entrance examinations changed; they might perceive that they cannot be indifferent to the students in their classrooms who want to go to universities and that they therefore need to prepare them for the university entrance examinations.

The third reason concerns the classroom conditions currently found in vocational high schools. Browne and Wada (1998) reported that vocational high school teachers adopted less pair and group work than academic school teachers. As previous research has shown, most teachers believe that communicative activities make classroom management more challenging (e.g., Sakui, 2004), and lower proficiency students are likely to produce a minimal amount of output in the target language in communicative activities (e.g., Littlewood, 2004). Considering that many vocational high school students were unable to enter academic high schools and that their academic level is ranked lower than that of students in academic high schools (Okano & Tsuchiya, 1999), vocational high school teachers may have resisted using pair and group work because they feared that such activities would be ineffective in their teaching context or would compromise their ability to manage their classrooms.

It should be noted, however, that the qualitative findings showed that the two vocational high school teachers provided communicative activities. One of them, Koji, used pair and group work activities such as role plays and skits. He said that he could design his own syllabus and did not need to finish the textbook, his students were motivated to communicate in English, he practiced speaking in the ESS as a university student, and he had opportunities to learn communicative teaching techniques in informal workshops. These factors might have increased his use of communicative activities. Thus, the type of high school (vocational or academic) alone is not necessarily a strong predictor of teachers' use of CLT. Rather, each teacher's local context, which includes factors such as teachers' autonomy regarding syllabus design, examination pressures, students' motivation, the teacher's English proficiency, and their learning opportunities, most strongly influences their beliefs and practices.

To summarize, it can be inferred that changes in university entrance examinations and increasing advancement rates in vocational high schools have blurred the distinction between academic and vocational high schools, and those changes minimized the traditional differences in the beliefs and practices of teachers working in the two types of school. Also to be noted is that, as the qualitative results imply, classroom conditions such as students' English proficiency and their preference for communication created unique local contexts, and that context influenced each teacher's use of CLT. Borg (2008) stated that teacher cognition is situated (i.e., teachers think about *their* learners), and their cognition is grounded in concrete reality (i.e., teachers think based on *their* classroom conditions). Teachers' practices might be also contextualized in their classrooms; thus, their decision to use or not to use communicative activities might be strongly influenced by their teaching contexts. This point will be discussed more in detail in the next section.

Research Question 4

The fourth research question asked about how the teachers' beliefs and practices, their learning experiences, pre- and in-service training, their perceived teaching efficacy, and contextual factors related to and influenced each other regarding their use of CLT. I discuss the results of the Pearson product-moment correlation coefficients for the 11 variables first, and then discuss the results of the path analyses.

Pearson Product-Moment Correlations

As mentioned in Chapter 4, 11 variables were identified through the SPSS factor analysis and the Rasch Principal Component Analysis of item residuals. Two sections in the questionnaire were divided as follows: (a) Perceived Teaching Efficacy (Part B) was divided into *L2 Self-confidence* and *CLT Self-efficacy* and (b) Contextual Factors (Part E) was divided into *Exam-related Expectations, Influence of MEXT Policy,* *Student-related Communicative Conditions*, and *Teacher-related School Conditions.* The other five variables are *Positive CLT Beliefs* (Part A), *Classroom Practices* (Part F), *Learning Experience* (Part G), *Pre-service Teacher Training* (Part C), and *In-service Teacher Training* (Part D). The items loading on each variable are shown in Table 47.

The results indicated that 19 out of 55 correlations were statistically significant at $p < .01$ and 14 of them had a moderate relationship: $r = \pm 0.31$ to ± 0.70 (Elifson et al., 1998). I now discuss four key findings from this analysis.

The first finding is that *Classroom Practices* had a relatively strong correlation with *Student-related Communicative Conditions* ($r = .56$). This indicates that communicative activities are likely to be used more frequently when the classroom conditions are more optimal for the use of CLT. Representative items in *Student-related Communicative Conditions* were students' expectation for communication, their ability to engage in pair and group work, and their preference for pair and group work over teacher-fronted instruction. Responses to the items asking whether students' expectation and ability are high or whether they like communicative activities depended on the survey respondents' perceptions. Thus, strictly speaking, an interpretation of the result should be "when teachers perceive that students' expectation for communication and their ability to engage in pair and group work are high and they prefer pair and group work to teacher-fronted instruction, the teachers are likely to use communicative activities." This finding is congruent with the previous research by Burgess and Etherington (2002), who reported that students' preference for grammar instruction influences teachers' pedagogic decisions. Richards and Pennington (1998) found that students' low proficiency and their resistance to new ways of learning hindered the use of CLT. These findings and the findings of this study indicate that teachers' use of particular methodologies is fairly strongly related to their student-related classroom conditions.

The second key finding is that *Student-related Communicative Conditions* correlated with several other variables. It correlated moderately with *CLT Self-efficacy* ($r = .45$), *Positive CLT Beliefs* ($r = .41$), and *Exam-related Expectations* ($r = .44$). This implies that when the student-related classroom conditions are optimal for the use of CLT, (a) teachers consider themselves as being more capable of using CLT and (b) they have more positive beliefs about CLT. The finding is predictable because if students enjoy pair and group work activities, they will be more cooperative and teachers will have a higher likelihood of employing those activities successfully. Also, if a teacher has confidence in using CLT activities, students have a higher probability of enjoying them, and that sense of enjoyment leads them to want to do those activities again. The correlations also support the findings in Gorsuch (2000b); she pointed out that classroom conditions, such as students' expectations and English proficiency, had a mildly positive influence on high school teachers' approval of CLT.

The second finding also suggests that if English classes are influenced by entrance examinations, classroom conditions are more likely to be favorable for the use of CLT. The variable, *Exam-related Expectations*, included items such as "students have to study hard for university entrance examinations" and "parents expect their children to study hard for university entrance examinations." This variable was hypothesized to have a negative correlation with communicative-related variables, but it was positively correlated with *Student-related Communicative Conditions*. Since the inclusion of the listening section in the Center Test, many high school students might have become more aware of the importance of communicative competence for passing university entrance examinations and expected communicative activities to be provided more frequently in their English classes. This might be the reason why *Student-related Communicative Conditions* and *Exam-related Expectations* correlated with each other positively. In short, the second finding indicates that *Student-related Communicative Conditions* is likely to correlate positively with various factors concerning CLT.

The third finding is that *CLT Self-efficacy* displayed a moderate correlation with *In-service Teacher Training* (r = .42). This suggests that teachers who feel confident using CLT had learned about CLT from in-service teacher training programs to a certain extent. Bandura (1997) mentioned that vicarious experience, in which the skill in question is modeled by someone else, was one of the most powerful sources of efficacy information. If the in-service teacher training program included a presenter showing a model CLT lesson in which various communicative activities were effectively provided, it is likely that many teachers would learn from the vicarious experience and their perceived efficacy using CLT would be increased to some degree.

The fourth finding is that the correlation between *Positive CLT Beliefs* and *Classroom Practices* (r = .31) is weaker than the correlation between *Student-related Communicative Condition* and *Classroom Practices* (r = .56). A subset of studies indicate that teachers' beliefs have the strongest influence on classroom practice (e.g., Pajares, 1992; Richardson, 1994), but other studies have reported that contextual factors have a powerful impact on teaching practices (e.g., Fang, 1996; Richards & Pennington, 1998). As far as the respondents to the survey were concerned, the relationship between teachers' beliefs and classroom practices appeared to be less consistent than the relationship between classroom conditions and classroom practices. This issue will be discussed in the next section.

In sum, considering the four findings together, the student-related variable appears to have a relatively close relationship with teacher beliefs and practices. I discuss the mutual influence among the 11 variables in the next section in my discussion of the results of the path analysis.

Path Analysis

In Chapter 1, I presented a hypothesized teacher belief and practice model (Figure 2) based on Borg's conceptual framework of teacher cognition (Figure 1), my pilot study (Nishino, 2008), and other research concerning teacher beliefs and practices. The preliminary analysis identified 11 variables, so the teacher belief and practice model was modified as shown in Figure 19. I performed a path analysis using the 11 variables, but this model showed poor fit; thus, I modified the model based on the coefficient table in the AMOS output. The final model and the alternative model are shown in Figures 20 and 21, respectively.

In this section, I discuss how the respondents' beliefs and practices were influenced by other factors regarding the two models, and then compare the final model with Borg's framework.

The Final Path Model

Figure 20 is the final model: Teacher Belief Path Model 2. All the paths were significant predictors (p = .05, two-tailed) except for the path from *CLT Self-efficacy* to *Classroom Practices.*

The first finding is that *Student-related Communicative Conditions* had a relatively strong direct effect on *Classroom Practices* (β = .55) and on *Positive CLT Beliefs* (β = .41). Regarding the influence of students' conditions on classroom practices, previous research revealed that students' preferences or proficiency affects their use of specific teaching methods such as grammar instruction or CLT (e.g., Richards & Pennington, 1998; Schulz, 2001). Concerning the impact of students' conditions on teacher beliefs, teacher cognition is situated and teachers always think about *their* students; thus, their beliefs about CLT are affected by the context, especially their students' English proficiency, preference, and expectations. This finding is congruent with Gorsuch's (2000b) finding that the high school teachers' approval of CLT was mildly influenced by the classroom conditions including the students' expectations.

The second finding is that contrary to my prediction, *Positive CLT Beliefs* bore no direct influence on *Classroom Practices.* The variable had an indirect effect on *Classroom Practices* via *CLT Self-efficacy*, but the total indirect effect of *Positive CLT Beliefs* was very weak (.02), which might explain the gap between the respondents' belief and practice. That is, although the respondents held positive beliefs about CLT, their beliefs did not influence their use of it. As mentioned above, *Student-related Communicative Conditions* had a direct effect (.55) and an indirect effect (.04) on *Classroom Practices*. The effect in total was .59 and explained 35% of the variance in *Classroom Practices.* It may be that the respondents would not or could not use CLT partly because they did not perceive that their students preferred or expected to engage in communicative activities.

The third finding is that *L2 Self-confidence* had a comparatively strong effect on *CLT Self-efficacy* (.44), the variable that mediated the relationship between *L2 Self-confidence* and *Classroom Practices*. Representative items in *L2 Self-confidence* are "I have adequate English listening ability (B1), speaking ability (B2), reading ability (B3), and writing ability (B4) to be a high school English teacher." Items in *CLT Self-efficacy* are abilities to supervise the classroom when using pair and group work (B7), to provide enjoyable activities (B8), to facilitate students' communicative activities (B9), and to give students autonomy when using communicative activities (B11). It is not surprising that the respondents' confidence in their use of the four skills, especially speaking, had an impact on their perceived efficacy of using communicative activities, and that this enhances their use of CLT. However, the indirect effect of *L2 Self-confidence* and *Classroom Practices* was very weak (.05).

The fourth finding is that *Exam-related Expectations* had a direct negative effect on *Classroom Practices* (-.22). As mentioned above, representative indicators of *Exam-related Expectations* were: “students have to study hard for university entrance examinations” and “students expect to study grammar and translation.” It was hypothesized that this variable would negatively impact CLT classroom practices, and the results supported the hypothesis by revealing a weak negative direct affect. Thus, students’ exam-related expectations may hinder the teachers’ use of CLT.

It should be noted here that the respondents (N = 137) included 57 vocational high school teachers. As mentioned above, approximately 22% of vocational high school students go to universities (MEXT, 2008), so the majority of them do not have to prepare for entrance examinations. Despite this, *Exam-related Expectations* have a negative effect on *Classroom Practices.* It can be speculated that vocational high school students also want to learn English through grammar and translation because they believed that both are crucial for foreign language learning. It is surmised that many high school students and teachers still believe that the traditional *yakudoku* method would help acquire a foreign language. That might be one of the reasons why *Exam-related Expectations* had a direct negative effect on *Classroom Practices* even though more than one third of the participants were from vocational high schools.

However, at the same time, *Exam-related Expectations* positively influenced *Classroom Practices* indirectly via *Student-related Communicative Conditions* (Indirect effect was .20). This suggests that the influence of the Center Test might have changed classroom conditions first, and then changed teaching practices. As mentioned above, *Exam-related Expectations* included the item “students have to study hard for the entrance examinations.” After the inclusion of the listening comprehension section on the Center Test, those students may have come to expect to do communicative listening and speaking activities in English class. Similarly, *Exam-related Expectations* weakly affected *Classroom Practices* indirectly (.06)via *Influence of MEXT Policy*. That is, the exam-related expectations enhanced the popularization of MEXT Policy (i.e., the influence of the 1999 *Course of Study* and the listening examination section on the Center Test), then facilitated the teachers’ use of CLT.

Taken together, we can speculate that the direct negative impact of *Exam-related Expectations* on *Classroom Practices* was partly a reflection of traditional beliefs about examination English that still worked as far as Niji examinations are concerned, whereas the indirect positive impacts in part reflected the change in the Center Test. The examination system in Japan is changing in a complicated manner, and that might have caused the complex interrelations between classroom practice and other contextual factor variables, such as students’ conditions, MEXT’s policy, and entrance examinations.

Also to be noted in the fourth finding is that *Exam-related Expectations* affected *L2 Self-confidence* and indirectly influenced *CLT Self-efficacy.* In addition, *Exam-related Expectations* affected *Student-related Communicative Conditions*, and then indirectly impacted *Positive CLT Beliefs. Exam-related Expectations* seemed to indirectly influence teacher cognition (perceived self-efficacy and beliefs), as well as other contextual factors. The fourth finding suggests that the entrance examination variable is influential because it had direct or indirect impacts on other contextual factors, teacher cognition, and classroom practices.

In sum, the final path model revealed that teachers' beliefs about CLT appeared to minimally influence their classroom practices. Also, the model implied that contextual factors directly or indirectly influenced classroom practices. Among the contextual factors, *Student-related Communicative Conditions* had a relatively strong influence on the teachers' beliefs and practices, and *Exam-related Expectations* affected other contextual factors and classroom practices. It is likely that students' conditions and entrance examinations were influential factors in the Teacher Belief Path Model 2.

Lastly, although the parameters in the path model could be only unidirectional, there might be potential reciprocal relationships in Model 2. One of them is an influence of *Classroom Practices* on *Student-related Communicative Conditions.* If teachers used CLT activities and students realized they were useful for their language learning, the students would likely expect and prefer to do CLT activities. The other possible reciprocal relationship may be an impact of *Classroom Practices* on *CLT Self-efficacy.* If teachers provided their students with communicative activities and became used to using them, then the teachers might become more confident in using CLT. Those reciprocal relationships can be examined through Structural Equation Modeling, which is discussed in the next chapter.

A Comparison of the Final Path Model with the Alternative Path Model

The main difference between the final path model (Model 2) and the alternative path model (Model 3) is that *Exam-related Expectations* is in the extreme left in Model 2, and *L2 Self-confidence* occupies that position, in Model 3. Also, in Model 3, the indirect effect of *Exam-related Expectations* was a little weaker, .30 (Model 3) < .33 (Model 2), and the indirect effect of *L2 Self-confidence* was slightly stronger, .13 (Model 3) > .10 (Model 2).

In the alternative model, *L2 Self-confidence* positively influenced *Classroom Practices* via *CLT Self-efficacy* or via *Influence of MEXT Policy* and *Student-related Communicative Conditions*. That is, if teachers have confidence with their English proficiency and knowledge, they likely perceive themselves to be able to use CLT, which influence their teaching. In addition, the confident teachers might be motivated to maintain the MEXT communicative innovations, which might increase the students' preferences and expectations for communicative activities. Eventually, such optimal conditions appear to enhance the teachers' use of CLT. On the other hand, *L2 Self-confidence* had a negative indirect effect on *Classroom Practices* via *Exam-related*

Expectations. This implies that many teachers with high English proficiency have successful experience in passing university entrance examinations through learning English in *yakudoku* class. Such experience possibly makes them encourage their students to study English in the same way as they did in high schools. That might facilitate the teachers' use of *yakudoku* but hinder their use of CLT. As such, *L2 Self-confidence* positively or negatively influences *Classroom Practices.*

Model 3 suggests that it is important to increase nonnative teachers' target language proficiency and their sense of confidence in using it, as Howitz (1996) proposed. However, the path model also suggests that such a positive factor (teachers' L2 self-confident) may not necessarily positively influence the use of innovative classroom practices due to the impact of contextual factors (e.g., university entrance examinations).

Also to be noted is that in both final and alternative models, *Student-related Communicative Conditions* is the strongest predictor of *Classroom Practices,* and *Exam-related Expectations* is a relatively influential variable that has both positive and negative effects on *Classroom Practices*. The former model placed the variable related to university entrance examinations at the beginning of the model, and the latter located the variable related to teachers' self-confidence at the starting point. Both fit the data well, so it is necessary to confirm which path model better describes teacher beliefs and practice using a larger-size sample. That is also discussed in the next chapter.

In the next section, I compare the final Teacher Belief Path Model with Borg's conceptual framework of teacher cognition.

A Comparison of the Final Path Model and Borg's Framework

The Teacher Belief Path Model 2 (Figure 21) and Borg's conceptual framework of teacher cognition (Figure 1) can be combined in Figure 22.

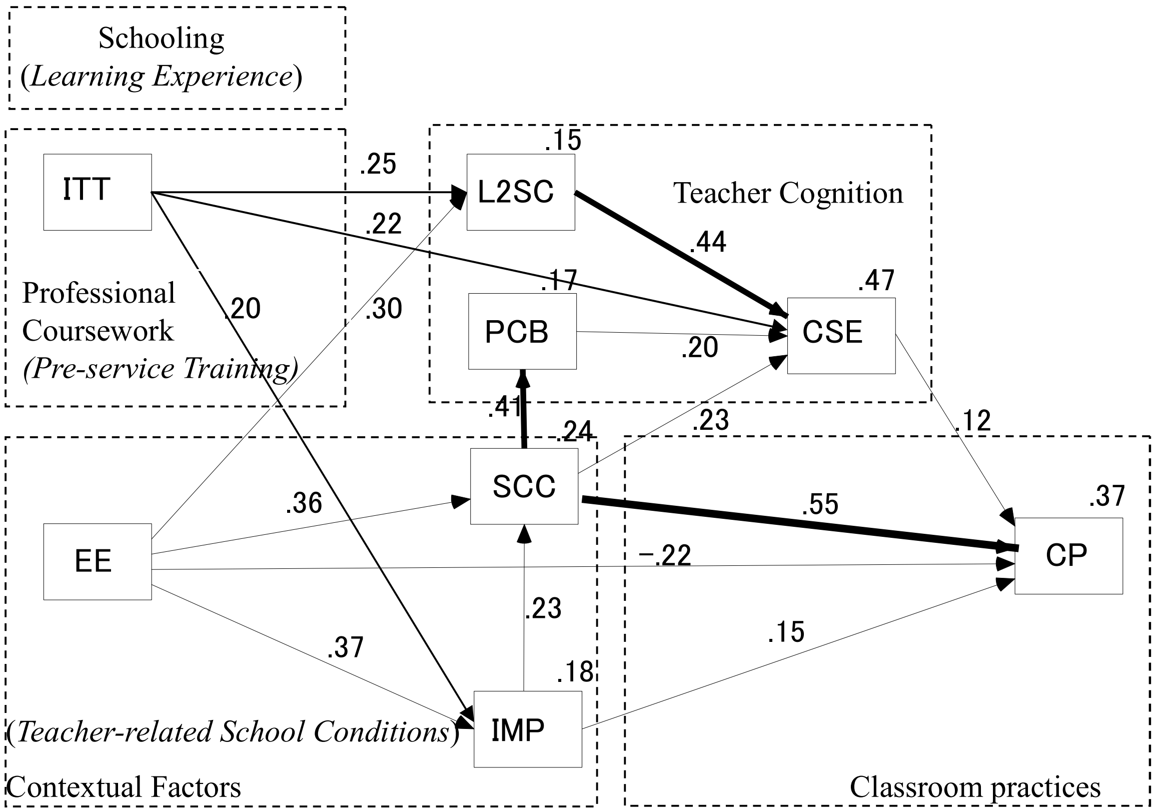

Figure 22. Path analysis results of Teacher Belief Path Model 2 and Borg's (2003) framework.
PCB = *Positive CLT Beliefs*; L2SC = *L2 Self-confidence*; CSE = *CLT Self-efficacy*; ITT = *In-service Teacher Training*; EE = *Exam-related Expectations*; IMP = *Influence of MEXT Policy*; SCC = *Student-related Communicative Conditions*; CP = *Classroom Practices*.

The five rectangles shown by the dotted lines are the factors in Borg's framework: Schooling, Professional Coursework, Contextual Factors, Classroom Practices, and Teacher Cognition. In my model, Schooling is named *Learning Experience*. Professional Coursework consists of two variables: *Pre-service Teacher Training* and *In-service Teacher Training*. Contextual Factors include four variables: *Exam-related Expectations*, *Influence of MEXT Policy*, *Student-related Communicative Conditions*, and *Teacher-related School Conditions.* Teacher Cognition includes *Positive CLT Beliefs*, *L2 Self-confidence*, and *CLT Self-efficacy.* Classroom Practice corresponds to *Classroom Practices*.

Comparing the two models, the three variables in parentheses, *Learning Experience, Pre-service Teacher Training,* and *Teacher-related School Conditions,* were deleted in my model because they were not statistically significant predictors. The first variable, *Learning Experience*, included the items "when I was a high school student, my teachers used classroom English (G1), speech or presentation (G3), essay or story writing activities (G4), summary writing (G5), asking questions in English (G6), task-based activities (G8), songs or games (G9), movies or dramas (G10), and pair and group work (G11)." The respondents might have had few chances to experience those activities when learning English. *Learning Experience* had a floor effect, so the results did not reflect its true influence.

In respect to the second variable, *Pre-service Teacher Training,* past research revealed that pre-service trainees' beliefs about learning are changed in various ways through teacher education courses (Almaza, 1996; Bramald et al., 1995). However, what students learn in teacher education courses in Japanese universities does not appear to be influential. As mentioned earlier, theoretical issues are mainly taught in teaching methodology courses at Japanese universities (Furuya, 2008). Moreover, student teachers generally experience only a two or three week teaching practicum at secondary schools. Comparing the length of the period with those in other European countries (e.g., about half of a one-year teaching practicum course is used for student teachers' actually teaching in secondary or primary schools in the United Kingdom), a two or three week teaching practicum is not long enough (Sasajima, 2008). It appears that the current system of teacher education courses, including the teaching practicum, is ineffective and its influence is not as strong as that of in-service teacher training.

However, although *In-service Teacher Training* had an indirect effect on *Classroom Practices,* the effect was very weak (.06). In addition, *In-service Teacher Training* exerted no significant direct effect on *Classroom Practices* or *Positive CLT Beliefs*. As mentioned in the discussion section for Research Question 1, about three fourths of the respondents were supposed to have attended the one-week intensive teacher CLT training program when the questionnaire was administered. It was expected that in-service training would influence the teachers' use of CLT or their beliefs about CLT.

Related to this, *Shineigokyouiku Kenkyuukai* (The New English Teachers' Association) (2008) administered a questionnaire to the secondary school teachers (*N* =

109) who attended the program, and found that 74% of the high school teachers and 64% of the junior high school teachers did not think that their classes had become more communicative after they had attended the intensive training program. As such, the MEXT innovations were not very influential. It can be speculated that even though the teachers had learned about CLT at workshops or seminars, they found it difficult to implement CLT activities in the context of high school English education in Japan. This issue will be discussed again in the next section referring to the interview data.

The third variable, *Teacher-related School Conditions*, included items such as class size (E4), teachers' autonomy in syllabus design (E5), teachers' preparation time (E7), the availability of audio-visual equipment (E11), and the number of class hours (E13). It can be inferred that those conditions were not as influential as other contextual factors such as students' conditions, entrance examinations, and MEXT Policy. The respondents might have decided to use or not to use communicative activities, regardless of whether school conditions were optimal or not.

It should be mentioned here that even though the three variables were deleted from the path model, that does not mean that they had no influence on teacher beliefs and practices. They were weak, but they might function as important variables in certain contexts. I discuss this issue in the next section using the interview and observation data.

Before going into the qualitative results, I would like to emphasize that although the questionnaire had a weakness in measuring *Learning Experience*, the Teacher Belief Path Model tested in this study covered more than half of the variables in Borg's (2003) framework and revealed that contextual factors (students' conditions and entrance examinations) impacted teacher cognition and classroom practices; thus, the statistical results partly supported Borg's conceptual framework of teacher cognition. Moreover, the path model illuminated close interrelationships between the variables *within* the factors that Borg hypothesized: e.g., within Teacher Cognition, *Positive CLT Beliefs* and *L2 Self-confidence* both impacted *CLT Self-efficacy*. The Teacher Belief Path Model is noteworthy in that it specified the relationships not only among teachers' beliefs, practices, and other factors comprehensively, but also among sub-components of those factors in some detail.

Teachers as Eternal Learners and Seekers: Qualitative Results

In the previous section, the path analyses revealed that (a) contextual factors impacted teachers' beliefs and practices, (b) teachers' beliefs indirectly influenced their classroom practices, and (c) entrance examinations affected multiple indicator variables and classroom practices. In this section, I summarize how the participants in the qualitative study shaped their beliefs and practices and how various factors, especially the variables deleted through the path analyses, influenced that process.

First, the four teachers' foreign language learning experience seemed to exert both positive and negative influences on their beliefs and practices. They all experienced the *yakudoku* method in their secondary school English classes, so they started using it as novice teachers. However, after graduating from high school, they learned foreign languages outside the classroom through actual communication, and their efforts to learn more English continued after they became teachers. Rie and Gen said that using English in the classroom was a good way to improve their English proficiency, and Koji continued reading English literature as he had done while a university student. Likewise, Japanese English teachers (or English teachers who have learned English as a foreign language) may be eternal foreign language learners and may understand pedagogy both from a teacher's and learner's perspective. The four participants in my study had come to believe that communication is important for foreign language learning, and they made an effort to use communicative activities and avoid using *yakudoku* in their classes. It may be that teachers' past and present foreign language learning experience act as "a filter" (Watzke 2007, p. 736) for using pedagogy that they learned in teacher education programs and through their teaching experience.

Second, the four teachers all reported that their pre-service teacher training was not useful. Instead, they said that they had learned new methods and techniques in in-service training, including workshops and seminars, reading books and journals, and from their colleagues. It is important to note that when they learned new activities, they considered whether the activities fit their teaching context, particularly in terms of their students' needs, proficiency, and motivation. Once they decided to use the activities, they modified them, and used them. While and after using them, the teachers observed their students and asked for their feedback in order to reflect on their lessons and consider whether the activities worked well in their classrooms. They did not appreciate super-teachers' extraordinary techniques because they felt that the techniques were inappropriate in their teaching context. As such, teachers think about their teaching based on their classrooms. If university professors or TESOL experts introduce a novel teaching method at a seminar, most Japanese high school teachers will not use it unless they believe that it will work well in their classroom. High school teachers might be more open to the ideas and techniques that have worked well in other Japanese high schools.

Third, the four teachers preferred teacher-fronted lessons to student-centered ones and used non-communicative activities frequently. However, they also used communicative activities during those lessons. They were faced with constraints such as entrance examinations, their students' low English proficiency and motivation, or pressure to adhere to the prescribed syllabus. Under such constraints, they were seeking a method that was appropriate to their teaching context. *Wayaku-sakiwatashi, Shikan rodoku*, and the MERRIER Approach (see detailed information in Chapter 6) were examples illustrating that the four Japanese teachers in the qualitative study had been seeking an appropriate pedagogy for Japanese learners. The four teachers used or attempted to use those methods in order to deliver effective and enjoyable lessons.

To summarize, the four teachers' learning experiences and the experiences in their in-service training including their teaching experience exerted various influences on their teaching beliefs and practices. *Learning Experience* and *In-service Training* were not significant predictors in my path model, but the qualitative inquiry revealed that they are important factors affecting teachers' use of CLT in a certain context. Moreover, the qualitative part of this study revealed that the teachers were eternal learners of English as a foreign language and seekers after context-appropriate English pedagogy.

In the next chapter, I discuss the theoretical and pedagogical implications of this study, the limitations of the study, further research that should be conducted in this area, and my overall conclusions.

CHAPTER 8

CONCLUSION AND IMPLICATIONS

Summary of This Study

In this study I examined (a) Japanese high school English teachers' beliefs and practices regarding CLT (Research Questions 1 and 2), (b) how the teachers' beliefs and practices differed between academic high school and vocational high school teachers (Research Question 3), and (c) how teacher beliefs, classroom practices, and the other factors related to and influenced one another regarding the use of CLT (Research Question 4).

Before conducting the main analyses, I analyzed the questionnaire data using SPSS factor analysis and the Rasch rating-scale model in order to confirm the validity and reliability of the questionnaire and to transform the raw scores to equal interval measures. Eleven variables were identified: *Positive CLT Beliefs*, *L2 Self-confidence*, *CLT Self-efficacy*, *Pre-service Teacher Training*, *In-service Teacher Training*, *Exam-related Expectations*, *Influence of MEXT Policy*, *Student-related Communicative Conditions*, *Teacher-related School Conditions*, *Classroom Practices*, and *Learning Experience*.

First, regarding teacher beliefs and practices, the descriptive statistics showed that despite holding positive beliefs about CLT, the survey respondents did not frequently use communicative activities. The results also suggested that classroom conditions and entrance examinations hindered the respondents' use of CLT.

Second, concerning the difference between academic and vocational high school teachers, the MANOVA results indicated that the type of school (academic and vocational) in which they were teaching did not have a statistically significant influence on the respondents' beliefs and classroom practices regarding CLT.

Third, with respect to the relationships among the 11 variables, the Pearson correlations showed moderate correlations between *Student-related Communicative Conditions* and *Classroom Practices* ($r = .56$), *Positive CLT Beliefs* ($r = .41$), and *CLT Self-efficacy* ($r = .45$). However, the correlation between *Classroom Practices* and *Positive CLT Beliefs* was relatively weak ($r = .31$, $p < .01$).

Fourth, as regards the influence that the ten variables exerted on classroom practices, the best fitting path model (Teacher Belief Path Model 2) indicated that (a) *Student-related Communicative Conditions* exerts a relatively strong influence on *Classroom Practices,* (b) *Positive CLT Beliefs* indirectly influences *Classroom Practices* via *CLT Self-efficacy*, and (c) *Exam-related Expectations* affects most of the indicator variables and *Classroom Practices*. These results suggest that contextual factors, such as the students' expectations regarding communicative activities and their English proficiency, and university entrance examinations impact teacher beliefs and practices, results that partly support Borg's (2003) teacher cognition framework. Furthermore, they imply that within each variable, there are sub-components whose mutual relationships are complex.

Finally, the interview and observation studies indicate that the participants' beliefs and practices are situated in their teaching contexts, and that their learning experiences, in-service training, and students' conditions impact their learning beliefs and classroom practices.

Although I expect that these findings will contribute to inquiries into teacher beliefs and practices, this study has several limitations that I discuss in the next section.

Limitations

The first limitation is that the respondents in the questionnaire study were 13% of the randomly selected sample from the whole population (Japanese high school teachers). Although 13% is the average return rate of a questionnaire without a reward, the findings derived from the responses should be interpreted cautiously. As noted in Chapter 5, the respondents might have been those who are interested in CLT, have knowledge about CLT, or are using CLT in their classes; thus, it cannot be said that they accurately represent the whole population of Japanese high school English teachers.

Second, it is likely that the questionnaire respondents' responses were influenced by social desirability. The respondents knew that MEXT had promoted CLT, so they may have thought that they should agree with items that reflected MEXT policy; thus, although most respondents reported that they had positive beliefs about CLT, we should be careful when interpreting the results.

Third, regarding the responses to Part G (Learning Experience) of the questionnaire, the data showed a floor effect and did not satisfy the assumption of normality for the statistical analyses. Consequently, the results of the Pearson correlations and the path analysis do not accurately reflect the influence of the learning experience variable.

Fourth, the path analysis investigated the direct and indirect influences of ten variables on *Classroom Practices,* but the path model only specified unidirectional relationships and could not reveal the mutual relationships between variables in the same way that Structural Equation Modeling (SEM) could have. There is a need to examine the mutual influences of the variables, such as the impact of *Classroom Practices* on *Positive CLT Beliefs* and vice versa.

Fifth, the participants in the qualitative study were selected from my personal network. Although they were from the same population as the survey respondents, as the Rasch ability logits derived from their responses to the Teacher Belief Questionnaire were located around the central part of the distribution of the whole sample, the four participants might be special teachers in the sense that they allowed me to observe and video-record their classes. In addition, my presence in the classroom might have changed their behavior or choice of activities. Koji had emailed me and asked me for advice on his lesson plan when preparing for the first class that I observed (I did not give him advice or comments). Gen had once told me that he was motivated to use a new teaching technique when he was observed by other teachers. These imply that the four teachers behaved somewhat differently in the classes that I observed compared with their usual classes. Thus, interpretations of the qualitative data should be made cautiously.

Despite the above limitations, the results lead to certain theoretical and pedagogical implications that I discuss in the next section.

Theoretical Implications

Research on teacher beliefs and practices has increased in the past few decades, but the area lacks a comprehensive framework. Recognizing this, Borg (2003) reviewed 64 studies and suggested a conceptual framework of teacher cognition (see Figure 1). This framework is significant in that Borg used the umbrella term “teacher cognition” in order to combine the separate studies on teacher beliefs, knowledge, and attitudes. The framework also includes the four factors that are most likely to influence teacher cognition: schooling, professional coursework, contextual factors, and classroom practice. As mentioned in Chapter 1, this framework was not created to be tested with a statistical model. Borg attempted to define the framework so that researchers could have an overview of the dimensions of teacher cognition research and connect the isolated studies to existing work.

On the basis of Borg’s (2003) framework and my pilot study (Nishino, 2008), I proposed the Teacher Beliefs and Practice Model (see Figure 19). I comprehensively examined the relationship among teacher cognition variables and the four factors in Borg's (2003) framework by administering a survey and conducting interviews and class observations. Teacher Beliefs was chosen as one variable in teacher cognition and CLT was focused on as a specific teaching domain. The final path model covered more than half of Borg's (2003) conceptual framework; Contextual Factors impact Teacher Cognition and Classroom Practice (Figure 20). In the model, one factor in Borg's framework, Schooling, was deleted; yet the qualitative results suggested that the teachers' learning experience, which corresponded to Schooling, influenced their beliefs and practices. The qualitative results also implied that their beliefs and practices were contextualized in their teaching situations.

Taken together, Borg's (2006, p. 283) modified framework (Figure 23) better fits the findings of this study. Two main differences between the 2003 and 2006 models are (a) contextual factors are positioned around classroom practice, rather than just external to it; the classroom itself becomes the part of the context, and (b) language teacher cognition, rather than just teacher cognition (the previous framework was based on the studies in education generally), is included. In the path model, classroom conditions (students) influence classroom practices, and at the same time, classroom conditions are affected by other contextual factors such as examinations and government policy, both of which also exert direct and indirect impacts on classroom practices. Those contextual factors and classroom practices appear to be closely interrelated with each other in both direct and indirect ways.

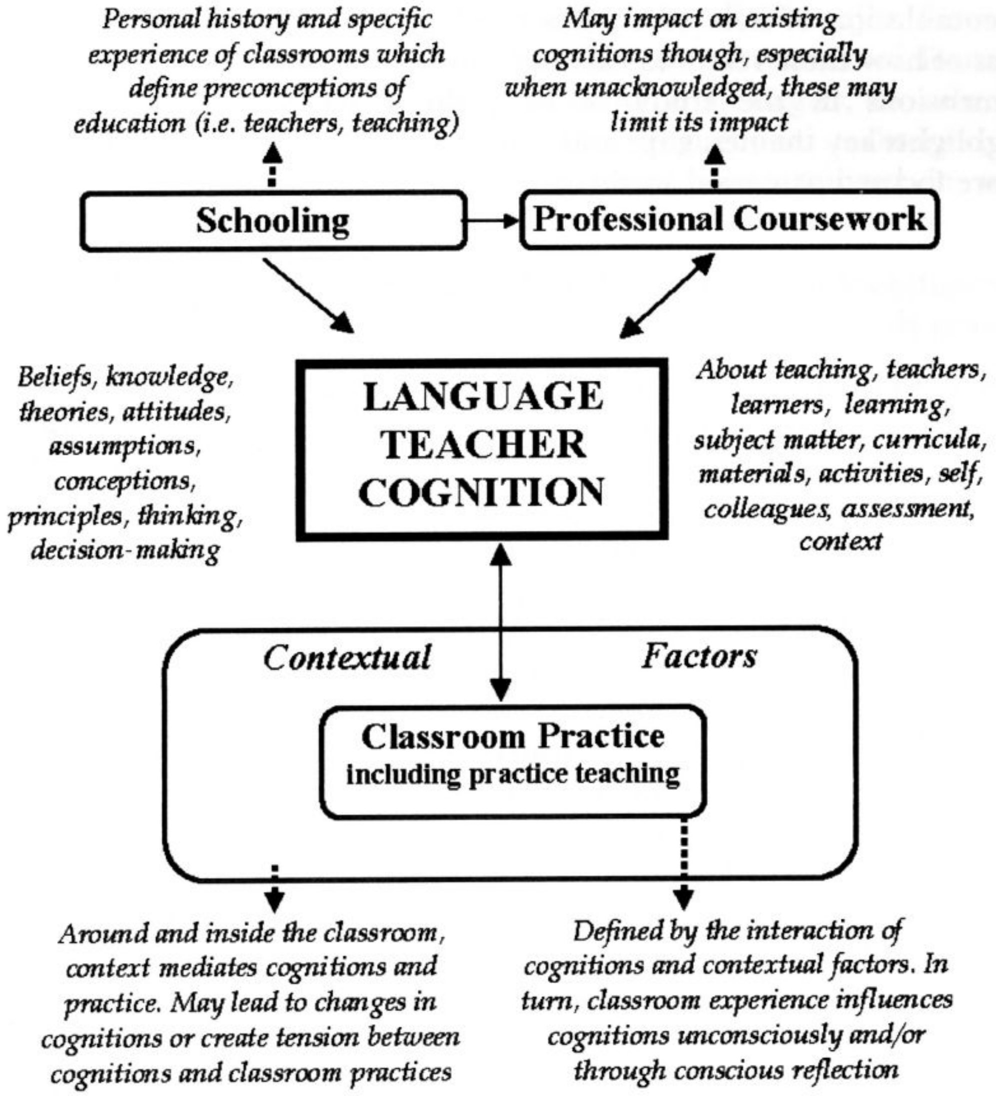

Figure 23. Elements and processes in language teacher cognition (Borg, 2006, p. 283).

As mentioned above, Borg's 2003 and 2006 frameworks are schematic conceptualizations, so both can help researchers conduct research in the area of teacher cognition research. However, having found that classroom practices interrelate with contextual factors and that their complex relationship may not be adequately described using single-headed arrows, I would take the 2006 framework as the basis for future inquiry. The framework indicates that teachers' practices are contextualized, and in that sense, research based on this framework might require the use of qualitative methods. This is discussed below.

Pedagogical Implications

The findings of the path analysis indicated that the influence of pre- and in-service teacher training on the respondents' beliefs and practice was not statistically significant; the pre- and in-service training programs were not effective enough to change their beliefs and practices. In this section, I refer to this issue and discuss the implications for teacher educators who teach pre-service training courses at universities and for teacher educators who teach in-service training programs, and then make suggestions for MEXT.

Pedagogical Implications for Pre-service Teacher Educators

In teacher education programs offered at Japanese universities, which are designed for individuals who wish to obtain a teaching certificate as a secondary school English teacher, students are required to take teaching methodology courses, teaching practicum (including 2-3 week teaching practicum in secondary schools), and courses related to the English language, English literature, and English communication. In the teaching methodology courses, theoretical knowledge is mainly taught, so the courses are unlikely to provide students with sufficient pedagogical training (Furuya, 2008). I would like to make three suggestions concerning this issue.

First, professors who teach teaching methodology courses need to demonstrate communicative lessons using high school textbooks and let the students actually experience communicative activities. In cases in which the professors are unable to do this, they can show video-recorded communicative lessons recorded in high schools. According to Falout, Murphey, Elwood, and Hood (2008), some Japanese university students reported that they experienced songs and games in their junior high school English classes, but that high school teachers focused on grammar-translation in order to prepare the students for university entrance examinations and did not allow the students to experience songs and games. As mentioned in Chapter 6, novice teachers tend to teach as they were taught. Also, their learning experience works as a "filter" when learning new methodologies. Without having the experience of learning through viewing or taking part in communicative activities, pre-service teachers are unlikely to change their traditional beliefs about learning and teaching methodologies, even though they have learned about CLT theory. The professors should also keep in mind that the activities that pre-service teachers observe or try need to be within their ability and comfort ranges, as the qualitative part indicates that it may be more discouraging than helpful for teachers to observe a "super teacher" doing innovative things in a workshop.

Second, before trainee students go to secondary schools for the practicum, the professors might also need to teach them that there is no best way to teach English;

teachers should develop their own teaching methodologies that fit their classroom conditions and they should always be sensitive to the students' situation. Trainee students in the practicum therefore need to try to understand classroom conditions during the observation periods (trainee students are given approximately one week to observe their supervisor's lessons) before actually teaching the class.

Last, in university English classes, students have to improve their English proficiency, and especially their speaking ability, because they likely had few opportunities to engage in speaking activities when they were high school students. They need to improve their reading and writing skills as well, by engaging in communicative activities such as extensive reading and process writing. The final path model indicated that the respondents' L2 self-confidence influenced their perceived efficacy of CLT, and as a result affected their use of CLT. The trainee students' high English proficiencies might enhance their use of CLT in their teaching practicum.

In sum, in order to help students develop communication-oriented beliefs and practices, pre-service training courses at universities need not only to provide students with input about CLT theory, but also to allow them to experience learning English through CLT.

Pedagogical Implications for In-service Teacher Educators

Teachers who attend in-service training workshops or seminars have teaching beliefs and practices that have been shaped through their learning and teaching experiences. They might not use communicative activities in class, but that does not necessarily mean that they hold negative beliefs about CLT. They might have idealistic beliefs (what they should do) and realistic beliefs (what they can do) about teaching, and they try to reconcile the tension between them by considering the constraints under which they are working. Therefore, first, instructors in in-service training programs should legitimatize the teachers' classroom practices and understand what constraints they are working under in their schools and classrooms. In order to do so, and to help the teachers understand each other, the instructors should let the teachers discuss their current classroom practices at the beginning of the workshops. When discussing their practices, the teachers might talk about their beliefs regarding CLT both in theoretical and practical terms. They can also exchange information concerning good teaching ideas, classroom conditions, including the constraints that they are working under, and how they can or cannot overcome those constraints. Because students' conditions have an impact on teacher beliefs and practices, teachers who are teaching in similar contexts can learn from each other.

Second, instructors should introduce communicative activities, including pair and group work, that can be used in high school classrooms. One effective way to approach this task would be to ask skilled high school teachers to demonstrate their lessons so that the attendees can actually experience doing those activities. This could also be carried out using videos recorded in high school English classrooms. I would like to suggest again that in such workshops, the instructor needs to be careful not to introduce super teachers' extraordinary practices that teachers cannot use in their teaching contexts.

Third, instructors must not require the teachers to completely change their classroom practices, as non-communicative activities are arguably necessary and beneficial in certain situations, and it is acceptable that teachers use communicative activities in a small part of their lesson procedures. Considering that the survey respondents reported that they used "classroom English" and "asking questions in English" relatively frequently, using those activities might be a reasonable first step for teachers who have not yet developed the skills necessary to teach communicatively.

Fourth, in order to increase in-service teachers' confidence in their English proficiency and in their use of CLT, practice lessons need to be provided in the workshops. The path model suggested that teachers' perceived efficacy in terms of their English skills impacts their perceived efficacy of CLT, and eventually influences their use of CLT. Regarding teachers' English skills, it is worth mentioning that a qualitative participant reported that teachers can improve and then maintain their English proficiency through teaching in English. Teachers may be able to gain confidence in their ability to use English and CLT tasks through using English in their classes and in practice lessons.

To summarize, in order to make in-service training workshops more effective, instructors should be aware that teachers' classroom practices are directly influenced by contextual factors and their perceived teaching efficacy, and that innovative or nontraditional methods cannot simply be imposed without considering the many contextual factors that affect every teaching situation.

Implications for MEXT

As mentioned in Chapter 1, although MEXT has been attempting to promote high school teachers' use of CLT since 1989, CLT has not been widely adopted by Japanese high school English teachers. The findings of this study offer four implications for MEXT.

First, MEXT should conduct a survey on Japanese high school teachers' use of CLT. The survey respondents in my study reported that they believed in CLT more than they practiced it. As mentioned in Chapter 3, as they may have volunteered to fill out the surveys because of some interest in CLT, the sample may not be representative. It is likely that other teachers who were not surveyed believed in or used CLT less than those respondents. It appears that there is a tension between MEXT policy and high school teachers CLT beliefs and practices. Although MEXT conducted a nation-wide survey every year, the questionnaire asked about how much English teachers use in the class, not about their CLT beliefs or practices (cf., MEXT, 2006). MEXT should conduct a survey regarding how high school teacher's beliefs and practices have changed (or not changed) since the implementation of the 1999 *Course of Study* and confirm whether the recent communicative innovations have worked well or not. Also, MEXT needs to listen to teachers' voices and learn what conditions they want to change in order to make their lessons more communicative.

Second, as mentioned in Chapter 7, the length of the teaching practicum in secondary schools (two or three weeks) is not sufficient. I would not say that this issue can be solved simply by increasing the length of the practicum because through my experience as an instructor of teacher education courses, I have learned that (a) student teachers generally cannot practice teaching communicatively in high schools because most supervisor teachers use *yakudoku*, (b) student teachers are not real teachers, so they cannot experience the reality of high school teachers' lives (e.g., the teachers' many responsibilities and their heavy workload), and (c) high school students tend to treat student teachers nicely as guests, so student teachers cannot experience how hard classroom management is. Thus, in addition to making the practicum longer, I would suggest that MEXT guarantee novice teachers time and opportunities to learn from colleagues or from teachers in the same school district. This suggestion relates to the next issue.

Third, in addition to in-service training programs, teachers should learn about classroom practices from colleagues because they share the same teaching contexts. However, it appears that high school teachers are too busy or that school administrators do not provide such opportunities; two participants in the qualitative study referred to this problem in their interviews. MEXT should consider reducing high school teachers' workload and allocating time for the teachers' in-service education.

Related to this, MEXT needs to reduce class sizes, so that teachers can devote more attention to individual students and can manage class activities more effectively when providing pair and small group work. As the descriptive statistics indicated (see Table 85), a number of survey respondents wanted smaller class sizes in order to teach more communicatively. Smaller class sizes might also reduce the teachers' workload in and outside of the classroom.

Fourth, university entrance examinations must be re-examined. In the Teacher Belief and Practice Model, exam-related expectations positively impact students' communicative conditions and influence of MEXT policy, and as a result, positively affect classroom practices. This may be largely due to the inclusion of the listening section in the Center Test from 2006. If MEXT wants to make high school English classes more communicative, they must continue revising the Center Test in order to make it more communicative. This could be achieved in many ways. One example is to add a reading comprehension section in which contextualized questions are asked. However, at the same time, entrance examinations negatively influence CLT classroom practices. The pressures to help students pass university entrance examinations appear to hinder some teachers' use of CLT. This might be partly due to the decontextualized grammar or translation questions presented on the *Niji* examinations. MEXT officials and the professors who are in charge of designing the Center Test or *Niji* examinations need to make efforts to change both the Center Test and *Niji* examinations so that they evaluate students' communicative competence, not their decontextualized knowledge of English.

Last, as suggested in Chapter 7, high school teachers themselves need to develop context-appropriate CLT tasks for use in Japanese high schools. Individuals who know little about the constraints in the classroom might not be able to develop context-appropriate CLT activities. I am not suggesting that learning about CLT theory and practice is useless. MEXT should continue educating high school teachers about CLT pedagogy, and also encourage and support them in their efforts to design their own communicative activities and to use activities developed by other Japanese high school teachers (e.g., *Wayaku-sakiwatashi*).

In sum, MEXT's continued communicative reform of the high school English education should start from an understanding of how contextual factors impact teacher beliefs and practices.

Suggestions for Future Research

This study revealed the complex relationships between teacher beliefs, practices, and other factors regarding CLT. I hope that the key findings will contribute to the field of teacher education; however, further research in this area will shed light on important issues. The following questions should be pursued by future researchers.

The participants in this study were high school teachers, but it is important to determine whether there are any differences between high school, junior high school, and university English teachers' beliefs and practices because teachers' beliefs and practices likely change depending on the students' age and proficiency level. Especially, the beliefs of elementary school homeroom teachers who are not specialists in language teaching and will *have to* teach English from 2011 should be elicited immediately so that their training can be implemented effectively, and elementary school English courses can start smoothly. Investigators should also determine what teacher factors (e.g., teachers' genders, ages, their majors in universities, the length of teaching experience, or the length of team-teaching experience) impact their beliefs and practices.

Second, this study focused on CLT as a specific domain of language teaching; however, there is a need to investigate other domains. The questions to be posited are: what beliefs and practices do Japanese teachers hold regarding grammar teaching, teaching reading and writing, or teaching vocabulary? This is an important issue because these domains are related to CLT.

Third, future researchers should examine what contextual factors other than students' conditions, university entrance examinations, and MEXT policy influence teacher beliefs and practices. The factors that possibly impact teacher beliefs and practices are parents, colleagues, principals, school curriculum, school projects, and textbooks. Identifying other important variables will help reveal how complexly teachers' beliefs and practices are situated in their teaching contexts.

Fourth, the questionnaire should be improved so that it can reflect the influence of teachers' learning experience and in-service training on their beliefs and practices. The former was not a statistically significant predictor in the path analysis, and the latter had very weak indirect influence on classroom practices, although the qualitative study indicated that both were influential in the four teachers' professional development. Concerning learning experience (Part G), I included only the items that related to the learning experience at high schools. A questionnaire used in future study needs to ask about the respondents' experience learning English at junior high schools, universities, and language schools, and various outside-classroom learning experience such as club activities. Also, regarding in-service training, I included only formal learning experience such as seminars and workshops. However, the qualitative study revealed that the participants learned from their colleagues including ALTs, members of the teachers' association they belonged to, and books and journals. In future research, the questionnaire should include items that ask about teachers' informal learning experience. As for the sampling, it is possible to increase the return rate of the questionnaire by conducting survey research with the support of authoritative institutes such as JACET or a university. To belong to a branch or a study group in such institutions and conduct collaborative research would allow a larger sample to be gathered.

Fifth, the hypothesized path model was rejected and subsequently modified. The final path model and the alternative path model were selected, and both had 15 paths. In order to confirm the two models, compare them, and reveal which one more precisely describes the effect of the variables on classroom practices, confirmatory path analyses should be conducted using a larger sample size.

Sixth, the path analysis indicated the direct and indirect influences of seven variables on classroom practices. As mentioned above, if SEM had been performed, more complex mutual influences among the variables could have been tested. In order to do so, a larger sample size should be obtained and perhaps more variables should be measured.

Seventh, also regarding the path analysis, it would be ideal to increase the *N*-size to the point where the vocational and academic high school teacher path models could be tested separately. The influence of university entrance examinations on teacher beliefs and practices might differ in different teaching contexts; thus, the path model of academic high school teachers could differ from that of vocational high school teachers. In order to perform a path analysis separately using the models with 15 parameters (the final path model and the alternative path model), no less than150 respondents for each category (a group of academic or vocational highs school teachers) would be required.

The seventh point is related to Borg's (2006) modified framework, which places classroom practice within the wider teaching context. In order to use this as a conceptual framework, it would be useful to use qualitative inquiry for future research. Video-recorded data can be used for microgenetic analyses through incorporating CA techniques. Such analyses may reveal the individual student's influence on teaching practices at the micro level. Longitudinal case studies using interview and class observation data can illuminate teachers' professional development and how they shape and reshape their beliefs and practices in their particular learning and teaching contexts.

The case study should ideally start from the participants' pre-service training. In short, in order to investigate the complex nature of teacher beliefs and practices and the process of how they are shaped and reshaped, qualitative research approaches should be utilized.

In this study, I was able to learn from both qualitative and quantitative studies. The quantitative study provided me with an outline of what high school teachers believed about CLT and how they used it. Although the respondents, who were 13% of the randomly sampled population, did not represent the whole population of Japanese high school teachers, I could conclude that CLT practices were not likely widely used in high schools, that there was a gap between teacher beliefs and practices, and that there might be a tension between MEXT policy and teachers' classroom practices. If I had looked at only the qualitative data in which the four participants all tried to use communicative activities in their lessons, I might have missed the fact that the majority of high school teachers did not use CLT in the class. On the other hand, from the qualitative study, I learned that the teachers' beliefs and practices were situated in their teaching context, and this fact partly answered the question of why there was a gap between the survey respondents' CLT beliefs and practices. In addition, the path model revealed that various factors influenced teacher beliefs and practices, and the interview study indicated how the factors influenced the four teachers' professional development. Thus, it can be said that the quantitative and qualitative parts of the study complemented each other, a result that has motivated me to conduct mixed method research again in the future. I would like to extend the quantitative study by conducting a survey using a larger sample size, and continue the qualitative study by conducting more in-depth interviews and class observations with the four teachers who participated in this study (Rie, Jun, Koji, and Gen) or with other high school teachers as participants.

Finally, this study and other teacher cognition studies might be valuable in that they can contribute to teacher education; yet so far, few studies have illuminated the relationship between teacher cognition and student learning. Among them, McCutchen, Abbott, Green, Beretvas, Cox, and Potter (2002) found a link between teacher knowledge and student learning. It would be worthwhile to investigate the relationship between teacher cognition and student learning as this would possibly indicate a way to enhance language learning through changing teacher beliefs and practices.

To summarize, future researchers should conduct studies concerning different domains of teaching than CLT and investigate a wider variety of factors that potentially influence teacher beliefs and practices. They should also explore how teacher cognition influences students' learning and connect teacher cognition research to SLA research. Their choice of a quantitative or qualitative approach might depend on the context of the study, but in order to connect teacher cognition research to SLA, I believe that it is necessary to employ both approaches. I cite from Borg (2006, p. 288), who suggests one possible direction of teacher cognition research.[21]

> One reason teacher cognition research has been valuable is that it has highlighted the complex nature of teaching. It has used qualitative methods to portray in rich detail what teachers do and the factors behind their work.

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[21] According Borg (2006), "teacher cognition research" refers to the research on teachers or teaching: e.g., teacher beliefs, teaching practices, and teacher education.

> Viewing teachers, their work and their cognitions as quantifiable phenomena may thus require teacher cognition researchers to adopt an alternative perspective. This may be possible; rather than calling for either SLA researchers or teacher cognition researchers to alter their perspectives on researching language education, though, it is perhaps more realistic and ultimately more productive to combine the expertise of both parties in the collaborative study of ways of linking teacher cognition and learning. Collaborations of this kind would allow both parties to exploit their respective methodological strengths and to recognize more fully the respective value of each other's work. I would see advances in this direction as key to the continued development not only of language teacher cognition research, but of the study of language teaching and learning more generally.

Conclusions

What shapes teacher beliefs and practices? This question motivated me to examine Japanese high school teachers' beliefs and practices regarding CLT. MEXT has attempted to promote Japanese high school teachers' use of CLT, but reforms of English education in Japan have not yet been carried out successfully. Even though MEXT prescribed a communicative curriculum in *The Course of Study,* and TESOL experts have talked about CLT theory in teachers' workshops, teachers' beliefs and everyday practices cannot be easily changed only by such influences.

Teachers are human beings, not teaching machines. Their beliefs and practices are personal, and deeply rooted in their learning and teaching experiences. They are also complex; teachers hold conflicting beliefs, and their beliefs and practices are not necessarily consistent. Above all, teachers' beliefs and practices are situated in their own unique teaching contexts; teachers always think about *their* students and *their* classes. Teachers design lessons based on their students' needs, abilities, motivation, preferences, and expectations, and those students' conditions are also situated in the institutional, social or historical context. Even though teachers have autonomy in designing their lessons, their classroom practices are very much constrained by contextual factors such as high-stakes entrance examinations, government policy, and the school and classroom conditions.

Considering that teachers' beliefs and practices are situated in a local context, it is recommended that teachers themselves develop communicative-oriented teaching approaches that can be used in their teaching contexts. Researchers should support these efforts by giving them theoretical underpinnings.

Holliday (1994) proposed "context-appropriate pedagogy," Kramsch and Sullivan (1996) advocated "appropriate pedagogy," and Bax (2003) introduced the "context approach." All argued that teachers must adopt a context-appropriate teaching methodology. Furthermore, Li (1998) maintained that teaching methodologies developed in the West, such as CLT, are often difficult to introduce into EFL situations. For this reason, Nishino and Watanabe (2008) advocated that "FL countries should establish English teaching theories and practices that have local ecological validity" (p. 136). If this is correct, then teachers need to identify context-based communicative pedagogies. One way to achieve this is by teachers working in the same local context (e.g., the same school) observing and improving their teaching practice together. Once this step is established, they could choose to make the network bigger, and accumulate their practices into their own context-appropriate communicative approach. It would be useful if researchers could observe the lessons that these teachers teach and describe in detail what teachers do and what contextual factors are behind their work. Also, researchers should identify, from observations, effective ideas and techniques for which they can find a theoretical rationale, and support and spread them with their theoretical underpinnings. In order to do so, researchers need to conduct qualitative inquiry such as ethnography, qualitative case studies, and discourse or conversation analysis, as well as quantitative research such as survey studies on teacher cognition and experimental studies on the effect of particular teaching practices on the learners' language acquisition.

High school teachers' movements to co-construct context-appropriate communicative language teaching methods have already started at the local level in Japan (Nishino & Watanabe, 2008). I hope that those movements will unify individual teachers' ideas, will ultimately encourage local groups to form a large network of the teachers who are exploring context-appropriate pedagogy, and as a result, will have more than a local influence on English education in Japan. I also hope that this study will contribute to those movements in the near future.

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APPENDIX A
TEACHER BELIEF QUESTIONNAIRE (JAPANESE VERSION)

私は、法政大学で教職課程を教えております西野孝子と申します。コミュニカティブ・アプローチについての調査を企画しております。このアンケートにお答えいただき、コミュニカティブ・アプローチについての先生のお考えと御実践を御教示いただければ幸いです。（学校名は一切公表いたしません）

返信用の封筒を添付いたしましたので、これを使用して切手を貼らずそのまま御投函ください。できますれば10月末日までにお返事を戴ければ幸甚と存じます。なにとぞよろしくお願い申し上げます。

このアンケートは、英語Iないしは英語II、または双方を現在担当している先生方用に作成されたものです。下記の質問を読み、先生が最も適切と思う番号に○をつけてください。（裏面も含めて全4ページです）なおコミュニカティブ・アプローチの授業は、生徒の英語によるコミュニケーション能力を高める授業とお考えになって、お答えください。

質問 A

	強く反対	反対	やや反対	まあ賛成	賛成	強く賛成
1. 言葉は、何かを行うために使う時に効果的に習得される。	1	2	3	4	5	6
2. 外国語学習では、実際の生活でコミュニケーションできる能力を育てることが大切だ。	1	2	3	4	5	6
3. 授業中、生徒は英語で実際にコミュニケーションをとるべきだ。	1	2	3	4	5	6
4. 生徒の英語の正確さを伸ばすと同じく流暢さを伸ばすことも重要だ.	1	2	3	4	5	6
5. コミュニカティブ・アプローチの授業では、先生は生徒のコミュニケーション活動を手助けすべきだ。	1	2	3	4	5	6
6. 外国語学習では暗記が重要な役割を果たす。	1	2	3	4	5	6
7. グループワークやペアワークは生徒の英語学習を助ける役割を持つ.	1	2	3	4	5	6
8. 完璧な発音をめざすのではなく、理解可能な英語の発音をめざすことが、適切な目標となる。	1	2	3	4	5	6
9. 外国語学習は試行錯誤の経過をたどるので、間違えることは学習の一環だと考えるべきだ。	1	2	3	4	5	6
10. 生徒の英語を使おうとする動機づけは、コミュニケーション活動によって強まる。	1	2	3	4	5	6

質問 B

私は（私には）

	強く反対	反対	やや反対	まあ賛成	賛成	強く賛成
1. 高校の英語教師として十分な英語の聞く力があると思う。	1	2	3	4	5	6
2. 高校の英語教師として十分な英語の話す力があると思う。	1	2	3	4	5	6
3. 高校の英語教師として十分な英語の読む力があると思う。	1	2	3	4	5	6
4. 高校の英語教師として十分な英語の書く力があると思う。	1	2	3	4	5	6
5. 高校の英語教師として十分な英語の文法知識があると思う。	1	2	3	4	5	6
6. 英語圏の文化について生徒に話をするのに十分な知識があると思う.	1	2	3	4	5	6
7. 生徒がグループワークやペアワークをやるときに、生徒の行動をきちんと管理できると思う。	1	2	3	4	5	6
8. 生徒が楽しめるような英語のアクティビティを与えていると思う。	1	2	3	4	5	6
9. 生徒の英語でのコミュニケーション活動を適切に手助けしていると思う。	1	2	3	4	5	6
10. 教師中心型の授業でないと不安を感じる。	1	2	3	4	5	6
11. コミュニケーション活動で、生徒の自主性を尊重していると思う.	1	2	3	4	5	6

APPENDIX A (Continued)

質問C

質問C	強く反対	反対	やや反対	まあ賛成	賛成	強く賛成
大学での教職課程で、						
1. コミュニカティブ・アプローチが推奨された。	1	2	3	4	5	6
2. 第二言語習得の知識が深まった。	1	2	3	4	5	6
3. グループワークやペアワークのやり方が上達した。	1	2	3	4	5	6
4. コミュニケーション活動に必要な教材が提供された。	1	2	3	4	5	6
5. コミュニカティブ・アプローチの授業を観察する機会を与えられた.	1	2	3	4	5	6
6. コミュニカティブ・アプローチを使って模擬授業する機会を与えられた。	1	2	3	4	5	6

質問D

質問D	強く反対	反対	やや反対	まあ賛成	賛成	強く賛成
教師になってから参加したワークショップや研修会で、						
1. コミュニカティブ・アプローチが推奨された。	1	2	3	4	5	6
2. 第二言語習得の知識が深まった。	1	2	3	4	5	6
3. グループワークやペアワークのやり方が上達した。	1	2	3	4	5	6
4. コミュニケーション活動に必要な教材が提供された。	1	2	3	4	5	6
5. コミュニカティブ・アプローチの授業を観察する機会を与えられた.	1	2	3	4	5	6
6. コミュニカティブ・アプローチを使って模擬授業する機会を与えられた。	1	2	3	4	5	6

7. 先生になられてから、コミュニカティブ・アプローチについて学んだ情報源（あるいは機会）を選んで、〇で囲んでください（いくつ選んでもかまいません）。

(1) 勤務校での研修・セミナー
(2) 教育委員会主催の研修・セミナー
(3) 私的教師集団・研究会による研修・セミナー
(4) 本や学術誌
(5) 日本人の同僚の授業や教材
(6) ALT の授業や教材
(7) 先生向けのマニュアル本・材料本
(8) 英語教授法のセミナー（TESOL のコースを含む）
(9) 同僚との雑談
(10) メディア（テレビ、新聞、雑誌など）
(11) その他（　　　　　　）

8. 7番で二つ以上に〇をつけた方、どの情報源がコミュニカティブ・アプローチを学ぶ上でいちばん有益でしたか。番号を1つだけ御記入ください。（　　　）

APPENDIX A (Continued)

質問 E

私の勤務校では、

	強く反対	反対	やや反対	まあ賛成	賛成	強く賛成
1. 生徒は大学入試に向けて懸命に勉強する。	1	2	3	4	5	6
2. 生徒は英語 I･英語 II の授業でコミュニケーション活動をすることを望んでいる。	1	2	3	4	5	6
3. 生徒は英語 I･英語 II の授業で文法と訳読を学ぶことを望んでいる。	1	2	3	4	5	6
4. 1クラスの生徒の人数はコミュニケーション活動をするのに適している。	1	2	3	4	5	6
1クラスの生徒の人数は平均して______人。（数字を記入してください）						
5. 先生は独自のシラバスに沿って授業をしてよい。	1	2	3	4	5	6
6. 保護者は生徒に大学入試のために懸命に勉強することを望んでいる。	1	2	3	4	5	6
7. 教材を用意する時間が十分ある。	1	2	3	4	5	6
8. 生徒はグループワークやペアワークで使う英語を理解することができる.	1	2	3	4	5	6
9. 文科省検定教科書はコミュニケーション活動に役立つ。	1	2	3	4	5	6
10. 英語 I･II の授業に使う教室では視聴覚機器が使える。（TV、CD･カセット･ビデオプレーヤーなど）	1	2	3	4	5	6
11. コミュニケーション活動に使える教材が揃っている。（ビデオ・音声教材、ピクチャーカード、単語カード、材料本など）	1	2	3	4	5	6
12. 生徒は講義型の授業より、グループワークやペアワークを好む。	1	2	3	4	5	6
13. 英語 I･英語 II の授業数は適切である。	1	2	3	4	5	6
授業数は、週____時間（英語 I）、週____時間（英語 II）である。（数字を記入してください）						
14. 学習指導要領が英語 I, II の授業に影響を与えている。	1	2	3	4	5	6
15. 学習指導要領がオーラル・コミュニケーション I, II の授業に影響を与えている。	1	2	3	4	5	6
16. 2006 年度のセンター試験でのリスニングテストの導入が英語 I,II の授業に影響を与えている。	1	2	3	4	5	6
17. 2006 年度のセンター試験でのリスニングテストの導入がオーラル・コミュニケーション I, II の授業に影響を与えている。	1	2	3	4	5	6

質問 F

私は英語 I, 英語 II の授業で、

	全然やらない	あまりやらない	時々やる	たいていやる	よくやる
1. クラスルーム・イングリッシュを使う。	1	2	3	4	5
2. オーラル・イントロダクションで教科書の内容を説明する。	1	2	3	4	5
3. 生徒にスピーチやプレゼンテーションをさせる。	1	2	3	4	5
4. 生徒にエッセイや物語を書かせる。	1	2	3	4	5
5. 生徒に教科書の要約を英語で書かせる。	1	2	3	4	5
6. 生徒に教科書の内容を英語で質問する。	1	2	3	4	5
7. 英語で英文法を説明する。	1	2	3	4	5
8. 英語のアクティビティを使う。例）ロールプレイ、インフォメーション・ギャップなど	1	2	3	4	5
9. 英語の歌やゲームを使う。	1	2	3	4	5
10. 英語の映画やドラマを見せる。	1	2	3	4	5
11. 英語でのグループワークやペアワークを使う。	1	2	3	4	5

APPENDIX A (Continued)

質問 G

全然やらなかった	あまりやらなかった	時々やった	たいていやった	よくやった

私の高校時代に、英語の授業で (オラルコミュニケーションは除く) 英語の先生は

1.	クラスルーム・イングリッシュを使った。	1	2	3	4	5
2.	オーラル・イントロダクションで教科書の内容を説明した。	1	2	3	4	5
3.	生徒にスピーチやプレゼンテーションをさせた。	1	2	3	4	5
4.	生徒にエッセイや物語を書かせた。	1	2	3	4	5
5.	生徒に教科書の要約を英語で書かせた。	1	2	3	4	5
6.	生徒に教科書の内容を英語で質問した。	1	2	3	4	5
7.	英語で英文法を説明した。	1	2	3	4	5
8.	英語のアクティビティを使った。例）ロールプレイ、インフォメーション・ギャップなど	1	2	3	4	5
9.	英語の歌やゲームを使った。	1	2	3	4	5
10.	英語の映画やドラマを見せた。	1	2	3	4	5
11.	英語でのグループワークやペアワークを使った。	1	2	3	4	5

質問 H

ご自身の英語 I・英語 II の教え方を将来改善したいと思っていらっしゃいますか。 はい・いいえ

「はい」と答えられた方、どんなところを変えたいですか。____________________________________

教え方を改善するには、教育環境の中で、何を最初に変えなければいけないとお考えですか。

____

最後に次の質問にお答えください。

1. 教職年数をお書きください。______年間
2. 性別　　男 ・ 女
3. 現在勤務されている学校についてあてはまるものを選び、○で囲んでください。
   普通科・工業科・商業科・農業科・その他（　　　）
   私立・公立・国立・国際・その他（　　　）
   全日制・定時制・通信制
   もし差し支えなければ、勤務校名をお書きください。____________________________
4. 教員免許をとられたとき、大学でのご専攻は何でしたか。________________________
5. お持ちになっている学位を○で囲んでください。　　学士・修士・博士
6. 5 番で「修士」とお答えになった方：TESOL の修士をお持ちですか。　　はい・いいえ
7. 先生方の研究会に属していらっしゃいますか。 はい・いいえ
   はいと答えた方、研究会の名称をお書きください。___________________
   どのくらいその研究会に属していらっしゃいますか。_________________
8. 現在、英語 I または英語 II を ALT といっしょに教えていらっしゃいますか。はい・いいえ
   はいと答えた方、どのくらいの頻度で ALT と教えていらっしゃいますか。（週または月に何回とお書きください）　________回（英語 I）________回（英語 II）
9. 本研究にインタビューや授業参観などの形でご協力くださるご意思がございましたら、お名前とメールアドレスとをご記入ください。のちほど、メールでご連絡をとらせていただきたく存じます。

____

ご協力ありがとうございました。

ご協力いただいた先生方には、必ず結果をご報告させていただきたいと存じます。

APPENDIX B
TEACHER BELIEF QUESTIONNAIRE (ENGLISH TRANSLATION)

A: Teacher Beliefs about CLT

Strongly Disagree 1, Disagree 2, Slightly Disagree3, Slightly Agree 4, Agree 5, Strongly Agree 6.

1. Language is acquired effectively when it is used as a vehicle for doing something else.
2. It is important to develop students' ability to communicate in real world situation.
3. Classroom activities should engage students in meaningful communication.
4. Developing students' fluency is as important as developing their accuracy.
5. The teacher's role in the classroom is to facilitate students' activities of communicating in English.
6. *Rote-memorization should play an important role in the foreign language classroom.
7. Group/pair work activities play an important role in helping students acquire English.
8. The development of comprehensible (i.e., not perfect) pronunciation in English is an appropriate goal.
9. Foreign languages are learned through a process of trial and error, so errors should be seen as a natural part of learning.
10. Students' motivation to use the English language will be increased through the use of communicative activities.

B: Perceived Teaching Efficacy

Strongly Disagree 1, Disagree 2, Slightly Disagree3, Slightly Agree 4, Agree 5, Strongly Agree 6.

I believe that:

1. I have adequate English listening ability in order to be a high school English teacher.
2. I have adequate English speaking ability in order to be a high school English teacher.
3. I have adequate English reading ability in order to be a high school English teacher.
4. I have adequate English writing ability in order to be a high school English teacher.
5. I have adequate knowledge of grammar in order to be a high school English teacher.
6. I have adequate knowledge of the culture of English speaking people in order to share it with my students.
7. I supervise the classroom adequately when students are doing pair work or group work.
8. I provide activities in which my students can enjoy communicating in English.
9. I adequately facilitate my students' English communicative activities.
10. I feel uneasy if the class is not teacher-fronted.
11. I give students autonomy when they do communicative activities.

APPENDIX B (Continued)

C: Pre-service Training

Strongly Disagree 1, Disagree 2, Slightly Disagree3, Slightly Agree 4, Agree 5,Strongly Agree 6.

Teacher education courses I took at university/college

1. promoted Communicative Approaches.
2. deepened my knowledge about second language acquisition.
3. improved my skills of managing group/pair work.
4. provided materials for communicative activities.
5. provided chances to observe lessons using Communicative Approaches (either instructor's model lessons or video-recorded lessons)
6. provided chances to give practice lessons using Communicative Approaches.

D: In-service Training

Strongly Disagree 1, Disagree 2, Slightly Disagree3, Slightly Agree 4, Agree 5,Strongly Agree 6.

Workshops/seminars of teacher education courses I attend after becoming a teacher

1. promoted Communicative Approaches.
2. deepened my knowledge about second language acquisition.
3. improved my skills of managing group/pair work.
4. provided materials for communicative activities.
5. provided chances to observe lessons using Communicative Approaches (either instructor's model lessons or video-recorded lessons)
6. provided chances to give practice lessons using Communicative Approaches.
7. (Please circle numbers) After becoming a teacher, I learned about Communicative Approaches
   (1) in school workshop/seminar
   (2) in workshop/seminar held by the education board
   (3) in workshop/seminar held by a teachers' group/association
   (4) from books and journals
   (5) from observing colleagues' lessons
   (6) from ALTs
   (7) in a teachers' manual or a resource book
   (8) in methodology seminar (including TESOL courses)
   (9) in informal discussions with colleagues
   (10) from media (TV, newspaper, magazines, etc.)
   (11) other (   )
8. If you circle more than one opportunity listed in #7, which was most useful for you to learn Communicative Approaches? Please write down the number. (   )

APPENDIX B (Continued)

E: Contextual Factors

Strongly Disagree 1, Disagree 2, Slightly Disagree3, Slightly Agree 4, Agree 5, Strongly Agree 6.

In the school where I teach,

1. *students have to study hard for university entrance exams
2. students expect to do communication activities in English I or II.
3. *students expect to study grammar and translation in English I or II.
4. - the class size is appropriate for doing communicative activities.
   - average number of students in one class is ____ . (Please write the number.)
5. each teacher can design his/her own syllabus.
6. *parents expect their children to study hard for university entrance exams
7. teachers have time for material development
8. the student can understand and use English in pair or/and group work.
9. the MEXT authorized textbook for English I or II is useful for communication activities
10. each classroom has audio-visual equipment (TV, CD player, video player, etc.).
11. materials for communication activities (video/audio materials, picture cards, word cards, resource books) are provided.
12. students prefer pair or/and group work to teacher-centered instruction.
13. - the number of class hours of English I or II is adequate.
    - I teach English I or II is _____ times a week. (Please write the number.)
14. *The Course of Study* influence classroom practices in English I or II.
15. *The Course of Study* influence classroom practices in Oral Communication I or II.
16. the implementation of the listening comprehension exam in the 2006 Center Test influenced classroom practices in English I or II.
17. the implementation of the listening comprehension exam in the 2006 Center Test influenced classroom practices in Oral Communication I or II.

F: Classroom Practices

Never 1, Infrequently 2, Sometimes 3, Frequently 4, Very frequently 5.

In English I or English II class,

1. I use classroom English.
2. I orally introduce the content of the textbook (do “oral introduction”).
3. I have my students make a speech or a presentation.
4. I have my students write an essay or a story.
5. I have my students write a summary of English textbook passages.
6. I ask my students questions about the content of the textbook in English.
7. I explain English grammar in English.
8. I use task based activities (e.g., information gap, role-play).
9. I use English songs or games.
10. I use English movies or dramas.
11. I use pair or/and group work in English.

APPENDIX B (Continued)

G: Learning Experience

Never 1, Infrequently 2, Sometimes 3, Frequently 4, Very frequently 5.

When I was a high school student, in my English class (except oral communication class), my teachers

1. used classroom English.
2. orally introduced the content of the textbook (did “oral introduction”).
3. had me make a speech or a presentation.
4. had me write an essay or a story.
5. made me write a summary of English textbook passages
6. asked me questions about the content of the textbook in English.
7. explained English grammar in English.
8. used “task based activities (e.g., information gap, role-play).”
9. used English songs or games.
10. used English movies or dramas.
11. used group pair or/and group work in English.

H: Contextual Factors that Should Change

Do you want to change the teaching method of English I or II that you are using in the future YES/NO

If so, what would you like to change?____

In order to change your teaching method, what conditions do you think need to be changed?

____

Please answer the following questions.

1. How many years have you been teaching English?
   ________ years. (Please write the number.)
2. What is your gender? (Please circle one) male / female
3. What kind of school are you currently teaching in? (Please circle ones)
   futsuu / kogyo / shogyo / nogyo / Other ( )
   private / public / national / international / Other ( )
   day school / night school / correspondence school
   (Optional Question) The name of the school you are teaching in is
   ____.
4. When you got your English teaching certificate, what was your university major?
   ____
5. What degree(s) do you have? (Please circle ones) BA / MA / Ph.D. or Ed. D
6. Do you have a MA TESOL certificate? Yes / No
7. Do you belong to a teachers’ association? Yes / No
   If yes, what is the name of the association? ______________________________

APPENDIX B (Continued)

8. Are you currently teaching your English I or II courses with an ALT? Yes / No
   If yes, how often do you teach with an ALT? (Please write "xx times a week/month.")
9. If you could voluntarily participate in my study (interviews and classroom observations), please write down your name and your email address. I will email you later.

____

Thank you very much.

APPENDIX C
CONSENT FORM

TEMPLE UNIVERSITY JAPAN

-CONSENT FORM-

This consent form explains the study. Please read it carefully, and ask questions where you do not understand. If you do not have questions now, you may ask later. このコンセント・フォームは研究の概要を説明するものです。よく読んで、わからない箇所はご質問してください。今現在質問がない場合、あとでお聞きになってけっこうです。ご質問は西野孝子（テンプル大学日本校大学院教育学部博士課程）まで

（住所：115-0056　東京都北区西が丘２-９-１５　　電話:03-3906-3013　　E-mail: west@kitanet.ne.jp)

PURPOSE OF THE STUDY: To study the process of teachers' shaping their beliefs about language teaching and their classroom practices

研究の目的： 英語教育に関しての教師の信条の構築過程と教室実践を探る

PROCEDURES (SOURCES OF DATA COLLECTION)　データ収集の内容

(1) Video recordings of the lessons.　授業をビデオ撮影したもの

(2) Interviews.　インタビュー

(3) Documents and handouts.　書類・プリントなど

CONFIDENTIALITY　プライバシーの保護

Your individual privacy will be maintained in all written and published work and presentations resulting from the study. Confidentiality of records identifying the participant will be maintained by the use of pseudonym. The data gathered will not be used for any purpose other than for academic purposes.プライバシーは、この研究結果の論文記載・口頭発表いずれの場においても守られます。収集されたデータは、偽名を使うことによって特定の個人と限定できないようにします。またデータは学術的目的以外のいかなる目的にも使用されません。

VOLUNTARY PARTICIPATION　参加の自由

Participation is voluntary. You have the right to notify me at any time not to use certain data source.

参加は自由意志にお任せします。データの使用を希望しない場合はいつでもおっしゃってください。

PARTICIPANT STATEMENT:

I have read the explanation provided to me. I have had all questions answered to my satisfaction, and I voluntarily agree to participate in this study.

説明を全部読み,質問に満足な回答が得られたので、この研究に参加することに同意します。

SIGNATURE OF PARTICIPANT AND DATE:　参加者の署名と月日

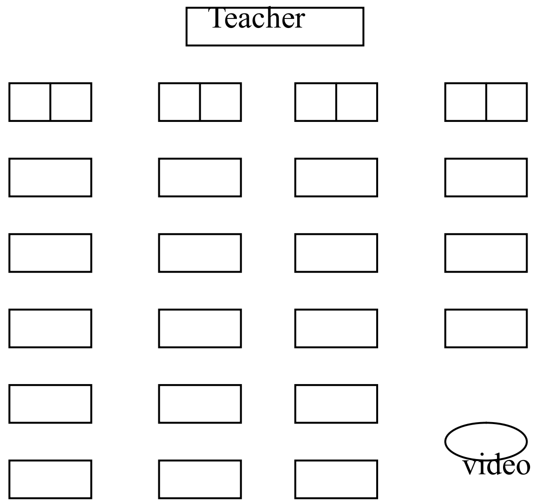
RESEARCHER STATEMENT:

I certify that I obtained the consent of the participant and her parent whose signatures are above. I understand that I must give a signed copy of the informed consent form to the participant and her parent, and keep the original copy for 3 years after the completion of the study.上記に署名した参加者から同意をえられました。このコンセント・フォームの写しを参加者に渡し、研究終了後３年間保管することを確認します。

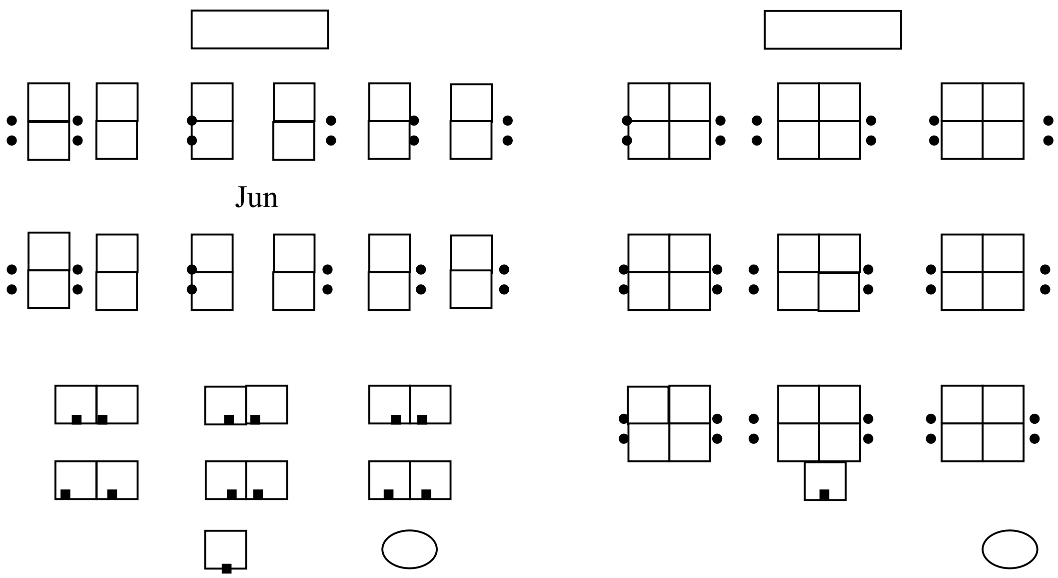
SIGNATURE OF RESEARCHER AND DATE:　研究者の署名と月日

APPENDIX D
HIGH SCHOOL CLASROOMS THAT I OBSERVED

1. AKI'S 1-C CLASSROOM



2. JUN'S 1-A CLASSROOM FOR A REGULAR CLASS AND FOR GROUP WORK

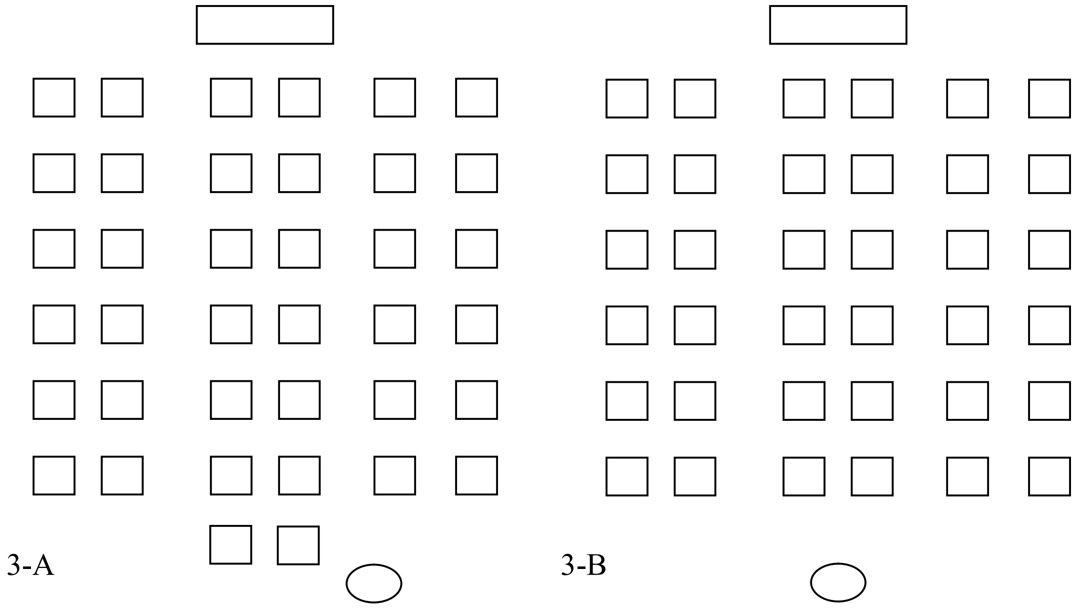


Regular Class

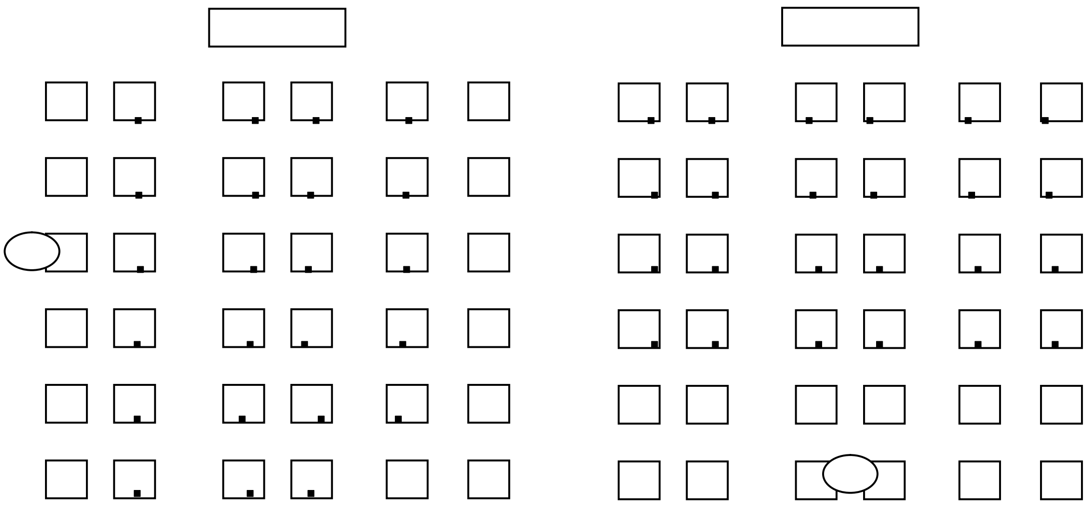
Group Work

APPENDIX D (Continued)

3. KOJI’S 3-A and 3-BCLASSROOM



4. NAO’S 1-A and 1-B CLASSROOMS



APPENDIX E
ABBREVIATIONS OF DATA TYPES AND TRANSCRIPTION CONVENTIONS

1. ABBREVIATION OF DATA TYPES AND PARTICIPANT NAMES

I	Interview
V	Video
E	Email

2. TRANSCRIPTION CONVENTIONS

(V: 2/9/07)	Indicates that this quotation was taken from a video which was recorded on February 9, 2007
(All: V: 2/9/07)	Indicates that all quotations in this paragraph were taken from a video which was recorded on February 9, 2007.
[ ]	Added information by researcher for clarification purpose
…	Material omitted
(( ))	Nonverbal communication
______	Volume, emphasis
italics	Japanese words
( )	English translation for the Japanese words