

**Language teacher cognition
in the case of Japanese teachers
of English at secondary school in Japan:
an exploratory study**

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Abstract

Japanese non-native English-speaking EFL (English as a foreign language) teachers in secondary education (JEFL teachers) work in a different educational context from language teachers in Europe. The purpose of this exploratory research is to identify the distinctive ways in which JEFL teachers think, know, believe and do. These concepts are subsumed under the general heading of JEFL teacher cognition, particularly as this applies to teaching and teacher education in *Eigo Kyoiku* (English education in Japan). The overall purpose of exploring JEFL teachers' cognitions is reflected in four research guiding questions (RQs): 1) to identify the nature of JEFL teacher cognition; 2) to see any particular influences that might help shape JEFL teacher cognition; 3) to learn to what extent JEFL teachers' cognitions are consistent with their actual practice of teaching; and 4) to discuss the ways in which the concept of language teacher cognition (LTC) may be understood and situated in the Japanese context. The research consisted of two studies: a) a quantitative Preliminary Study administered to 62 JEFL teachers and 81 modern foreign language (MFL) teachers in Scotland, in order to identify any areas regarding JEFL teacher cognition; and b) an in-depth Main Study based on a qualitative and ethnographic approach, featuring 10 JEFL teachers. This made use of qualitative data analysis and the applied KJ method, and also drew on complexity theory, through reflective and reflexive processes with particular reference to retrodictive qualitative modelling (RQM). The results of the Main Study are presented as 16 concept maps, each of which represents a featured aspect of JEFL teacher cognition (ATC). It represents the signature dynamics of each ATC and points to the variation and tension which JEFL teachers experienced in relation to each ATC. The research suggests that, although LTC have certain universal characteristics, it needs to be explored on the assumption that it is situated socially, culturally, locally and personally.

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Scotland is one of my favorite countries, and I like the following quote by Sir Walter Scott:

For success, attitude is equally as important as ability.

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List of acronyms

ACTFL	<i>the American Council on the Teaching of Foreign Languages</i>
ALT	assistant language teacher
ATC(s)	featured aspect(s) of teacher cognition
BAK	beliefs, assumptions and knowledge
BALLI	Beliefs About Language Learning Inventory
CALL	computer assisted language learning
CAS	complex adaptive systems
CEFR	<i>the Common European Framework of Reference for Languages</i>
CELTA	the Certificate in English Language Teaching to Adults
CLIL	Content and Language Integrated Learning
CLT	communicative language teaching
CPD	continuing professional development
CoE	the Council of Europe
DI	desirable influences
DST	dynamic systems theory
EAP	English for Academic Purposes
EBP	English for Business Purposes
EFL	English as a Foreign Language
ELEC	the English Language Exploratory Committee
ELT	English Language Teaching
ELP	European Language Portfolio
EMP	English for Medical Purposes
EPOSTL	European Portfolio for Student Teachers of Languages

ESL	English as a Second Language
ESP	English for Specific Purposes
ICC	intercultural communicative competence
IPR	the Initial Phase of the Research
IRET	the Institute for Research in English Teaching
ITE	initial teacher education
JEFLL (teacher(s))	Japanese non-native English speaking EFL teachers in secondary education (teacher(s))
JET	Japan Exchange and Teaching
JTE	Japanese Teacher of English
LSP	Languages for Specific Purposes
LTCI	Language Teacher Cognition Inventory
LTE	language teacher education
MEXT	the Ministry of Education, Culture, Sports, Science and Technology
M(F)L	Modern (Foreign) Languages
MSc	masters of science
NES	native English speaker (speaking)
NNES	nonnative English speaker (speaking)
PCK	pedagogical content knowledge
PGCE	the Postgraduate Certificate in Education
PGDE	Professional Graduate Diploma in Education
PT(s)	participant teacher(s)
RQ	research guiding question
RQM	retrodictive qualitative modeling
SELHi	Super English Language High School

SLA Second Language Acquisition

SLTE Second Language Teacher Education

TEFL/TESL Teaching English as a Foreign/Second Language

TESOL Teaching English to Speakers of Other Languages

TKT Teaching Knowledge Test

Lists of Japanese terminology

Kyoiku Kihon Hou (教育基本法) the Basic Act on Education

Gakushu Shido Yoryo (学習指導要領) the Course of Study (the national curriculum)

Kyoiku (教育) education

Eigo Kyoiku (英語教育) English education

Kyo (教) teach

Iku (育) nurture

Terakoya (寺子屋) literally meaning a temple school; a private tutorial school

Tenaraijo (手習所) literally meaning a writing school; a private tutorial school

Shisho (師匠) a master

Bushi (武士) / *Samurai* (侍) a warrior

Soryo (僧侶) a monk

Hanko (藩校) a clan school for *Samurai* or *Bushi* children

Kanbun (漢文) literally meaning the Chinese text: Chinese classics

Shihan Gakko (師範学校) a normal school or a teacher training school which specializes in
teacher education

Shihan Gakko Rei (師範学校令) the Normal School Act

Kyoiku Chokugo (教育勅語) the Imperial Rescript on Education (1890)

Gaijin (外人) foreign people or aliens

Seisoku (正則) literarily meaning 'the regular method'

Hensoku (変則) literarily meaning 'the irregular method'

Jukyo (儒教) Confucianism aiming for the cultivation and maintenance of human virtue
and ethics

Gakusei (学制) the Education Law (established in 1872)

Jitsuyo Eigo (実用英語) practical English teaching; a sub-stream of ELT in Japan

Eigaku (英学) English Studies

Kotodama (言霊) literally meaning spiritual power of words; the Japanese language

Kokugo (国語) the national language or the Japanese language

Uchi (内) inside or interior

Soto (外) outside or exterior

Honne (本音) true feelings or desires

Tatema (建前) behaviours or opinions in public

Jyugyo kenkyu (授業研究) lesson study

Shogaku Kyoshi Kokoroe (小学教師心得) the Primary Teachers' Guide

Jyuku (塾) private tutoring or cram school

Gakkyu (学級) or *Homurumu* (ホームルーム) homeroom or form in the UK

Gakkyu Keiei (学級 (ホームルーム) 経営) homeroom management

Shidoshuji (指導主事) a teacher's consultant who can play a leading role in teaching English
in their school administrative districts

Chapter 1 Introduction: language teacher cognition (LTC) in personal, national and global perspectives

Chapter summary

This introductory chapter provides background information on my own experience as an EFL (English as a Foreign Language) learner, then teacher, teacher educator and researcher. The portrayal of this personal experience sets the context for my interest in choosing the thesis topic of Japanese EFL teachers' cognitions when teaching at secondary school. There is an initial discussion of the historical and cultural context of EFL teaching in Japan. This leads to a discussion of some key concepts which seem to be associated with the notion of language teacher cognition (LTC). The present research takes the form of an exploratory study, and towards the end of the chapter there is a provisional presentation of some questions which arise from issues addressed thus far and which might guide the course of my exploration.

Japan is well known these days as being a country with one of the world's biggest ELT (English language teaching) industries and there are large numbers of native-English-speaking (NES) people working as instructors or tutors. Despite this, many Japanese people still do not speak English well and some visitors from other countries feel uncomfortable when living in or even visiting Japan because of the dominance of the Japanese language and culture and the lack of speakers of English as lingua franca (ELF). Japan has its own long history of English teaching and learning and nowadays almost all secondary school students learn English as a school subject. As a consequence, the number of teachers of English as a

subject in secondary school is almost the same as the number of teachers of Japanese as a subject.

It is appropriate to explain why I decided to start this research some considerable time before embarking on the present thesis regarding the perceptions and conceptions of Japanese non-native English-speaking EFL (English as a Foreign Language) teachers in secondary education (henceforth referred to as JEFL teachers). I had been interested in language teacher education (LTE) for approximately twenty years before then and had always felt that there were some significant differences in educational views between JEFL teachers and NES teachers who were mainly working in secondary education in Japan. For much of my 35-year-long EFL teacher career in secondary and tertiary education and in particular during the sixteen years in which I have been undertaking LTE research covering Japan, other Asian countries, North America, and European countries, I have had the strong impression that JEFL teachers may follow hidden or implicit standards which are different from those that apply in many other countries and are often discussed in the research literature on language teaching and LTE. I therefore assumed that it was necessary to understand the nature of JEFL teacher cognition as it arises in the Japanese educational, social, cultural and local context.

One day a thought occurred to me regarding a possible relationship between language teacher cognition (LTC)(Borg, 2003a) and teacher education: I wondered if JEFL teachers' professional beliefs and knowledge might be strongly related to teacher education in Japan and the longstanding, traditional collective philosophy which underlies it. This thought arose because EFL teaching and teachers in Japan have been criticized as being ineffective so often at regular intervals since the Meiji period (1878 to 1912), as will be discussed in detail later in Chapter 2, and so it seemed plausible to surmise that teacher education might be a factor underlying this perceived ineffectiveness.

My assumption was not based on scientific evidence. It came primarily from my own everyday knowledge and experience as a practising schoolteacher. As a teacher educator as well, I had formed some concerns about the current teacher education system in Japan which could possibly influence what JEFL teachers believe, assume and know about their teaching English in the classroom. While my main concern in the present research is the cognitions of JEFL teachers in their school context, I hoped that I might be able to work back from this in order to learn at least something of the role that their teacher education had played in helping to form these cognitions.

Language teacher cognition (LTC) is a key word for this thesis, and it should be defined first of all. Although it is later discussed in detail (see 1.4), the term LTC is used in this thesis as a complex set of mental, social, cognitive and emotional processes in which language teachers engage in relation to their teaching activities and the outcome of these processes as well.

1.1 Focusing on Japanese non-native English-speaking EFL (English as a Foreign Language) (JEFL) teachers in *Eigo Kyoiku*

The present research is aimed at attaining a deeper understanding of JEFL teachers and identifying some possibilities for language teacher development which might arise from this. For that purpose, it will be important to outline the current context of EFL teaching and teachers in Japan and then consider the historical, social and cultural background of education in Japanese secondary schools from a number of different perspectives.

First of all, it is essential to bear in mind that JEFL teachers are schoolteachers as well as language teachers when one is discussing ELT or TEFL (Teaching English as a Foreign Language)¹ matters in Japan. A large number of issues and discussions about EFL teaching and teacher education in Japan have so far been exclusively related to secondary education, in

¹ ELT or TEFL is also referred to as EFL.

which English has been taught to almost all students as a school subject for more than 60 years since the Japanese imperialism ended in 1945. Likewise, the teacher education system has been designed for primary and secondary education. The main programme contents have not always focused on teaching specific subject knowledge and skills. This is confirmed by Article 1 (aims of education) of *Kyoiku Kihon Hou* (教育基本法) (the Basic Act on Education)(2006)², which states that:

Education shall aim for the full development of personality and strive to nurture the citizens, sound in mind and body, who are imbued with the qualities necessary for those who form a peaceful and democratic state and society. (from the unofficial English translation by the MEXT or the Ministry of Education, Culture, Sports, Science and Technology)

The role of JEFL teachers as schoolteachers thus has to be carefully considered when exploring JEFL teachers' cognitions. The phrase 'the full development of personality' is especially important when considering the current EFL teaching and teachers in Japan. JEFL teachers are obliged to aim to develop their students' personality and to provide a good education for the whole person first of all, and only then consider teaching English in the classroom. It seems as if teaching English is a secondary aim for many JEFL teachers, despite the fact that their primary aim is teaching English as a subject as stipulated in *Gakushu Shido Yoryo* (学習指導要領) or the Course of Study (the national curriculum). Later I will discuss this point in detail.

In this respect, JEFL teachers may be different from language teachers in Europe, where, on the basis of my visits to schools in several European countries, I have formed the strong

² retrieved June, 2012 from http://www.mext.go.jp/b_menu/kihon/data/07080117.htm

impression that most language teachers may view the teaching of their subjects (one or more foreign languages) as being their main aim. The Japanese term *Kyoiku* (教育) consists of two Chinese characters, ‘教’ (*kyo*)(teach) and ‘育’ (*iku*)(nurture), so that *Kyoiku* literally means to ‘teach and nurture’ or to teach and develop discipline, humanity, morality and other qualities. On the other hand, the English term ‘education’ or ‘educate’ generally seems to mean to develop students’ capacities, especially by schooling or instruction from a Japanese point of view. If so, the approach in Japan then can be different, in that education or *Kyoiku* comes before any particular subject.

English is substantially the only foreign language subject to teach in secondary education in Japan, and it may be thus significant that the discussion of LTE and teacher cognition is focused on the current issues of JEFLL teachers. In fact, teaching English as ‘foreign language activities’ (rather than as a legitimized subject) in primary education began officially in Japan as recently as 2011. This is partly because there are no statutorily qualified EFL teachers in primary education and Japan has not yet established the teacher education system to develop English subject teachers in primary education. The current English teaching in primary education is fragile and does not yet have any stable curriculum. For that reason, the present research is focused on JEFLL teachers in secondary schools.

The most prominent term to depict JEFLL teachers’ educational philosophy may be the following Chinese characters or *kanji*: ‘英語教育’ (*Eigo Kyoiku*)(literally meaning ‘English education’). This concept of *Eigo Kyoiku* will be discussed in detail in Chapter 2 because it is strongly related to the thesis statement for the present research. Here I describe the initial conceptions about what *Eigo Kyoiku* may mean for JEFLL teacher cognition.

In starting this research, I intuitively realized that JEFLL teachers’ coherent traditional philosophy of English teaching in Japan has been constructed socially, locally and culturally in their working traditions. Teaching English for practical purposes has been socially

admitted to be necessary for many English language learners, but educational values have been considered by many JEFL teachers to be even more indispensable even in English classrooms. They often have to focus on topics and themes in relation to humanity or emotion in addition to English language knowledge and skills and cultural understanding. The Japanese term *Eigo Kyoiku* may therefore have a different connotation from its English translation (see Chapter 2, especially 2.1, 2.2, 2.3, 2.10, 2.11 and 2.12 for more details).

1.2 Assumptions concerning JEFL teacher cognition

In 1945 when the war ended and the political and social systems were greatly changed, the school and teacher education systems were also renovated. However, JEFL teachers and teacher educators did not greatly modify what to teach and how to teach English, and the most fundamental thoughts and beliefs that JEFL teachers held did not appear to change greatly (Imura, 2003; Takanashi & Omura, 1975). I had formed one strong assumption about these issues on the basis of my earlier teaching experiences. This was that JEFL teachers might develop their thoughts, knowledge and beliefs about their profession of teaching and teacher education, not only through what they encountered in their own teaching or teacher education, but also in their own individual prior experience when at school under the collective educational values.

In terms of developing teacher beliefs, teachers' prior knowledge and experiences as learners are considered by many experts to be important (e.g. Borg, 2003a, 2006a; Freeman & Richards, 1996; Freeman, 2002). It seemed to me likely that JEFL teachers' beliefs about teaching English were strongly influenced by what they had discerned in their own teachers' or teacher educators' beliefs or conceptions. As teachers, they undoubtedly also encounter many different kinds of suggestions on how best to teach English, such as suggestions which may run counter to the approaches they themselves experienced as students, but generally

these suggestions are not fully backed by empirical evidence gained from actual classrooms. They may come from western theory or practice and run the risk of not being appropriate to Japanese circumstances.

This constitutes a problem of finding a sound basis on which JEFLL teachers may develop their thinking and their belief systems, since the world in which they would have formed their own beliefs is somewhat different from the world of today and tomorrow for which they must prepare their own students. Many JEFLL teachers may also have a narrow view of teaching English as a school subject. For instance, one retired teacher showed his teacher beliefs based on his own previous experience and beliefs in a memoir:

A good teacher should learn from his or her own previous experience, see and learn from others' experiences, learn from children, teach himself, learn together with children, and create facts on the ground.

Probably many teachers would agree with him but they may not actually do so. It seems likely that teachers' subjective prior knowledge and past experiences can sometimes give rise to useful and practical ideas but they may not be based on systematically collected empirical evidence.

1.3 Reasons and motives of highlighting JEFLL teacher cognition

There have been many books and articles which refer to principles or ideals of becoming and being 'a good teacher' to help students develop their personality and their qualities as teachers. LTC thus constitutes a valid area for research aimed at informing LTE. As I describe more details regarding LTC in Chapter 3, there is certainly increasing interest in LTC and the study of language teachers' internal mental and emotional world. Although most research

focuses on classroom contexts, the range of a teacher's professional activity cannot be limited to classroom teaching. Their decision-making in the classroom, for example, could be influenced by many complex factors which may reflect not only classroom knowledge and experience but also in a more holistic sense the values and activities of the school as a whole. I was therefore motivated to highlight JEFLL teacher cognition.

In order to help with my understanding of JEFLL teachers' beliefs and build up more knowledge of foreign languages teachers, the contexts in which they work, the approaches they adopt and the nature of their beliefs, I thought it would be useful to engage in fairly widespread travel across a number of other countries in Asia and Europe. These journeys took me to Taiwan, Korea, and China (all of which, like Japan, reflect East Asian culture, although each in different ways), to the UK (especially Scotland and England), to Finland, Sweden, Italy, Spain, Austria, the Netherlands and Germany, and to Hong Kong, Singapore, Malaysia, Australia and India. All of these visits reflected my strong interest in language teaching and language teacher education.

Among those countries, the UK and Japan especially represent very different socio-educational-political-linguistic environments regarding language teachers and their views of education, and my visits to the UK were particularly instructive. I was able to visit a number of universities and schools, plus CILT and Scottish CILT, the national language centres in England and Scotland respectively. In addition, although western European culture is very different from that of Japan, there are in fact some striking similarities between the UK and Japan which I thought might prove relevant to my research.

For one thing, both Japan and the UK are island nations which are situated close to a major and increasingly powerful continental landmass, and both Japan and the UK have to work out what sorts of relationship they would wish to have with their neighbouring landmass – this raises profound issues of maintaining national identity while at the same time gaining the

benefits of close collaboration. In addition, possibly influenced by some degree of 'insularity,' both Japan and the UK have experienced major problems of motivation for learning languages that are additional to the national language; neither the UK nor Japan could be considered as environments in which a foreign language is extensively used for everyday purposes in society.

It is also true that the UK educational and cultural concepts have influenced the educational system and content in Japan in a number of aspects over many years. For example, Thomas Glover (1838–1911), who was a Scottish merchant, supported many then leading persons who aimed to help restore Japan by giving them opportunities to study in the UK. They had introduced substantive ideas of school discipline and relationships with British ways of thinking. Especially since then Scottish industrious attitudes have been introduced in English textbooks, such as a story about Robert the Bruce³ and the songs and poems of Robert Burns⁴. This may suggest that English teaching and learning in Japan can be related to the UK concepts at the infrastructural level. There are a number of common features in terms of the foreign language learning atmosphere: e.g. 1) very large numbers of citizens who are largely monolingual; 2) foreign languages mainly provided as a school subject; and 3) low levels of perceived need and motivation for foreign language learning (Sasajima, 2002). The comparison of language teacher thinking and beliefs between the UK and Japan therefore represents a first step and is worth researching in order to understand the nature of LTC in these two countries.

Considering these views regarding language learning and teaching, I conducted a questionnaire survey before starting my present thesis research in order to see how language teachers with different backgrounds think about their teaching and teacher education in

³ e.g. *Robert the Bruce and the Spider*

⁴ e.g. *Auld Lang Syne*

Japan and the UK. I compared JEFL teachers with MFL (Modern Foreign Languages) teachers in primary and secondary schools in the UK. The findings became the starting point for the present research and yielded some initial useful insights into the nature of EFL teacher cognition.

1.3.1 The MEXT study: language teachers' awareness of teacher education

This first small study, which was undertaken before the present thesis research began, was supported by the MEXT Grant-in-Aid for Scientific Research (Sasajima & Terauchi, 2008), and aimed to gain some understanding of how JEFL teachers and MFL teachers think about the current LTE in primary and secondary education in their own countries. The research objectives were to identify language teachers' awareness regarding the current LTE in the UK and Japan and realize what professionalism language teachers have. The subjects were 160 JEFL teachers and 55 MFL teachers, being selected based on purposive sampling (in which the selection of the sample was based on the judgment of the researcher so as to be appropriate for that survey). The survey was conducted using a questionnaire with 12 sets of closed and open question items and analyzed by simple statistical procedures. By being compared with MFL teachers, the survey showed some findings about JEFL teachers' awareness in the following table:

Table 1.1 The MEXT survey summary (Sasajima & Terauchi, 2008)

JEFL teachers:
1) perceive a stronger need for acquiring more practical language knowledge and skills
2) perceive a stronger need for acquiring more teaching knowledge and skills (pedagogical content knowledge)(PCK)

- 3) show a greater respect for whole-person education
- 4) are aware of few specific purposes for teaching English to their students
- 5) attach higher importance to teaching basic English knowledge, such as grammar, vocabulary and pronunciation, than to the use of language for communication
- 6) possess a stronger identity of being a schoolteacher rather than a subject teacher

These findings seemed to closely match the impressions I had formed from my informal visits, meetings and observations, and suggested that the nature of JEFL teacher cognition can be different as shown above, especially in the following two respects: 1) the goals of foreign language teaching and 2) their basic identity as teachers. It seemed reasonable to me to form an assumption that LTC might not be entirely universal but instead might be, in part at least, situated and cultural. Accordingly, this survey provided some guidance for my thesis, in that it seemed to corroborate my impression that LTC could be situated, social, cultural, and local rather than universal (although I did not rule out the possibility that LTC might be found to contain some universal components in the subsequent research for my thesis).

1.3.2 The researcher's initial thoughts on JEFL teachers

Thus far I have been teaching English to secondary students for 19 years and tertiary students for 16 years or more in Japan. In addition, I have been professionally involved in EFL teacher education for more than 20 years. Over this substantial period of time I have developed my own beliefs and knowledge in relation to EFL teacher education and the teaching profession. I realized that a number of important beliefs can be formed through reflection on the practical experiences one gains both as a language learner and a language teacher – e.g. EFL teachers should focus not only on the teaching of knowledge about language and the development of language skills but also on students' motivation and

interests. In other words, EFL teachers should not simply be concerned with teaching a language but also with educating students through teaching English.

However, when I taught at secondary school, my beliefs seemed to be based on a mixture of various components. These included: 1) teaching specific, effective English language skills, 2) providing authentic materials and activities, and 3) promoting a sense of pleasure and fun, rather than emphasizing translation, teaching grammatical knowledge out of context or teaching vocabulary from lists, although these components of belief existed at an implicit level concurrently. They did not form a coherent system of beliefs and I am not sure how they in fact came into existence.

Probably my experience in the teaching practicum when I was a university student 37 years ago had the greatest impact on my beliefs. There, I saw English classrooms based on the audiolingual method (also called the Army or Michigan method), which is based on behaviourism emphasizing drilling and memorization (cf. Jin & Cortazzi, 2011) and is still popular among many JEFLL teachers. As a teacher, I tried to follow this method, but I felt it did not fit well with the realities of Japanese classrooms, in which the historical culture greatly favoured knowledge rather than skills development as an end in its own right. However, I made use of several teaching methods or techniques when I started in my first post as a secondary school teacher: e.g. using the language laboratory or the CALL (computer assisted language learning) system; activities based on CLT (communicative language teaching), whose goal is for learners to become good at using language for communication, such as information gap, movies, songs, and news; project-based learning or activities involving pair or group work; and extensive/intensive reading or listening. I believed that teachers should try to identify students' needs in their future jobs and should give their students as many opportunities for the practice and the use of language as possible, in order to help their students to develop knowledge and skills in the classroom which are

educationally of value and also reflect their possible future needs.

As a JEFLL teacher, I had tried to avoid portraying cultural stereotypes and had also tried to help students develop a positive motivation for learning English rather than learning English simply because they were obliged to do so. As such, I was interested in making use of new ideas and approaches, such as ESP (English for Specific Purposes) and CLIL (Content and Language Integrated Learning), which ‘refers to any dual-focused educational context in which an additional language, thus not usually the first language of the learners involved, is used as a medium in the teaching and learning of non-language content.’⁵ Moreover, I came to believe that it is difficult to teach English. My reason for coming to this belief was that I was not fully satisfied with my own attempts to teach the language, for example. I also came to believe that understanding the target language-speaking cultures is necessary for JEFLL teachers, who should spend some time living, studying or working in countries where English is the national or main language. Furthermore, I came to believe that teaching English language knowledge and skills is essential for students, and I was always eager to develop my English proficiency and teaching knowledge and skills in those days. I was a rather good communicative teacher who could interact with students at school, but I was often worried about the dilemma between following the traditional Japanese school discipline and providing fun classrooms.

One possible factor operating to the disadvantage of JEFLL teachers is that they do not have any available professional standards in terms of English proficiency and pedagogical knowledge and skills. With regard to possibilities for teacher education and development, it is fair to claim that classroom research, classroom observation, and collaboration among teachers in the same school may be an appropriate idea, but these are actually not conducted in many cases because there can be difficulties in conducting them in schools and classrooms:

⁵ retrieved June, 2012 from the CLIL compendium at <http://www.clilcompendium.com>

e.g. heavy workloads, routine teacher education programmes, and teacher culture and mentality (see Chapter 2 for more details). In addition, many JEFLL teachers are not strongly motivated to develop their professional knowledge and skills in English teaching, and the reason for this, at least in part, is that they are not necessarily evaluated on the basis of their ability to teach English in the classroom. My longstanding experience as a teacher and teacher educator suggests to me that in many cases they just teach the knowledge and skills which are provided in the textbook, and they may sometimes supplement this by using additional materials, such as workbooks and duplicated texts for reading.

As already argued, one possible reason for the narrow way in which many JEFLL teachers have defined their role may be the wider, possibly more important and higher-status role which they are also expected to fulfill in educating students through a wide range of more general school activities – e.g. school trips, homeroom class activities, club activities including sports, arts and culture, volunteering, directing school cleaning, managing student lunch time, counseling, and parent meetings. Many teachers have to work for their students even on weekends and during the school holidays.

The MEXT survey suggested to me that, despite a strong common Japanese culture of education, there might in fact be quite a wide range of specific beliefs held by teachers, some of them seeming to be in some ways different from such views as I myself held. I thus began to feel a strong desire to know more about what JEFLL teachers think, know, believe and do, and this encouraged me to pursue my interest in JEFLL teacher cognition further through the main studies of the present thesis.

1.4 The language teacher and language teaching issues

One problem to resolve at an early point in this research was to work out how the term ‘JEFLL teachers’ should be understood in the domain of language teachers or language

teaching. As the aim was to explore JEFLL teacher cognition about their teaching and teacher education, it was important to define the term ‘the language teacher’ in the first place. Moreover, I refer to necessary terminological issues here in this chapter because they are closely related to my motives to start this research.

1.4.1 The language teacher

A clear understanding of the term ‘the language teacher’ was thus essential. Throughout the research I wondered how distinct a meaning the concept of ‘the language teacher’ has in terms of its social, educational and cultural status, its professional responsibilities and the actual sorts of activity which go with the concept. For the present research I chose to understand the term ‘the language teacher’ as follows:

Definition 1: The language teacher

The language teacher is a person who teaches a language that students or pupils learn in formal education, such as in primary or secondary schools, and that they learn as a non-native language in the classroom and as a subject in the curriculum.

I refer to JEFLL teachers under this definition, so that they are defined as language teachers who work in secondary education in Japan, but when considering LTC and LTE in the present thesis, it is important to bear in mind that JEFLL teachers have to work as schoolteachers with the important educational aims that I have already described. These aspects should not be neglected because they can always influence what JEFLL teachers think, know, believe and do as language teachers.

1.4.2 Language teachers and language teacher education (LTE)

Johnstone (2004: 670-673) points out the diversity of LTE and suggests three phases of LTE provision:

Phase 1 – LTE was “owned” by LTE professionals who in keeping with professionals generally were trusted to put their particular expertise at the service of society

Phase 2 – LTE professionals are considered as “providers” in a provider–client relationship and are held accountable for the extent to which they satisfy “customers” such as ministries, local authorities, and schools

Phase 3 – LTE is viewed as not being owned exclusively by any one group but as jointly owned by a range of stakeholders

There may be no such LTE professionals in Japan. However in the present thesis, I would like to refer to Phase 2, in which most JEFL teachers should be involved. Moreover, in almost all countries that do not have English as the national language, the foreign language to be taught is overwhelmingly English, at both primary and secondary educational levels. It is worth noting that EFL teacher education for JEFL teacher trainees may be considered as having two distinct routes.

- One route would be to gain an MSc (masters of science) TESOL (Teachers of English to Speakers of Other Languages) from a university, e.g. in the UK, and then go into teaching English in a language school, but not to teach English as a school subject in primary or secondary school.
- The other route would lead to a formal qualification to teach English as a schoolteacher

in primary or secondary school; this might possibly comprise an MSc TESOL but would additionally be based on the teacher development system which is validated by national education authorities.

EFL teacher education can be quite diverse across the world. Many courses, such as CELTA (the Certificate in English Language Teaching to Adults) and TESOL, focus mainly on how to teach English on the basis of the CLT theories and practices (e.g. Littlewood, 1981; Pica, 1988; Savignon & Berns, 1984; Swan, 1985). However, given the diversity of provision and the two different routes, it is not necessarily the case that a course will provide a sufficient preparation for the realities of teaching in the primary and secondary schools of any given country. The basic components can be quite diverse. Some of the concepts central to such courses may in fact be derived from contexts which are substantially different from that of Japan, and may not always come from education policies which have been developed to cultivate a primary or secondary school teacher.

Japan does not set its own language learning standards or LTE standards, as in *Standards for Foreign Language Learning* provided by the American Council on the Teaching of Foreign Languages (ACTFL) in the US, which 'is the only national organization dedicated to the improvement and expansion of the teaching and learning of all languages at all levels of instruction' (ACTFL, 2010⁶). The ACTFL provides foreign language teachers or administrators in the US with teaching methodologies, ideas, resources, certificates, and programmes. In Europe, the Council of Europe (CoE) is one of the two main European bodies which makes statements and offers guidance on languages policy (the other is the European Commission). The CoE, for example, published *the Common European Framework of Reference for Languages: Teaching, Learning, Assessment* (CEFR) (2001) in order to provide

⁶ retrieved December, 2010 from the ACTFL website at <http://www.actfl.org/>

guidance for member or associated states in developing their own curricula and standards for the teaching of additional languages. There is no similar body offering guidance at the level of Asia or indeed of Japan itself.

As such, then, it is probably fair to claim that JEFLL teachers fall into a longstanding tradition of teaching for knowledge of English vocabulary and grammar and teaching for general educational purposes, rather than teaching English for communication, and that they may from time to time be exposed to ideas on teaching which reflect the wide diversity of courses being potentially available. These issues will be discussed in detail later in Chapter 2. When considering the LTE system, it is thus important to identify two types of language teacher and LTE (see Definitions 2).

Definition 2: Two types of language teacher and LTE

1.1 The **language teacher** who teaches the target language to motivated learners in private establishments outside the national curriculum

1.2 **LTE** for a language teacher to teach the target language to learners who are motivated to learn the language as a second/foreign language, and as a result to be able to focus on teaching in the classroom

2.1 The **language teacher** who teaches the target language as a statutory subject in the national curriculum

2.2 **LTE** to cultivate a qualified subject teacher who can teach the target language to primary or secondary students as a schoolteacher with responsibilities for their education and personal development as well as for their language learning

In the present thesis, I focus mainly on the second type of language teacher and LTE, i.e. JEFLL teachers. Although the teacher education programme for the first type can concentrate

on language curriculum and methodology, the second type cannot exclusively deal with just classroom teaching because teachers have to consider the whole person education as well as students' learning motivation and needs. Therefore, their teacher cognition may be difficult to understand due to many factors related to school education.

1.5 Teachers' thought processes in teacher education

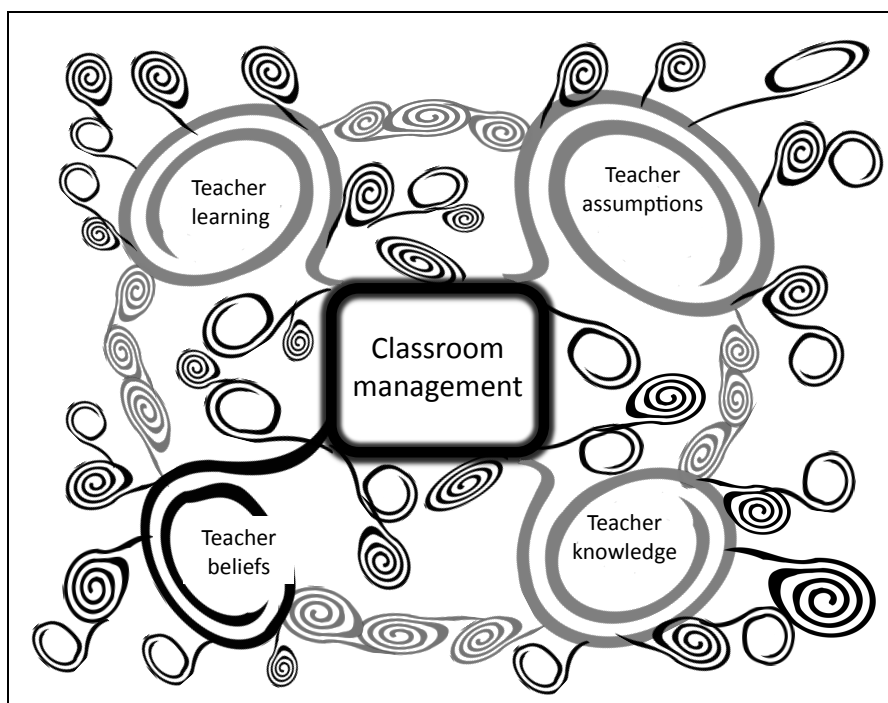
Arguments about teacher (education) standards and teachers' thought processes may be related to the different concepts of the two terms: 'teacher training' and 'teacher education' in different education cultures. Both terms can be interchangeable but 'many prefer "teacher education" since "training" can imply unthinking habit formation and an over-emphasis on skills and techniques' (Ur, 1996: 3). The different usage of terms, however, seems to reflect complex teacher working situations under many different aspects in real school cultures and the specificity of goal-settings. In addition, language teachers' previous knowledge and experiences can develop and work effectively through their continuing professional development (CPD) in LTE. In LTE, therefore, both teacher education programmes and teachers' thought process should be developed simultaneously.

Learning to teach is considered to better facilitate teachers' practical knowledge, which is usually gained through teaching experience and is often tacit (Fenstermacher, 1994). Even if teacher (education) standards are set explicitly in the teacher education programme, they are not sufficient for teachers to effectively learn how to teach without their implicit cognitive awareness. Many cases show that the explicit formal teacher education programmes tend not to improve their teacher beliefs that have been formed based on their own cognitive learning styles and prior experience (e.g. Bernat, 2006; Kern, 1995; Kagan, 1992; Little, Singleton & Slivius, 1984; Qian & Alvermann, 1995; Roberts, 1992). Many teacher educators' and researchers' concerns have thus shifted from a focus on teacher behaviors and skills to an

emphasis on teachers' thought processes since the mid-1980s (Richardson, 1996:110).

I will discuss the issues and concepts regarding teachers' thought processes in the next section in order to make sure that the term 'teacher cognition' is used as a super-ordinate or umbrella category to express related terms of teachers' thought processes. That is because these issues and concepts are closely related to how I see LTC in this research and can make my thesis concise and clear (see Chapter 3 for more details about teacher cognition). Figure 1.1 is helpful to see how I assume language teachers' thought processes are composed of a complex stream of teacher learning, teacher knowledge, teacher beliefs and teacher assumptions in relation to classroom management and how the key concepts are related with one another. It will be the fundamental basis for the current research design when I start the present research on LTC or JEFL teachers' cognitions.

Figure 1.1 The researcher's network model of language teachers' thought processes



It is necessary to present a network model of language teachers' thought processes which is

closely related to the researcher's initial assumptions about what a language teacher thinks based on classroom management. As in Figure 1.1, the point of the model is that language teacher beliefs, learning, assumptions and knowledge are related to each other and anchored to classroom management, structuring teachers' thought processes. The whirlpool patterns show that each concept emerges and self-organizes and is related to each other in a complex process. In other words, the figure depicts that language teachers' thought processes would function in a complex manner in association with classroom management, according to my own professional teacher knowledge and experiences. I aim to explore such issues in the present thesis as well.

1.6 My understanding of some key concepts in LTC

In order to specifically focus on LTC about teaching and teacher education, it is necessary to discuss a number of basic terms related to teacher cognition which are used in this research topic. The terminological issues regarding teacher cognition still can be complicated and unsolved at the moment. However, in order to discuss teachers' mental and emotional processes clearly, first of all, it is necessary to show how a number of necessary terms closely related to this research are used in the present thesis. Rather than offering a set of academic definitions at this stage, I have chosen to describe my understanding of some key concepts and their related questions regarding LTC in a more everyday sense as in Table 1.2, which originate from my own assumptions as a learner, a teacher and a teacher educator.

Table 1.2 The researcher's assumptions about key concepts related to LTC

<p>Teacher beliefs are created through each language teacher's own language learning history and somewhat hard to change in teacher education processes.</p>

Q: What beliefs can help shape JEFLL teachers' cognitions?
Teacher knowledge , which is the main factor for effective language teaching, should be necessary for any language teacher to cultivate in teacher education.
Q: What knowledge should JEFLL teachers possess to develop their positive LTC?
Teacher assumptions should be concerned with future planning based on teacher knowledge so that assumptions can make teachers develop their own further professional knowledge and skills when teaching a language.
Q: What assumptions should JEFLL teachers make for the development of LTC?
Teacher learning is a conscious learning process of language teachers who are engaged in teacher education and try to improve teaching knowledge and skills. It is a key concept of LTE, and it can help create new teacher beliefs, teacher assumptions, and teacher knowledge.
Q: What learning should be necessary for JEFLL teachers to develop their positive LTC?
Classroom management is an important concept of pedagogic practices in LTE that it should be considered to relate to any discussion regarding teacher beliefs, teacher assumptions, teacher knowledge and teacher learning. Moreover, classroom management can influence the formation of LTC.
Q: What conceptions of classroom management can influence JEFLL teachers' cognitions?

1.7 My understanding of LTC in relation to teacher education

The teacher education system has been established on the basis of its own traditional, social, political, cultural, and local background and it is a very influential factor for LTC. According to Borg's website on Language Teacher Cognition⁷:

⁷ retrieved December, 2006 from his website at Language Teacher Cognition:
<http://www.personal.leeds.ac.uk/~edusbo/cognition/index.htm>

Teacher cognition refers to the cognitive processes and structures which influence, and are influenced by, what teachers do. These include beliefs, knowledge, principles, theories, and attitudes, as well as the thoughts and reflections teachers have before, during, and after teaching. The study of teacher cognition aims to shed light on these cognitive processes and structures, to explore their origins and development, and to understand their relationships to what teachers do.

This definition focuses on what language teachers do mainly in the classroom in relation to their cognitive processes and structures. He has specifically examined grammar and literacy instruction and used LTC as an umbrella term to demonstrate complex teachers' thought processes (Borg, 2003a). In this research, however, I focus on JEFLL teachers' cognitions about teaching and teacher education and provisionally define the term LTC as follows, considering the above-mentioned network model of language teachers' thought processes that I have presented and 'the social practices and contexts associated with learning and teaching' (Johnson, 2009: 10).

Definition 3: language teacher cognition (LTC)

Language teacher cognition (LTC) is a complex set of mental, social, cognitive and emotional processes (e.g. believing, thinking, learning, and knowing) in which language teachers engage in relation to their teaching activities. It is also the outcome of these processes (e.g. their beliefs, learning, assumptions, and knowledge).

I assume that LTC is helpful to understand a sociocultural perspective of how language teachers develop their own professional teacher knowledge and skills necessary to become a

better language teacher. Although it is difficult to observe and exemplify, LTC is worth researching to evaluate language teaching and teacher education because of its possibility to set language teacher standards for reflection, for example. Moreover, LTC can contribute to not only understanding of sociocultural aspects of language teachers but also development of the LTE system relating to language education policy.

1.8 Exploration for understanding the nature of JEFLL teacher cognition

The research results will help identify the nature of JEFLL teacher cognition about teaching and teacher education, its influences on JEFLL teacher cognition, how JEFLL teacher cognition is actualized in the classroom, and to what extent LTC could be situated in the Japanese context. These are my initial exploratory questions to start this research. I as a researcher and a JEFLL teacher would like to discuss what ‘an exploratory study’ means in this research and why such exploration is necessary for teacher cognition research.

Japan has long-established EFL teacher education traditions, which might be different from LTE systems in Europe. The research subject of JEFLL teachers’ cognitions is a new issue where there are few earlier studies to refer to. The purpose of an exploratory study is thus to gain insights and familiarity for further investigation into LTC. I do not aim to discover or generate a theory as in the grounded theory⁸, but just explore the ways to understand the nature of JEFLL teacher cognition about teaching and teacher education. My prior teaching and research experience in the target research fields is naturally significant in the present research, and at the same time, it should be careful not for the researcher to have preconceived ideas about the research interpretation. Reflexivity, which I will discuss in Chapter 4, is therefore the most essential concept in conducting this exploratory research.

⁸ a research method to generate or discover a theory: see The official site of Dr. Barney Glaser and Classic Grounded Theory at <http://www.groundedtheory.com/>

I always have to think about the advantages and disadvantages of my long-term professional knowledge and experience regarding EFL teaching in Japan. It is also a challenge for me to explore the nature of JEFL teachers' cognitions while considering myself through reflexivity. In other words, I intend to satisfy my curiosity and desire for better understanding and develop research methods to explore the nature of LTC as a complex system. Regarding teaching English at secondary school in Japan, for instance, some JEFL teachers tend not to consider the students' achievement of English proficiency as shown in the 'can do' statements or the illustrative level descriptors by the CEFR (6 levels of language proficiency: A1, A2, B1, B2, C1 and C2) (cf. CoE, 2001), but just focus on English knowledge, such as grammar or vocabulary, that are provided in the textbooks or necessary for the tests. Others tend to be interested in classroom activities in order to motivate their students by focusing on songs, movies or games in the classroom and make efforts to let their students speak, discuss or debate while considering their students' readiness or English proficiency levels (e.g. Harada, 1991; Kageura, 2001; Matsumoto, 1999; Nakashima, 1997; Takashima, 2000). I have always wondered why each teacher can have different thoughts and behaviours when teaching in the classroom. There has been less research on complexity of JEFL teachers' cognitions and teaching thus far, as referred to later.

1.9 Overviews of the thesis

There is no doubt that new demands and challenges have to be confronted by JEFL teachers, as Japan seeks to find its way in the global world while at the same time preserving the essence of its longstanding cultural and educational traditions. My interest lies in learning what JEFL teachers think about their teaching and teacher education, and indeed how they think about them at this very interesting time of major change, while discussing some terminological issues related to teachers' thought processes.

This chapter sets out the research background to LTC, including its relation to EFL teaching and teacher education in Japan and a complexity theory as one possible underlying theoretical perspective for the present thesis. In order to see the background knowledge about the present research, Chapter 2 describes what I consider to be the key educational issues in Japan and reviews EFL teaching and learning and teacher education for JEFL teachers. Then in Chapter 3, the issues of teacher cognition in JEFL teacher education are discussed. JEFL teachers' wider role as schoolteachers with general as well as language-teaching responsibilities is a major requirement for them and makes a complex situation.

Chapter 4 sets out the overall research design and the Preliminary Study. This chapter presents the philosophy, purpose, research guiding questions and research design consisting of the Preliminary Study and the Main Study undertaken in the present thesis. The Preliminary Study is also presented in Chapter 4, since a questionnaire survey of LTC conducted in Japan and Scotland extracts several distinguish characteristics of JEFL teacher cognition, which are necessary for the Main Study.

In Chapter 5, the research methodology in the Main Study is presented, focusing on a qualitative research consisting of interview, classroom observation and ethnographic observation. The qualitative methodology comprises unique methods of collecting and analyzing the data: e.g. retrodictive qualitative modelling (RQM), interviews, classroom and ethnographic observations, the subjective and reflexive qualitative data analysis process, the KJ method, and the concept map. Thus in Chapter 6, the findings arising from the unique data collection and analysis are presented as 16 summary descriptions and concept maps of featured aspects of teacher cognition. Since the Main Study has been a qualitative exploratory research in nature, I provide discussion alongside each of the main findings.

Finally Chapter 6 offers the conclusion which I have formed in the light of the research about JEFL teachers' cognitions, and in addition it sets out a number of possible implications

for EFL teaching and teacher education in Japan, based on the research findings. I believe that the research results may offer an opportunity to create new landscapes for understanding JEFLL teachers' cognitions or LTC on teaching and teacher education. Japan has rightly been praised as an industrious, highly economically successful, and socially stable country for a long time and its education has also been highly valued internationally. At the same time, however, Japan has been regarded as having major weaknesses in terms of its people learning any additional language, including English the dominant language internationally. Indeed, the domestic social needs for learning English are still perceived by many people as not being high, and the Japanese language has remained dominant in many fields of education and public life. My own experience, which I have set out to present in this first chapter, has suggested to me that many JEFLL teachers also consider their students to perceive only low levels of need for learning English, and in this respect Japan may be very different from countries in Europe or elsewhere in Asia, where ever-stronger needs for English are widely perceived.

However, there must be many complex factors underlying JEFLL teachers' teaching and teacher education, hence my desire to explore the nature of their teacher cognition in respect of teaching and teacher education. Through a research approach that contains an initial quantitative component but that is essentially qualitative in nature, I will explore the influences on such JEFLL teachers, and try to learn to what extent, if any, their cognitions are similar to or different from their actual behavior when teaching in class.

Chapter 2 Education in Japan: EFL teaching and teacher education

Chapter summary

This chapter is necessary to understand the historical, societal and cultural background of the teaching and teacher education of JEFL teachers. It thus discusses education in Japan from historical, social and cultural perspectives. Especially, *Eigo Kyoiku*, the teacher education system, the Course of Study, language policy, and ESP (LSP) are particularly important concepts in this research, in order to set the context for eventually gaining on an informed understanding of JEFL teachers' cognitions about teaching and teacher education and of how they might develop these. Moreover, Chapter 2 refers to the future perspectives of JEFL teachers' cognitions in order to help themselves more fully meet the challenges of globalization or the global society and to identify their own professionalism in relation to LTE from the past to the future.

An organism needs an appropriate underlying system to function effectively. Sugimoto (2003: 2) points out that 'Japan is particularly unusual in having so many people who believe that their country is unique.' Just as each country has its own education system, whether good or bad, Japan has its own unique education system. According to Sugimoto (2003: 3), there are three lines of argument to interpret the Japanese and Japanese social culture: 1) the Japanese are portrayed as having a personality which lacks a fully developed ego or independent self; 2) human interaction is depicted in terms of Japanese group interaction; and 3) integration and harmony are achieved effectively between Japanese groups, making Japan a 'consensus society.' These three lines of argument, whether objectively true or not, have together or

separately influenced Japanese self-perceptions. This 'Japaneseness' (the concept of Japanese uniqueness) has been in place for such a long time and is so deeply-rooted in Japanese history and culture, that it may be difficult to internationalize it without sacrificing its essential nature, especially in teaching English adversely.

In order to understand the challenges facing JEFL teachers at present, it is necessary first of all to understand this traditional education system in Japan. In Chapter 2, I will point out the fact that there is a persistent relationship which exists between EFL teaching in secondary school and its teacher education, aiming to show that its historical background does not necessarily help prepare JEFL teachers and their students for meeting the challenges of a diverse world. I envisage that this will not happen simply by asking teachers to change their teaching methods and techniques. It will be necessary to help them reflect on their beliefs and ways of thinking.

2.1 The meaning of *Eigo Kyoiku* and its importance

The concept of *Eigo Kyoiku* is central to an informed understanding of JEFL teacher cognition. It reflects the culture of 'friendly authoritarianism' (Sugimoto, 2003) which means the force behind the Japanese tendency to be ostensibly faithful to particular groups and companies or the Japanese conception of individuality emphasizing the relatedness of individuals with each other (Kitayama, Markus, Matsumoto & Norsakkunkit, 1997).

Kudomi (2003: 142) reported a survey of teachers' awareness regarding the purposes of education, comparing Japanese teachers with American teachers. The results showed that Japanese teachers tended to place higher value on their students' human development and self-understanding than on their learning of particular subjects. On the other hand, American teachers selected appropriate learning habits and self-direction as their first choice. Kudomi concluded that American teachers tended to focus on teaching and learning subjects while

Japanese teachers tended to think that a holistic whole-person education is important.

In Japanese school culture, even JEFLL teachers may have to consider their role not only in teaching English but also in contributing to whole-person activities in order to help students develop their personality and self-understanding. This, however, does not necessarily mean that JEFLL teachers have to do two completely separate things – teaching English and developing their students' human qualities. In fact, many of them believe that many important human qualities can be well developed through foreign language learning, which should not be viewed as a purely linguistic matter. For instance, they tend to think that the language teacher should provide students not only with language skills, but should also help them gain experience of otherness in the classroom and learn how to communicate with others from different cultures. Language teaching and the development of intercultural communicative competence (ICC) can be closely related to each other (Byram 1997; Kjartansson & Skopinskaja, 2003; Lázár, 2003). Some JEFLL teachers may even think that the similar concept of ICC can be related to and necessary for their students' development as human beings in the global world of today in which individuals, groups, communities, institutions and organizations are much more interconnected than ever before and no country can really afford to stand apart in isolation.

When discussing LTE in Japan, it is essential to take account of its highly distinctive social, cultural and educational aspects as manifested in *Eigo Kyoiku*. Although in principle teaching a language as a subject and developing students as human beings can be linked by viewing language teaching in terms of ICC, it is nonetheless fair to claim, both on the basis of my own experience and earlier research on LTE in the US, Europe and elsewhere in Asia (cf. Ishida, et al., 2001, 2002, 2003, 2004; Sasajima, 2002), that Japanese educational traditions and culture present JEFLL teachers with an overloaded task and a particularly complex situation.

2.2 Changing and unchanging aspects of JEFL teacher education

In primary education, English under the title of 'foreign language activities' is officially taught by class teachers for 35 hours a year. This was the result of a compromise after a long debate on whether or not English should be taught to primary students. The aims of foreign language (actually meaning English) learning in the Course of Study are general or unspecific, and many researchers and teachers have expressed doubt about the unclear goal settings (e.g. Koike, 2004; Oi & Sasajima, 2005; Yamada, 2005a). There are no specific national standards or scholastic tests of English language learning from the primary to secondary level. The measurable outcomes of English teaching and learning therefore cannot be clear in Japan. Regarding teaching English as a formal subject, the Course of Study has been the only curriculum that regulates what to teach and how to teach English. The Course of Study sets out the objectives and the design of the national curriculum but does not present what to achieve in the curriculum and how to assess such achievements (e.g. Imura, 2003; Yamada, 2005b).

One of the reasons why the Course of Study provides such unclear guidelines is strongly related to its history. In the beginning of the Meiji period (1868-1912) over 130 years ago, the national policy was aimed at industrialization. Education was a key factor to achieve that goal and English teachers were required in order to introduce Western industries and cultures to Japanese society as soon as possible. Within roughly twenty years, Japan had achieved its goals to some extent, and from that point onwards the government made efforts to focus on Japanese national identity and establish the national system more clearly while in the process establishing *Tenno* (天皇) or the emperor in its centre. Thus all schoolteachers including JEFL teachers had to be supporters to maintain a rigid imperial system.

After 1945, when World War II ended, the imperial system was abolished, American democracy was introduced, and the paradigm was greatly shifted to freedom and

egalitarianism. The teacher education system on the basis of *Shihan Gakko* (師範学校) or normal schools (the then teacher training schools which specialized in teacher education and regulated education) as its centre gave way to flexible or open registration systems which allowed any university graduates to have an entry to teaching jobs if they were qualified or licensed (e.g. Mizuhara, 1990). However in terms of JEFLL teacher education, the basic system and content about what to teach and how to teach English actually did not change greatly. Teacher education has in fact not brought about the changes in the teaching of English as proposed by the Course of Study. For students, moreover, English remained and still remains a key subject for access to higher education. Accordingly, the Course of Study, which is certainly significant, should or has to be idealistic and ambiguous to teachers as well as students.

2.3 Incomplete EFL teacher education curriculum in Japan

At the start of teaching English in the Meiji period (1868-1912), many leading Japanese teachers of English, such as Toyama Masaichi, Kanda Naibu, and Okakura Yoshisaburo, provided then new teaching methods and materials, which were obtained from their personal experiences in English-speaking countries (Imura, 2003; Smith & Imura, 2004; Takanashi & Omura, 1975). They were influential role models for most JEFLL teachers for a long time. Also, Japan invited a considerable number of NES teachers from the US or the UK to teach English and to help develop a range of professional knowledge and skills among JEFLL teachers. Among such NES teachers from overseas, there were two influential foreign language experts, Harold E. Palmer, who spent 14 years from 1922 to 1936 in Japan and suggested his 'Oral Method' (Smith, 1999; see Palmer's achievements at Warwick ELT Archive: Hall of Fame⁹),

⁹ retrieved June, 2012 from http://www2.warwick.ac.uk/fac/soc/al/research/collect/elt_archive/halloffame/palmer/

and Charles C. Fries, who developed the Oral Approach or the Michigan method and disseminated his ideas in Japan between 1956 and 1959 (Norris & Strain, 1989). Although these ideas had considerable appeal for some motivated JEFL teachers for some time, they did not catch on with most teachers and made relatively little impact on the traditional methods of teaching English. Nonetheless, although not gaining widespread adoption, these ideas did command respect and are still held in respect by many current JEFL teachers to some extent at least (Imura, 2003; Takanashi & Omura, 1975).

In Japan, there are some traditional organizations that have had great influence on English teaching and learning and have provided teacher education for a long time. They have also suggested many ideas for reforming EFL teacher education. In 1925 the Institute for Research in English Teaching (IRET) conference proposed 'a radical four-point programme for such reform involving reduced class sizes, increased freedom for teachers in textbook selection, improved in-service teacher education and more effective involvement of native speaker teachers' (Smith & Imura, 2004: 32). In addition, in 1956 another conference provided by the English Language Exploratory Committee (ELEC) expressed support for the Oral Approach and emphasized two points of reform: '1) training teachers and 2) producing Oral Approach materials' (Smith & Imura, 2004: 34). However, these proposals even today have not achieved widespread acceptance.

In the traditional teacher education system, most JEFL teachers did not have sufficient practical English language knowledge and skills, because the old normal school (teacher education school) curriculum focused on academic English knowledge, such as English-language linguistics and literature. Until 1945, normal school students did not have to pay tuition fees, and so they mostly were from a relatively low socio-economic background. Also, the curriculum did not substantially differ from that of upper secondary education. Many people who graduated from normal school went up to upper secondary and tertiary

school. In a sense, the subjects that they studied were actually similar to those at secondary school (Mizuhara, 1990). As a consequence, the traditional teaching methods which they experienced at the normal school were transmitted into the current teacher education programme and the secondary school curriculum in which they went there to teach.

The current English teacher education curriculum comprises two main groups of required subjects: pedagogical theories and knowledge (including teaching practices) and English language subjects (e.g. English linguistics, English and American literature, English communication and cross-cultural understanding). In most of these subjects the emphasis is strongly on acquiring knowledge of content rather than on developing skills or gaining practical experience. Although school-based teaching practices are required, these are usually limited to three weeks at a time and are very short compared to the school-based teacher education systems in the UK, such as a PGCE (Postgraduate Certificate in Education) or PGDE (Professional Graduate Diploma in Education) course. Moreover in a credit-earning teacher licensure system, which means that teacher applicants can earn a license if they just sit and listen to the lecture, there are no language proficiency level settings or goals to be assured, although teacher applicants are encouraged to develop these, which are assessed at teacher employment examinations. In short, the Japanese traditional teacher education system has fundamentally highlighted pedagogical theories and knowledge, but has not provided sufficient time, opportunity or support for developing practical classroom skills or for helping teachers in training to acquire competency in critical reflection based on real experiences gained in practical school and classroom settings.

2.4 Historical perspectives of JEFL teacher education: teaching apprenticeship and westernization

It is important to see the historical context of JEFL teacher education in order to do

research on JEFLL teacher cognition. Historically, people in Japan, including even farmers and women, have maintained a high rate of literacy and numeracy since the middle of the Edo period (1615-1867) for more than 300 years (e.g. Alcock, 1863; Oishi, 2007; Takahashi, 2007). Before the Meiji period (1868-1912), when Japan started to be westernized, many Japanese people, who lived in a society that included aristocrats, warriors, farmers, craftsmen and merchants, were able to read and write because of private tutorial or schooling systems called *Terakoya* (寺子屋) (literally meaning ‘a temple school’) or *Tenaraijo* (手習所) (literally meaning ‘a writing school’) provided by priests or warrior class people. Such instructors called *Shisho* (師匠) (masters), who were *Bushi* (武士) or *Samurai* (侍)(warriors) or *Soryo* (僧侶) (monks), provided a place in which for children to learn, using their own knowledge, ideas and experience in order to teach their students. Such apprenticeship-like relationships are considered to have influenced to some extent the ways in which Japanese schoolteachers think, right down to the present time.

According to Imura (2003), the starting year of JEFLL teacher education was 1808, when a British ship, HMS Phaeton, reached Japanese waters in Nagasaki. Japan had a national isolation policy during the Edo period for almost 300 years and in those days most people did not officially communicate with people from other countries. The government was stimulated by the arrival of the British ship and was determined to develop English teaching and learning. A Dutch merchant, Jan Cock Blomhoff, who then worked in Dejima (a small island in Nagasaki Bay and the sole commercial and cultural link between Japan and the West in the isolation age), was asked to be the first teacher of English, but he was not a skilled teaching practitioner. In terms of Blomhoff’s informal English teaching which aimed to focus on pronunciation, vocabulary and phrases, Imura (2003: 11) pointed out two problems: 1) young learners who would be interpreters had difficulty in learning English because they did not understand well or even ask questions, and 2) about 50 learners from children to adults

were taught together in the same class by Blomhoff alone. Quite soon, the class was closed due to inefficiency, but in the next phase six experienced Dutch interpreters had an intensive training to learn English themselves and make appropriate materials for other Japanese learners of English. It was regarded as the first teacher education for English teachers in Japan (Imura, 2003), and has had a marked influence on the traditional teacher education programme which ensued. Accordingly, most teacher educators and teacher trainees came to think or believe that language learning is closely related to interpreting and translating into Japanese and memorizing words.

In the late Edo period, teachers were considered to be masters who had good knowledge and skills, and schools provided knowledge and opportunities for self-learning or peer-learning (Mizuhara, 1990). The educational or schooling system in Japan was not systematic, although some tutorial systems in *Hanko* (藩校), or clan schools for *Bushi* or *Samurai* children, had already been constructed and were popular in many districts in the 1800s (Oishi, 2006). *Hanko* for students from upper-class families and *Terakoya/Tenaraijo* for students from lower-class families differed considerably from each other in terms of teaching contents, such as reading *Kanbun* (漢文) (literally meaning ‘the Chinese text’) or Chinese classics and *Samurai* manners and etiquettes in *Hanko* and basic reading, writing and accounting in *Terakoya/Tenaraijo*.

Learning any foreign language, except Chinese, was unnecessary for most Japanese people, and even Chinese was introduced not as a communicative language but as a Japanese way of reading the Chinese text called *Kanbun*. As for language learning, the traditional *Kanbun* literacy method, which focused on reading aloud, rote memory and copying, has substantially influenced JEFLL teacher cognition to this day.

Just before the beginning of the Meiji period, a number of people who had become aware of what had happened in China or other Asian countries as a result of American or British

colonial interventions were afraid that some Western states might wish to invade and colonize Japan. An incident that caused particular consternation to many in Japan was the arrival in 1853 of Admiral Perry of the US to request it to open its ports to American ships. In accordance with this request, Japan came to realize that English was the most necessary foreign language for Japanese citizens to learn (e.g. Fukuzawa, 1978; Imura, 2003; Takanashi and Omura, 1975) as a means of introducing Western political, social and cultural systems and urgently finding ways of coping with these in order to maintain national status. However, although Japan decided to select English as the main foreign language for secondary students to learn, there were greatly insufficient numbers of English teachers and no effective teacher education that was fit for the purpose of training and educating them. In fact, in Japan, it became necessary to develop the entire teacher education system including that part of it which was responsible for the training and education of English language teachers as quickly as possible to follow the Western systems, especially in the areas of national policy, military and economic affairs. Those motives for introducing Western knowledge and skills would be likely to have an influence on JEFL teaching, including teachers' beliefs and ways of thinking.

2.5 Complex issues of EFL teaching and JEFL teachers

As already stated in Chapter 1, JEFL teachers are expected to aim to develop their students' personality first of all and then consider teaching English. This expectation of their role almost certainly influences the ways in which teachers and students think about what language learning involves. It means, for example, that English has been regarded as being within the discipline of liberal arts in particular or as representing a valuable type of academic study in relation to general knowledge, but not as being within the domain of the more specific knowledge and skills which will be of practical use to students in their future professional and vocational careers.

The basic schooling system and the number of teachers are summarized in the following Table 2.1. Among all the schoolteachers, the number of JEFL teachers was almost the same as the number of teachers of the Japanese language. There were 54,802 JEFL teachers in lower and upper secondary schools in total in 2005, of which there were 29,438 teachers in 10,118 lower secondary schools and 25,364 teachers in 3,795 upper secondary schools (MEXT statistic reports, 2006). The current numbers are almost the same, and it also means that JEFL teachers are one of the main groups of teachers in secondary education.

Table 2.1 Basic school data as of 2005

School type	School age	Student numbers	Teacher numbers
Primary (6 years)	6 to 12	7,197,458	416,833
Lower secondary (3 years)	13 to 15	3,626,415	248,694
Upper secondary (3 years)	16 to 18	3,605,242	251,408

Almost all secondary school students are required to learn English as a school subject in 3 or 4 classes a week at least for 5 or 6 years in secondary education, and the current education policy allows each upper secondary school to provide a variety of English curricula for students, and in particular curricula intended for preparing students for university entrance examinations.

When considering the roles of these three stages of schooling as set out above, Henry (2003) offers a word that is both informative and cautionary. She claims that 'Middle schools prepare children for the more serious academic instruction they will receive when they go on to high school, but they also attend to the development of the child as a whole person, aware that the ages of 13-15 are a crucial period of change' (Henry, 2003: 86). Another strain on the system is reflected in Okano & Tsuchiya's (1999) account of 'Inequality and Diversity' in the Japanese

educational system. This created a picture, not of a system providing equal opportunities for all, but of one in which poverty, gender, elitism, minority-group status and newcomers-to-Japan status were powerful factors associated with relative lack of success at school.

In other words, according to the accounts of Henry (2003) and of Okano & Tsuchiya (1999), Japanese society places distinct expectations on secondary schools from the European context, and the fierce competition for gaining entry to 'good' secondary schools or universities imposes considerable tension on the system overall which must have major implications for what JEFL teachers perceive their role to be. That is because English is one of the most important subjects in secondary school curriculum.

2.6 The start of teacher education in Japan in 1872 to establish *Eigo Kyoiku*

When the education law was enacted in 1872, the first normal school was established in Japan. This was the first step towards formal teacher education, following the governmental decision to introduce a western schooling system, such as the American or European style of schooling system. Japan introduced a mainly US-modeled teacher education system, and teacher trainers from the US taught Japanese teacher trainees in English. The government considered that education was a primary area for policy development, if the country was to match up to Western civilization as soon as possible. Teacher education was thus an urgent demand. As a result, Japan made rapid progress towards almost equal positions with western countries in terms of national forces, industries, and basic education.

A substantial number of western people were invited to provide western systems and technologies, and English was the most important language. Teacher education was therefore necessary and important with respect to national development, and English became an educational and working language even in teacher education or in learning other professional

knowledge and skills. Mori Arinori, the then Minister of Education, went so far as to suggest that Japan should employ the English language as its official language (Okubo, 1972; Suzuki & Kawazumi, 1978; Takanashi & Omura, 1975). However, as Japan developed its educational system and cultivated an increasing number of Japanese teachers possessing sufficient knowledge related to their target subjects, the Japanese language came to be the working language for many secondary schools (e.g. Imura, 2003). Gradually a significant number of Japanese teachers of English started to work in secondary education as well, and they made efforts to develop curricula, syllabuses and textbooks of their own.

As Japan came to develop its own coherent systems for teaching English, the traditions of JEFL teacher education were also established as differing from European traditions of language teaching and LTE (e.g. Omura et al., 1980). Briefly surveying the history of JEFL teacher education, it was realized that English was the most significant language for introducing knowledge and skills relevant to the modernization of Japan, and JEFL teacher education focused on western knowledge and skills from the very beginning. The law of 1872 thus played a major role and pulled the trigger in shaping Japanese school teachers' basic beliefs, and in the case of JEFL teachers the concept of language teaching was strongly related to teaching English for knowledge of vocabulary, grammar, reading, and translation and also for knowledge of western cultures but not for the development of everyday communication skills.

2.7 Consolidation of the main role as the schoolteacher

In the Meiji period (1868-1912), when Japan improved itself rapidly, a number of political leaders, such as Fukuzawa Yukichi, Nishi Amane and Mori Arinori, regarded foreign languages, especially English, as important and, in the same spirit as the Minister of Education already referred to, debated whether or not English should be an official language

of Japan (e.g. Suzuki & Kawazumi, 1978). As western civilization was gradually assimilated into Japanese society, the necessary knowledge and skills relating to the western political, social and economic systems were translated and provided in Japanese, on the grounds that most Japanese people did not understand English. At the same time, there was understandably a perception within Japanese society of an increased need for English, and this inevitably led to an increased demand for more JEFL teachers.

During this same period, the concept of EFL teacher certification was not yet established. This meant that those who had learned English and graduated from university were able to become a teacher of English at secondary school, even if they did not graduate from the higher normal school which was designed for the education and training of secondary school teachers. Tokyo Higher Normal School opened its English department in 1898 and a number of government-authorized or -approved English textbooks came to be published in the 1890s. The teacher education system or curriculum for English teaching as a subject in secondary education was more or less established by 1912. However, it must be noted that secondary education in those days was still part of elite education and only a minority of Japanese people learned English, compared to the present situation.

English was gradually regarded as an academic subject in secondary education and became an important qualification to gain entry to higher education. An implication of this was that the purpose of learning English was not mainly focused on introducing western knowledge and skills or communicating with people from other countries, but rather on the acquisition of academic or scholastic knowledge to study in higher education. The simultaneous spreading of English teaching and learning and the increasing number of JEFL teachers (Imura, 2003) contributed to an archetype of English teaching in secondary education which has been constructed on the implicit national education policy aiming for the cultivation of scholastic aptitude, part of which originates from the traditional Japanese philosophy, such as

Confucianism, Buddhism and Shintoism¹⁰. Many Japanese people think that the scholastic aptitude is strongly related to memory power and exam knowledge, discipline of mind and body, and harmony with environment and society. The fact that this powerful archetype is hidden and implicit may therefore influence JEFLL teacher cognition in ways that cannot easily be changed.

The role of the schoolteacher was regarded as politically or socially important by the government so as to underpin Japanese imperialism concentrating on the emperor when *Shihan Gakko Rei* (師範学校令) or the Normal School Act was enacted in 1886. Article One stated that:

師範学校ハ教員トナルヘキモノヲ養成スル所トス但生徒ヲシテ順良信愛威重ノ氣質ヲ備
ヘシムルコトニ注目スヘキモノトス (The normal school aims to cultivate teachers who
should have dispositions of being good and obedient, being devoted, and being
dignified). [translated and underlined by the author]

The above-mentioned basic policy assumption originated with the Minister of Education at that time, Mori Arinori, and continued to regulate schoolteachers' work in primary and secondary education for years afterwards in Japan. His original ideas were later developed and incorporated into *Kyoiku Chokugo* (教育勅語) or the Imperial Rescript on Education (1890). The above underlined phrase 'dispositions of being good and obedient, being devoted, and being dignified' was especially influential on what schoolteachers should think, know,

¹⁰ These three ideologies have influenced Japanese culture and thinking for many centuries. It seems that even today they may still be exercising some influence on Japanese people's thinking and emotion. Confucianism is a philosophy which suggests to people how they might conduct their lives so as to achieve true fulfillment in the service of society; Buddhism is the main religion in Japan and encourages generosity of spirit, support, care and attention; while Shintoism, as practised by the many Japanese who visit the Shinto shrines in different parts of Japan, is closely related to Japanese notions of identity and purity of heart. All three of these may be considered to exercise spiritual influence on JEFLL teachers' cognitions in respect of Eigo Kyoiku and in particular to highlight the concept of all JEFLL teachers as having a prior responsibility for nurturing their students' whole person development.

believe and do.

Mori believed that schoolteachers should be ‘the priests of education’ or ‘slaves of education,’ and stated that: ‘己ノ言行ヲ以テ生徒ノ儀範トナル (schoolteachers should be role models for their pupils and students by showing what they do themselves [translated by the author])’ (cf. Mizuhara, 1990; Morikawa, 1990). In the 1910s almost 100 per cent of children went to primary school and the number of primary teachers was approximately 150,000. The need to educate schoolteachers was then increasing rapidly and the roles of schoolteachers became gradually more complex and more problematic than at the first stage of teacher education.

The purposes of teaching and learning English in secondary education were debated among a number of leading English language scholars and educationists. Sawayanagi Masataro, the then leading educator or educationist contributed greatly to English teaching in Japan by inviting Harold E. Palmer as an adviser on English. Sawayanagi was concerned by what he considered to be educational stagnation arising from the rapidly increasing number of Japanese schoolteachers who were not fluent in English. He also presented his contention regarding the main roles of schoolteachers (Sawayanagi, 1895, 1906, 1908) as in the following summary: Teachers were required to provide their students and pupils with the national values of devotion and affection, although it was natural that they were the leaders of their own classrooms and their main work had to focus on students or pupils. Sawayanagi’s ideas on the schoolteachers’ role accordingly supported the earlier rationale and were highly influential on what schoolteachers should do at school. Even JEFLL teachers were required to educate their students based on the principles of *Kyoiku Chokugo*. Such a fundamental disciplinary idea has survived more or less intact up to now and includes the ways in which the role of schoolteachers is perceived in Japan today (e.g. Mizuhara, 1990). As such, in the 100 years since Sawayanagi established the basic conception for teacher education in Japan, there appears to have been little or no stimulus coming from within the national policies on

teacher education that would encourage JEFLL teachers to modify and develop their underlying system of values and beliefs.

2.8 Foreign language teaching to exclusively signify the English language

As stated above, the term 'foreign language' is considered to mean the English language by many people in Japan. This is because Japan first recognized the importance of the English language and the necessities of American and European civilizations, especially when it intended to cope with the outer world in the beginning of the Meiji period or in the 1870s. It did not totally neglect other European languages such as French, German and Russian, but these played a minor role in Japanese priorities when compared with English. French and German became the second or third foreign languages, but the Dutch language, which officially had been recognized as the main foreign language in the Edo period, was almost completely abandoned, to be replaced by English.

There were a number of persons who contributed in influential ways to the development of English language teaching: e.g. Ranald McDonald, Nakahama Manjiro, and Fukuzawa Yukichi (e.g. Imura, 2003). Fukuzawa Yukichi was especially acknowledged as one of the founders of English-language teaching and learning as well as being one of Japan's leading educators or 'enlighteneers' (Goto-Jones, 2009). He greatly contributed to educational thinking as a whole as well as to English studies in Japan (Fukuzawa, 1899). Fukuzawa did not work for the government but made political recommendations as an educated civilian 'to catch up with the West in order to survive in the modern system of international relations' (Goto-Jones, 2009: 50), while establishing a private university in Japan. His achievements for civilization and enlightenment may have lent further support to the high status accorded to the English language.

There is a Japanese word, *Gaijin* (外人) meaning foreign people or aliens, which generally

refers to a person who comes from a foreign country (except Asian countries) and who speaks fluent English. Many Japanese people tend to think that most *Gaijin* speak English because of the diffusion of English teaching, even if in fact they are foreigners with a first language that is not English. However, such confusion between foreign languages and English can produce many types of side effects in current Japanese society. For instance, many people tend to adore American pop culture and Caucasian-type people. English is a 'cool' language for many people, so that they tend to use English loan words, such as '*Kyanpasu*' for campus and '*Ibento*' for event, as brand-new Japanese expressions. English words and the English writing system have already invaded many fields of the Japanese language and society (Sasajima, 1996, 1997, 1998, 1999). The policy to highlight English has not been changed for more than 140 years in Japan, although in fairly recent times there has been some criticism of the 'English only' language policy in Japan (e.g. Nakamura, 2004; Oishi, 1990; Suzuki, 1999; Tsuda, 1990). Japan has a longer tradition of teaching English compared to other Asian countries.

2.9 Two distinct and influential EFL teaching approaches: *Seisoku* and *Hensoku*

In the 1870s at the beginning of the Meiji period, English was taught to a limited number of selected or elite students by NES teachers. Gradually, as there were growing numbers of students, more JEFLL teachers began to teach English to students in an approach which made much use of Japanese as well as English. In ten years there were a substantial number of JEFLL teachers who could teach English. Two different types of English teaching classrooms thus came to be provided: *Seisoku* (正則) (literally meaning 'the regular method') and *Hensoku* (変則) (literally meaning 'the irregular method'). *Seisoku* referred to a lesson provided by an NES teacher who taught English through English, and *Hensoku* meant a lesson provided by a

JEFL teacher who taught English through Japanese and exclusively focused on grammar and translation (e.g. Takanashi & Omura, 1975). These two terms are not being used in the current technical vocabulary of ELT in Japan, but their implicit influence may still be alive in the cognitions of JEFL teachers.

In view of the increasing demand for ELT, Japan introduced several kinds of language teaching methods, including those focusing mainly on oral and aural activities in the classroom, such as the Direct Method and the Berlitz method (e.g. Takanashi & Omura, 1975). However in those days, English learning needs were varied, and *Seisoku* and *Hensoku* English teaching approaches were both based on teachers' beliefs as well as on learners' needs and societal values. In *Hensoku* classrooms, although learners might not have useful oral practices or attain desirable oral communication skills, they were able to accumulate an appropriate knowledge of grammar and vocabulary on the basis of support from their mother tongue Japanese and the necessary knowledge and skills of reading and translation (e.g. Takanashi & Omura, 1975).

Even in the current English classrooms in secondary education, many JEFL teachers to some extent at least follow *Hensoku* or the traditional approach to meet the needs of learners as well as to complement their insufficient English knowledge and skills. Today as ever, the MEXT still encourages JEFL teachers to make use of English in the classroom, as shown in the revised Course of Study for upper secondary education that was issued in 2009. This followed a series of projects, such as the JET (Japan Exchange and Teaching) programme¹¹ since 1987 and the project of Super English Language High Schools (SELHi) in the Action Plan from 2003 to 2008. In addition, *Teamteaching* (Brumby & Wada, 1990; Wada & Cominos, 1994), in which ALTs or part-time NES teachers teach English together with JEFL teachers in the classroom, has been popular in primary and secondary schools. The practice of

¹¹ retrieved June, 2012 from the JET website at <http://www.jetprogramme.org>

employing ALTs may be based on the belief that ALTs can teach better than JEFLL teachers (e.g. Yamada, 2005a).

However, these top-down governmental actions do not appear to have made much of an impact on the traditional English teaching system which originated from the *Hensoku* approach. An underlying reason may be that JEFLL teachers still hold on to traditional beliefs that *Hensoku* remains effective in the English teaching context in Japan – and that is one of the reasons why JEFLL teachers' cognitions are central to the present study.

2.10 The purpose of *Eigo Kyoiku*: educational or practical

Since Okakura Yoshisaburo coined the term *Eigo Kyoiku* (Okakura, 1911), the purpose of teaching English has been long debated as a controversial issue: whether English should be taught for educational (cultured or related to liberal arts) or practical purposes (Fukuhara 1958; Hiraizumi & Watanabe 1975; Okakura 1911; Ozasa 1995; Suzuki, 1999). The debate arising from *Eigo Kyoiku* is still ongoing and rather complex in secondary and tertiary education for JEFLL teachers, and the purposes of teaching and learning English have not really been clarified even today.

When using the term *Kyoiku* in Japan, it can highlight intellectual, moral, ethical and social instruction for pupils or students, covering the whole person, and not just to impart knowledge and skills (cf. 1.1). Personality development (stimulated by collaboration as a member of a range of different social groups) has been regarded as important in all kinds of school subjects. Many JEFLL teachers have therefore thought that English classrooms should also have objectives related to human development or whole person development, such as morals, ethics, peace, friendship, collaboration, human rights, and enlightenment. Harold E. Palmer encountered English teachers' inherent beliefs of this sort when he was working as an advisor in Japan from 1922 to 1936 (Ozasa, 1995).

In order to clearly understand *Kyoiku*, it is necessary to do an overview of teacher education in terms of its educational or language policy. As I described in 2.1, community schools called *Terakoya* or *Tenaraijo* in the Edo period played an important role, aiming to educate not simply a person of virtue but a person of learning and of socially adequate manners based on Confucianism or *Jukyō* (儒教), which aims for the cultivation and maintenance of human virtue and ethics. On the other hand, the feudal domain school, *Hanko* provided *Bushi*-class children with lessons about Confucianism, Chinese classics, martial arts, mathematics, medicine, astronomy, foreign languages and military studies. Both schooling systems became the basis of the modern educational system. However, *Gakusei* (学制) or the Education Law (established in 1872) did not follow all the previous schooling systems. It criticized the Confucian ideas for being unnecessary and useless as a means of enabling Japan to be well developed and westernized politically, militarily, and economically, since Japan had to take in Western systems and knowledge as rapidly as possible and cope with Western industries (e.g. Karasawa, 1955; Mizuhara 1990). Accordingly, Confucianism was officially excluded in the schooling system.

Regarding the actual English language needs of Japanese secondary students, Okakura pointed out that ‘it was beyond any dream that any secondary students in Japan could have so many chances to directly communicate with Westerners in English’ [translated by the author] (Okakura 1911: 37-38), and he suggested that *Eigo Kyoiku* should respect both practical and educational values, and English teachers should focus on cultivating English reading skills in their classrooms. However, a large number of English teachers exclusively taught their students knowledge of English through grammar quizzes, translations and reading content, or taught them background knowledge of the culture, civilization and history of English-speaking countries, although Okakura himself also understood that Japanese learners’ future goals would have to include practical aspects such as being able to

communicate in English for a range of personal and professional purposes. Nonetheless, since Okakura presented his concept of *Eigo Kyoiku* in 1911, the purpose of teaching English at secondary school in Japan has focused more on educational rather than practical purposes. Whether for good or for ill, *Eigo Kyokiu* almost certainly exercises a continuing influence on the thinking of JEFLL teachers even to this day.

2.11 *Eigo Kyoiku* for educational values

In Japan, ever since formal education began, educational values have been regarded as centrally important even when just teaching English in the classroom. It seems that these educational values of English teaching were reinforced by the advent of the examination system as a means of qualifying students for entry to higher education in the Meiji period. In this sense, academic English knowledge and skills, such as vocabulary, grammar, literature and translation, have been highly important for students to pass the entrance examination for their future financial success (cf. Goto-Jones, 2009), while communicating in English in real situations has been ignored as unnecessary to teach in secondary education. Teaching English for educational values thus seems to have a strong connection with needs for English knowledge-based examinations.

One of the most influential English teachers or scholars, Fukuhara Rintaro, presented his thoughts on English for educational values. Imura (2003: 280-281) summarized Fukuhara's argument as follows:

- 1) *Eigo Kyoiku* is a national issue.
- 2) English teachers educate students through *Eigo Kyoiku*.
- 3) *Eigo Kyoiku* can be an introduction to foreign cultures to reflect on Japanese culture.
- 4) English for practical values should not be ignored.

Fukuhara argued against what he considered to be a predominantly mechanical training approach to English teaching provided by Palmer, who had come to Japan and encouraged his teaching method called the Oral Method. Fukuhara also used the term *Eigo Kyoiku* as Okakura did, although their viewpoints were slightly different; cf. in Fukuhara's case, the emphasis was on learning about foreign cultures in order to study more about Japanese culture. Their fundamental concepts of *Eigo Kyoiku*, however, have undoubtedly influenced a large number of JEFLL teachers' cognitions.

JEFLL teachers may have thus developed their own collective conceptions for education, which I assume can be structured through their thought processes in relation to the traditional education background in Japan. JEFLL teachers' emphasis on educational values is still alive in many aspects of EFL teaching in the classroom.

2.12 *Eigo Kyoiku* for practical values

The concept of *Eigo Kyoiku* for practical values provided by Okakura (1911) was essential and basic, but the fact was that most Japanese learners of English did not achieve the practical goals to be able to communicate in English to the extent that he had wished. In those days, as distinct from the world today, English or other foreign languages were unnecessary for people to speak, if they lived in Japan. As Fukuhara said, it was certain that English learning was then largely a means of introducing most learners to an understanding of the cultures and ways of thinking in other countries, especially the Western world.

Fukuzawa, on the other hand, realized that English was already used as a business language or a lingua franca in Asia those days and he established a private English school called *Keio Gijyuku* in 1868 for fear that Japan would be left behind internationally (Fukuzawa, 1898). Since the establishment of that school, many private language schools

have been opened, and they have created a tradition of ELT in Japan that is different from teaching English in the formal education system. There was thus born a Japanese term, *Jitsuyo Eigo* (実用英語) meaning ‘practical English teaching’ and it has become a sub-stream of ELT in Japan (e.g. Imura, 2003). By contrast, learning English in the formal education system at university gradually came to constitute an academic field called *Eigaku* (英学) (English Studies), which focused on English literature and linguistics. Teaching English for practical purposes did not earn much respect in English Studies, mainly because of the perceived lack of practical needs, and English teachers who were interested in practical English teaching tended not to belong to the mainstream of English education in Japan (e.g. Imura, 2003; Takanashi & Omura, 1975).

From the perspective of LTE in Japan, English teacher education has placed too much emphasis on English studies, although there has been a long debate on whether English should be taught for academic/educational or practical purposes (e.g. Hiraizumi & Watanabe, 1995; Imura, 2003; Okakura, 1911; Takanashi & Omura, 1975). For instance, those who graduated from university and studied English were able to teach English in fact because they had sufficient knowledge about English, especially literature and linguistics. Okakura, on the other hand, had different assumptions regarding ideal foreign language teacher development (Okakura, 1911: 204-211): i.e. JEFLL teachers ideally should maintain an appropriate level of English language communicative proficiency as well as linguistic and cultural knowledge, in order to provide effective teaching in the classroom, as well as further developing their actual knowledge of English language vocabulary and grammar and fostering a spirit of research which would help them to monitor their own teaching. His idealistic assumptions are still favoured by many in *Eigo Kyoiku* and have been influential on many aspects of JEFLL teacher education, but the practical realities are different.

Regarding what JEFLL teachers should teach, Okakura (1911: 38-45) stated that they had

only to teach basic knowledge and skills of English, especially reading skills, to their students while aiming to develop well-educated, cultivated people. His original ideas seemed to be transformed and misunderstood afterwards, and accordingly educational values of teaching English have been emphasized in secondary education (e.g. Fukuhara, 1948; Hiraizumi & Watanabe, 1975; Takanashi & Omura, 1975; Tanabe, 1990). However, Japan has not yet established a practical preservice teacher education system (e.g. Report of the MEXT Panel to Promote Revisions in ELT, 2001).

2.13 No specific teacher standards or goal settings on JEFLL teacher cognition

JEFLL teachers have had access to some local standards or disciplinary guidelines on how to function as schoolteachers. In other words, it would not be an over-statement to claim that schoolteachers have been provided with particular ethical and attitudinal guidelines based on personal beliefs rather than on research evidence. The first specific instance of this was Article One of the Normal School Act in 1897, which demonstrated the dispositions of being good and obedient, being devoted, and being dignified (Mizuhara, 1990). These guidelines were in fact too strict and idealistic for schoolteachers to incorporate into their belief systems and their actions, because the dispositions were closely linked to the promotion of imperialism. In any case, these regulations on schoolteachers have not been in force since 1945, when the old imperial system was abolished.

Although there are no explicit regulations or standards on how schoolteachers should conduct themselves at school, there have in fact been some tacit standards or guidelines provided in each educational district or local school. It is probable that these hidden standards may have been created based on teacher beliefs or assumptions that are closely related to idealized English teacher models: e.g. English teachers should make efforts to teach correct

knowledge in terms of English pronunciation or English teachers should use English in the classroom. The problem is that a variety of beliefs or assumptions are individually developed by each influential English teacher and they are all active as standards in his or her own thought processes (e.g. Imura, 2003; Takanashi & Omura, 1975; Yanbe, 2005).

Before 1945 the teacher education system was very hierarchical with some higher normal schools at the top of the hierarchy. Graduates from Tokyo Higher Normal School and Hiroshima Higher Normal School, which were the two most prestigious institutions, had strong networks of influential alumni, and each normal school in each local district had its similar networks. All teachers were thus incorporated into a prestigious or local community network, and were obliged to support the imperialistic ideal in Japan. There was therefore strong criticism that schoolteachers formed a highly closed special society which endorsed their highly conformist and conventional teaching practices. Although the normal school system was abolished after World War II, Japan did not adopt a standards-based teacher education system or develop any practical/school-based teacher education programmes (cf. Mizuhara, 1990).

2.14 Less systematic teacher education and its estimated effects on JEFL teacher cognition

Since the implementation of a non-professional or 'open market' teacher education system, there have been no serious teacher shortage or teacher retention problems, although some teachers have been criticized as being inappropriate or malfunctioning (Report of the Central Council of Education, 2006). In the light of this, it is conceivable that not only teacher education policies or standards but also teacher education systems may be considered to be less than satisfactory in Japan.

The unsatisfactory nature of JEFL teacher education is summarized as follows (Ishida et al.,

2003; 2004):

- Certification systems of English language proficiency lack clarity and specificity.
- The teacher education course content is inappropriate for practical EFL teaching.
- Standards of JEFL teacher evaluation are not clear.
- The qualification for becoming a JEFL teacher educator is insufficiently practical.
- There is poor collaboration between teacher educators and schoolteachers in terms of teaching English.
- There are multiple implicit (as opposed to explicit) standards for JEFL teachers or their teaching.
- JEFL teacher education policy is characterized by vagueness and lack of focus.

The current preservice JEFL teacher education is thus considered as insufficient or incomplete, in that it does not cater appropriately for the goals of teaching and learning English (MEXT Action Plan to Cultivate Japanese with English Abilities, 2003). In addition, it is to be noted that there are criticisms against the market-oriented nature of the teacher education policy (e.g. Otsu & Torikai, 2002; Otsu, 2005). For example, there is actually no systematic preservice teacher education programme for teaching English at primary school, and the current MEXT plan seems to rely for the moment mainly on current primary teachers, ALTs and English teaching volunteers. Moreover, not only in primary education but also in secondary and tertiary education, Japan has legitimized a non-professional or non-specialist teacher education policy in terms of EFL teaching.

The approach which is currently in place rests on the assumption that masters can teach apprentices (e.g. Imura, 2003; Takanashi & Omura, 1975). However, many JEFL teachers are lacking in confidence (Ishida et al., 2002; West, Jarchow & Quisenberry, 1996). This is partly

because those who have not completed a training programme may still be eligible to teach English by a special dispensation without any formal teacher education. One of the biggest problems in preservice teacher education is its neglect of the importance of subject teaching in real classroom settings and its disregard of the need to have professionally qualified and competent teacher educators (Chuo Kyoiku Shingikai Toshin, 2006). In short, the unsatisfactory nature of JEFLL teacher education (both preservice and in-service) is likely to have an adverse effect on the nature of the cognitions which JEFLL teachers develop in relation to their role as schoolteachers.

2.15 Problems in the current in-service teacher education system

These days an increasing number of ELT programmes are given to primary teachers who need to be engaged in teaching English in their classrooms. Moreover, in-service teacher education programmes for EFL teachers in tertiary or adult education have also been provided on a private basis or as faculty development activities, but it is not clear how effectively they are working. It seems that JEFLL teacher education does not function as a coherent LTE system.

The system guidelines provided by the MEXT do not all focus on subject knowledge and skills but require state primary and secondary schools and teachers to do as follows:

- the one-year induction teacher education programme for newly employed teachers
- the fifth-year teacher education programme (to reflect on the first 5 years of teaching)
- the tenth-year teacher education programme (to enter into proficient teacher community)
- other voluntary programmes including one-day programmes or project-based programmes (e.g. ICT skills, task-based learning, and materials development)

For JEFLL teachers, almost all in-service teacher education programmes are concerned with general education topics and practical schoolwork, such as pastoral care and career education. In addition, although a few of these programmes are related to English language or teaching methodology, there is no provision of quality assurance, and programmes are not always monitored, reviewed, assessed or evaluated by the authorities. This is because there had been historically long-standing conflicts between the Japan Teachers Union and the Ministry of Education (the current MEXT) for some 30 years since 1945, when teachers' autonomy or independence was respected to some extent. Accordingly, it is possible that in-service teacher education has not functioned coherently or systematically, which may have limited its possible benefits for JEFLL teachers.

In 2003 the MEXT presented its Action Plan to provide compulsory intensive teacher education programmes for all JEFLL teachers. They were required to participate in the programme once from 2003 to 2008. The purpose of the Action Plan was to improve the teaching ability of English teachers and to upgrade the EFL teaching system. It stipulated that almost all JEFLL teachers should acquire appropriate English proficiency to levels which reflected three English tests as in pre-first level for STEP, 550 or over on the TOEFL-ITP, and 730 or over on the TOEIC, whose scores are almost equivalent to CEFR level B2. The aim was to ensure an improved teaching ability through the promotion of English communication skills in order to make greater use of English in the classroom (MEXT Action Plan to Cultivate Japanese with English Abilities, 2003).

Ishida et al. (2002) set out their view of JEFLL teachers' needs with regard to in-service teacher education activities. They argued that JEFLL teachers needed more individual or independent training opportunities, more classroom observations, and more support for participation in courses overseas, particularly in English-speaking countries. Sasajima (2002:

235-236) also suggested in addition to the aforementioned research that ‘JEFL teachers should be supported socially and financially’ and presented a number of discussion points on these issues:

- more opportunities for JEFL teachers to participate in overseas programmes
- flexible working conditions for JEFL teachers to allow them some degree of release from school in order to participate in courses
- specific standards for JEFL teachers’ professional knowledge and skills
- specific standards for students’ target attainments
- better CPD for JEFL teachers
- skillful teaching to be respected and focused on in JEFL teacher education courses

The current in-service teacher education system accordingly does not satisfy all JEFL teachers in terms of teacher education contents as well as the range it covers, although some systems are apparently functioning properly.

2.16 JEFL teachers’ language awareness, aptitudes, personalities, and motivations

Like any other language, the Japanese language is not just a language for the communication of factual information, but it also has a strong emotional or affective component, as described in the Japanese expression *Kotodama* (言霊) (spiritual power of words). The Japanese language, which is often called *Kokugo* (国語) (the national language), has been taught as the mother tongue in primary and secondary education since the education system started in Japan in 1872. Teaching *Kokugo* is strongly related to a Japanese mentality and sense of identity. *Kokugo* has its own distinct traditions and has been viewed very

differently from the teaching and use of other languages, and has thus been separated from English which has been the dominant foreign language since Japan was modernized in the 1860s (e.g. Imura, 2003; Takanashi & Omura, 1975). Both language teaching traditions (i.e. for Japanese and for English) have a different way or approach regarding language awareness and practicality, although they have been taught to almost all students in secondary education.

Regarding the Japanese language as *Kokugo*, the Course of Study encourages pupils and students to have the attitude of respect to the Japanese language but does not refer to any other languages. As such, Japan differs strongly from the Council of Europe to promote the notion of ‘une compétence plurilingue’ (one plurilingual competence) (cf. Coste, Moore & Zarate, 2009), which assumes that there exists in every individual one strategic meta-competence governing the functioning of all of the languages the individual possesses. Plurilingualism represents that ‘Individuals develop competences in a number of languages from desire or necessity, in order to meet the need to communicate with others’ (Coste, Moore & Zarate, 2009: 17).

In addition, another characteristic of primary and secondary education in Japan has been considered to be the concept of human development even in English classrooms. Although it is basic to cultivate rich human nature in education in any country, secondary schools in Japan have additional activities which complement teaching subjects in the classroom in many cases: for example, *Shin-Eiken* (New English Teachers' Association) activities may be prominent. ‘*Shin-Eiken* was founded in 1959 inspired by the ideals – peace, democracy, pursuit of happiness freedom and justice – of the Constitution of Japan (1947). The aim of *Shin-Eiken* is to create and develop a new English education that is properly rooted in democracy.’¹² Likewise, JEFLL teachers are requested to have a good aptitude to educate

¹² retrieved December, 2010 from http://www.shin-eiken.com/about/index_e.html

students, a desirable personality to take care of them, and appropriate motivation to communicate with them in all school activities.

When teacher applicants apply for the teacher employment examination in order to obtain a full-time teaching post in a state secondary school, their personal qualities are taken into account as very important factors for passing the examination and gaining entry to the profession of school-teaching. Teacher recruitment is provided by each local board of education and in different educational districts, using selection criteria which vary from one district to another. This means that the assessment criteria can be variable and are sometimes not systematic. Schoolteachers' working conditions are regulated by law, as they are civil servants, but their teaching work is not directly coordinated or controlled. Some traditional assumptions about a 'good' teacher, such as an ideal master model of teacher or a teacher as a sacred profession, still have been highly influential in teacher education programmes. There have been a number of highly regarded JEFL teachers so far, who are generally good speakers of English, can manage their classrooms, and can educate their students through teaching English. However, there is not a great deal of exemplification of this, and what is available does not illustrate the full range of their teaching skills.

2.17 *Uchi* (inside or interior) and *Soto* (outside or exterior) in *Eigo Kyoiku*

Possibly because of Japan's historical isolation, many Japanese people consider that Japan is a unique society and the Japanese language has its own distinctive set of cultural meanings (e.g. Dale, 1990; Downes, 2001; Sugimoto, 2003). There can be considerable difficulties in achieving exact translations between languages. In teaching English, for example, many JEFL teachers may be required to cope on their own with a range of different teacher assumptions which are presented from a number of reputed English teaching methods or approaches (e.g. Ito, Shimomura, Watanabe, Ito & Seki, 1995; Tanabe, 2003; Takanashi &

Omura, 1975; Yambe, 2005). The notion of *Eigo Kyoiku* has gradually changed by absorbing ELT ideas, but it does not always make sense. Many JEFLL teachers may feel dilemma in its distinctive conceptions between the inside and outside of Japan.

On the evidence available to me before conducting my present study into JEFLL teachers' cognitions, I felt justified in making a starting assumption that the conceptions of *Uchi* (内)(inside or interior) and *Soto* (外) (outside or exterior) have not been successfully integrated to form one dynamically evolving coherent system. Double codes, such as *Uchi* and *Soto*, which may sometimes be referred to as *Honne* (本音) (true feelings or desires) and *Tatemae* (建前) (behaviours or opinions in public), are legitimized in many spheres of Japanese life including JEFLL teacher culture. Sugimoto (2003: 29) explains *Soto/Uchi* as follows: 'In the context of human interaction, while *soto* aspects of their individuals or groups represent their superficial outward appearances, their *uchi* facets account for their fundamental essence and real dispositions.' It may be the case that some JEFLL teachers have largely accepted the international or *Soto* ideas and used these to replace the Japanese *Uchi* traditions; while other teachers may have been largely resistant to the *Soto* ideas and have preferred to maintain a strong allegiance to the *Uchi* tradition; while others yet again have accepted some *Soto* ideas but not all, with the consequence that within their minds there exists a relationship of unresolved tension or even contradiction between *Soto* and *Uchi*. In LTE, such complex and discrepant traditions are likely to exercise an influence on JEFLL teachers' cognitions.

The legitimization of double codes seems necessary as a means of helping JEFLL teachers to achieve some balance or harmony in their complex and highly stressful teacher culture. I have been working as one of JEFLL teachers and JEFLL teacher educators and also have to conform to such traditional ways. I assume that the double-coded conceptions of *Uchi* and *Soto* can represent JEFLL teachers' complex cognitions most appropriately, since I myself have

experienced such dilemma while teaching English in the classroom. *Eigo Kyoiku* is not appropriately translated into English and the double-coded conceptions of *Uchi* and *Soto* cannot be inside (interior) or outside (exterior). As a researcher in the present research, I have been trying to see both aspects of double codes as much as possible.

2.18 Principles of the Course of Study having affected JEFLL teachers' cognitions

In primary and secondary education in Japan, the Course of Study regulates the specific curriculum that each school provides for students. It presents the following overall objectives of foreign languages in lower secondary education¹³.

To develop students' basic communication abilities such as listening, speaking, reading and writing, deepening their understanding of language and culture and fostering a positive attitude toward communication through foreign languages.

JEFLL teachers statutorily not only have to follow the Course of Study when teaching in the classroom, but also are required to use MEXT-approved English textbooks in the classroom. It follows that many JEFLL teachers do not necessarily read or understand the Course of Study to teach, but instead they can comply with the Course of Study by just following the textbook syllabus.

The objectives of English teaching at each school can be set in accordance with the Course of Study. However, many JEFLL teachers realize that these objectives cannot be achieved effectively in real classrooms and are actually neglected as meaningless. Some JEFLL teachers

¹³ retrieved from July, 2012 from the MEXT website at http://www.mext.go.jp/component/a_menu/education/micro_detail/__icsFiles/afieldfile/2011/04/11/1298356_10.pdf

make efforts to let their students speak, discuss or debate while considering their students' readiness for English proficiency levels (e.g. Harada, 1991; Kageura, 2001; Matsumoto, 1999; Nakashima, 1997; Takashima, 2000). Others by contrast may not consider it important to help students develop their communicative proficiency in English, but instead focus on English knowledge as provided in the textbooks or as necessary for the tests. JEFLL teachers can choose their own teaching methods aiming for different goals with different content. It is therefore worthwhile in the present research to seek to understand what kinds of factors influence JEFLL teachers' cognitions and how the nature of their cognitions is related to the English curriculum in the Course of Study.

2.19 The case for a specific language policy to help develop JEFLL teachers' cognitions

Language policy has been considered by many international experts to be an important component of state policy (Alexander, 2003; Beacco & Byram, 2003; Lo Bianco & Crozet, 2003; Spolsky & Shohamy, 1996). Many countries implement their own language policies to cope with global and multi-lingual societies. Language policies may not focus simply on the official or national language(s) of a particular country plus one major foreign language, but may also embrace a number of languages and promote concepts such as bilingualism or trilingualism, community languages, foreign languages and minority languages (e.g. Citizens of a Multilingual World, 2000). Although language policy is usually limited to a state or a country, both the Council of Europe and the European Commission have promoted broader policies regarding language education at a transnational level within Europe¹⁴. Multilingual policies of this sort have much to commend, but nonetheless in many countries (including those in

¹⁴ retrieved May, 2011 from the Council of Europe language education policy at http://www.coe.int/t/dg4/linguistic/Division_EN.asp

Europe), English increasingly assumes the role of the dominant language of international communication for many people in many different fields (Crystal, 1998, 2003, 2006; Kachru, 1990; Widdowson, 1997).

Compared to the European Commission's Action Plan for Languages (see *Report on the implementation of the Action Plan "Promoting language learning and linguistic diversity 2004-2006,"* 2003), Japan seems to lack a specific language education policy and indeed seems to be moving in the opposite direction from Europe. A number of Japanese language scholars and linguists argue strongly for the importance of teaching Japanese and oppose early English learning mainly due to the influence of children's cognitive development and the lack of teacher education (e.g. Otsu, 2006; Otsu & Torikai, 2002; Torikai, 2006), and it may also be the case that some or even many Japanese people do not care much about learning other languages including minority languages. It must be noted that Japan apparently does not have its own specific language education policy or engage seriously with the notion of multilingual and multicultural societies, despite the fact that there are increasingly some multilingual communities even in Japan as well as many countries. According to MEXT statistics (2010)¹⁵, 28,511 students whose first languages are mainly Portuguese, Chinese and Spanish needed to learn Japanese as a second language in primary and secondary schools. Nonetheless, there are now some signs of change, and some initial moves towards the establishment of a specific language policy in Japan (e.g. Koike, 2004; Yamada, 2003).

Although the linguistic and cultural situations are considerably different between the UK and Japan, Trim's (1999: 17-18) suggestions in terms of rethinking language policy in the UK have a general relevance beyond the UK: 1) the development of communicative abilities in education; 2) the development of a young person's communicative abilities; 3) education for

¹⁵ retrieved June, 2012 from MEXT statistics at http://www.mext.go.jp/b_menu/houdou/23/08/_icsFiles/afieldfile/2011/12/12/1309275_1.pdf

communication; 4) many disciplines; 5) applied linguistic theory and empirical research; and 6) a common resource center for language in education (e.g. CILT in the UK). He also claimed that teacher education has a key role to play. They might well prove effective in Japan as well when conceiving and then implementing its language policy.

Spolsky (2005) also suggests four principal factors in determining the language policy of a nation: 1) the sociolinguistic situation; 2) the national ideology (which may be related to monolingualism); 3) the existence of English as a world language; 4) and notions of language rights. Japan is located in Asia, so that it should take Asia into special consideration.

Tanabe (2003: vii) understood English as having a key transnational role in East Asia and stated that 'Moreover, English today serves as the language of friendship to promote international cooperation. I sincerely hope that language policies and practices carried out in East Asia will provide the world with opportunities to think about English as the language of peace and good will for all.' As a consequence, the present thesis seeks to understand JEFL teachers' cognitions in respect of policies for English not only in Japan but also as major transnational language of Asia.

2.20 The possible influence of ESP on JEFL teachers' cognitions

At present, many JEFL teachers tend to be interested in English-speaking cultures, such as the US, the UK, Canada and Australia, when teaching intercultural understanding. Such realities surrounding JEFL teachers probably have influenced them to develop their beliefs, attitudes, assumptions, knowledge and learning styles on the basis of the traditional teacher education system and the current school culture. In this respect, ESP ideas have the potential to help JEFL teachers orientate their thinking towards more practical needs and goals.

The concept of ESP has been gradually gaining in popularity in Japan among ESL/EFL researchers and teachers who are concerned with English use or English teaching in specific

or professional fields (Furuya & Tamaki, 2003; Noguchi, 2000; Terauchi, 2001). ESP is a generic term embracing concepts such as English for Academic Purposes (EAP), English for Business Purposes (EBP), and English for Medical Purposes (EMP). It is originally related to English for adults who need to learn English for specific or special needs or purposes. Needs analysis and genre analysis are thus considered to be the important characteristics of ESP (Bhatia, 1993; Noguchi, 2001; Swales, 1990). However in teaching English in Japan, certain fundamental aspects of ESP, such as CLT and learner/learning centredness, have tended to be neglected.

One of the reasons why many JEFLL teachers misunderstand ESP is that ESP has not tended to feature in JEFLL teacher education. In Japan, some ESP research, which covers both theoretical and practical fields, has been conducted at the higher education level. For example, corpus-based genre analysis as applied to professional texts can contribute to professional dictionary compilation or materials development. On the other hand, because of the low profile of ESP in teacher education courses, practical teaching methods or approaches have not been improved through ESP. Sasajima & Terauchi (2008) claim three teacher education needs in terms of ESP or LSP: 1) language teaching and learning for specific purposes; 2) language teacher or teaching standards; and 3) language teaching knowledge and skills related to specific language needs and requirements.

However, many ESP teachers may have their own beliefs and assumptions regarding the practical implementation of ESP. Orr (2001: 28) identifies the following problem: 'Most ESP specialists are self-taught, since ESP degrees and certifications are still rather new, so how do teachers evaluate themselves professionally?' He suggests the necessity of professional standards for measuring professional competence in ESP developed by ESP practitioners. Sasajima et al. (2003) had a project to develop practical teaching methods in ESP based on a survey of teaching English in tertiary education in Japan. They undertook a collaborative

survey of English learning needs in several working fields at the tertiary level in Japan, and suggested two main English abilities for Japanese university students to cultivate in relation to their working fields:

- 1) English knowledge and skills to be useful for professional work-related fields
- 2) English communication abilities for general purposes

ESP is thus essential to JEFL teachers and can help them change their mindsets towards teaching English based on their practical needs.

2.21 Language teacher education (LTE) in Japan: from the past to the future

From a historical and social perspective, ESP or LSP is rather a new concept for JEFL teachers, but one that has gradually become sufficiently well established for it to justify a central place in any discussion of EFL teaching in Japan. As mentioned earlier in this chapter, the core historical concept has undoubtedly been *Eigo Kyoiku*, and I have argued that an understanding of this concept is essential for anyone wishing to understand the nature and course of EFL teaching in Japan, including up to the present day. Since the start of teaching English more than 100 years ago in the Meiji period, the actual goals or aims of teaching English in secondary education have been changing in accordance with language education policies, but they still have not been clear or specific. This is partly because the LTE system has not functioned effectively or language learning needs have not been so strong or practical.

The Course of Study has referred to the development of English communication skills for 20 years or more. However, it is apparent that the ideal target attainment set by the Course of Study has not been achieved so far. There have been a number of reasons for this, arising from

political, social and economical factors which the present chapter has addressed. It is fair to claim that Japan's EFL teacher education has developed very slowly over the years and has markedly failed to keep pace with its emerging needs and changing role in the world due to its inherent education culture. If it does not develop or provide JEFLL teachers with appropriate teacher education programmes, Japan will not be able to cope with the current state of globalization and international mobility.

In the light of what has been discussed in the present chapter, it seems reasonable to conclude, provisionally at least, that, in order to help Japan's EFL teacher education identify the sorts of change which are needed and then bring these about, it will be necessary not only to introduce appropriate administrative and managerial structures and effective pedagogical methods and materials, but also to provide a stimulus for helping JEFLL teachers, teacher educators, and language policy-makers to develop their desirable teacher cognition. The most central players in this have to be JEFLL teachers themselves, and that is why JEFLL teachers' cognitions are the core concern of the present thesis. I assume that situated learning in communities of practice (Lave and Wenger, 1991) can help develop LTC and it is important to elaborate its situated, local and cultural factors. The next chapter therefore provides a review of research literature which bears upon the concept of LTC and its related matters.

Chapter 3 Teacher cognition and complexity theory in JEFLL teacher education

Chapter summary

This chapter aims to provide a theoretical and practical background to the research on the notion of LTC and its related research topics in relation to *Eigo Kyoiku*. It begins by discussing teacher cognition at a general level, and then the notion of LTC is developed, leading to the specific instance of this in Japan in the form of JEFLL teacher cognition on teaching and teacher education. While the work of distinguished experts in the international field has brought great benefit to the current study, it is argued that none of the current models of LTC may capture the complex or situated cognitions of JEFLL teachers in a local context. Accordingly, a provisional network model to represent JEFLL teacher cognition is developed, drawing on ‘complexity theory’ which might help generate insight into JEFLL teachers’ cognitions and *Eigo Kyoiku*.

As discussed in Chapter 2, JEFLL teacher education has been lacking in coherence and follow-through from preservice to in-service programmes on the basis of shared and consensual aims, principles and standards. Given the lack of coherence across the whole country and the lack of planned connection between preservice and in-service teacher education in Japan, it is not surprising that JEFLL teachers may display a range of differing beliefs and knowledge and a lack of consensus about teaching and teacher education even while working together at the same school. They may not be aware that they are limited to a number of common assumptions concerning what to teach in the classroom and how to teach

English: e.g. reading aloud is very important. However, their assumptions are in many cases not informed by any clear and convincing evidence from research or policy development.

My own teacher experience, as referred to in 1.3.2, suggests to me that JEFLL teachers who have worked as schoolteachers may hold certain assumptions: e.g. JEFLL teachers should speak English with a 'correct' pronunciation. Another assumption may be that JEFLL teachers seem to have shown adherence to some types of idealistic teacher models which arise from the Japanese traditions or tendencies to admire European and American cultures and which are still alive implicitly in many aspects in Japanese society. However, such assumptions do not appear to be strongly supported by valid and reliable research evidence and seem instead to have been built up gradually over many years.

3.1 JEFLL teachers' cognitions about *Eigo Kyoiku* and teacher education

On paper, the current *Eigo Kyoiku* seems to be following a CLT methodology (see the Course of Study) or to reflect certain current international research findings drawn from particular areas of SLA and applied linguistics, but the realities are somewhat different. Much actual practice is in fact carried out based on traditional structure-based or grammar-focused teaching, the main purpose of which is to inculcate and then test knowledge and skills. This conflict between ELT pedagogy as recommended in SLA and applied linguistics and *Eigo Kyoiku* as occurring in Japanese classrooms seems highly likely to provoke confusion in the minds of at least some JEFLL teachers regarding what to teach and how to teach English in the classroom.

While working for three upper secondary schools for 19 years in Japan, I experienced a considerable degree of stress because of this apparent conflict between a well-intentioned theoretical ideal based on CLT, towards which I felt sympathetic, and a deeply embedded classroom reality based on *Eigo Kyoiku*, towards which I felt rather less sympathetic. I

gradually came to realize through earlier research studies which I read or was involved in that many JEFLL teachers might have persistent beliefs or assumptions as to the aims and practices of *Eigo Kyoiku*.

As Sato (1997) pointed out, Japanese teacher education programmes have focused on theoretical, academic and psychological approaches, rather than pedagogical practical approaches or pedagogical content knowledge (PCK). They have been sometimes criticized for being too academic and insufficiently practical to address real teaching needs. Sato (1997: 36-37) suggested that '*Jyugyo Kenkyu* (授業研究) or lesson study should be a comprehensive study field which is not only conducted by the target subject specific researchers but also the researchers of all disciplines involved in the classroom.' He criticized that the teacher education system in Japan has not functioned effectively due to the separation between subject specialists and education specialists. Education specialists are usually concerned with general pedagogy and do not often consider subject teaching. The teacher education system, however, has maintained its rigid system for many years. This means that there is less-agreed concept of what JEFLL teachers think, know believe and do in association with *Eigo Kyoiku* and teacher education, and this adds impetus to my quest to explore this area further through my thesis research, with particular interest in their cognitions.

3.2 Teacher cognition: interdependence between emotion and social cognition

Explicit knowledge and skills with reference to key aspects of language education, such as teaching methodology and materials development, have been taught in most teacher education courses, but since the 1990s, teachers' implicit knowledge or reflective/critical thinking has assumed greater importance, in accordance with the development of cognitive science (e.g. Dawson, 1998; Johnson-Laird, 1988; Miller, 1956). The term 'teacher cognition'

has thus been used as a generic or superordinate term for teacher thought processes, teacher conceptions, teacher beliefs, teacher assumptions, teacher knowledge and teacher learning, in relation to teachers' professional development or decision-making (Borg, 2003a, 2006a).

'Cognition,' which may be often referred to 'thinking,' is a key term in the present thesis and has linguistic, psychological and sociological dimensions to it, although it is often construed to have different definitions in each discipline (cf. LeDoux, 1995). It has been widely used in different academic domains, and there are a number of definitions to be identified: e. g. 'mental functions; the ability to think, reason, and remember; the conscious process of knowing'; 'being aware of thoughts or perceptions'; and 'the conscious process of the mind to perceive, think, and remember' (as shown on Google search results). Cognition has high-level functions carried out by the human brain, such as comprehension, speech, visual perception, planning or problem solving. Although the term 'cognition' has traditionally tended to exclude 'emotion,' cognition and emotion have been considered to interact or be interdependent in various ways from a psychological or cognitive science point of view (cf. Eysenck, 2006), and emotion is regarded as part of a cognitive process in this research. Moreover, emotional or affective factors as well as motivational factors can be closely related to cognitive factors, and they all act as a whole.

Linguistic meaning can also be influenced by different aspects of human cognition, such as visual perception, spatial perception or regulatory control. Cognition therefore can be considered to play an important role when people recognize facts or events and construct their meanings. Cognitive semantics, in which the meaning-construction is conceptualization (Evans & Green, 2006) and relates linguistic expressions to conceptual structures in the context of a speech act, is typically used as a tool for lexical studies (Lakoff, 1987; Talmy, 2000), but considers mental states as well. In psychology, cognition refers to the internal or mental processes or states of an individual person, such as beliefs, desires, anxieties, and

intentions, and is considered to be the vehicle for human information processing in respect of assumptions, knowledge or learning. It is thus concerned with brain memory, attention, perception, action, image or information processing, and problem solving. A number of studies come to regard emotion as integral to metacognition (e.g. Miller, 1956; Newell & Simon, 1972; Schoenfeld, 1985). When conducting my thesis research on JEFLL teachers' cognitions, I therefore choose to view cognition and emotion as being complementary and inseparable, and teachers' emotional thought processes can be included and discussed as part of metacognition. That is because *Eigo Kyoiku* can consist of more complex JEFLL teachers' collective thoughts and emotions than international language education does.

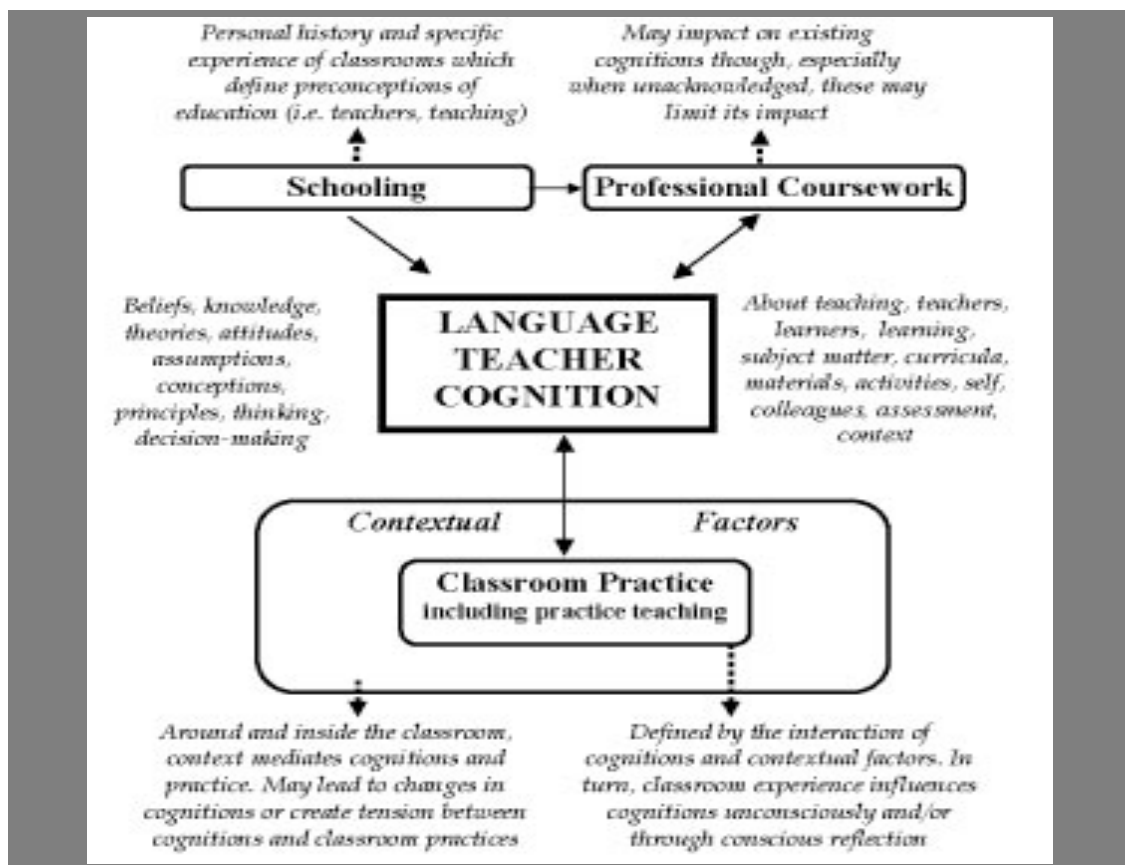
Among different concepts of cognition, I assume that social cognition, an approach of social psychology, is especially helpful to conduct the present research. Social cognition is the study of how people process social information, especially its encoding, storage, retrieval, and application to social situations. It also focuses on information processing as cognitive psychology does. In other words, it 'extends beyond the understanding of individual behavior to the level of interpersonal relationships, group processes, and intergroup behavior' (Brewer & Hewstone, 2004: xi). Social cognition explores how people make sense of their social world and how they perceive, represent, interpret, and remember information about themselves and others, being interdependent to emotion. The present thesis partly uses this concept of social cognition.

3.3 Elements and processes in language teacher cognition (LTC)

Figure 3.1 shows how LTC is related to the influential or decision-making factors in the teacher education process: schooling, professional course work, contextual factors, and classroom practice (Borg, 2006a: 283). Borg's LTC framework represents LTC as having a key role in LTE. According to his framework, a teacher trainee who has his or her own language

learning beliefs, for example, starts initial teacher education, learns theories, develops pedagogical knowledge and skills, and experiences teaching in real classroom settings. During teacher education, he or she comes to establish new beliefs through acquiring necessary knowledge and skills and modifies his or her assumptions in relation to classroom practice when experiencing a real school context with students. The framework shows a possible teacher development process and could be a basis for the present research.

Figure 3.1 Elements and processes in LTC (Borg, 2006a: 283)



However, it still needs some additional, situated, social and local factors to reflect the culture of EFL teaching in Japan. I assume that there could be more complex and complicated elements and processes in JEFL teachers' cognitions. Later in this chapter, the provisional

network model of JEFLL teacher cognition will be outlined by adding the application of complexity theory to it.

In order to understand the nature of LTC, it is necessary to mainly consider teachers' learning experience through three phases: 1) as language learners, 2) as participants in LTE and 3) as language teachers in school classrooms. Each phase can influence what language teachers think, know, believe and act, but it still seems to be unclear to what extent and in what ways it works. Borg (2003a) similarly points to the importance of the following three themes in language teacher cognition research: 1) cognition and prior language learning experience; 2) cognition and teacher education; and 3) cognition and classroom practice. Under these three themes, I set out my own standpoints or principles of LTC, which are discussed in the following sections in order to make the points clear in the present research.

3.3.1 Teacher cognition and prior language learning experience

Many practising language teachers are strongly influenced by their own learning experiences, and these may have a strong influence on the development of their teacher cognition (Bailey et al., 1996; Farrell, 1999; Freeman, 1992; Lortie, 1975). Their prior language learning experiences may in fact 'continue to exert an influence on teachers throughout their career' (Borg 2003a: 86) in many cases. Borg (2003a) also refers to evidence to suggest that preservice teacher education which ignores teacher trainees' prior beliefs may be less effective (see also Kettle & Sellars, 1996; Weinstein, 1990). However, my own experiences are somewhat different. I was not strongly influenced by my prior learning experiences because I did not like learning English during my time at school and I do not remember my English classroom activities well. In my own case, most parts of my current teaching style were developed in my preservice teaching practicum.

When discussing teachers' prior language learning experiences, we have to be careful to

bear in mind related terms such as teacher beliefs, teacher learning, and teacher knowledge, as well as teacher cognition (cf. 1.6 and 1.7). Teacher cognition can refer to a mental conscious process of what teachers think, know, believe and do, but teacher beliefs can be related to a mental state consisting of prior experiences of learning and knowledge. In other words, beliefs are considered to be a product rather than a process. Also, prior language learning experiences can play an important role in forming teacher beliefs primarily and influencing teacher learning and knowledge, for example, in grammar teaching (Borg, 2003b; Eisenstein-Ebsworth & Schweers, 1997).

In terms of the influence of prior language learning experiences, Borg (2003a: 88) concludes that 'teachers' prior language learning experiences establish cognitions about learning and language learning which form the basis of their initial conceptualizations of L2 teaching during teacher education, and which may continue to be influential throughout their professional lives.' As I have explained in Chapter 2, preservice teacher education programmes in Japan are not complete in themselves in that they are not based on any specific standards or on practical guidelines covering the knowledge and skills that teachers need to possess or acquire. This rather weak role which preservice teacher education fulfills may in many cases mean that the prior language learning experiences which are gained at school may well in some cases therefore have a strong influence on the cognitions of individuals when they have become qualified or accomplished teachers at school. As a consequence, JEFLL teachers' cognitions may strongly reflect traditional collective teacher beliefs which are rooted deeply in teacher culture in Japan and which future teachers acquire implicitly during their own prior experiences as learners at school.

3.3.2 Teacher cognition and teacher education

As regards the relationship with teacher education, there have been arguments for and

against how much it can influence teacher cognition (Cabaroglu & Roberts, 2000; Dunkin, 1995, 1996; Kagan, 1992; Peacock, 2001; Richards, Ho & Giblin, 1996; Sendan & Roberts, 1998). Borg (2003a: 89) quotes Almarza's study (1996) and points out that, although most research findings show that 'teacher education did impact on trainees' cognitions,' teacher education 'did not alter significantly the cognitions the students brought to the course.' In Japan, there has been little if any research, but there are many criticisms against malfunctions in preservice EFL teacher education (Ishida et al, 2002; JACET SIG on English Education, 2009).

In terms of forming teacher cognition through teacher education, Borg (2003a: 91) raises four key themes to be discussed:

- 1) The notions of variable outcomes and individual developmental pathways seem central to an understanding of the impact of teacher education on language teacher cognition.
- 2) The distinction between behavioral change and cognitive change during or as a result of teacher education, and of the relationships between the two, is key to continuing research on this topic.
- 3) Much existing literature about the ineffectiveness of teacher education in changing trainees' cognitions (i.e. beliefs, knowledge, attitudes) has focused on the content of these cognitions.
- 4) These studies vary in what is considered to be evidence of cognition and cognitive change.

The key point to discuss here is that there has been little if any clear evidence of the relationship between teacher cognition and teacher education, the effectiveness of teacher education for changing teacher cognition, and research methodologies for investigating

cognition. This is because teacher cognition is an unobservable, mental and individual cognitive process and it is difficult to obtain empirical findings.

Especially in terms of research methodology, Borg (2003a: 91) adds that 'questionnaire responses, repertory grids, and in-depth interview responses, for example, can generate very different forms of data, and the extent to which these and other forms of data can capture the content, structure, and change processes of cognitive phenomena is clearly an issue for continuing methodological discussion.' The present research, as will be set out in Chapters 4 and 5, has considered the issue and taken a largely qualitative approach which includes a range of data-collection processes involving questionnaire, school visits, observations, interviews, informal discussions and email follow-ups on a regular basis with a group of JEFL teachers (see Chapters 5 and 6 for more details).

3.3.3 Teacher cognition beyond classroom practice

The relationship between teacher cognition and classroom practice is considered to be symbiotic (Foss & Kleinsasser, 1996). There are a number of research studies related to this issue (Bailey, 1996; Bartels, 1999; Basturkmen, Loewen & Ellis, 2004; Breen, 1991; Borg & Burns, 2008; Gathbonton, 1999; Golombek, 1998; Kuzborska, 2011; Lam, 2000). They all focus on what to teach in a language classroom and how to teach a language in the classroom, where each language teacher teaches based on his or her own beliefs, knowledge and skills, and has a decision-making process in relation to language classroom management.

Borg (2003a: 98) demonstrates nine issues regarding teacher cognition: 1) decision-making; 2) conceptual, terminological and definitional variability; 3) the social and institutional contexts of classrooms; 4) contexts which are more representative of language classrooms; 5) the processes through which language teachers' cognitions and practices are transformed; 6) the idiosyncratic nature of language teachers' cognitions and practices; 7) to explore

relationships between cognitions, practices, and learning outcomes; 8) the extent to which accounts of their instructional decisions which teachers provide after lessons capture the interactive thinking occurring during the lessons; and 9) what happens in classrooms. Most issues that he presents are closely related to classroom practice. It is thus evident that the research of teacher cognition can significantly contribute to an understanding of teachers' decision-making processes in the classroom.

According to Borg's view of teacher cognition issues as well, his central concern seems to lie in a language classroom exclusively. However, I assume that teaching is not limited to a classroom. Teaching should also be thought of as implying multi-level and longitudinal perspectives, such as personal experiences, course or term durations, school culture, and school climate and atmosphere. Moreover, JEFLL teachers have to be engaged in educating their students and in helping them to acquire general principles of good behaviour and of learning. As described in Chapter 2, the Japanese school culture has tended to impose too heavy a workload on secondary school teachers. In addition to classroom practice, all these wider considerations should not be ignored when discussing the diversity which is embedded in the concept of LTC.

3.4 BAK (beliefs, assumptions and knowledge) in classroom practice

There may be two different ways of conceptualizing LTC. One is as a process of how language teachers come to acquire their professional knowledge and skills of teaching a language, and the other is a process of how teachers make decisions of teaching a language in the classroom. Woods (1996: 184) states that 'the teacher's beliefs, assumptions and knowledge play an important role in how the teacher interprets events related to teaching (both in preparation for the teaching and in the classroom), and thus affect the teaching decisions that are ultimately made.' He uses the term BAK (beliefs, assumptions and

knowledge) to describe his concept and primarily refers to language teachers' decision-making processes in the domain related to teaching in the classroom. According to Wood's study, the factors shaping teachers' decision-making processes are related not only to what teachers teach in the classroom on a daily basis but also to their whole teacher career.

BAK appears to be a useful term in showing how teachers make decisions in relation to teaching, but it might not cover all aspects of language teachers' thought processes (see Figure 1.1). It is possible that teachers do not always teach according to their rational decision-making process, and teacher cognition is regarded as more complex, situated, local, culture-bound, emotional and relational teacher thought processes influenced by prior experiences, beliefs, learning and knowledge even in the classroom (cf. Burns & Knox, 2011). The language classroom is also regarded as complex, and Burns & Knox (2011: 18) argue that 'classroom practice also impacts on how teachers construct and develop their own knowledge.'

Language classroom management, as I showed in Figure 1.1, is regarded as a key concept in complex stream of language teachers' thought processes. Both concepts, Borg's LTC and Woods' BAK, are mainly related to teachers' decision-making or information-processing activities in terms of teaching in the classroom. Their interests are primarily concerned with in-class or 'micro' tasks of classroom activities, although my concern in the present thesis extends to the relationship between LTC and language teacher professional development in a particular teacher education system. Nonetheless, BAK is a useful idea to understand the nature of LTC in classroom practice that I explore. Wood's BAK and Borg's LTC need to be blended and extended to another concept of LTC in relation to classroom practice or management as shown in Figure 1.1. The blended and extended concept of LTC will be useful to understand its complex nature, such as the complex nature of the dynamics in the language classroom and socio-psychological aspects of language teachers.

3.5 Reconsidering language teacher knowledge in teaching contexts and experiences

Many kinds of factors, such as working conditions or school culture, influence the whole language teacher developmental process. 'There is evidence to suggest that, unsurprisingly, such factors may also hinder language teachers' ability to adopt practices which reflect their beliefs' (Borg, 2003a: 94). In many cases, their teaching contexts (e.g. school and classroom climate) and experiences have to be considered much more in order to understand language teacher cognition (Crookes & Arakaki, 1999; Johnson, 1996; Nunan, 1992; Richards, 1996; Richards & Pennington, 1998; Spada & Massey, 1992). It is thus important to see how teacher knowledge is structured or developed, generally speaking. That is because experienced teachers who have worked in some teaching contexts can have more complex or higher-order knowledge structures than novice teachers (e.g. Leinehardt & Greeno, 1986).

Teacher knowledge is necessary knowledge that teachers should hold when teaching, but it is difficult to understand what it is and is considered to comprise a number of components. For example, Shulman (1987: 8) formulates seven concepts of teacher knowledge: 1) content knowledge; 2) general pedagogical knowledge; 3) curriculum knowledge; 4) pedagogical content knowledge (PCK); 5) knowledge of learners and their characteristics; 6) knowledge of educational contexts; and 7) knowledge of educational ends, purposes, and values.

Among them, PCK seems to be regarded as the most important concept for teachers to teach well, because it is strongly related to how to teach and may be difficult to develop. Language teachers, especially JEFL teachers, can possibly have more complicated PCK, because they aim to teach a language while using it in the classroom as non-native speakers of English. In addition, their cognitions about PCK and other knowledge concepts are inseparable and need to be considered as the whole entity.

Teacher knowledge in language teaching is somewhat different from that in other subject

teaching and also reflects the historical background and perspectives originating from traditional language teaching (e.g. Fries, 1945; Lado, 1957; Palmer, 1921). In traditional language teaching, in which grammar or vocabulary knowledge was exclusively highlighted, language teachers were required to have sufficient declarative knowledge about language, and LTE courses paid little or no attention to PCK. Such language teacher knowledge was reevaluated by researchers who were interested in teacher cognition (Freeman, 1989, 1993; Johnson, 1992; Woods, 1996). Language teacher knowledge thus came to be reconsidered as more complex inner processes of teacher thinking or decision-making in association with teaching contexts and experiences which had been created in a particular language classroom culture. Instead of it, LTC as an entity rather than PCK is more focused on in the present thesis.

3.6 Understanding teacher knowledge and teacher learning of JEFLL teachers

Tsui (2011: 28) refers to the work on L2 teachers' subject matter knowledge exclusively pertaining to grammar knowledge, and suggests that 'More research needs to be conducted on all aspects of L2 subject matter knowledge. More importantly, the relationship between L2 teachers' subject matter knowledge and pedagogical content knowledge is currently under-explored.' Freeman & Johnson (1998) also propose a view of the knowledge base of language teaching that is rooted in what teachers actually do in classrooms. In terms of the ways in which teacher knowledge is formed and cultivated, there are three types of views of teacher knowledge: 1) cognitive views, 2) practical views, and 3) pedagogic views (Hoyle & John, 1995). In this respect, LTC in this research can cover these three views.

More specifically speaking, according to Wright (2005: 260), 'cognitive views focus on teachers' information-processing skills, including decision-making models and expert-novice

studies.’ Practical views ‘aim to understand the complexities of interactive teaching and thinking-in-action within teachers’ lives and personal experience.’ Pedagogic views ‘aim at uncovering what teachers know and understand about their subject, how this knowledge is translated into classroom activity and how it influences children’s learning.’ In addition to these three views of teacher knowledge, teacher cognition in this research includes teachers’ psychological or emotional thought processes in order to better see JEFLL teachers’ cognitions.

Teacher knowledge nonetheless plays an important role enabling teachers to revise and further develop the assumptions on which their teaching is based. In addition to teacher knowledge, teacher learning is also of major importance. LTE arguably ought to have a major aim of helping intending and actual teachers to deepen and extend their knowledge base through teacher learning. Regarding teacher learning, Ur (1996: 5) specifically describes the three main models of teacher learning: 1) the craft model (i.e. teachers imitate teaching techniques used by experienced teachers), 2) the applied science model (i.e. teaching is a science and conducted on a research basis), and 3) the reflective model (i.e. teachers develop through reflecting on their own practice). Wallace (1991) also shows three models of teacher education, and teacher learning is closely related to teacher education. Ur recommends the reflective model and claims that ‘the most important basis for learning is personal professional practice’ (Ur, 1996: 7). The main concept of language teacher learning, therefore, may be strongly related to attaining, maintaining and extending their knowledge and skills through reflection on the various teacher education practices in which they engage.

To make it clearer, it is necessary to refer to different views regarding teacher learning. For example, Roberts (1998) presents different viewpoints, such as skill learning, experiential learning theory, and theories of expertise in teaching. Especially the following characteristics of NNS teachers’ learning needs in the case of English language teaching are useful to see JEFLL teacher cognition: 1) language improvement; 2) restriction to classroom discourse; 3)

linguistic rules as a source of security; 4) personal experience to understand their learners' difficulties; 5) sharing a common culture; 6) pedagogic models inherited from the mother tongue culture; and 7) the place of a language in society (Roberts, 1998: 97) . NNS teachers are considered to have more distinct or complex conceptions from NS teachers. In the present thesis, I therefore focus on JEFLL teacher cognition as NNS teachers.

3.7 Attempting to perceive the hidden side of teachers' mental lives

In terms of two main socio-cognitive processes concerning the hidden side of language teaching, Freeman (2002: 1) mentions that 'One involves the developmental question of how individuals learn to teach; the other involves the epistemological question of how teachers know what they know to do what they do.' Teacher learning and teacher knowledge namely can be related to teachers' mental lives, which are especially important to understand what is happening to language teaching and language teacher cognition. The important point is ultimately how to see the hidden side of teachers' mental lives. The hidden side in this research includes JEFLL teachers' thoughts and beliefs which are hidden under their actual behaviours and they may be unaware of when teaching. In other words, the hidden side probably has been developed in their teacher education. Especially in Japanese society, it is rather difficult to see the hidden side because many people do not tend to express their thoughts clearly or specifically due to their culture of modesty.

Regarding the complexity of teacher learning, Freeman (1998: 11) argues that 'Evidently teachers can do the job of teaching perfectly well without going public about what they are thinking and what they know. The dilemma, then, is how to engage teachers in articulating and publicly representing the complexity of teacher learning.' Freeman (2002), although he does not present clear research ideas, takes the notion of 'teachers' mental lives' in the four major themes: 1) how teachers learn content and teaching practices; 2) how teachers' mental

processes are conceived; 3) the role of prior knowledge; and 4) the role of social and institutional context in learning to teach. These four themes can cover almost all of the hidden side of JEFL teachers' mental lives, but I assume that there should be more complex sides to see; they are closely related to how teacher cognition has been developed in teacher education.

The following three implications of LTE that Freeman (1998) presents on the basis of the discussion of teacher learning and knowledge are also useful to consider in the present research:

- 1) The aim of teacher education must be to understand experience.
- 2) Teacher education will need to organize and support new relationships between new and experienced teachers.
- 3) In teacher education, context is everything.

Language teachers form their own beliefs and assumptions in teaching, understand teaching as decision-making processes, make the notions of the hidden pedagogy and curriculum, and are engaged in the apprenticeship of observation in the classroom. Freeman's implications focus on the importance of practical experience in real classroom or school settings, and these views are based on the reflective teacher education approach or model: 'There is a rich, varied, and complex process of learning to teach on which teacher education must build. Focusing on this learning process, as distinct from the delivery mechanisms, is changing our understanding of teacher education in important ways' (Freeman, 1998:12).

As discussed previously, both teacher learning and teacher knowledge, which are part of teacher cognition, are key concepts of LTE and can help create new teacher beliefs, teacher assumptions, and teacher knowledge. It can also provide the ways to understand teachers' hidden mental processes and lives, which are still hard to see. Moreover, teachers' real

experiences in the teacher education context may be strongly related to the development of LTC.

3.8 Classroom management as an indispensable concept for teacher cognition

Teachers have their own teaching styles in the classroom. 'Teaching style is a complex amalgam of belief, attitude, strategy, technique, motivation, personality and control' (Wright, 1987: 68). Teacher education programmes may provide student teachers or teachers with an opportunity to create or develop their own teaching styles. In addition, teachers' teaching styles are likely to be influenced by the atmosphere which exists in their classroom and by the activities which they implement in order to manage their classes and teach their students (Lortie, 1975).

In language teaching, many researchers or tutors exclusively tend to focus on teaching in the classroom, but classroom realities seem strongly related to all school educational activities and students' educational development, so that it is important to view teachers' activities against a broader background which includes aspects such as pastoral care, discipline, school regulations, and other extra-curricular activities (cf. Suenaga & Watanabe, 1990; Yanase, Kumita & Okuzumi, 2011). Activities such as these are an important part of the context in which classroom management occurs. Wright (2005: 133) states that:

Classroom management tasks are part of every teacher's professional activity both in and out of the classroom. The tasks that are conducted outside the classroom are generally larger scale or 'macro' and have an institutional and broader cultural element in them. 'Meso' level tasks enable teachers to plan ahead and use time most appropriately for particular classroom groups. The in-class or 'micro' tasks of classroom management are

those most commonly associated with the activities and qualities of teachers, and their ‘classroom management skills.’

An understanding of how teachers perceive these macro-, meso- and micro-level tasks of classroom management will cast interesting light on teachers’ cognitions in respect of what they learn and how they attain knowledge for their classrooms.

Since classrooms for all subjects taught at school are complex phenomena in which there are many factors of different sorts, some of them visible and some of them not visible, some capable of measurement and others less capable of this, it may reasonably be claimed that language classrooms pose a particular challenge. This is because they require some understanding on the part of teachers not only of how particular content may be learned but also of how languages may be acquired in a classroom setting and how the target language and the mother tongue relate to each other in engaging with instructional content.

Accordingly, language teachers need to develop effective working assumptions as to how the target language and the mother tongue may be developed in relation to each other and how they may also support each learner’s cognitive, cultural and interpersonal development. Not only that, but language teachers also need to develop skilled and varied techniques for managing their classes in ways which encourage these types of development to take place. Many aspects of classroom management can thus strongly influence LTC, as already depicted in Figure 1.1. Especially in Japan, as I have already discussed in Chapter 2, classroom culture is more complex and has been strongly influenced by *Eigo Kyoiku*. JEFLL teachers therefore seem to think more about classroom management.

3.9 JEFL teachers' cognitions developed from the traditional schooling system

Although English teacher certificates are only provided to secondary teachers officially in Japan, English can actually be taught by any persons in any other levels of education. In tertiary education, almost all universities or colleges provide an English curriculum for their students, but EFL teachers do not need any certificates or licenses to teach English. The JACET Survey Report on University Foreign Language Teaching in Japan (2002) shows that about 30 per cent of university English teachers are not properly qualified language teachers, such as business graduates or sociologists. Consequently, JEFL teacher cognition tends to be strongly influenced by the general context of schools and by the national educational culture, much more so than it is by the findings of SLA research, whether conducted in Japan or internationally. Moreover, not only JEFL teachers but also other foreign language teachers do not share ideas or effective networks with each other effectively. In seeking to understand JEFL teachers' cognitions in respect of teaching and teacher education, it is necessary to begin with each individual teacher and work out from there rather than on the basis of strongly shared experience.

Sasajima & Terauch (2008) reports as part of a MEXT Study (see 1.3.1) that some 70 per cent of the 160 JEFL teachers were not aware of ESP, following the results of the questionnaire survey. The survey focused on three domains of JEFL teachers' awareness: 1) teacher education programmes; 2) ideas relating to ESP, vocational languages or VOLL (vocational language learning) and CLIL, and 3) teacher professionalism relating to ESP. Based on the research results, the following three suggestions were provided to improve JEFL teacher education programmes (Sasajima & Terauchi, 2008: 115):

- 1) ESP concepts including vocational languages and CLIL should be incorporated into LTE

programmes in order to help teachers extend their knowledge and skills.

- 2) There should be more emphasis on professional or practical knowledge and skills, in order to help JEFL teachers provide better classroom teaching.
- 3) Professional teacher education programmes, featuring human development, discipline, personality, management, understanding students, counseling, etc., should be focused on, so that JEFL teachers will be in a good position to help develop their students' personality or humanity as well as to teach English in the classroom.

From a viewpoint of teacher cognition research, in other words, the research results showed that most JEFL teachers are considered to work for two main teaching purposes: 1) teaching English for students' critical needs to pass the entrance exam and 2) development of students' personality and humanity. In addition, according to the research, many JEFL teachers are not aware of the necessity of LSP or CLIL. They might tend to think that teaching English does not aim to focus on practicality or actual use, but rather language knowledge or usage and cultural knowledge in English-speaking countries. Such their deep-rooted beliefs that have been formed in the traditional schooling system can influence another development of their cognitions.

3.10 The complex BAK model helpful in understanding JEFL teachers' classroom decision-making processes

Anthony (1963) tried to define the terms related to how to teach, such as 'approach,' 'method' and 'technique,' although he did not seem to make a clear-cut definition for these three terms. According to his definition, the term 'approach' is 'a set of correlative assumptions about the nature of language and the nature of teaching and learning' (Anthony, 1963: 66). Woods (1996) also argues that assumptions are incorporated into teaching

materials, teaching directives, theories, etc., in relation to the term ‘approach.’

In decision-making processes concerning teaching approaches, there are different perspectives in terms of BAK, which may take a main role in what language to teach and how to teach a language in the classroom (see 3.4). According to the concept of BAK presented by Woods (1996), teacher cognition is represented as a cycle or loop of teaching activity in the classroom. His model (1996: 81-82) shows the three main components: a cycle of teachers’ decision making processes: 1) A/E (action/event), 2) U/I (understanding/interpretation) and 3) P/Ex (planning/expectation). Language teachers plan their lessons, teach a language based on their own BAK, reflect on their classrooms, evaluate their assumptions and background knowledge, and finally understand and change their plans for the next step. BAK is helpful to understand teachers’ micro-level tasks in teaching approaches, but more complex concepts can be necessary to see what is happening in JEFLL teachers’ decision-making processes.

JEFLL teachers’ decision-making processes can probably be influenced by a number of complex factors in addition to BAK historically, pedagogically, socially, culturally and locally. The complex BAK model, which is related to the blended and extended concept of LTC (see 3.4), should be useful to understand JEFLL teachers’ decision-making processes. Even if a number of desirable teaching approaches were provided to student teachers in their preservice teacher education, their prior knowledge and beliefs could play a very important part in shaping their complex BAK about teaching English.

Table 3.1 JEFLL teachers’ typical lesson procedures and teaching techniques

Lesson procedures	Teaching techniques
1. Warm up e.g. greetings, attendance, dates, etc. 2. Review work e.g. recalling grammar points 3. Presentation of new materials e.g. grammar points, words and	<ul style="list-style-type: none"> ● oral presentation (introduction or interaction) about new grammar or sentence patterns ● sentence pattern practice ● mimicry and memorization (mim-mem) ● chorus (choral) reading

phrases, oral introduction, etc.	● reading aloud or silent reading
4. Reading comprehension e.g. reading aloud and translation	● teaching vocabulary using flash cards
5. Consolidation e.g. summary and homework	● information gap activities
	● repeating
	● shadowing or overlapping

Neither the Oral Approach nor CLT has been accepted by many JEFLL teachers (e.g. Imura, 2003; Suenaga & Watanabe, 1990). Many JEFLL teachers have taught English on the basis of their own learning experiences and the social needs as arising from the historical and cultural context. For example, as described in Table 3.1, typical lesson procedures of JEFLL classrooms and teaching techniques (Ito, Ito, Shimomura, Seki & Watanabe, 1995) have been conventional and popular among JEFLL teachers and teacher educators in lower secondary education. However in upper secondary schools, many JEFLL teachers exclusively focus on teaching vocabulary, grammar or reading (translation) in normal English classrooms (e.g. English I and II), but not so much on teaching listening skills, speaking skills and writing skills (Kanatani, 2004; Suenaga, 1990). Accordingly, many JEFLL teachers' teaching approaches may often eventually come from their own learning experiences and preferences. The complex BAK model, which is not clearly represented but closely related to the present research, will be necessary and helpful in understanding JEFLL teachers' classroom decision-making processes.

3.11 Collective teacher cognition historically developed for more than one century

The empirical or practical research about JEFLL teachers has not been conducted effectively so far (cf. Kanatani, 1995). It must have some historical background. Historically the role model of a teacher originated from the article one in *Shogaku Kyoshi Kokoroe* (小学教師心得) (The Primary Teachers' Guide) in 1873, which said that:

凡教師タル者ハ学文算筆ヲ教フルノミニ非ス父兄ノ教訓ヲ助ケテ飲食起居ニ至ル迄心ヲ用キ
テ教導スベシ(Teachers should not only teach literacy and numeracy but also educate and
train pupils in respect of their whole daily life.)[translated by the author]

Since then the teacher had been required to be a model of a civilized person who was well educated, had good manners and practised loyalty to the nation until the end of the World War II (Karasawa, 1955; Mizuhara, 1990; Nakauchi & Kawai, 1974; Tsuji, 1977). Such underlying concepts of teachers as role models have not completely disappeared and still remain in many specific school cultures, even in English classrooms (see 2.7).

Then there were highly respected teachers or scholars of English: e.g. Fukuzawa Yukichi, Toyama Masaichi, Mori Arinori, Inoue Jyukichi, Kanda Naibu, and Okakura Yoshisaburo, all of whom had studied in the UK or the US for several years. Kanda Naibu was, for example, depicted as a typical respected English teacher: Students adored Kanda's European-style appearance with simple, good English (Takanashi, 1985: 39). The common ideal features of JEFLL teachers created in the Meiji period have been summarized as follows (Takanashi, 1985: 40): 'The JEFLL teacher should be a well-educated person who possesses sufficient knowledge of English and attains appropriate English proficiency, has well-educated European attitudes, is earnest about his or her work, and has great humanity.' The realities were somewhat different but these beliefs or assumptions regarding JEFLL teachers have undoubtedly exercised great influence on their teacher cognition.

After 1945, a major educational paradigm change took place due to the introduction of American democracy and culture. More people came to learn English because secondary education became compulsory. It was natural that there were teacher shortage problems and resultant needs for teacher supply and teacher education. In the late Meiji period or around the 1900s when almost all subjects came to be taught in Japanese in secondary and tertiary

education, Natsume Soseki, who also studied English literature in the UK and was famous as a novelist in Japan, showed his beliefs about teachers in his work, *Botchan* (1906). Takanashi (1985: 34) refers to it as follows: 'Schoolteachers have to be educators. They have to be superior to their students in terms of studying as well as personality. Children should be taught and raised to grown-ups. Even if they are difficult to achieve, teachers have to make efforts to achieve the goals. However, Botchan, who is a teacher and the main character of the story, cannot do that.' These remarks still demonstrate well the current archetype of JEFL teachers.

3.12 JEFL teacher cognition influenced by the current social needs and teacher recruitment system

In spite of the above-mentioned traditional collective JEFL teacher cognition, many JEFL teachers have differing teacher beliefs regarding their current English teaching and learning. That is partly because the hidden or alternative curriculum (e.g. Jackson, 1968) called a *Jyuku* (塾) (private tutoring or cram school) learning system is widely adopted in Japan. It means that *Jyuku* must be essential but considered as the hidden or alternative curriculum in Japan. Many secondary students go to extra classes provided by *Jyuku* in order to go up to upper secondary schools or university. JEFL teachers understand that they have to cohabit with *Jyuku* tutors. Moreover, they are often criticized in terms of their English abilities and pedagogical knowledge and skills (MEXT Action Plan, 2003) and are sometimes forced to learn from *Jyuku* tutors who in many cases do not possess a formal teaching qualification.

In the early 2000s, teachers in most state primary and secondary schools came to be assessed and monitored by their head teachers, although the assessment system has some defects and criticisms (e.g. Ishida et al., 2001, 2002, 2003 and 2004). Since 2006, they have been required to come to school even during the school holiday time. In some cases, it has been

anecdotally claimed that JEFL teachers cannot be permitted to study in English-speaking countries even if they pay the expenses for themselves (Ishida et al., 2002). Many of them have felt that they are not supported by the local education authority in many aspects (Sasajima, 2002).

Parents generally do not expect secondary teachers simply to help their children improve their academic performances, but also want them to educate or take good care of their children in the whole school activities, such as social manners, social skills, sports, and other arts. Secondary teachers need to see what students in their charge do in and out of school and have some responsibilities for their daily life in many cases. Many teachers in state secondary schools tend to feel preoccupied with miscellaneous schoolwork and activities even on Saturdays and Sundays on a voluntary basis.

Such social needs for secondary teachers are reflected directly in the teacher recruitment system. There are varying selection criteria for teacher recruitment: e.g. appropriate English proficiency, teaching knowledge, personalities, aptitudes and specialties. According to a small survey of JEFL teachers' English proficiency levels in terms of STEP EIKEN (an English proficiency test provided for Japanese learners of English), TOEIC and TOEFL (Ishida et al., 2004), the results showed that over 60 per cent of 58 JEFL teachers' scores were lower than expected, if compared with newly qualified JEFL teachers' scores. This probably means that JEFL teachers are not only selected in accordance with English proficiency but also personalities, aptitudes and specialties appropriate as schoolteachers. Their work is not exclusively focused on knowledge and skills for teaching English.

These social needs and recruitment systems may influence the creation of JEFL teachers' initial beliefs during preservice teacher education. If student teachers have appropriate teacher education courses, then they may develop appropriate BAK, but if not, then their BAK may be complex.

3.13 Japanese inherent school culture affecting JEFLL teachers' cognitions

Teachers are regulated by the school system in terms of their behavior, attitudes and values (e.g. Inagaki & Kudomi, 1994; Kudomi, 2003; Sato, 1997) and this is bound to influence the nature of their cognitions. For instance, JEFLL teachers have been encouraged to follow CLT because of the current objectives in the Course of Study (e.g. Koizumi, 2001; Niizato, 1996). CLT originates with the educational philosophy to respect learner centredness in language teaching and learning, which is 'partly based on the theories of British functional linguists, such as Firth and Halliday, as well as American sociolinguists, such as Hymes, Gumperz and Labov and the writings of Austin and Searle on speech acts.'¹⁶ However, most JEFLL teachers do not know exactly what the philosophy of CLT is and work in a different school culture, as reported in Shimizu (2002) who contrasted school culture between England and Japan: individual and specific views in England and collective (group-oriented) and general views in Japan.

The different school culture in Japan can affect many aspects of JEFLL teachers' decision-making in what to teach and how to teach English. When implementing CLT in Japan, JEFLL teachers have to consider the original concept of CLT and apply it to the Japanese classroom culture. In such cases, teacher cognition can play an important role. JEFLL teachers' beliefs, assumptions and knowledge can interact with each other and affect their decision-making in the classroom (Bailey, 1996; Borg, 2006a; Calderhead, 1996; Johnson, 1999; Shavelson & Stern, 1981; Woods, 1996), as well as in lesson planning and in syllabus design.

JEFLL teachers' decision-making, however, may be closely related to everyday classroom

¹⁶ retrieved December, 2010 from CLT on Lingua Links Library at SIL International at <http://www.sil.org>

activities and short-term objectives, such as 'to understand adjectives' or 'to exchange greetings,' but its influence may not cover the curriculum and long-term aims. That is because their goal settings to teach their students English are somewhat regulated by the Course of Study, the MEXT approved textbook publishers, and by the hidden or alternative curriculum to provide strong instrumental motivation to pass university entrance examinations.

Accordingly, if JEFLL teachers were to wish to incorporate into their general approach to modern aspects, such as learner-centredness, needs analysis, curriculum design, and ICC (Byram & Risager, 1999; Nunan, 2003; Paltridge, 2001; Richards, 2001), they would need to find ways of modifying their teacher cognition which they have built up over time in their Japanese context, and this would be unlikely to be an easy or straightforward process.

3.14 The influence of teaching performance and examinations

JEFLL teachers' cognitive processes can be strongly related to their decision-making when teaching English (Borg, 2003a, 2006a; Woods, 1996). It may be that the influence works in both directions – cognitive processes influencing practical decision-making in class and practical decision-making in class influencing cognitive processes, hence influencing teachers' beliefs, assumptions, and knowledge in their long-term teaching career.

Teaching performance is sometimes important for JEFLL teachers to show their teacher career or identity as an accomplished teacher. Traditionally they have had opportunities to demonstrate their classroom teaching to other teachers at the *Jyugyo kenkyu* (lesson study) session. At the session, they tend to show their teaching performance: e.g. English use, lesson procedures, teaching techniques, effectiveness, presentation of materials, and classroom management. In many cases, JEFLL teachers are evaluated in terms of such teaching demonstration, and a number of charismatic teachers have leading roles in EFL teaching in Japan. On the other hand, JEFLL teachers who consider teaching English grammar to be

important exclusively focus on grammar teaching as the priority activity in their classrooms, and if they think that their students are satisfied with the approach, then they may consider their assumptions to be justified. As a result, their beliefs become stronger and do not change easily.

Although the Course of Study requires JEFLL teachers to teach general English knowledge and skills by making them use approved textbooks, they may not be strongly supported through national or even regional requirements or guidelines in terms of how to teach English in the classroom or how to assess their students' performance. Many teachers are considered to tend to learn how to teach intuitively, experientially or imitatively, and then to develop assumptions based on their beliefs. Their teaching performances are essential and indispensable for teachers to improve their practical teaching knowledge and skills (e.g. Lortie, 1975; Richardson, 1996; Sato, 1997). In other words, these processes can possibly influence the formation of teacher cognition in accordance with teaching and teacher education that teachers have had in the process of becoming accomplished teachers.

Another factor is the university entrance examination. It is an important goal for many young people to study school subjects. In Japan, the National Center Test for University Admissions (NCTUA) is provided by the National Center for University Entrance Examinations (NCUEE). The test content complies with the Course of Study but many universities provide their own English test for the applicants after or apart from the NCTUA. Such different types or levels of tests can regulate what JEFLL teachers teach in their classrooms. They therefore have to cope with English tests provided by universities for their students to achieve their goals. The current university entrance examination system has a long history and has been very hard to change.

In terms of the English test contents, the questions focus on knowledge of English vocabulary, grammar or usage and reading skills. In 2006, the NCUEE started to provide a

listening test after long debate, but there are still no speaking or writing tests. Naturally washback effects (e.g. Alderson & Wall, 1993; Watanabe, 2004) on university entrance examinations can have positive and negative influences on JEFLL teachers' performances. The test content may not be viewed as having an entirely negative washback effect since its hidden or implicit values are compatible with the objectives set in the Course of Study (Watanabe, 1997), and there is no doubt that significant numbers of students, influenced by the long-standing values of Japanese culture, are in fact more motivated by aiming at knowledge of English vocabulary and grammar than by a desire to use English for communication.

3.15 Discrepancies in English classrooms

The present research seeks to gain some understanding of JEFLL teachers' cognitions regarding the discrepancies in teaching English while considering pastoral care; e.g. whether such discrepancies in fact exist in the teachers' mental and emotional lives and, if so, what they think, know, believe and do in respect of them (Ishida et al., 2001, 2002, 2003, 2004).

In Japan, almost all JEFLL teachers are in charge of a classroom called *Gakkyu* (学級) or *Homurumu* (ホームルーム) (homeroom or form in the UK) with on average 40 students like class teachers in primary education, in which a teacher deals with school matters, such as career guidance, pastoral care, school discipline, moral education and citizenship. The class management system called *Gakkyu Keiei* (学級 (ホームルーム) 経営) (homeroom management) in Japanese is a very important one for teachers as well as students at school. The *Gakkyu* or *Homurumu* class system, which may be popular in East Asia, is a basic unit in all school activities, and especially in Japan, it is the main work for schoolteachers even in upper secondary education in many cases. In the classroom, students study or do everything with classmates at school and spend most of their time at school together in the same classroom. Even JEFLL teachers are required to manage their own classes, so that their roles as a leader

are also very influential on students' learning motivation and attitudes in studying at school.

In order to maintain a good disciplinary classroom atmosphere, JEFL teachers cannot help but use Japanese based on Japanese classroom culture, although they are encouraged to provide active language learning classrooms and teach English through English as the new Course of Study for Upper Secondary Education (which is implemented in 2013) suggests. It thus may be somewhat difficult for JEFL teachers to speak exclusively English in English classrooms because they have to follow the Japanese traditional school culture. They often feel such discrepancies in classroom cultures when speaking in English, especially in team-teaching with ALT teachers (Yanase, Kumita & Okuzumi, 2011).

Many ALTs also have similar feelings of discrepancy between their learning experiences and Japanese students' classroom behaviors. These discrepancies are due to the purposes or values of teaching English in secondary education, as already discussed in Chapter 2: practical purposes or values and educational purposes or values. In Japan educational values seem to be rather strongly related to collaboration or group cooperativeness (e.g. Sugimoto, 2003). Highlighting such collaboration as the educational value differs from the educational value created in other countries, e.g. in Scotland featuring 'successful learners, confident individuals, responsible citizens and effective contributors to society and at work' as set out in the official Curriculum for Excellence (2004)¹⁷. It does not refer to considering others who the Course of Study emphasizes as part of the primary objectives to develop a zest for living.

3.16 Different types of JEFL teachers' cognitions based on language education policies and goal settings

It is certain that most teachers feel busy all over the world for a variety of reasons (cf. Alamance-Burlington School System: Teacher Recruitment and Retention Committee Report,

¹⁷ retrieved October, 2012 from <http://www.scotland.gov.uk/Resource/Doc/26800/0023690.pdf>

2004; Craig, 2004; Kyriacou & Chien, 2004; Little & Perclova, 2000; Oplatka, 2006). Although there may be common elements across different countries in this respect, each country is likely to have its own special characteristics which arise from its own educational, historical and cultural context.

Compared to the language education policies in South Korea, China and Taiwan, the language education policy in Japan seems to be rather unclear or unspecific (cf. Kawai, 2001; Otani, 2007). South Korea has its own specific foreign language policy to show that the English language is necessary for young people to succeed in their future career (the 7th National Curriculum, 1997). The language education policy in China is also clear and specific with the national English proficiency assessment system from primary to tertiary education. China provides the National English Curriculum Standards (NECS) in 2001, which contains 9 specific proficiency levels for students to attain. In Taiwan they also have a very similar language education policy system to China or South Korea. South Korea, China and Taiwan are all characterized by the top-down decision-making process in order to implement such specific language education policies to focus on English (cf. Goto, 2005; Sasajima, 2005; Otani, 2007).

In terms of English teacher education, South Korea and Taiwan have focused on English knowledge and skills and teaching knowledge and skills, especially teaching practices in preservice teacher education. Although China has a variety of teacher education systems and there are distinctions between urban and rural areas, English teacher education in urban areas is similar to that in South Korea and Taiwan. English teachers are fundamentally encouraged to teach English for practical and communicative purposes as well as for exams. They can concentrate on teaching English in the classroom (e.g. Koike et al, 2008; Ishida et al, 2001).

Regarding the teacher recruitment systems in Japan, the details are distinct and complex,

although the most common features are to focus on teachers' abilities of English use and teaching skills (Ishida et al., 2001, 2003; JACET SIG on English Education, 2006). Non-native English speaking (NNES) EFL teachers in South Korea, China and Taiwan can more easily see what they do in the classroom than those in Japan because of the clear target attainment designated by their examination system. In addition, in preservice and in-service English teacher education programmes, they can easily understand what they should attain to become accomplished teachers, although they have their own teacher recruitment problems (Oi, Lee & Sasajima, 2004; Oi, Lee, Yeh & Sasajima, 2005, 2006). Unlike teachers in South Korea, China and Taiwan, JEFL teachers are assumed to be uncertain or confused in their cognitions because of varying or unspecific social needs.

It is arguable therefore that there is an urgent need in Japanese educational policy for setting clearer goals for English education for both teachers and learners (Koike, 2006; Yoshida, Negishi, Watanabe & Naganuma, 2004, Yoshida, Negishi, Watanabe, Naganuma, Benessee International Department, and Kyoiku kiso kenkyubu, 2004). With clearer goals and a more coordinated policy at the national level, it is conceivable that JEFL teachers' cognitions can be developed through teacher learning in teacher education, as is the case elsewhere (Borg, 2006a; Freeman & Richards, 1996). Even in East Asia, as each country's English teaching policy and teacher education policy is different, it is possible that NNES EFL teachers' cognitions could be totally distinct in many cases. It is necessary to do research about teacher cognition from social and cultural perspectives.

3.17 EFL teacher education provided by different types of JEFL teacher educators

The courses or modules for English teaching methodology in preservice teacher education may lack sufficient practicality due to focusing on theories or ideal features of education (cf.

Ishida et al., 2003; JACET SIG on English Education, 2006; Sato, 1995). In addition, not all teacher educators in charge at university in Japan have sufficient practical teaching backgrounds, and also their lectures do not sufficiently reflect actual classroom realities or practical ideas to cope with real language classrooms. In many cases, there are few, if any, relationships between teacher educators at university and teachers at school in terms of the training contents and assessment criteria (Asaba, Hirono & Toyoda, 2000; JACET SIG on English Education, 2006).

There are no qualifications of JEFL teacher educators, and they are not clear or standardized in practical terms. It follows that there are different types of JEFL teacher educators working for preservice teacher education provided by universities. In addition, in terms of in-service teacher education including induction periods, foreign language (specifically English) teacher consultants called *Shidoshuji* (指導主事) or a teacher consultant who can play a leading role in teaching English in their school administrative districts, usually coordinate programmes and courses. In some cases, teacher educators just provide their students with their own knowledge or ideas based on their beliefs, assumptions and knowledge, and in other cases, they just teach a history of English teaching or some theories of applied linguistics or SLA, which may all be unpractical for teaching English.

Kanatani (1995: 60-72) discusses research on EFL teacher education in Japan and points out some key problems regarding teacher educators or tutors:

- 1) few university tutors with much practical experience of teaching
- 2) university tutors' lack of interest in teacher education
- 3) variable and non-standardized teacher education programmes provided by many universities
- 4) few teacher education specialists

5) poor relationships between university tutors and school teachers

JEFL teacher educators' professionalism therefore should be worth considering in the present research as factors which may well have an influence on JEFL teachers' cognitions.

3.18 JEFL teacher cognition and complexity theory

Up to this point the words 'complicated' and 'complex' have been used in respect of particular aspects of *Eigo Kyoiku* and JEFL teachers' cognitions about teaching and teacher education. This led to an interest in 'complexity theory' (e.g. Lewin, 1999) to see if it might yield further insight into these areas. As I have so far discussed how JEFL teachers are developed and what they have been doing, it seems natural that LTC should be regarded as a complex system, although I assume that there is still a hidden order in it and it may have dynamic and systematic aspects as well.

In fact, in recent years there has been an upsurge of interest in 'complexity theory' or 'complex adaptive systems' (CAS)(e.g. Gell-Mann, 1994; Holland, 1992), which is also called 'dynamic systems theory' (DST)(e.g. Van Gelder and Port, 1995), within the general field of applied linguistics. Complexity theory or CAS in respect of languages has attracted a complete issue of two of the world's leading research journals in applied linguistics (*The Modern Language Journal*, 2008/92) and in psycholinguistics (*Bilingualism, Language and Cognition*, 2007).

Major figures, such as Larsen-Freeman & Cameron (2008a), de Bot (2008) and Dörnyei (2011), have strongly contributed to the development of complexity theory. In their writings, complexity theory has been applied to the acquisition of a second language, to second language classroom processes, and to languages policy. As Burns and Knox (2005) have argued, language classrooms show all the characteristics of dynamic systems, and for the analysis of

processes of interaction in the classroom, CAS may provide a new framework in which learning at the individual and group levels can be connected.

De Bot (2008: 167) points out that 'DST did not originate in languages-related research but that it started out as a purely mathematical approach for the development of complex systems over time,' and has been applied in several different areas of science and social science, e.g. ontology, management and psychotherapy. Van Lier (1996) also argues that the language classroom is a complex system. According to Waldrop (1992), 'complexity' is not synonymous with 'chaos.' Waldrop sees 'complexity' as being situated at the edge of 'order' and 'chaos,' and defines 'complexity' as 'a chaos of behaviors in which the components of the system never quite lock into place, yet never quite dissolve into turbulence either' (Waldrop, 1992: 293).

Complexity theory, briefly speaking, is a set of concepts that attempts to explain complex phenomenon that is hard to explain by traditional theories or systems. In complexity theory, the systems act as a whole and are capable of undergoing transformation in order to adapt to a new environment. It is primarily interested in the ways in which such systems are self-organizing or autopoietic and can develop new structures. In language teaching and learning, scientific approaches have attempted to examine it by looking into some teaching and learning effects elaborately, such as acquisition and learning (see Krashen, 1981) or interlanguage (see Selinker, 1972). However, it seems from a practical teachers' point of view that these approaches have not achieved results as expected. Compared to such approaches, complexity theory is a new one that has bigger perspectives and sees the complex reality as the whole system by examining how the parts interact.

The basic characteristics of CAS can be summarized as in Table 3.2, which shows key concepts and related quotes in terms of CAS, based on Johnstone (2012).

Table 3.2 Characteristics of CAS

Key concepts	Related quotes
heterogeneity	The elements, agents and/or processes in a complex system are of many different types (Larsen-Freeman & Cameron, 2008a: 28).
dynamism	In a complex, dynamic system everything changes all the time (Larsen-Freeman & Cameron, 2008a: 29).
non-linearity and no absolute replicability	The interactions among elements and agents in a complex system change over time. This makes for non-linearity ... There can be no absolute replicability because the conditions are always changing (Larsen-Freeman & Cameron, 2008a: 30).
openness	Open systems allow energy or matter to enter from outside the system. Being open can enable a 'far-from-equilibrium' system to keep adjusting and maintain stability (Larsen-Freeman & Cameron, 2008a: 32).
adaptive	In adaptive systems, change in one area of the system leads to change in the system as a whole (Larsen-Freeman & Cameron, 2008a: 33).
less causality	... the unknowableness and interconnectedness of systems makes it much more difficult, if not impossible, to isolate independent variables that act in causative ways. (Larsen-Freeman & Cameron, 2008b: 202).
emergence	A key term in CAS theory is 'emergence'. Rather than outcomes being directly caused by a small number of identified inputs, new outcomes (which themselves may be new CAS) emerge (slowly or suddenly) from the complexity of interactions within the system and evolve over time. Their arrival and their evolution are largely unpredictable. (Ellis & Larsen-Freeman, 2006)
problematizing variables	Let us understand clearly, once and for all, that variables don't exist. They are not real. What exists are complex systems, which systems are nested, intersecting, which involve both the social and the natural, and which are subject to modification on the basis of human action, both individual and social (Byrne, 2002: 31).
multiple embeddedness	A CAS may contain within itself a possibly large number of CAS which in turn may contain CAS within themselves. In that sense, Japanese culture may be viewed as a CAS, containing within it another CAS called <i>Eigo Kyoiku</i> containing several CAS, one of which may be JEFL teachers' cognitions, both collective and individual.

the changed nature of context	Context includes the physical, social, cognitive and cultural and is not separable from the system. It cannot be seen as a frame surrounding the system that is needed to interpret its behaviour (Larsen-Freeman & Cameron, 2008b: 209).
self-organized criticality (SOC)	The idea that many systems tend to self-organize and become critical over time was developed by the Danish physicist Per Bak. Bak is best known from the metaphor he used to explain SOC: the “sand pile” (1996). When grains of sand are dropped on a table, a cone-shaped pile will develop. When sand is added grain by grain, the slope of the pile will become steeper and steeper until it reaches a critical level. When such a level is reached, the next grain of sand dropped on the pile will cause one or more avalanches; in other words, the system has reached a critical state. Systems in such critical states show specific behavior: they are highly unstable, and their behavior is unpredictable (de Bot, 2008: 172).
attractor states	A key tenet of DST is the recognition that system development often involves stable and predictable phases when the system is governed by strong attractors, resulting in settled, non-dynamic ‘attractor states’ (Dörnyei, 2011: 5).

Dörnyei (2011) argues that the most common research paradigms in the social sciences tend to examine variables in relative isolation rather than as part of a system or network, and that most established quantitative data analytical procedures (e.g. correlation analysis or structural equation modelling) are based on linear rather than non-linear relationships. In CAS by contrast the elements are much more protean, numerous and inter-connected, with the consequence that, as de Bot (2008) argues, we usually cannot find straightforward linear cause-effect relationships where input leads to a proportionate output (e.g. the higher the motivation, the higher the achievement). In non-linear systems a huge input can sometimes result in very little or no impact, while at others even a tiny input can sometimes lead to what seems like a disproportionate ‘explosion’ (a phenomenon sometimes called the ‘butterfly’ effect). This is because the system’s behavioural outcome depends on the overall constellation of the system components – how all the relevant factors work together.

Regarding non-dynamic settled states in complex systems, Dörnyei (2009: 106) explains

that 'The answer lies in the concept of attractors and the subsequent attractor states.

Attractor states are preferred – but not necessarily predictable – states to which a system is attracted.' I assume that LTC can be formed or developed spontaneously toward an attractor state, where it converges on a pattern or a preferred state or way of doing things is discovered when a system adapts to its environment.

Complexity theory does not appear thus far to have been related strongly to the area of LTC. There are, however, clear signs of interest and potential. Feryok (2010: 277), for example, claims that 'Thinking of teacher cognitions as complex systems is compatible with trends that have been emerging for years. Reviews such as those by Borg (2003) and Freeman (2002) have noted widespread recognition of teacher cognitions as complex, dynamic, and contextualised, yet these themes have not been brought together in any unified way, highlighting the need for a systematic approach to the research agenda [underlined by the author].' It is fair to recognize that considerable interest has been generated in the complexities of LTC and that they would not meet the full set of characteristics of CAS as set out in Table 3.2. Moreover, Feryok's use of the term 'contextualised' in the quotation above may not be fully consistent with the notion of context as set out by leading exponents of complexity theory, such as Larsen-Freeman (2008a) who argues that context is not backcloth but is a set of agents which are active within the system.

Regarding the LTC research, Feryok (2010: 273-274) also refers to the features of complexity theory as being fit for it, saying that 'It is meant to be exploratory, suggesting rather than arguing why complex systems theory may be a suitable approach for investigating language teacher cognitions.' I assume that JEFLL teachers' cognitions need to be viewed as a set of tools and approaches existing within a complex, dynamic, active and contextualized system.

3.19 *Eigo Kyoiku* as an attractor conglomerate in developing JEFL teacher cognition

Teachers in a number of countries are being assessed by unreliable and ineffective methods and criteria by their head teachers (International Labour Organisation and United Nations Education, Scientific and Cultural Organisation, 2006). It is happening to JEFL teachers as well, but it is not clear to what extent the current teacher education system can influence JEFL teacher knowledge (Kanatani, 1995). Many researchers point out that there have been some deep-rooted systematic problems (Asaba et al., 2000; Ishida et al., 2001, 2002, 2003, 2004; Jimbo et al., 2005; Kanatani, 1995), and the fundamental system in terms of what to teach and how to learn to teach English has not been greatly changed since the Meiji period or 1890s. As have been discussed thus far, *Eigo Kyoiku* as a set of attractor states has influenced the development of JEFL teacher cognition.

Each teacher works in accordance with some traditional implicit beliefs and knowledge (cf. Hatori, 1978; Ito, Ito, Shimomura, Seki & Watanabe, 1995; Matsuhata, 1989; Takanashi, 1985; Tsuchiya & Hirono, 2000; Yoneyama, 2003). To solve this complex system, one of the key points of effective teacher learning is that the teacher education programmes across the country will have much in common with each other (e.g. Barnes, 1989; Ichimura, 1993; Imig & Switzer, 1996; Reynolds, 1989). It may be necessary to set out clear standards or benchmarks of what teachers may be expected to attain, such as the Standard for Full Registration in Scotland¹⁸. Regarding preservice teacher education, the concept of EPOSTL (European Portfolio for Student Teachers of Languages) (Newby et al., 2007), which is a reflection tool for LTE in Europe, may be effective to some extent. However, as JEFL teachers do not have such effective teacher learning for the moment, it is important to understand what they know,

¹⁸ see The General Teaching Council for Scotland at <http://www.gtcsc.org.uk/standards/standard-full-registration.aspx>

believe, think and do in the first place.

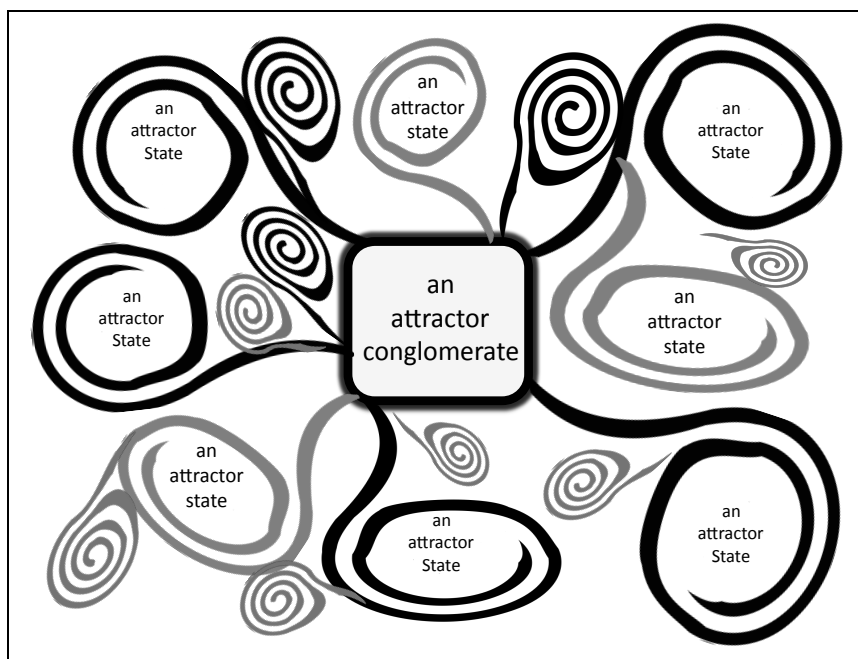
In order to see what is happening to JEFLL teachers, one key characteristic is a network of concepts and possible relationships in respect of their cognitions. The network can be complex because it envisages many possible relationships and none of the concepts have self-evident meanings. The concept may have a verbal aspect emphasizing ‘process’ in the sense of ‘knowing’ and a nominal aspect emphasizing ‘product.’ In addition, knowledge may be explicit with the individual aware of what it is, or it may be implicit with it being there in the individual’s mind and exercising some influence on the individual. The concept may not necessarily reflect one single thing, but might be broad and integrative in nature, subsuming a number of implicated concepts. *Eigo Kyoiku* is a good example of this and may be called ‘an attractor conglomerate’ (Dörnyei, 2011). All of them are problematical and carry a range of potential meanings. The potential meanings of each concept would therefore need to be explored in this present thesis.

In Chapter 1, Figure 1.1 depicts the network of language teachers’ thought processes in which teacher beliefs, learning, assumptions, and knowledge are circulated and developed in relation to classroom management, being interacted with each other. Regarding such a network model to represent complex systems, I tried making a provisional network model by using how each attractor state interrelates with each other (see Figure 3.2). An attractor conglomerate means a set of attractor states ‘to operate in concert – these are sometimes called “attractor basins” – that will create predictable states’ (Dörnyei, 2011: 5). This model is characterized in the following respects:

- 1) The position of each attractor state is purely presentational.
- 2) The different attractor states are inter-connected in complex ways.
- 3) Signals or emotional impulses, thoughts or insights could move in any direction.

- 4) Each attractor state might have an influence individually.
- 5) Each attractor state does not exist separately and consists of a number of concepts.

Figure 3.2 A provisional network model to represent an attractor conglomerate

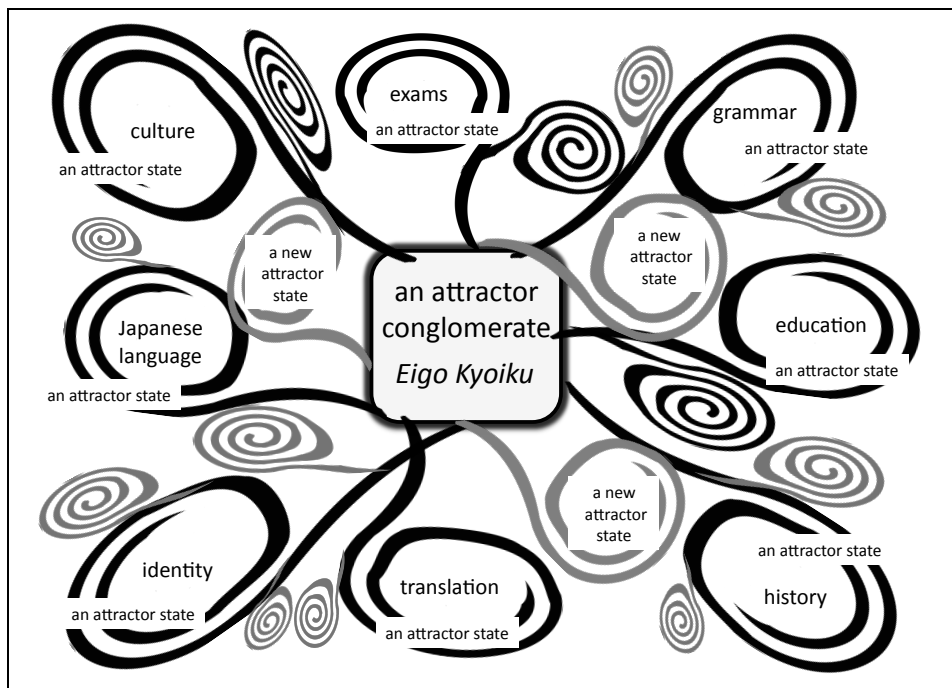


The network in Figure 3.2 reflects at least some aspects of connectionism, which is a movement in cognitive science to explain human intellectual abilities using artificial neural networks (cf. Garson, 2010), and the interlinked system of resources forms what van Geert (1995) has called a cognitive ecosystem, in which cognition is the process of information that occurs from interaction with symbols in the world. With the addition of the notion of emotionality, it can capture the essence of the system well.

As explained in Table 3.1, CAS can have aspects called attractor states which appear to be stable rather than dynamic. In the present research, the notion of attractor states is thus helpful in making sense of some aspects of JEFLL teacher cognition in *Eigo Kyoiku* as an attractor conglomerate. Chapter 2 sets out clearly how seemingly 'fixed' and unchanging *Eigo*

Kyoiku has been over a long period of time, and argues that *Eigo Kyoiku* may represent a kind of CAS which has evolved into an attractor conglomerate or a set of attractor states. Based on Figure 3.2 and the discussion thus far, I create a provisional network model of how *Eigo Kyoiku* is composed of related attractor states as in the following diagram.

Figure 3.3 A provisional network model of *Eigo Kyoiku*



3.20 Identifying an attractor state in CAS

Dörnyei (2011: 5) proposed three potential research strategies for investigating CAS:

- 1) focus on identifying strong attractor-governed phenomena
- 2) focus on identifying typical attractor conglomerates
- 3) focus on identifying and analyzing typical dynamic outcome patterns

He highlights the existence of the systematic outcome patterns and, by tracing back the

reasons why the system has ended up with a particular outcome option, produces a retrospective qualitative model of its evolution. He names this reversed qualitative modelling element ‘retrodictive qualitative modelling (RQM)’ and shows the three-step research process for the language classroom (Dörnyei (2011: 7-9):

Step 1: Identifying salient student types in the classroom

Step 2: Identifying students who are typical of the established prototypes and conducting interviews with them

Step 3: Identifying the most salient system components and the signature dynamic¹⁹ of each system

The concept of this RQM is close to and can be applicable to the present research methodology. I decided to make use of his RQM. That is because JEFLL teachers and *Eigo Kyoiku* interact with each other and result in ‘settled, non-dynamic attractor states’, forming ‘potent constructs or conglomerates’, in other words, ‘a powerful amalgam that acts as a whole’ (see Dörnyei (2011) for more details). In the present research then, I focus on identifying and analyzing typical dynamic outcome patterns, which are described in detail in the next chapter.

3.21 A provisional network model to represent JEFLL teacher cognition

There are a number of substantial reasons to study teacher cognition: e.g. to understand teaching by gaining insight into the psychological context of instruction; to understand discrepancies between theoretical recommendations based on research and classroom practice; to engage teachers in a form of reflective learning by helping them to become aware

¹⁹ According to Dörnyei (2011), the signature dynamics in complex dynamic systems refer to the main underlying dynamic patterns that produced the observed system outcomes and unique development paths that lead to system-specific outcomes as opposed to other possible outcomes.

of the psychological bases of their classroom practice; to provide the basis of effective teacher education and professional development; and to understand how teachers develop (see Borg, 2006b). In this research, I will especially focus on JEFLL teachers' complex cognitions as human cognition, which 'is mediated by virtue of being situated in a cultural environment' (Johnson & Golombek, 2011:1), and explore JEFLL teachers by communicating with them and observing their activities or behaviours at school as holistically as possible. In terms of such holistic views, Johnson & Golombek (2011: 3) also state that 'Cognition cannot be removed from activity since it originates in and is framed by the very nature of that activity. From this stance, *knowledge of teaching* must be understood holistically, and the interdependence between *what is taught* and *how it is taught* becomes crucial to both the processes of learning-to-teach as well as the development of teaching expertise.' The present research will therefore try to follow this position and take holistic views in accordance with complexity theory perspectives.

In the next chapter I will describe my research methodology in detail. Before that, and in order to conclude the present chapter, I set out a provisional network model to represent JEFLL teacher cognition as a summary of the literature review. The model has been developed in order to reflect the Japanese cultural and educational context and is based on the elements and processes in LTC provided by Borg (2006a) (see Figure 3.1) and the network model in association with CAS (see Figure 3.3). The notion of multiple embedded CAS containing an attractor state does not figure prominently in the previous research; relatively little account seems to be taken of notions of societal culture or of educational culture as complexity theory in themselves. For example, there is some sense of input-output thinking, as represented in Borg's elements and processes in LTC, in that a range of particular inputs are presented as leading to the output, whereas in complexity theory, LTC can be viewed as a self-regulating system which emerges in non-linear ways that cannot be fully predicted, arising from multiple

and in some cases deeply covert sources. The present thesis, therefore, by seeking to draw on complexity theory in its exploration of LTC, is taking a different qualitative approach because I have had assumptions that JEFL teachers' cognitions comprise rather complex factors.

Figure 3.4 A provisional network model to represent JEFL teacher cognition

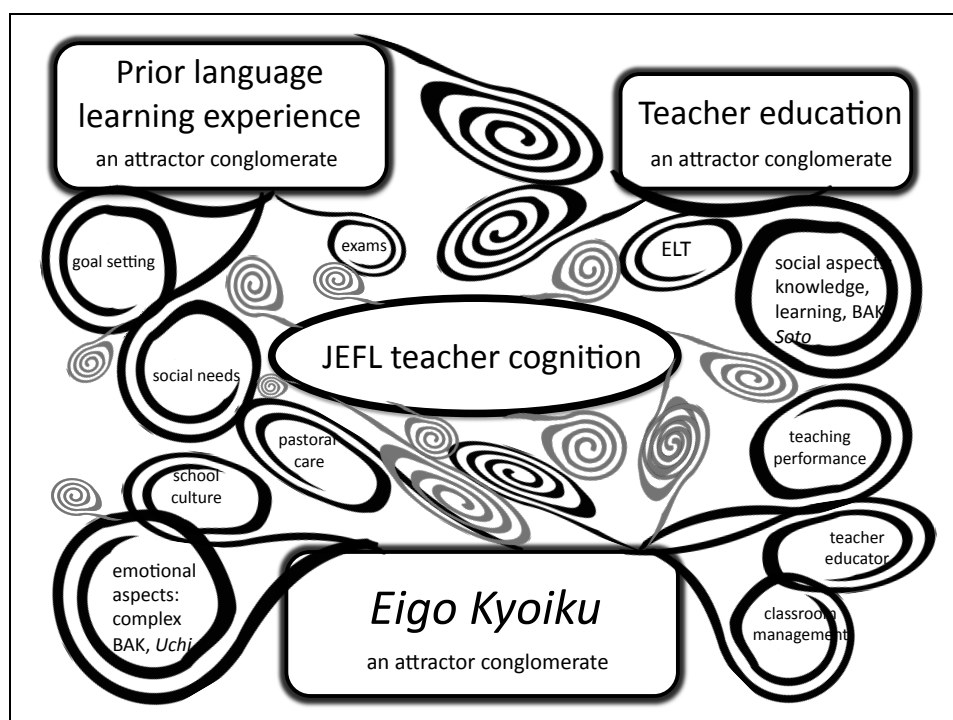


Figure 3.4 thus demonstrates that JEFL teacher cognition is strongly influenced by prior language learning experience and previous knowledge at school as well as by teacher education. JEFL teacher cognition can always be concerned with teachers' collective awareness in school education, such as human development and *Eigo Kyoiku*. It can also be influenced by the local, situated and complex factors. Moreover, JEFL teacher cognition can comprise two main aspects: emotional and social aspects. Especially the conceptions of *Uchi* and *Soto* (see 2.17) can be significant factors to understand the nature of JEFL teacher cognition. Figure 3.4 can also depict the framework of this study but does not mean predictive

qualitative modelling. It is actually RQM which has emerged from the researcher's thought processes about JEFLL teacher cognition. JEFLL teacher cognition will change over time and will not repeat itself, but I expect that such a network model can help explore the nature of JEFLL teacher cognition.

Chapter 4 The overall research design and the Preliminary Study

Chapter summary

This chapter presents the philosophy of this research and also explains how the research is designed and conducted: i.e. purpose, research guiding questions (RQs), research design (e.g. research methodology, mixed methods, deliberate research procedures, trustworthiness, credibility, and reflexivity), and the Preliminary Study including the Language Teacher Cognition Inventory (LTCI) and questionnaire survey. The study consists the Preliminary Study (questionnaire research) and the Main Study (interview, classroom and ethnographic observation, the applied KJ method, RQM, and the research results presentation). The preliminary Study identifies 16 aspects of LTC, which the Main Study focuses on, through the quantitative analysis by contrasting JEFL teachers with MFL teachers in Scotland.

Based on the JEFL teacher cognition network model that I presented in Chapter 3, I decided to conduct exploratory research in order to better understand the nature of JEFL teacher cognition. The network model depicts how attractors or attractor states are related to each other surrounding JEFL teacher cognition. However it needs further exploration into its in-depth concepts and relationships, which can be open, adaptive, emergent and self-organized, and it may be hard to identify through quantitative and linear cause-effective research. In order to address the research objectives to specify the nature of JEFL teacher cognition, I first of all need to decide what kind of methodological routes to take in the next phase.

This exploratory research adopts a mixed-methods approach. Careful thought and planning should be required right from the beginning of the research. The research methods and procedures therefore need to be made clear in the first place, because the present research is comprised of a number of research methods, such as questionnaire, interview, classroom observation, and ethnographic observation, while referring to the applied KJ method and RQM in relation to complexity theory. Based on Davies' checkpoint protocol (2007) in deciding how to answer an empirical research question, I set the following principles to explore a research guiding question (RQ) for this exploratory study: 1) to investigate the characteristics of JEFL teacher cognition (the Preliminary Study), 2) to explore, interpret, look behind the surface, and evaluate them cyclically, and 3) to represent them in association with a research guiding question.

The MEXT research results (see 1.3.1) showed some suggestions for the need of further research about aspects of JEFL teachers' cognitions. I thus mainly focused on a qualitative approach in the present exploratory study. In this connection, Davies (2007: 26) points out that the qualitative research 'calls for advanced skills in data management and text-driven creativity during the analysis and write-up.' However, as he adds that 'the tasks of data analysis and write-up are largely, although not entirely, determined by the way the project was set up' in quantitative research, I took a quantitative approach before starting a qualitative one in order to better locate the characteristics of JEFL teacher cognition.

4.1 The overall research design

In conducting this exploratory mixed-methods research, I especially considered the data management and text-driven creativity in a deliberate way, and confirmed my philosophy after presenting the research design in order to specify my standpoints in the first place. This research framework is related to the concept of retrodictive qualitative modeling (RQM) 'by

tracing back the reasons why the system has ended up with a particular outcome option' (Dörnyei, 2011: 6)(see 3.20), because it seems to be difficult to see what is actually happening in JEFLL teachers' mental, cognitive and emotional world. The research methodology and design thus should be exploratory and based on mixed methods to find facts about the complexity of JEFLL teachers' cognitions.

4.1.1 Applied retrodictive qualitative modelling (RQM)

RQM is useful and applicable to the present study on JEFLL teachers' cognitions. As described in Figure 3.4 in Chapter 3, a provisional network model to represent JEFLL teacher cognition comprises *Eigo Kyoiku* as an attractor conglomerate and other attractors and attractor states, which interact with each other to develop JEFLL teacher cognition. In other words, it can help demonstrate how JEFLL teacher cognition is structured and processed in a complex system.

Based on the three-step research template of RQM proposed by Dörnyei (see 3.20), I set an applied RQM for the present research to understand why a JEFLL teacher ends up being such a teacher if he or she is typical of an established teacher type. I did not intend to use it primarily or insist on exclusively applying it to the present study, but I used it as general research guidelines to adopt research methods. The following applied three steps of RQM were thus set in relation to the Preliminary Study and the Main Study:

- 1) To identify salient JEFLL teachers' types and some typical topics of JEFLL teachers' cognitions through the questionnaire survey in the Preliminary Study
- 2) To identify JEFLL teachers who are typical of the established prototypes through the questionnaire survey and informal interview with them in the Preliminary Study, and

to conduct interviews with some JEFLL teachers and their classroom/ethnographic observations in the Main Study to understand the characteristics of their teachers' cognitions

- 3) To identify the most salient components of JEFLL teacher cognition in the qualitative data analysis process, and to identify the signature dynamics of JEFLL teacher cognition in *Eigo Kyoiku* as an attractor conglomerate

By identifying and analyzing typical dynamic outcome patterns while considering three steps of applied RQM, I aim to understand the nature of JEFLL teacher cognition on teaching and teacher education in the present research. LTC can organize itself as a complex system and it may be difficult to identify, but 'the emerging prototypes and outcome patterns – which formed the basis of RQM – are sufficiently robust to be recognisable in a variety of contexts' (Dörnyei, 2011: 10-11), and thus it is important to 'see it all' and retrodict what JEFLL teacher said and did.

4.1.2 Research purpose

This research aims to realize the nature of JEFLL teacher cognition on teaching and teacher education. The general research purpose is thus set as follows:

To identify the nature of JEFLL teacher cognition regarding teaching and teacher education and to explore to what extent language teacher cognition (LTC) is situated in the Japanese context.

The reason why the research has been focused on JEFLL teachers is that they can be representative of all NNES EFL teachers in Japan, because they are only officially qualified or

licensed teachers, as described in Chapter 2.

As discussed thus far, the hard-to-change English teaching realities in Japan may not be due to JEFLL teachers' teaching knowledge and skills, but closely related to their thoughts and beliefs which have been cultivated in the course of teaching and teacher education in *Eigo Kyoiku* (cf. Figure 3.4). Nonetheless, such JEFLL teachers' conceptions have not been questioned so seriously, and education policymakers and teacher educators have exclusively concentrated on improving English teaching techniques and skills and criticized the current schooling system for its fundamental adverse effects. I thus wondered how JEFLL teachers think and know about their teaching, what kind of beliefs they have, how they have formed their current teach cognition, and why they are taking the current teaching methods.

4.1.3 Research guiding questions (RQs)

In order to achieve the research purpose, I set the following four research guiding questions (RQs):

RQ 1. What are the nature and distinctive characteristics of JEFLL teacher cognition regarding teaching and teacher education, and what appear to be its distinctive characteristics?

RQ 2. What particular influences can effectively help shape JEFLL teacher cognition in teaching and teacher development, and in what ways do JEFLL teachers make sense of teaching and teacher development?

RQ 3. To what extent are JEFLL teachers' cognitions on teaching and teacher development consistent with their actual practices of teaching, and what are the main influences on the relationships between their cognitions and practices?

RQ 4. To what extent could LTC be situated in the Japanese context and be helpful for teacher development, and what overall picture of LTC emerges from the

exploratory study?

These RQs were set as exploratory guidelines to conduct the present research and likely to change appropriately in the process of the data gathering and analyzing so as to achieve the research purpose. At the starting stage, I employed the following specific research methods in accordance with each RQ under the principles of applied RQM.

Firstly, regarding RQ 1, I conducted a questionnaire survey as the Preliminary Study to identify some aspects of the nature and distinctive characteristics of JEFL teacher cognition by being compared with different language teachers as a contrasting case. The questionnaire survey, which I later describe in detail, aimed to see a framework of JEFL teacher cognition in this exploratory research and find some distinctive characteristics. It was the start for carrying out this exploratory research, and subsequently as the Main Study I conducted further in-depth interviews with the teachers who had answered the questionnaire and selected appropriate teachers who would cooperate with this research (henceforth referred to as PTs (participant teachers)), in order to better identify some aspects of the nature of JEFL teacher cognition whose background has the traditional teacher education culture as described in Chapter 3 (see Figure 3.4).

Secondly, regarding RQ 2, further questions were put to some PTs through a series of interviews, accompanied by observation of their working situations and their relationship with colleagues, in order to find some particular influences to help JEFL teachers develop their own teacher cognitions which are thought to be effective for their better teaching and teacher development, as discussed in Chapter 3. In this phase, I highlighted some particular influences to help shape positive aspects of JEFL teachers' cognitions while considering negative aspects at the same time and to make sense of their teaching and teacher development more specifically.

Thirdly, regarding RQ 3, the researcher's observation literacy or ability to understand what happens to JEFL teachers needed to work as the main factor when comparing the consistency and inconsistency between JEFL teachers' cognitions and their actual behaviours. The data extracted from ethnographic²⁰ and classroom observation as well as interviews were closely scrutinized in the analysis process: *noticing, collecting (recording) and thinking (reflecting)* (see 4.1.5.2). In this phase, the reciprocal research analysis between the researcher and the PTs could be necessary as well. The analytical procedures are rather complex and cannot be linear, so that I represent my philosophy and research methodology in the next sections. By pinpointing some featured issues of JEFL teachers' cognitions and behaviours in the classroom, I would discuss them to identify the main influences on their teaching from a positive point of view as in RQ 2.

Finally, regarding RQ 4, it might be an additional question but it is really important to discuss language teaching, because the term LTC has been created and used in different meanings in the different contexts of language teaching. In Japan, LTC is still a rather new concept to JEFL teachers and researchers and it is not clear to what extent LTC is situated in the Japanese educational context or how different it is from the international context. It is thus worth researching in what ways LTC research can be helpful for JEFL teacher development. Through collecting and analyzing the data related to RQs 1, 2 and 3, I critically examined the meaning of LTC in the Japanese context and reconsidered how it would work for JEFL teacher development and what the overall picture of LTC emerges from.

Before demonstrating how I conducted the research to explore these four RQs, I will first represent the research philosophy and methodology because the researcher's initial thoughts are essential to this exploratory research.

²⁰ Ethnographic observation aims to see JEFL teachers' culture and community as a compensation for classroom observation and interviews.

4.1.4 Philosophy and identity as a teacher-researcher

I assume that JEFLL teacher cognition is not well situated in the current international language teaching context, as has been discussed in Chapters 1 to 3. However, these assumptions have not been confirmed yet. That is because there has been less research on JEFLL teacher cognition (e.g. Nishino, 2008; Watanabe, 2008; Nagamine, 2009). Borg (2010) argues about the importance of language teacher research engagement. It refers to language teachers' engagement in or with research, and discusses teacher research (see also Cochran-Smith, Marilyn & Lytle, 1993; MacLean & Mohr, 1999), which focuses more on teachers than teaching and learning in the classroom, such as action research or classroom research. These views apparently seem to be distinct, but the concept of teacher-as-researcher is an important keyword in the present study of how JEFLL teacher cognition is situated internationally.

I thus start with my first assumption that the situated system of LTE or *Eigo Kyoiku* may possibly prevent the improvement of JEFLL teachers' professional development. To do research on it, exploratory views should always be prioritized in each phase of the research procedures and the researcher's views especially must be reflective and reflexive while gathering and analyzing the data. If so, subjective aspects can be reflected all the way in order to make better solution for understanding the nature of JEFLL teacher cognition. The concept of teacher cognition is, as discussed in Chapter 3, strongly related to social cognition and social constructivism, in that humans generate knowledge and meaning from their experiences. Therefore, I as a teacher-researcher most strongly respect my own cognition, knowledge and experience regarding language teaching and research in this exploratory study, because I have to explore and think independently.

4.1.5 Research methodology

Educational research has at the same time absorbed two competing views of the social sciences – the established, traditional view and a more recent interpretive view (Cohen, Manion & Morrison, 2000: 5). Teacher research is associated with sociology of teaching (Waller, 1932), and so it requires a sociological view to some extent. It follows that the present research is basically conducted based on educational, interpretive and sociological perspectives, which are focused on understanding LTC regarding teaching and teacher education. I hereby show how I applied this exploratory research based on my philosophy and identity in the next sections.

In order to understand the nature of LTC, psychometric or quantitative approaches could not be sufficient in many cases, and interpretive and qualitative approaches, such as interview, observation, narrative and ethnography, will be necessary. One of the key points of the better research approach is therefore how to provide a valid interpretation of the research results. Interpretation, however, may be subjective to some extent and influenced by other views, so that research needs to be elaborately conducted when gathering and analyzing the data. The research methods most appropriate for the four RQs thus should be selected and applied for each phase in different ways and should be revised appropriately if necessary even while conducting research as well.

In addition to interpretive views, empirical views, which are dependent on evidence by means of observation, are necessary and essential for a set of well-designed procedures in the decision-making process of the research paradigm or methodology. When applying the scientific method, researchers may ‘choose the most appropriate method and put their hypotheses to the test’ (Cohen, Manion & Morrison, 2000: 17), but there is naturally criticism by anti-positivists against such ‘a science’s mechanistic and reductionist view of nature which, by definition, excludes notions of choice, freedom, individuality, and moral responsibility’

(Cohen, Manion & Morrison, 2000: 17). The present research focuses on teachers in action and their realities, intending to elicit their true thoughts. I therefore decided to apply somewhat different scientific perspectives considering my own subjective choice, freedom and moral responsibility about conducting research while respecting JEFL teachers' individuality and conformity in order to find empirical evidence.

4.1.5.1 Subjective and objective dimensions

I will respect my subjectivity most of all. It is because my own teacher cognition can be most useful for this exploratory research, as mentioned above. Subjective-objective dimensions thus should be considered from a different viewpoint in this research. For that purpose, the four concepts – ontology, epistemology, human nature and methodology – about the nature of social science (Burrell & Morgan, 1979) can help guide how to proceed with the present research elaborately. That is because each dichotomy of concepts in different views (e.g. subjective vs. objective) should always be kept in mind when gathering and analyzing the data.

According to Burrell & Morgan (1979), there are two extreme approaches: nominalism and realism in ontological views. Nominalists think that there are no real structures but realists have the opposite views, which is that there is a real world outside individual cognition. In the present research, the researcher needs to see what teachers really do in the classroom, having a realistic or objective view, and also has to hold a subjective view as well in order to explore their teacher cognition. Also, anti-positivist approaches in epistemological views argue that the world is relativistic and there cannot be objective knowledge of any kind, but positivist approaches look for cumulative or objective knowledge as in natural sciences. In terms of human nature, voluntarists highlight people's ultimate autonomy and free will, but determinists see that people's activities are largely determined by the situation or

environment. Regarding methodology, ideographic approaches assume that inside knowledge is considered necessary in order to gain deep understanding, but nomothetic approaches are based on systematic protocols and quantitative technique.

Accordingly both subjective and objective views in each concept should be regarded well to do research on teacher cognition. Although the balance of these four concepts is significant, the present research mainly adopts subjective stances: i.e. nominalism, anti-positivism, voluntarism and idiographism. In order to compensate for the defects of subjectivity, which is related to human awareness and internal facts, the researcher especially has to take reflexivity (see 4.1.5.6) into consideration.

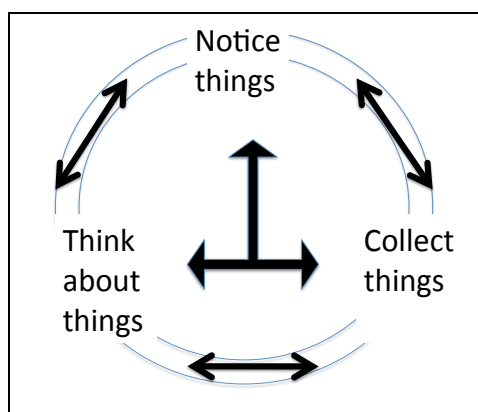
4.1.5.2 Research methods

When starting the present research, I realized that it would be difficult but important to explore how to identify JEFLL teacher cognition socially, culturally and locally. First of all, I thus decided to make a questionnaire survey about teacher cognition (in the Preliminary Study) based on the MEXT Study results, in which a number of aspects of JEFLL teacher cognition were located and their complex thoughts were also presumed (see 1.3.1). The research methodology therefore includes a collection of quantitative and qualitative methods and analyses, such as questionnaire, interview and observation, as well as the researcher's reflection and reflexivity. In addition, ethnographic approaches and sustainable relationships with teachers are also necessary throughout the whole research procedure (in the Main Study).

The relationships between the researcher and PTs are necessary to interpret and analyze the qualitative data with reflective or reflexive views, and PTs were expected to be co-researchers in the data analysis stage occasionally. These relationships may be related to the concept of collaborative reflection (Miyake, 2001; Richards & Renandya, 2002; Tigelaar et

al., 2006), which is regarded as effective for teacher development in communities of practice²¹ (Wenger, 1999). As the researcher's subjective views are inevitable to some extent in the data analysis, collaborative reflection is helpful to complement them and add some aspects of supportive evidence or shared subjectivity to the data analysis process. Therefore, I decided that the qualitative data analysis process provided by Seidel (1998) (see Figure 4.1) should be primarily applied for the data gathering and analysis process in collaboration with PTs (in the Main Study).

Figure 4.1 The qualitative data analysis process (Seidel, 1998)



The qualitative data analysis process (Seidel, 1998) is simple and requires research expertise through the three phases: *notice things*, *collect things* and *think about things*. The first phase *notice* includes two levels: reading and coding the raw data. As the data are extracted through interview and observation, they may normally be read, recorded and coded in order. In the present study, all the data are *noticed* by the researcher and *collected* or *recorded* under the researcher's *thinking* or *reflecting* concurrently or repeatedly. In many phases, *noticing*, *collecting* and *thinking* are to be conducted by the researcher with the

²¹ Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (retrieved July, 2012 from Wenger's home page at <http://www.ewenger.com/theory/>)

support of PTs. The process can be simply described, while it needs mixed methods of research analysis.

This process is related to ethnography or a branch of anthropology, which is originally the study of a group of living people: how they live, how they interact, what they believe, how they behave, what kind of objects they use, and what they do. These ethnographic approaches are partly effective for this research and sustainable relationships between the researcher and the participants are also necessary in the overall process. Moreover, the participants in this research were expected to work in a research group to identify the nature of JEFLL teacher cognition collaboratively. I assumed that such a collaborative praxis through a series of questionnaire, interview and observation can develop reflexive understanding regarding the components and their influential factors of JEFLL teacher cognition.

The research framework is thus summarized as in the following table and will be explained in detail in the next session.

Table 4.1 The outline of research models, methods, data analyses and dimensions

Phases	Models	Methods	Data analyses	Dimensions
The Preliminary Study	RQM	Questionnaire	Chi-square / Factor analysis	Objectivity
The Main Study		Interview / Classroom observation / Ethnographic observation	Noticing, collecting (recording), and thinking (reflecting) / Applied KJ method / Concept map	Subjectivity / Reflexivity / Collaborative reflection

4.1.5.3 The empirical nature of inquiry and a deliberate rigorous process

The scientific method in education has been considered to need the empirical nature of inquiry and a deliberate rigorous process. Mouly (1978:10) presents the five steps in the process of empirical science in educational research: 1) experience, 2) classification, 3)

qualification, 4) discovery of relationships, and 5) approximation to the truth. These five steps are not applied to all the process of the present research but should be regarded to some extent. I intended that the present exploratory research would fundamentally follow a subjective (partly interpretive) approach while trying to maintain the empirical nature. In order to add some empirical factors to this research, I took account of these five steps, while taking the above-mentioned data gathering and analysis process: *noticing*, *collecting* (*recording*) and *thinking* (*reflecting*) through the applied KJ Method, which is later explained in detail.

Scientific views are essential for any researcher to find facts and evidence in the process of the research. The empirical experimental approach has been regarded as significant to understand teaching and learning in the classroom, while subjective views are also necessary and complementary to the objective ones when conducting this exploratory study on LTC. Nonetheless, as subjective views may be regarded as less scientific or empirical, it is important to keep on contemplating both subjective and objective views as well as RQM throughout the present research in order to look into things from different perspectives.

For better scientific evidence in teacher cognition research, it should be important to take deliberate procedures to support the researcher's subjective views. A deliberate rigorous process can assure validity in the findings and reinforce the empirical evidence. For instance, when conducting both phases of research, the Preliminary Study and the Main Study, both have to be related to each other and the data should also be piled up in a systematic way. A deliberate, rigorous process is thus taken into consideration in the research, especially in data gathering and analysis process: *noticing*, *collecting* (*recording*) and *thinking* (*reflecting*) in the Main Study.

4.1.5.4 The interpretive approach and the normative approach

Most language teachers have some stable beliefs and knowledge: e.g. the encouragement of CLT or the importance of understanding grammar rules. Such teacher cognition should be identified scientifically and empirically, if possible. Suppose that you try to find some evidence of why teachers insist on CLT or grammar teaching in their classroom. An interpretive researcher tends to focus on individual CLT or grammar teaching classrooms. 'The aim of scientific investigation for the interpretive researcher is to understand how this glossing of reality goes on at one time and in one place and compare it with what goes on in different times and places' (Cohen, Manion & Morrison, 2000: 23). If you are a normative researcher, you will make efforts to identify the theory of CLT or grammar teaching. The normative research will aim 'to establish a comprehensive "rational edifice", a universal theory, to account for human and social behaviour' (Cohen, Manion & Morrison, 2000: 23).

Normative views cannot be neglected in order to identify LTC when interpreting the relationships between each teacher's cognition and behaviour. Generally speaking, teacher education in many countries is constructed on normative principles or standards, and it seems that most teacher beliefs can be formed in accordance with them, according to my previous ethnographic research on interviewing and observing language teachers in different teacher education contexts. Although individual teachers' views are actually different, one of the research goals is, if possible, to find part of a theory of how each JEFL teacher cognition can be developed. It is thus very important to fundamentally interpret each JEFL teacher's mental and emotional awareness, realizing what he or she believes, assumes and knows, and collecting and comparing a number of data, in order to identify the nature of JEFL teacher cognition through the interpretive approach while considering the normative views. Both views are essential in this qualitative exploratory research in the application of RQM.

4.1.5.5 A mixed-methods exploration

The present research starts from the questionnaire survey to identify the characteristics of JEFL teacher cognition. A number of research methods need to be used appropriately for the specific objectives of what to identify in each research phase. Under the basic research methodological concept, I decided to take a mixed-methods exploration including questionnaire, interview, classroom observation and ethnographic observation, by employing several methods concurrently. It is thus necessary to define what exploration this research employs. A mixed-methods approach may be practically rephrased into a more concrete term, such as triangulation²², in order to specify the research design, but it is simply used as a term to combine several research methods in this research. It follows that the present research mainly uses three methods concurrently or cyclically: questionnaire, interview and observation.

As it was hard to follow the linear or cause-and-effect procedures, the researcher needed to be careful not to miss the coherent and procedural credibility when conducting research. In that sense, a mixed-methods approach was applied to the present research. For that purpose, elaborate procedures were naturally required and then reflexivity could be furthermore important in order to maintain trustworthiness, credibility, and transferability. These terms are used instead of 'reliability' and 'validity' used in the quantitative research. Based on the premise, I will thus describe the research design specifically after referring to reflexivity that the researcher should use, in the next section.

In terms of reflection and reflexivity, which could be difficult to clearly distinguish, I use both terms interdependently and complementarily in the present thesis. However, I can say that reflection involves careful consideration and contemplation, reflecting on something that

²² Simply speaking, triangulation means the application and combination of several research methodologies.

has happened in the qualitative data analysis and the applied KJ method. Reflexivity, on the other hand, should be finding strategies to question the researcher's own cognitions or thought processes, attitudes, and decision making through the entire research process in order to understand complex teacher cognition.

4.1.5.6 Reflexivity: researcher principles

The researcher's thoughts and beliefs, as well as identity, values, interest, knowledge, philosophy or personality, can be essential for this exploration, but any of the researcher's subjective biases have to be avoided as much as possible. In any research, the researcher's intention creates the research purpose and selects the research methodology, and the important point is always how to design the research and find facts and evidence effectively and rigorously. In order to identify the nature of JEFLL teachers' cognitions and elicit their thoughts or natural behaviours, the researcher's subjective perspectives and involvement in their working situations are necessary and indispensable in conducting interview and observation. The researcher's reflexive attitudes can therefore be one of the most important factors of this research.

On such occasions, the concept of reflexivity, which is difficult to define, is particularly significant so as not for the research to be biased due to the researcher's intention. One definition says that reflexivity 'refers to the way in which all accounts of social settings – descriptions, analyses, criticisms, etc. – and the social settings occasioning them are mutually interdependent' (Cohen, Manion & Morrison, 2000: 25). Sandelowski & Barroso (2002: 222) also explain that 'reflexivity implies the ability to reflect inward toward oneself as an inquirer; outward to the cultural, historical, linguistic, political, and other forces that shape everything about inquiry; and, in between researcher and participant to the social interaction they share.' The researcher's appropriate relationships with JEFLL teachers as PTs in the present research

are therefore essential and necessary to get meaningful results.

The more reflexive the research is, the more its credibility will increase. For example, when teachers are interviewed on the basis of their questionnaire answers, they may not be willing to answer the researcher's questions, or they may try to answer as the researcher looks forward to. Especially in the Japanese culture, school-dependent relationships with colleagues could be rather important, and mutual personal reliable communication is probably hard to achieve without getting into their inner community. If the researcher maintains sustainable relationships with teachers, it may be easier to elicit their true perceptions or cognitions.

It was planned in this research that one PT would play a role as a co-researcher to promote reflexivity. That is because I thought that reliable mutual relationships could help contribute to trustworthiness or credibility of the present research. Reflexivity as my researcher principles is therefore most significant for this exploratory research and helps me to think about and reflect on the nature of JEFL teacher cognition about teaching and teacher education. Regarding how I actually had reflexive relationships with PTs, see the following sections and Chapter 5 for more details.

4.1.5.7 Trustworthiness, credibility, and transferability

Reflexivity is not presented so easily that necessary and sufficient expertise will be required for the researcher to use reflexivity. First of all, trustworthiness need to be regarded most to develop reflexivity in the research. Instead of the traditional quantitative research criteria, such as reliability and validity, Lincoln & Guba (1985) explain the importance of establishing trustworthiness in conducting qualitative research and provides four significant criteria: credibility, transferability, dependability and confirmability. In quantitative research, credibility may coincide with internal validity, transferability with external validity, dependability with reliability, and confirmability with objectivity. In this research, I especially

consider trustworthiness, credibility and transferability based on the background knowledge about the conceptions of LTC in the Japanese educational context which was discussed in the previous chapters.

Trustworthiness is strongly related to how to support the argument of the qualitative research; i.e. how to be honest, how to tell the truth, and how to keep the promise. In other words, it follows that the quality and integrity of the research and the researcher should be significant to address trustworthiness. It is therefore important to consider the above-mentioned four criteria in the first place in order to clearly show trustworthiness in research design.

Credibility, which refers to truth of the research, can evaluate whether or not the research findings represent a credible interpretation of the data gathering and analysis. Instead of the internal validity in quantitative research, the term credibility is used to establish that the findings are credible or believable from the viewpoint of the researcher and the PTs in this research.

Transferability, on the other hand, means the degree or process to which the research findings can transfer or apply in another situation. In order to assure transferability, the data management including data gathering, recording, assessing and showing should be organized well from the beginning of the research. Subjectivity, reflexivity, and social interaction of interviews can thus be of great importance for transferability, the degree of which will generalize the research results or transfer them to another context or case in order to give an outlook on teacher development. It is significantly important to describe the research assumptions, contexts and processes exactly from a qualitative perspective, so that transferability can be enhanced and supported well.

In order to assure trustworthiness, credibility, and transferability in this mixed-methods research, I emphasized honesty and rigorous procedures for conducting questionnaire surveys,

interviewing teachers, observing their classrooms, recording and storing the data, and analyzing and interpreting the data. At the same time, I sufficiently took into account my own subjectivity and reflexivity with the support of the PTs.

4.1.5.8 Researcher credentials

The researcher's knowledge and experience about the target research domain is especially important in this exploratory research, so that the researcher credentials should be considered in relation to trustworthiness, credibility, and transferability. As I have discussed in Chapter 1, I believe that I am qualified to do this research because my long-term experience as a teacher-researcher covers a variety of language teaching and LTE fields, but whether or not I am qualified as the researcher should be reconfirmed and discussed in any research stage. These questions are worth helping develop myself as a teacher-researcher.

Qualitative researchers should honestly describe the fact, process, meaning and interpretation of the research results from their subjective viewpoints. The description needs to be elaborative and the process should be inductive in order for the researcher to make assumptions from the collected descriptive data, analyze, theorize, generalize, hypothesize and reflect repeatedly (Creswell, 1994; Merriam, 1988). In qualitative research, the researcher's subjective point of view or 'emic' accounts (Pike, 1967) are fundamental in many cases to make assumptions, although there are many variables that are complex, interwoven and difficult to measure. My researcher credentials should also be evaluated from these points of views.

The researcher's role should be the most important factor for trustworthiness, credibility, and transferability. Personal involvement, partiality and empathic understanding are also to be deliberately considered in the data gathering and analysis, especially in terms of how to track the involvement and effects of the researcher. To avoid these errors, I especially

emphasized reflexivity and selected a mixed-methods approach. The present research is exploratory and may be somewhat different from a traditional qualitative approach. That is because my own knowledge and experience as a teacher-researcher are most highlighted and appreciated. To make the researcher credentials clear, I envisaged the present study in two phases: the Preliminary Study and the Main Study.

4.1.6 Two phases: the Preliminary Study and the Main Study

As thus described in the above-mentioned research design and methodology, this exploratory study was conducted in two phases:

- 1) The Preliminary Study focusing on the quantitative approach (questionnaire survey)
- 2) The Main Study focusing on the qualitative approach (interview and observation)

The Preliminary Study was actually important to present the overall picture and direction of the Main Study. It was mainly related to RQ 1 and was intended to demonstrate not only the research results but also the research directions. In the next section, the Preliminary Study will be presented as part of the research design as well, because it is essential to design the Main Study. From a viewpoint of researcher credentials, the Preliminary Study gave substantial suggestions for what to do in the Main Study, which requires the researcher to *notice, collect (record) and think (reflect)* concurrently and cyclically. It is necessary to clearly show careful exploration and interpretation as well as the researcher credentials in the Main Study.

4.2 The Preliminary Study: questionnaire survey

As mentioned in Chapter 1, I came to realize that there are some different characteristics of teacher cognition between JEFL teachers and MFL teachers in the UK. On carrying out this

exploratory research, I felt it necessary to develop a questionnaire to see JEFLL teachers' cognitions regarding the topics that I have discussed in Chapters 1 to 3. In order to especially see the characteristics of JEFLL teachers' cognitions and how different both language teachers' cognitions about teaching and teacher education are, the questionnaire was conducted in Japan and the UK (Scotland) as the Preliminary Study and the first-step of RQM. The survey did not intend to rigorously compare the two distinct teachers, but to clearly highlight the nature of JEFLL teacher cognition.

4.2.1 Developing a questionnaire for the Language Teacher Cognition Inventory (LTCI)

In the beginning, I decided to develop the Language Teacher Cognition Inventory (LTCI) (see Table 4.2) on the basis of the Beliefs About Language Learning Inventory (BALLI) (Horwitz, 1985, 1987, 1988). BALLI was the then most useful inventory of beliefs about language learning for learners and well evaluated in the survey of language learning beliefs, but it was not actually appropriate to identify the nature of LTC.

Based on the initial conceptions of the BALLI, I first made more than 80 questions about LTC then categorized them into 9 sections. Each topic was derived from the discussion results in the literature review: e.g. my own experiences, MEXT research results, *Eigo Kyoiku*, BAK, the hidden side, classroom management, classroom decision-making, teaching performance and examinations, language education policy and goal settings, teacher educators, and complexity theory. After several elaborate selection processes with the support of two experienced JEFLL teachers, 33 questions (but not items) in accordance with 9 categories were finally set as the LTCI as shown below in Table 4.2. Each item is provided as a question form and each question is rather general for further specific questions, because the LTCI is developed for interview, in which it is easy to ask teachers by using a question form.

Table 4.2 33 questions in the LTCI

*Each question is answered on a 5-point Likert scale (1(=strongly agree) to 5 (=strongly disagree)).

Category 1: language learning knowledge and skills

- 1) Do you think it is difficult to teach a foreign language to your students?
- 2) Do you think it is important to speak a foreign language with an excellent accent?
- 3) Do you think it is necessary to know the target language-speaking culture(s) in order to speak a foreign language?
- 4) Do you think learning a foreign language is mostly a matter of learning many new vocabulary words?
- 5) Do you think learning a foreign language is mostly a matter of learning many of grammar rules?
- 6) Do you think learning a foreign language is mostly a matter of translating from the foreign language or the first language?
- 7) Do you think it is important to repeat and practice often?

Category 2: language teaching knowledge and skills

- 8) Do you think you should not let your students say anything in a foreign language until they can say it correctly?
- 9) Do you think communicative language teaching is the best teaching method?
- 10) Do you think you often use a foreign language in your foreign language classroom?
- 11) Do you think you understand the national curriculum (the national guidelines) well?
- 12) Do you think teaching methodologies you have studied in teacher education are very useful?
- 13) Do you think you have sufficient teaching knowledge and skills?
- 14) Do you think you can have good interaction with your students in the classroom?

Category 3: educational purposes/values (education, schoolteacher role, etc.)

15) Do you think your main work is teaching a foreign language at school?

16) Do you think you can contribute to your students' human development?

17) Do you think you have attained your educational purposes or values during your preservice or induction periods?

18) Do you think your main work is to help your students develop their human development?

Category 4: pedagogy/education (theoretical issues)

19) Do you think that learning a foreign language is different from learning other school subjects?

20) Do you think studying theoretical linguistics is useful to teach a foreign language?

21) Do you think your preservice education programs have influenced your current teacher beliefs or attitudes?

Category 5: recruitment and employment (qualifications, standards, etc.)

22) Do you think sufficient foreign language proficiency is the most necessary to become a qualified teacher?

23) Do you think that strong or positive personality, communication ability and leadership can be more important than the knowledge and skills of a foreign language?

24) Do you think you have sufficient study time for professional knowledge and skills?

Category 6: within-school (collaborative studies)

25) Do you think you have sufficient time for lesson study with your colleagues?

26) Do you think it is important to observe your colleagues' foreign language classrooms?

27) Do you think your colleagues or school culture can influence your teaching styles?

Category 7: materials

28) Do you think materials (e.g. textbooks) are more important than teachers?
Category 8: workload
29) Do you think teachers should be a model for their students?
30) Do you think preservice teacher education contents are related to the current work at school?
Category 9: relationships with students
31) Do you think good relationships with your students are key to good teaching?
32) Do you think it was during preservice education when you learned how to understand your students?
33) Do you think it is important to try to communicate with your students out of foreign language classrooms?

The LTCI has been developed to see LTC or how language teachers think about their teaching and teacher development, although 33 questions are closely related to JEFLL teacher cognition originally. As it only showed teachers' self-report data and aimed to work as a screening assessment about language teachers' awareness of teaching and teacher education, the LTCI intended to require a brief structured or follow-up interview to identify to see how each aspect of teacher cognition can work as a teacher's mental developmental or decision-making process. In the present research, I used the LTCI to sketch out JEFLL teacher cognition and make an assumption about what aspects of teacher cognition should be specifically focused on. In addition, the questionnaire survey was conceived as the departure point of this exploratory research. In the next section, I describe how to conduct this questionnaire survey and what aspects of LTC to focus on.

4.2.2.1 Purpose and subjects

The purpose of the LTCI questionnaire survey is to see the difference in LTC between Japan and Scotland. It especially aims to realize how JEFL teachers think about their teaching and teacher education, being related to RQ 1. The subjects were 62 JEFL teachers, who were directly asked by the researcher in several teachers' seminars and some of whom were committed to the Main Study (see Chapter 5 for more details about the data collection procedures), and 81 MFL teachers in primary and secondary schools in Scotland, in which the data were collected at a MFL teacher seminar provided by the Scottish CILT²³. The data was collected by purposive sampling, which is generally constructed to serve a specific purpose and in the present research aimed to select participant teachers for the Main Study. The respondents' basic data were not asked due to its purpose, because their names and email addresses were requested in accordance with the necessity for further contact. The researcher interviewed some teachers on a face-to-face basis or by email if necessary.

Although purposive sampling was conducted so as to lead to participation in interview and observation, convenient sampling, which is a sampling method of conveniently gathering participants available for a survey, might have been partly conducted for MFL teachers in Scotland, because the data was to be used as a contrasting case in this survey. All the 62 JEFL teachers and one-third of the 81 MFL teachers showed their names and email addresses and most were willing to let me interview them and observe their classrooms.

Table 4.3 Summary of the questionnaire demographics

Country	Japan	Scotland
Participants	62 JEFL teachers	81 MFL teachers
Participant demographics	All are identified (e.g. name, gender, etc.)	One-third of them are identified (name, gender, etc.)
Schools	Secondary schools	Primary and secondary schools
Places to conduct questionnaire	At some seminars and schools	At a Scottish CILT outreach conference

²³ It is now called SCILT, Scotland's National Centre for Languages at <http://www.strath.ac.uk/scilt/>

Periods of time	November 2006 to March 2007	February 2007
Sampling	Purposive	Purposive (partly convenient)
Collection rate	Approximately 30 % (asked more than 200 teachers in total)	Approximately 80 % (asked approximately 100 conference participants)

4.2.2.2 Methods and analysis

When collecting the data, I asked almost all JEFLL and MFL teachers on a face-to-face basis in most cases and almost all of them filled out their names and email in their questionnaire sheet. It means that I was able to contact them if necessary. In terms of data analysis, first of all, internal reliability was assessed using Crobach's alpha, and exploratory factor analysis was conducted in order to identify JEFLL teachers' characteristics in the questionnaire survey. In addition, Pearson's chi-square test was conducted to see the differences between JEFLL and MFL teachers' data. The survey study mainly focused on JEFLL teachers and the data gathered were analyzed to see the nature of JEFLL teacher cognition.

4.2.2.3 Results

The reliability coefficient of the questionnaire was calculated in SPSS. The value was 0.7319, which means that the LTCI is adequate for the survey. The questionnaire data were intended for further interview and classroom observation, being only used to see the characteristics of JEFLL teachers' cognitions regarding 33 topics. Two types of statistical analysis were thus performed: 1) exploratory factor analysis and 2) chi-square test. The detailed process of analysis was withheld due to space constraints, but as the Preliminary Study aimed to help develop the research framework of the Main Study, simply disseminating the results in the Preliminary Study can be meaningful to achieve the general purpose.

4.2.2.3.1 Exploratory factor analysis

Exploratory factor analysis was conducted to see the characteristics of JEFLL teachers'

cognitions because this questionnaire survey was originally designed for JEFL teachers. As shown in the rotated factor matrix table (see Table 4.3), three factors were identified as the characteristics of JEFL teachers' cognitions in association with teaching and teacher education:

- Preservice teacher education (factor 1)
- Teacher knowledge or classroom performance (factor 2)
- Human relationships between teacher and students (factor 3)

The study was intended to take into account these three factors when conducting interview and observation in the Main Study.

Table 4.4 Rotated factor matrix for JEFL teachers' LTCI questionnaire survey

Questions	Factor 1	Factor 2	Factor 3
17 Do you think you have attained your educational purposes or values during your preservice or induction periods?	0.847	7.38E-02	4.16E-02
32 Do you think it was during preservice education when you learned how to understand your students?	0.746	0.205	-3.52E-02
21 Do you think your preservice education programs have influenced your current teacher beliefs or attitudes?	0.652	0.368	0.167
30 Do you think preservice teacher education contents are related to the current work at school?	0.648	8.03E-02	-0.151
25 Do you think you have sufficient time for lesson study with your colleagues?	0.612	7.48E-02	0.116
12 Do you think teaching methodologies you have studied in teacher education are very useful?	0.603	0.206	-7.94E-02
2 Do you think it is important to speak English with an excellent accent?	0.162	0.634	0.162
3 Do you think it is necessary to know English-speaking culture(s) in order to speak English?	7.87E-02	0.585	3.14E-02
26 Do you think it is important to observe your colleagues' English classrooms?	-4.10E-02	0.566	0.126
18 Do you think your main work is to help your students develop their human development?	7.50E-02	4.41E-03	0.726
31 Do you think good relationships with your students are key to good teaching?	-0.215	0.303	0.618
23 Do you think that strong or positive personality, communication ability and leadership can be more important than English knowledge and skills?	-0.169	-5.18E-02	0.532
33 Do you think it is important to try to communicate with your students out of English classrooms?	0.324	-2.27E-02	0.5
16 Do you think you can contribute to your students' human development?	-0.241	0.112	0.452
27 Do you think your colleagues or school culture can influence your teaching styles?	0.187	0.352	0.412
29 Do you think teachers should be a model for their students?	-6.09E-02	0.158	0.403
9 Do you think communicative language teaching is the best teaching method?	3.44E-02	0.43	0.226

7 Do you think it is important to repeat and practice often?	-0.342	9.70E-02	0.165
1 Do you think it is difficult to teach English to your students?	8.68E-02	-2.59E-02	0.15
14 Do you think you can have good interaction with your students in the classroom?	-0.273	0.161	0.136
19 Do you think that learning English is different from learning other school subjects?	-2.73E-02	0.326	8.09E-02
28 Do you think materials are more important than teachers?	0.286	6.87E-03	6.51E-02
6 Do you think learning English is mostly a matter of translating from English or Japanese?	-0.45	0.254	6.44E-02
4 Do you think learning English is mostly a matter of learning many new vocabulary words?	-0.471	0.328	2.31E-02
8 Do you think you should not let your students say anything in English until they can say it correctly?	0.148	3.24E-02	1.80E-02
10 Do you think you often use English in your English classroom?	0.152	0.283	-8.31E-03
20 Do you think studying theoretical linguistics is useful to teach English?	-1.35E-02	0.349	-6.80E-02
5 Do you think learning English is mostly a matter of learning many of grammar rules?	-0.381	0.286	-8.90E-02
24 Do you think you have sufficient study time for professional knowledge and skills?	0.427	0.413	-0.11
13 Do you think you have sufficient teaching knowledge and skills?	-0.373	0.248	-0.121
15 Do you think your main work is teaching English at school?	-0.151	0.482	-0.197
11 Do you think you understand the national curriculum (Course of Study) well?	-0.351	0.475	-0.426
22 Do you think sufficient English proficiency is the most necessary to become a qualified teacher?	-1.14E-02	0.326	-0.479

4.2.2.3.2 Chi-square test

Pearson's chi-square test was conducted to see the associations between JEFL and MFL teachers' cognitions about 33 questions in the LTCI. As a result, 16 significantly distinct features of teacher cognition were extracted in comparison with MFL teachers' data as a contrasting case. See Table 4.4 that shows the LTCI data to represent the associations and differences between JEFL and MFL teachers' cognitions. In terms of the associations between the two groups (JEFL and MFL teachers), all the data except LTCI 16 showed statistically significant relationships and also the standardized residuals suggested significant differences between the observed and expected values. The grey-coloured parts in Table 4.5 represent the values of the standardized residuals greater than 2, which means that there are some different aspects of awareness between JEFL and MFL teachers. The data were all related to 16 extracted features of JEFL teacher cognition.

Table 4.5 The 17 LTCI questionnaire survey results that show the associations (*the grey-coloured part represents the standardized residuals greater than 2: df =4)

1) Difficilty of teaching chi-square = 48.974 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	20	30	5	5	2	62
	%	32.30%	48.40%	8.10%	8.10%	3.20%	100.00%
SCOTLAND	NO.	2	18	27	24	10	81
	%	2.50%	22.20%	33.30%	29.60%	12.30%	100.00%
TOTAL	NO.	22	48	32	29	12	143
	%	15.40%	33.60%	22.40%	20.30%	8.40%	100.00%

3) Culture chi-square = 40.042 df = 3 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	30	27	3	2		62
	%	48.40%	43.50%	4.80%	3.20%		100.00%
SCOTLAND	NO.	9	27	31	12		79
	%	11.40%	34.20%	39.20%	15.20%		100.00%
TOTAL	NO.	39	54	34	14		141
	%	27.70%	38.30%	24.10%	9.90%		100.00%

4) Vocabulary chi-square = 70.73 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	10	25	21	6		62
	%	16.10%	40.30%	33.90%	9.70%		100.00%
SCOTLAND	NO.		5	14	38	24	81
	%		6.20%	17.30%	46.90%	29.60%	100.00%
TOTAL	NO.	10	30	35	44	24	143
	%	7.00%	21.00%	24.50%	30.80%	16.80%	100.00%

5) Grammar chi-square = 57.232 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	8	28	18	8		62
	%	12.90%	45.20%	29.00%	12.90%		100.00%
SCOTLAND	NO.		6	22	28	25	81
	%		7.40%	27.20%	34.60%	30.90%	100.00%
TOTAL	NO.	8	34	40	36	25	143
	%	5.60%	23.80%	28.00%	25.20%	17.50%	100.00%

6) Translation chi-square = 23.513 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.		9	20	29	4	62
	%		14.50%	32.30%	46.80%	6.50%	100.00%
SCOTLAND	NO.	1	1	20	30	28	80
	%	1.30%	1.30%	25.00%	37.50%	35.00%	100.00%
TOTAL	NO.	1	10	40	59	32	142
	%	0.70%	7.00%	28.20%	41.50%	22.50%	100.00%

11) National curriculum chi-square = 25.887 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	3	13	19	20	7	62
	%	4.80%	21.00%	30.60%	32.30%	11.30%	100.00%
SCOTLAND	NO.	14	35	20	10		79
	%	17.70%	44.30%	25.30%	12.70%		100.00%
TOTAL	NO.	17	48	39	30	7	141
	%	12.10%	34.00%	27.70%	21.30%	5.00%	100.00%

13) Teaching knowledge and skills chi-square = 47.27 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	3	7	16	21	15	62
	%	4.80%	11.30%	25.80%	33.90%	24.20%	100.00%
SCOTLAND	NO.	16	36	22	4	3	81
	%	19.80%	44.40%	27.20%	4.90%	3.70%	100.00%
TOTAL	NO.	19	43	38	25	18	143
	%	13.30%	30.10%	26.60%	17.50%	12.60%	100.00%

14) Interaction with students chi-square = 25.271 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	7	25	25	5		62
	%	11.30%	40.30%	40.30%	8.10%		100.00%
SCOTLAND	NO.	31	37	8	4	1	81
	%	38.30%	45.70%	9.90%	4.90%	1.20%	100.00%
TOTAL	NO.	38	62	33	9	1	143
	%	26.60%	43.40%	23.10%	6.30%	0.70%	100.00%

15) Teaching languages chi-square = 21.975 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	5	14	24	15	4	62
	%	8.10%	22.60%	38.70%	24.20%	6.50%	100.00%
SCOTLAND	NO.	21	23	12	9	15	80
	%	26.30%	28.70%	15.00%	11.30%	18.80%	100.00%
TOTAL	NO.	26	37	36	24	19	142
	%	18.30%	26.10%	25.40%	16.90%	13.40%	100.00%

16) Human development chi-square = 4.684 df = 4 p = 0.321

		1	2	3	4	5	TOTAL
JAPAN	NO.	22	31	8	1		62
	%	35.50%	50.00%	12.90%	1.60%		100.00%
SCOTLAND	NO.	32	31	11	4	3	81
	%	39.50%	38.30%	13.60%	4.90%	3.70%	100.00%
TOTAL	NO.	54	62	19	5	3	143
	%	37.80%	43.40%	13.30%	3.50%	2.10%	100.00%

20) Linguistics chi-square = 22.926 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	14	26	18	3	1	62
	%	22.60%	41.90%	29.00%	4.80%	1.60%	100.00%
SCOTLAND	NO.	6	15	34	18	5	78
	%	7.70%	19.20%	43.60%	23.10%	6.40%	100.00%
TOTAL	NO.	20	41	52	21	6	140
	%	14.30%	29.30%	37.10%	15.00%	4.30%	100.00%

22) Language proficiency chi-square = 13.284 df = 4 p = 0.010

		1	2	3	4	5	TOTAL
JAPAN	NO.	15	33	13	1		62
	%	24.20%	53.20%	21.00%	1.60%		100.00%
SCOTLAND	NO.	14	29	20	10	6	79
	%	17.70%	36.70%	25.30%	12.70%	7.60%	100.00%
TOTAL	NO.	29	62	33	11	6	141
	%	20.60%	44.00%	23.40%	7.80%	4.30%	100.00%

25) Lesson study with colleagues chi-square = 20.462 df = 4 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	7	12	10	19	13	61
	%	11.50%	19.70%	16.40%	31.10%	21.30%	100.00%
SCOTLAND	NO.		3	14	31	29	77
	%		3.90%	18.20%	40.30%	37.70%	100.00%
TOTAL	NO.	7	15	24	50	42	138
	%	5.10%	10.90%	17.40%	36.20%	30.40%	100.00%

26) Classroom observation chi-square = 19.177 df = 3 p = 0.000

		1	2	3	4	5	TOTAL
JAPAN	NO.	40	17	2	3		62
	%	64.50%	27.40%	3.20%	4.80%		100.00%
SCOTLAND	NO.	24	29	17	7		77
	%	31.20%	37.70%	22.10%	9.10%		100.00%
TOTAL	NO.	64	46	19	10		139
	%	46.00%	33.10%	13.70%	7.20%		100.00%

		1	2	3	4	5	TOTAL
28) Materials		chi-square = 32.281			df = 4		p = 0.000
JAPAN	NO.		2	19	32	9	62
	%		3.20%	30.60%	51.60%	14.50%	100.00%
SCOTLAND	NO.	3		9	23	45	80
	%	3.80%		11.30%	28.70%	56.30%	100.00%
TOTAL	NO.	3	2	28	55	54	142
	%	2.10%	1.40%	19.70%	38.70%	38.00%	100.00%

		1	2	3	4	5	TOTAL
29) Teacher model		chi-square = 15.729			df = 4		p = 0.003
JAPAN	NO.	13	37	8	4		62
	%	21.00%	59.70%	12.90%	6.50%		100.00%
SCOTLAND	NO.	38	33	7		1	79
	%	48.10%	41.80%	8.90%		1.30%	100.00%
TOTAL	NO.	51	70	15	4	1	141
	%	36.20%	49.60%	10.60%	2.80%	0.70%	100.00%

		1	2	3	4	5	TOTAL
33) Good relationship with students out of classroom		chi-square = 25.183			df = 4		p = 0.000
JAPAN	NO.	48	14				62
	%	77.40%	22.60%				100.00%
SCOTLAND	NO.	32	28	11	6	2	79
	%	40.50%	35.40%	13.90%	7.60%	2.50%	100.00%
TOTAL	NO.	80	42	11	6	2	141
	%	56.70%	29.80%	7.80%	4.30%	1.40%	100.00%

Each featured aspect of JEFL teacher cognition extracted from the survey is henceforth abbreviated as ATC. For example, ATC 1(Difficulty to teach) can show featured aspects of JEFL teacher cognition which are extracted from the LTCI 1. Regarding ATC 9, LTCI 15 and LTCI 16 are blended into one ATC, since the data of LTCI 16 does not show any associations (the chi-square value = 4.684; df = 4; p= .321). That is partly because some aspects of dilemma between school education and teaching English were identified in MEXT Study in Chapter 1 and *Eigo Kyoiku* discussed in Chapters 2 and 3.

4.2.2.4 Discussion and assumptions

The first factor obtained from the exploratory factor analysis can probably show some defects of preservice teacher education system in Japan and may be strongly related to the formation of JEFL teachers' cognitions about teaching and teacher development, but they are still just assumptions. For example, regarding LTCI 17, it seems that most teachers tend to have different experiences in their preservice teacher education (see Table 4.6).

Table 4.6 Educational purposes or values in preservice teacher education

chi-square = 11.147 df = 4 p = 0.025

		1	2	3	4	5	TOTAL
JAPAN	NO.	3	17	16	18	8	62
	%	4.80%	27.40%	25.80%	29.00%	12.90%	100.00%
SCOTLAND	NO.	6	12	34	19	2	73
	%	8.20%	16.40%	46.60%	26.00%	2.70%	100.00%
TOTAL	NO.	9	29	50	37	10	135
	%	6.70%	21.50%	37.00%	27.40%	7.40%	100.00%

Factor 1 therefore could be involved in what JEFL teachers learn in preservice teacher education in terms of purposes, values, beliefs, attitudes, teaching methods, and studies, but it was not clearly identified as featured aspects though this questionnaire survey.

The second factor is related to JEFL teachers' teaching knowledge and skills in the classroom. For example, as LTCI 13 (Table 4.5) shows, as many as 58.1 % of JEFL teachers (answers 4 and 5 together) think that they do not have sufficient knowledge and skills. Factor 2 may be more complex but it seems to be concerned with what teachers know or do in the classroom, such as pronunciation, English-speaking culture(s) and classroom observation.

The third factor probably shows the characteristics of *Eigo Kyoiku*. Human relationships between teacher and students have been emphasized among schoolteachers as have been discussed in Chapters 2 and 3. Factor 3 could be strongly related to emotional relationships: students' human development, good relationships with students, personality, communication ability, and leadership in the classroom as well as out of the classroom.

In terms of the chi-square test, the above-mentioned 17 LTCI questionnaire survey results on JEFL teachers' cognitions suggested significant differences compared to MFL teachers in Scotland, except for LTCI 16. Table 4.7 represents 16 ATCs obtained through the chi-square test and summarizes how they are related to the 9 categories of the LTCI. These ATCs will be

the specific objectives or research agendas for the Main Study. The 16 ATCs, which naturally do not represent all JEFLL teachers' cognitions, can possibly show featured aspects of the nature of JEFLL teacher cognition regarding teaching and teacher development in the present exploratory study.

Table 4.7 16 ATCs in 9 categories of the LTCI

ATCs (featured aspects of JEFLL teacher cognition)	LTCI
Category 1: a) language learning knowledge and skills	
ATC 1 Difficulty to teach	LTCI 1)
ATC 2 Target language-speaking culture(s)	LTCI 3)
ATC 3 Learning vocabulary	LTCI 4)
ATC 4 Learning grammar	LTCI 5)
ATC 5 Translation	LTCI 6)
Category 2: b) language teaching knowledge and skills	
ATC 6 Understanding the National curriculum or the Course of Study	LTCI 11)
ATC 7 English language teaching knowledge and skills	LTCI 13)
ATC 8 Interaction with students in the classroom	LTCI 14)
Category 3: c) educational purposes / values (education, schoolteacher role, etc)	
ATC 9 School education and teaching English	LTCI 15),16)
Category 4: d) pedagogy/ education (theoretical issues)	
ATC 10 Knowledge about (English) linguistics	LTCI 20)
Category 5: e) standards, qualifications, recruitment and employment	
ATC 11 In relation to standards, qualifications, recruitment and employment	LTCI 22)
Category 6: f) within-school teacher education (collaborative studies)	
ATC 12 Within-school or collaborative studies	LTCI 25)
ATC 13 Classroom observation	LTCI 26)

Category 7: g) teaching materials	
ATC 14 Importance of textbooks or teaching materials	LTCI 28)
Category 8: h) workload	
ATC 15 Teacher as a role model	LTCI 29)
Category 9: i) relationships with students	
ATC 16 Relationships with students out of the classroom	LTCI 33)

4.3 Summary of the Preliminary Study

As shown in Table 4.7, 16 ATCs were identified through the LTCI questionnaire survey, but they were still not clear in terms of how each ATC is composed of, what components form it, and what factors interact with each other in each ATC. The questionnaire survey results might provide a diverse range of perspectives to see what JEFL teachers really think, know and believe. They also showed better suggestions regarding how to do this exploratory research: i.e. how to conduct interviews and observation and what to focus on.

I thus decided to start the qualitative exploratory research as the Main Study and the second step of RQM on the basis of the questionnaire survey results as discussed above. In the Preliminary Study, the 16 ATCs were selected as the key concepts or assumptions for the Main Study, and they were also the guide or pilot to show what teacher cognition to focus on and how to access the nature of JEFL teacher cognition effectively. The questionnaire survey results thus furnished motives and suggestions to start the Main Study.

Although teacher cognition has gradually become of great interest to many researchers and teachers who are engaged in LTE (e.g. Breen, 1991; Borg, 2006a; Freeman & Richards, 1996; Freeman, 2002; Johnson, 2009; Tsui, 2003; Woods, 1996), there are still many aspects of LTC or there should be deeper or more focal research to be conducted, such as teacher cognition on grammar teaching (Borg, 1999) or CLT (Nishino, 2008). The 9 categories and 16 ATCs will

therefore become useful agendas to help identify the nature of JEFLL teacher cognition and also LTC in the Main Study.

Chapter 5 The research methodology in the Main Study: interview, classroom observation and ethnographic observation

Chapter summary

The Main Study focuses on a qualitative research consisting of interview, classroom observation and ethnographic observation. This chapter describes the research process: sampling, ethical issues, the relationships between the researcher and the PTs, mixed-methods data analysis process, subjectivity and reflexivity, trustworthiness and credibility, using the applied KJ method, creating concept maps, and research dissemination. This chapter specifically explains how to conduct interviews and observations and how to analyze the qualitative data, such as the process of *noticing*, *collecting (recording)* and *thinking (reflecting)*. It also describes the reason why the researcher adopts the applied KJ method and develops the complex four-area diagram as a concept map in this chapter.

After extracting and setting the 9 categories and 16 ATCs through the questionnaire survey in the Preliminary Study, I developed a research design to explore the nature of JEFL teachers' cognitions in the Main Study. I did not intend to conduct a large-scale survey of JEFL teachers' cognitions but wanted to see their individual thought processes and explore their complex inner world of teaching or teacher culture in a qualitative way and from RQM perspectives. I thus demonstrate how I designed and conducted this exploratory research in detail.

5.1 Selecting JEFLL teachers as PTs (participant teachers)

The questionnaire survey was intended to be followed by semi-structured interview in the first place. The subject number was 62 JEFLL teachers (see Appendix I for more details about their demographics including the numbers of interviews and classroom observations). Even while collecting the questionnaire data, brief interviews were conducted to inquire about their backgrounds, reasoning and assorted thoughts in association with related featured questions. In order to do effective interview and observation, the researcher selected a necessary number of PTs appropriate for this research design. That is because better relationships between the researcher and the PTs should be indispensable and significant to explore their inquiring minds and thinking about themselves.

Regarding the selection procedures, at first 39 teachers were not selected as prospective PTs in the process of the questionnaire survey and informal or semi-structured interview, due to their teaching experiences and limited time commitment to research mainly as shown in Table 5.1.

Table 5.1 62 JEFLL teachers' teaching experiences

Teaching experience years	1 - 3	4 - 10	11 - 20	21 - 30	31 -
Number	39	5	8	7	3

Secondly, in order to explore more details about 9 categories and 16 ATCs, I asked almost all 23 experienced teachers for follow-up in-depth interview and observation and actually did so, but I could not keep contacting some of them all due to their own working situations or personal relationships with the researcher. For example, one teacher could not spend time for my further interviews and another teacher did not want to see me, because they were busy or did not like to be asked so often. Finally I selected the following 10 PTs and obtained their agreement to participate in research (see Table 5.2 and Appendix II for more details).

Table 5.2 10 PTs' brief background information

Case	Name	Age	Gender	School	Teaching experience
1	SUZU	30s	male	upper secondary	14 years
2	ZUMI	30s	male	lower secondary	10 years
3	MIHI	30s	female	lower secondary	7 years
4	FUKU	40s	female	lower secondary	21 years
5	NIHI	40s	male	lower secondary	25 years
6	KOKO	40s	male	upper secondary	19 years
7	TAKA	40s	male	lower secondary	over 20 years
8	NINO	40s	female	upper secondary	over 20 years
9	TOME	50s	male	upper secondary	over 30 years
10	KOHI	50s	male	upper secondary	over 30 years

*In order to maintain anonymity, as required by the ethical policy, the names of the teachers are not their real names and the names of their schools are not given.

PTs' selection process was deliberately considered in order to do research feasibly, and the natural selection process was most respected from the beginning. The following selection points were raised e.g. teaching career, eagerness, inquiring mind, willingness, cooperation, timing, and reliability. As a result, it seems that I selected rather matured teachers who could reflect well. There are some natural and significant reasons for it: e.g. practicality and feasibility to interview and observe teachers, teachers' generous attitudes to contact with the researcher, and teachers' interest in and motivation for research. From among 62 JEFL teachers who had answered the questionnaire, I finally selected 10 JEFL teachers as PTs, whom I effectively asked for a series of interviews and observations, and maintained

collaborative relationships with them reflectively and reflexively by regularly contacting them on a face-to-face basis or by email.

5.2 Sampling

Sampling for proportionality was not the primary concern in this research. When starting the questionnaire survey, I decided to employ purposive (partly convenient) sampling, which was intended to explore certain aspects of teacher cognition among 62 JEFLL teachers.

Purposive sampling should be useful and effective in order for the researcher to reach appropriate target groups as quickly as possible. The 10 PTs in this research were interested in the exploration of their own teacher cognition, understood the research aims, voluntarily worked with the researcher, and were regarded as teacher-researchers like me.

The sampling procedures are summarized as follows:

Table 5.3 Sampling procedures of JEFLL teachers

Sampling phases	Sampling numbers
1. The JEFLL teachers whom the researcher asked for the LTCI questionnaire on a face-to-face basis or sometimes by email	Over 200
2. The JEFLL teachers who answered the LTCI questionnaire	62
3-1. The JEFLL teachers who answered the LTCI questionnaire without interviewing on a face-to-face basis	12
3-2. The JEFLL teachers who answered the LTCI questionnaire with interviewing once	35
4. The JEFLL teachers who answered the LTCI questionnaire without classroom observation	13
5. The JEFLL teachers who answered the LTCI questionnaire with several interviews and classroom observation(s) [one teacher's classroom was not observed directly]	12 (13)
6. The PTs selected for the Main Study	10

In order to collect data, I asked more than 200 JEFLL teachers in total, not only to answer the questionnaire but also to have interviews and classroom observations, in meetings,

seminars and encounters. Normally a number of teachers did not want to accept my offers mostly because the questionnaire survey required interviews and classroom observations as well as their names and personal backgrounds. I had to explain to them about the research purpose and let them understand what I wanted to do, so that it took time to gather the data. Therefore 10 PTs who had agreed to cooperate with the research up to the end were really reliable and reflected on themselves well, and the number of the PTs was substantial for this exploratory research from practical and feasible perspectives. It is necessary for the researcher to be careful not to generalize the results because the research just focused on 10 PTs. The research aim is to explore the nature of JEFL teacher cognition.

5.3 Ethical clearance

In the process of the research procedures including data gathering and analysis, I always abided by research ethics since the research had to deal with educational realities and teachers' private matters. Ethical clearance is therefore an essential process to keep a variety of legislative requirements and ensure that safe guards are maintained for the protection of human and other research subjects.

The target teachers in the present research were all schoolteachers and the researcher had to be committed to their work in many situations, taking field notes, recording their voices and observing their teaching in the classroom. Ethical issues, such as informed consent and anonymity, should be considered as important when gathering, analyzing and reporting the data in both the Preliminary Study and the Main Study.

I always took the absolutist stance; namely, I tried to protect teachers and their students from harm, prevent deception, protect privacy and conduct informed consent throughout the research procedures. Moreover, each and every situation can be new and different, so that ethical standards can also be dependent upon individual cases. I thus tried to take the relative

stance as well, in that I relied on my own career and conscience. In addition, I especially developed mutual trusting relationships with 10 PTs and discussed issues with them.

In terms of informed consent, I had already informed each teacher about the overall purpose and process of the research before obtaining questionnaire answers in the Preliminary Study. I always got permission from the persons concerned, such as teachers, students, headteachers and parents, to record the interview sound and videotape the classroom in each phase, showing my honesty and sincerity. In terms of the data results, I did as best I could to ensure confidentiality of the participants, avoidance of harm to them, reciprocity and feedback of results to them.

5.4 Mixed-methods data analysis process: interviews, classroom observation and ethnographic observation

In a large number of education research projects in which data is gathered from more than one source, such as questionnaires, observations, interviews and journal writing, it may be customary for the data from these sources to be collected and analyzed separately. Yielding a set of observation data, a set of interview data and a set of narrative data, it may often prove possible for these separate sets of data to be triangulated against each other. The Main Study, however, adopts a different approach in relation to the RQM. It moves to and fro between interviews, classroom observation, and ethnographic observation. In so doing, the research takes the process of *noticing*, *collecting (recording)* and *thinking (reflecting)* while focusing on JEFL teachers' cognitions.

The Main Study then yields one set of data from these different sources. I preferred it to the conventional approach, because it allowed for a greater degree of flexible interaction in order to gain insight into particular JEFL teacher cognition. For example, the researcher might notice something that seemed to suggest about the development of JEFL teacher cognition

within school or classroom environment. Or the researcher might bear something in mind when interviewing JEFL teachers and observing their classrooms subsequently. In all such cases, the researcher would *notice*, *collect* or *record*, and then *think* or *reflect* on the facts regarding JEFL teacher cognition.

Each method was applied in accordance with its context because each JEFL teacher was working in different situations that were likely to change apparently due to many kinds of influential factors. I therefore demonstrate the process for interviews and observation as in the following procedures (see Appendix III for more details):

Table 5.4 The outline of the interview and observation process

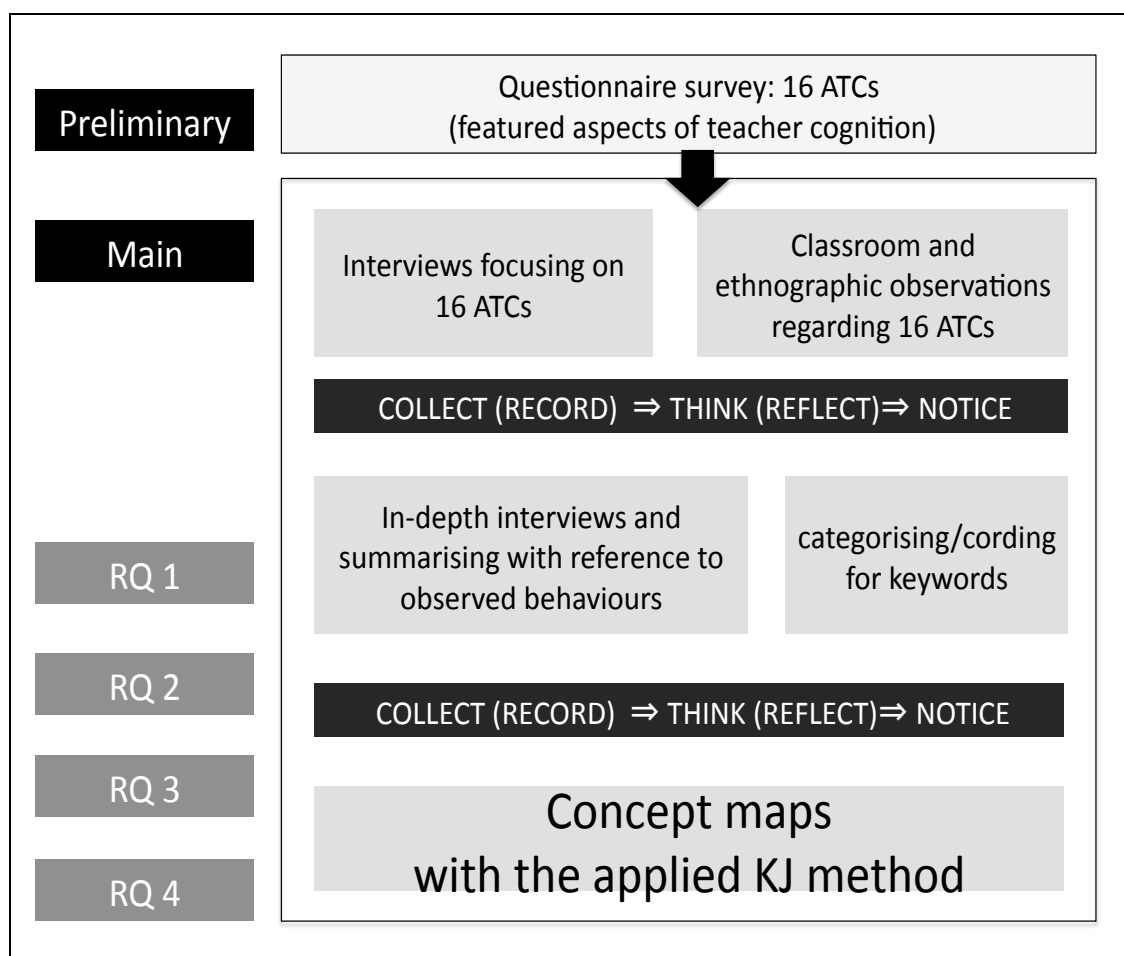
1) The initial contact with 62 teachers
2) Interview based on the questionnaire (audiorecorded) and classroom (ethnographic) observation (videorecorded)
3) Summary notes of interview and classroom (ethnographic) observation
4) Confirmation of the summary notes with PTs
5) Further questions to add in the analytical process
6) Additional comments from PTs about ongoing analysis
7) The categorized and coded data classified into 16 ATCs

In accordance with the procedures, I conducted interviews and observations while *noticing*, *collecting (recording)* and *thinking (reflecting)* in an ethnographic manner in order to specify the components of 10 PTs' cognitions.

In terms of interviews, I first asked about all 10 PTs' backgrounds and their teaching experiences, making an informal and casual atmosphere to elicit their honest insightful feelings and remarks as much as possible. Then I asked necessary questions related to each

topic of 16 ATCs. All the interview words were audiorecorded and stored in the computer, and they were not transcribed because each audiorecorded data was easily accessed. Necessary data are transcribed and demonstrated in the research results. The following figure depicts the procedures from the questionnaire through interview/observation to creating a concept map, and also shows how each procedure is related to the research phase and four RQs.

Figure 5.1 Procedures from questionnaire through interviews/observations to concept maps



In terms of observation, two kinds of observation were conducted: one was classroom observation to see how teachers were doing in the classroom and to focus on their teaching and the relationships between the teacher and students; and the other was ethnographic observation to see their working situations and their relationships with colleagues at school

generally. For example, when interviewing a JEFLL teacher, I visited his/her school and talked with him/her in his/her teachers' room, because I was able to see how he/she was working with his/her colleagues. When I observed his/her class, I videotaped the classroom and took notes, and after the class I tried to communicate with his/her students. The field notes were summarized for each case including the researcher's comments with the interview notes as well as audio/video recordings (see Appendices II and III).

In classroom observations, I explained to each teacher about the purpose to observe the classroom so as not for him/her to misunderstand or try to show outstanding teaching performances different from the usual teaching. I also got permission from all the students to take a video picture, explaining about the purpose to see the reality: I just sat at the back in the classroom and made notes of what was happening, especially in relation to 16 ATCs while videorecording. Later I checked each teacher's behaviours in the video pictures and compared them with my field notes and their interview data in terms of 16 ATC topics. I summarized my case reports for each teacher and had each teacher check them.

I used part of the interview and observation data as the narrative inquiry data whose sources include stories, autobiography, journals, field notes, letters, conversations, family stories, photos (and other artifacts), and life experience (Clandinin & Connelly, 2000). I did not make use of journals or autobiographies because I wondered if they could bear an extra burden, but I talked with and exchanged emails with the 10 PTs because it was easy and convenient to communicate with them. It was essential to communicate with them, watch them, and listen to them in the context of where teaching normally occurs at school, and then I as a researcher *noticed*, *collected (recorded)*, and *thought (reflected)*. I thus assumed that the raw audio and visual data stored in the computer were effective to analyze the nature of JEFLL teacher cognition, because they could be easily accessible whenever necessary.

As for the details about how I conducted interviews and observations, I add that all the data

was originally summarized in Japanese and analyzed in the Japanese context, although I translated some parts into English to disseminate the research findings.

5.5 Reflexivity for credibility

In data gathering and processing, the most important thing could be the researcher's subjective (but not impressionistic) analysis, which can entail risk of making generalizations about his or her findings. I as a researcher had to be careful not to do so and tried to follow the mixed-methods procedures as I showed in the previous session. The question is how credibility should be assured in this qualitative exploratory approach. Reflexivity thus needs to be a key concept for credibility of this Main Study. It follows that the following process in terms of reflexivity and reflection must be taken into account in the data analysis process.

Credibility can be built through the deliberate process, in which the researcher's subjective and reflective thinking plays an important role in association with reflexivity. In order to cover the credibility liability in a qualitative data analysis process of *noticing*, *collecting* (*recording*) and *thinking* (*reflecting*), the self-reflection and reflexivity conducted by the researcher with the help of 10 PTs are essential. Interaction between the researcher and the PTs can improve the communication process and content of the messages (Rothman, 1997), and intuitive responses, proactive and positive analyses of the assumptions and relationships with participants can also function effectively in interactive relationships between the researcher, the PTs and the contexts.

In terms of reflexivity, the researcher's subjective thought process can build another new reflective and reflexive thinking stage with the help of the PTs' reflexive ideas. The reflexive process incorporates introspection into each interaction (Rothman, 1997) between the researcher and the PTs, and is enhanced by encouraging them to analyze the values and priorities inherent in the interaction process. Reflexivity is thus not only a useful

communication tool while intervening in the PTs' own teacher cultures, but also can help them reorient their approach to resolving their own reflection.

In the next section, I will describe the research procedures in detail in response to the conceptual framework and the research design. The researcher's subjectivity and reflexivity and the relationships between the researcher and the 10 PTs should be clarified to establish credibility in this Main Study.

5.6 The data gathering and analysis process

The research procedures in the Main Study must be described deliberately to assure the credibility of this research. Especially the data presentation is rather new and innovative in the current discipline of teacher cognition, making applied use of a Japanese data mining method called the KJ method (technique) (Kawakita, 1967) (see 5.10 for more details). It is therefore necessary to clearly explain the research process to reinforce the researcher's subjectivity and reflexivity.

All the interviewed contents, most of which were recorded as audio- and visual-data in the computer, were summarized as 10 sets of case description data of PTs. Part of a set of case description data is demonstrated in English as shown in Case 1 (SUZU)(see Appendix II). It could be helpful to understand what was conducted by the researcher. By interviewing SUZU and observing his classroom, the researcher *noticed* the following key words regarding ATC1 (difficulty to teach) as in Table 5.5, which can be, in other words, essences of his teacher cognition in relation to ATC 1.

Table 5.5 Case 1: SUZU's teacher cognition about ATC 1 (difficulty to teach)

Key words to show components related to ATC 1		
<i>large class</i>	<i>classroom management</i>	<i>student relationships</i>

<i>students' lack of motivation</i>	<i>classroom activities or learning</i>
<i>group harmony with colleagues</i>	<i>monotonous or uninteresting teaching</i>
<i>no active classroom</i>	<i>ideal classroom</i> <i>realities vs. models</i>

In addition, classroom and ethnographic observations were provided in collaboration with 10 PTs in an exploratory way. The data gathering and analysis process is summarized as in Table 5.6 (see Appendix III for more details).

Table 5.6 The qualitative data gathering and analysis process

Interview topics	16 ATCs
The data gathering process	
1. First in-depth interview (data: audio recording and the researcher's field notes)	<ul style="list-style-type: none"> ● Interviewing PTs at school (their background, the topics related to each interview topic, etc.) ● Maintaining sustainable relationships with them
2. First classroom observation (data: videorecording and the researcher's field notes)	<ul style="list-style-type: none"> ● Observing their teaching in the classroom (observing points: e.g. teaching methods, attitudes, teaching styles, teaching strategies, relationships with students, class atmosphere, etc.)
3. Ethnographic observation (data: the researcher's field notes)	<ul style="list-style-type: none"> ● Observing how they are working at school and communicating with colleagues
4. Follow-up interview(s) (data: audio recording, the researcher's field notes, and the PTs' email)	<ul style="list-style-type: none"> ● Asking them further questions to clarify some necessary points and questions related to influential factors and actual behaviours
5. Second classroom observation (if possible) (data: videorecording and the researcher's field notes)	<ul style="list-style-type: none"> ● Confirming their behaviours based on their interview data, if possible
The data analysis process	
6. Coding (analysis: noticing and collecting (recording), the researcher's subjective thought process and reflexivity with teachers)	<ul style="list-style-type: none"> ● Cyclical coding procedures with the researcher's reflection and reflexivity ● Double-checking coding procedures with participant teachers by email ● Summarizing 10 sets of case description data

<p>7. Thinking and reflecting (analysis: the researcher's subjective thought process and reflexivity with teachers)</p>	<ul style="list-style-type: none"> ● Making a concept map to better show the nature of JEFLL teacher cognition ● Double-checking a concept map with a core PT
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The data analysis was not a linear but cyclical process; i.e. subjective, reflective, interactive and reflexive views were concurrently needed in each phase. It may be difficult to describe the data analysis process of each PT specifically. Listening to what each teacher said in an interview and observing what he/she did in the classroom or at school (behaviours, attitudes and facts), the researcher *noticed* the data, *collecting (recording)* the data and *thinking (reflecting)* about the data, while taking reflexivity into consideration (see Appendix III for more details).

5.7 Researcher's attitudes, roles, and relationships with 10 PTs

The researcher's reflective and reflexive attitudes were closely related to the think-aloud protocols. In this exploratory research, I always analyzed my own teacher cognition when interviewing 10 PTs and observing their classrooms concurrently and repeatedly. I tried to value my subjectivity while taking into account trustworthiness, credibility and transferability. My reflective and reflexive attitudes needed to be checked or reflected by 10 PTs as well (see Appendix III for more details).

During the data gathering and analysis, all the 10 PTs cooperated with the researcher, and I felt afraid of my liability to be biased in favour, so that I asked one of the 10 PTs to work as the core teacher to check the whole process in the end. The core teacher played a role of the research partner who explored himself in the same way as I tried to understand my teacher cognition. The selection process of the core teacher was very simple and natural because he himself was interested in this research and tried to explore his teacher cognition. It was also

convenient to contact him, compared to the other 9 PTs.

According to Vygotskian social constructivism (Vygotsky, 1978), which supports the present research concept, social interaction can play a fundamental role in the development of cognition through the process of negotiating meanings. I assumed that taking into account such a process must lead to trustworthiness, credibility and transferability. I therefore had the following procedures to avoid bias when collecting data and thinking about analysis and interpretation (see Table 5.7). I deliberately repeated these procedures by discussing with 10 PTs as appropriately and consistently as I could. I accordingly shared data analysis and interpretation with the core teacher who helped making a concept map as well (see Appendix III and IV for more details).

Table 5.7 Data analysis and interpretation procedures

Step 1	Describing each interview summary and having each teacher check his or her remarks in the interview session
Step 2	Taking notes of each teacher's teaching procedures and behaviours in the classroom, having reflective discussion with each teacher about teaching and learning after classroom observation while being compared with the interview data, seeing how cognition is related to behaviour, summarizing the classroom observation notes, and putting questions to each teacher again
Step 3	Describing each teacher's background and school culture, summarizing it as an ethnographic note, and using it to interpret the interview and observation data
Step 4	Having each teacher see the researcher's analysis or categorization and submit the final written report if possible to specify key words

5.8 Evidence vs. interpretation

Coding and categorizing the 10 sets of case description data extracted from PTs as described above is part of the important technique of data gathering and analysis in the Main Study. This technique may be rather heuristic and based on rules of thumb, depending on the researcher's subjective judgment or decision-making. Coding and categorizing as heuristic

approaches therefore have some limitations and should not be applied in all cases. These are products of interpretation or the existence of the systematic outcome patterns, but clusters of such products of interpretation or concepts comprising coded and categorized key words can represent part of the evidence of JEFL teacher cognition.

In terms of evidence in this Main Study, most data came from interviews with and observation of the 10 PTs. The other data were extracted through the researcher's subjective data or interpretation processed through the above-mentioned coding and categorizing techniques. The interpreted case description data still needed to be sorted out so as to be more clearly identified as the characteristics of JEFL teacher cognition. For example, as there were too many key words extracted from 10 PTs even in ATC 1 (Difficulty to teach), they were still condensed into one phrase to make better categorization in order to more easily locate the nature of JEFL teacher cognition (see Appendix IV for more details regarding these coding procedures). The selection of these categorized key words was discussed and confirmed by the researcher and each PT. These sorting and categorizing processes were significant and necessary for the next phase of making a concept map.

5.9 Trustworthiness and credibility in a rigorous and qualitative way

Trustworthiness and credibility should be of most concern in the present research on LTC as CAS. I assumed that credibility and trustworthiness could be well built through the rigorous research procedures or the quality of research methods in association with the RQM. I thus formulated a set of stages that were addressed in this research on the basis of Cohen, Manion and Morrison (2000: 140-152), and developed the following concept for the research design. I complied with the procedures rigorously to help maintain quality as described in Table 5.8.

Table 5.8 The rigorous research procedures for trustworthiness and credibility

Research stage	Content
Stage 1: Locating a field of study	To identify the provisional nature of JEFL teachers' cognitions
Stage 2: Addressing ethical issues	To get approval of the participation in the questionnaire survey from 62 JEFL teachers
Stage 3: Deciding the sampling	To use purposive sampling in accordance with the research objectives through the questionnaire, interviews and observation
Stage 4: Finding a role and managing entry into the context and informants	To ask all 62 JEFL teachers for interviews and classroom observations, and then to select PTs who allow the researcher to enter their communities of practice
Stage 5: Finding informants	To determine 10 PTs in the process of interviews and observations
Stage 6: Developing and maintaining relations in the field	To keep communicating with 10 PTs by regularly meeting them, observing their classroom(s), and discussing 16 ATC topics
Stage 6: Data collection in situ	To <i>notice</i> and <i>collect (record)</i> 10 PTs' interview data
Stage 7: Data collection outside the field	To interview or email 10 PTs if necessary, observe their classroom(s), and observe their working situations
Stage 8: Data analysis	To <i>think</i> or <i>reflect on</i> the data reflexively, and compare data obtained with mixed methods to upgrade the research quality; coding and categorizing the descriptive data into some clusters of domains; sorting and grouping the data by the applied KJ method
Stage 9: Leaving the field	To keep maintaining the relationships with 10 PTs to promote trustworthiness and credibility
Stage 10: Writing the report	To provide facts and analyses to 10 PTs and get feedback for trustworthiness and credibility; and to consider ethical issues and revise the draft deliberately before writing the final version

Constant comparison (Glaser, 1978) is an essential tool for identifying the nature of JEFL teacher cognition in these research procedures as described above. 'In constant comparison data are compared across a range of situations, times, groups of people, and through a range

of methods. The process resonates with the methodological notion of triangulation' (Cohen, Manion & Morrison, 2000: 151). Although this research could not be referred to as triangulation, all qualitative data were noticed, collected, analyzed, categorized, coded, thought and reflected on, while being compared with each other, so as to maintain trustworthiness and credibility. Mixed methods were adopted in each stage in a rigorous manner as well.

5.10 Adopting the applied KJ method (epistemological reflexivity)

Regarding the analysis and dissemination of the data extracted from the 10 PTs, it was necessary to consider how to organize, account for, and explain about the results. Cohen, Manion & Morrison (2000: 148) show the data display as follows: 1) to establish units of analysis of the data, indicating how these units are similar to and different from each other; 2) to create a 'domain analysis'; 3) to establish relationships and linkages between the domains; 4) to make speculative inferences; 5) to summarize; 6) to seek negative and discrepant cases; and 7) to engage in theory generation. This process would be helpful to analyze the data in the process of *noticing, collecting (recording) and thinking (reflecting)*. I tried to comply with this process as a guideline of the data analysis in this research, although I did not aim to seek for theory generation.

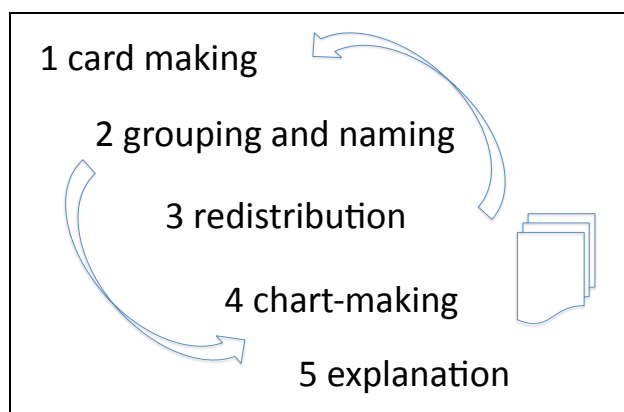
In accordance with the above-mentioned data analysis process, I decided to represent the findings as a network model or a concept map as shown in Chapter 3, and also intended to make use of a collaborative problem-solving technique called the KJ method developed by a Japanese anthropologist or ethnologist Kawakita Jiro.²⁴ Concept mapping (Novak, 1998) and

²⁴ The KJ method was developed as early as 1951 when Kawakita Jiro (1920-2009) was doing anthropological research in a mountain village and was not satisfied with the conventional statistical analyses, thinking that the scientific methods neglected the holistic integration of qualitative data. While assimilating and sorting out qualitative data, he had an initial idea on the method of how to synthesize and summarize the data (Kawakita and Takayama, 2010).

mind mapping (Buzan, 1996), which both show the nest- or tree-structure of concepts or ideas, are graphical ways to represent ideas for note taking, brainstorming, problem solving, studying and memorization and planning. However, the concept map that I planned to create in the Main Study is somewhat different and aims to show the researcher's thought process.

The KJ method is originally a collaborative brainstorming method to reach the solution to a problem. The outline of the KJ method can be briefly explained as follows: The problem is solved by the sorting-out activity in which one cycle of the process is made of five steps.

Figure 5.2 The five-step process in the KJ method



This process is repeated in several cycles to find a solution. In order to clarify the concept of relationships or networks of extracted data and find solutions for answering the research questions, the researcher applied the KJ method for this research to *notice, collect (record)* and *think (reflect)* about 16 ATCs elaborately. By making use of the applied process based on the five-step process shown in Figures 5.2, the researcher decided to create a concept map of ATCs to show the nature of JEFL teacher cognition.

In data sorting procedures to make each concept map of ATCs, each descriptive interview data was converted into coded or key words to better demonstrate the nature of JEFL teacher cognition. The key words were clustered into some groups in accordance with each

categorization (see Appendix IV for more details). The researcher conducted these processes several times in a reflective and reflexive way while negotiating with the core teacher and synthesizing the data. With several processes of categorization and selection, the four-area diagram was finally produced as a concept map in order to map featured key words (see the process in Figure 5.3).

Figure 5.3 Process to develop a concept map of ATCs in association with RQM

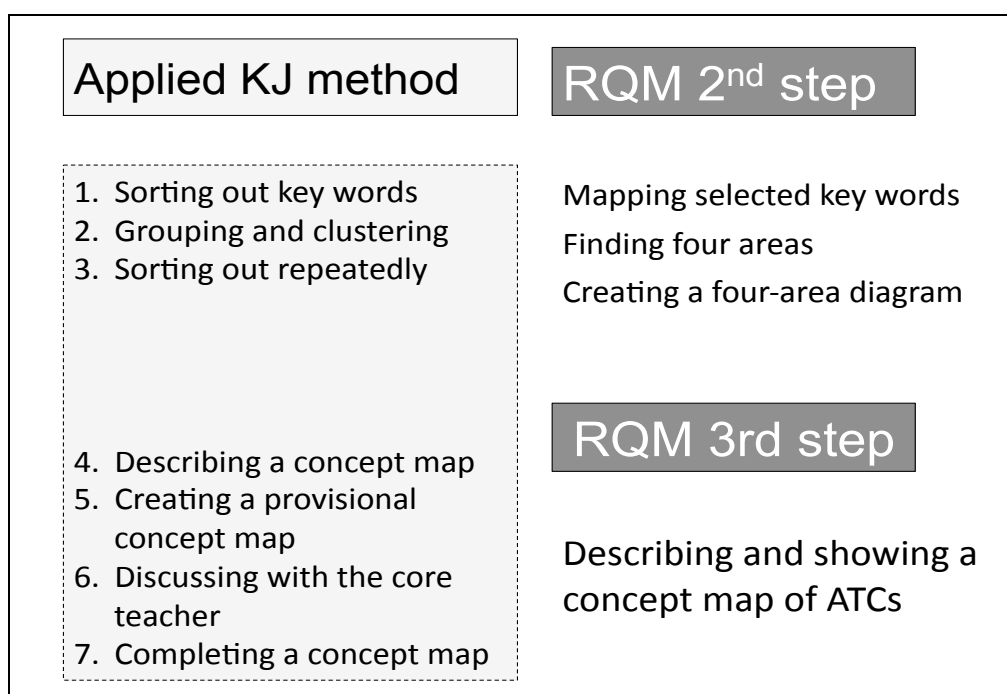


Figure 5.3 describes the process to create a concept map of ATCs in association with RQM. The detailed procedures of this process may be somewhat complex to explain because the main analysis was conducted through the researcher's subjective and reflexive thinking. The applied KJ method aimed to help the researcher's exploratory thinking about JEFL teachers' cognitions. It has a flexible protocol based on the KJ method with reference to the second and third steps of RQM. The basic procedure comprises the steps of the applied KJ method as shown in Figure 5.3: 1) Sorting out key words; 2) Grouping and clustering; 3) Sorting out

repeatedly; 4) Describing a concept map; 5) Creating a provisional concept map; 6) Discussing with the core teacher; and 7) Completing a concept map.

Figure 5.4 The 3rd step of the applied KJ method (sorting out repeatedly)

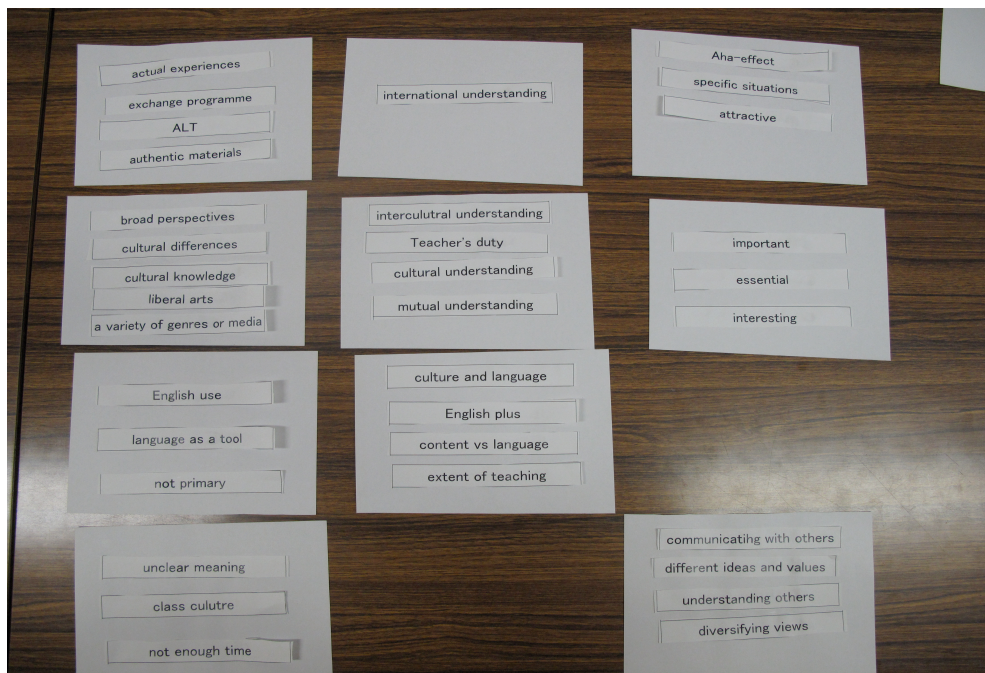
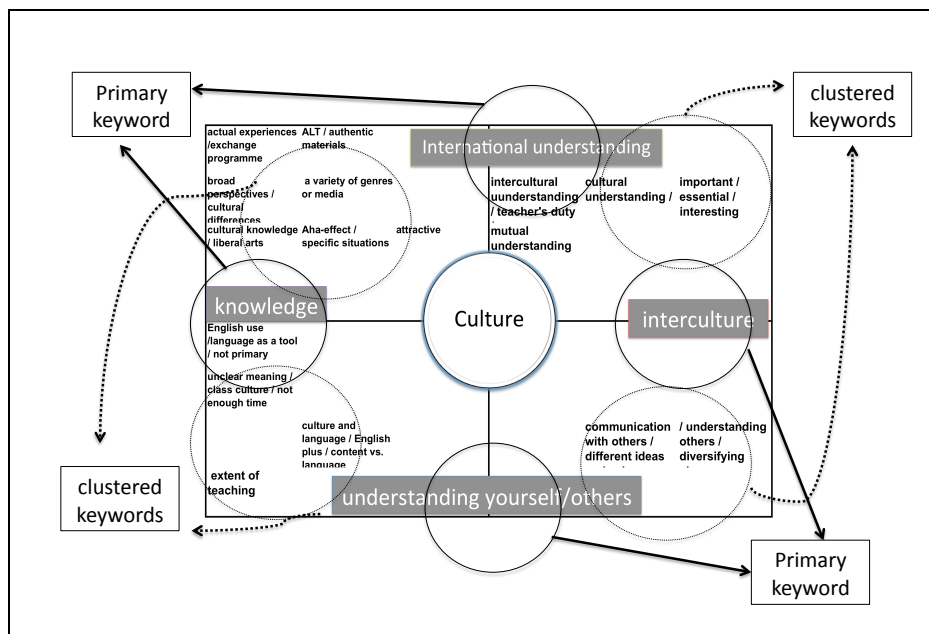


Figure 5.5 The initial stage of creating a concept map



In order to create a concept map by following the above procedures, the clustered key words are sorted out several times to reach the solution. For example, the above photo (Figure 5.4) shows a sorting-out result of 'ATC 2 Culture' before making the initial stage of creating a concept map (Figure 5.5). As shown in Figures 5.4 and 5.5, each sheet, which shows several related key words in it, is set up to see how they are related to each other, making primary and clustered key words in Figure 5.5.

5.11 Understanding of 10 PTs' collective cognitions: collectivity and a holistic approach

I adopted a collective (rather than individual) and holistic (rather than analytic) approach in the data analysis process of *noticing*, *collecting (recording)* and *thinking (reflecting)*. As Kawakita (1967) suggested that the KJ method is meaningful to find ideas and a holistic approach to let all the data speak for itself, I surmised that it would be helpful to demonstrate the findings and discussion. It also means that I generally provide the findings which are intended to reflect the group of 10 PTs as a whole but are not presented as individuals, apart from the illustrative quotes. It may be normal to analyze a profile of each individual teacher, but I have followed Kawakita's ethnographic approach and looked into the 10 PTs' thoughts and behaviours mainly for the following reasons:

- 1) **Topics or contexts** are more focused on than **personal difference**.
- 2) **Collectiveness** is more comfortable than **individuality**.
- 3) **Holistic understanding** is more meaningful than **analytic understanding**.
- 4) **Connectedness or unity** is more important than **separation**.

By presenting the findings collectively or holistically as reflecting the group as a whole, I

focused on the elements and processes of JEFLL teacher cognition which had emerged strongly from systematic application of the applied KJ method and from consultation with the core teacher and the others in the group. This does not mean that the findings reflect all the 10 PTs in exactly the same way and to the same extent, but they have been judged by the PTs to be sufficiently strong to warrant being mentioned.

The researcher's subjectivity and reflexivity were fully considered through the data gathering and analysis process. To identify the nature of JEFLL teacher cognition, which is considered to be a connected complex system depending on context, the researcher decided to see it collectively or holistically through interview and observation in the process of the research ongoing. The researcher's subjective and reflexive cognitions were naturally the main role through the entire research process, such as sorting out the key words, interpreting them, and creating 16 concept maps of ATCs. I thus adopted a subjective approach, which I assumed could draw on complex realities better than an objective approach in the LTC research, as I have already discussed (cf. 4.1.5.1). As I explored 10 PTs' cognitions or internal realities, I had to enter their *Uchi* cultures by utilizing my own knowledge and experience as one of JEFLL teachers. In that context, my subjectivity as well as reflexivity, which has been created by my long-term career as a teacher and researcher, was trustworthy or credible evidence, functioning as the lens for interpretation and analysis. This lens cannot objectively set out what the 10 PTs think, know and believe, and thus goes well with complexity theory in that I can present 16 concept maps of ATCs as belonging to a complex self-organizing system that may at times appear to be static but that in fact is in a state of constant change. Although the researcher's cognitions can probably influence the 10 PTs' reflections, such influences can also be effective for attaining goals which were set by focusing on topics or contexts, collectiveness, holistic understanding, and connectedness or unity in the Main Study.

5.12 Representations and descriptions of 16 concept maps of ATCs

The representations in each concept map can show part of how each component of 10 PTs' cognitions about 16 ATCs is composed of and related to each other. When completing all the 16 concept maps of ATCs, I took the following steps, which can complement the roles and relationships between the researcher and the core teacher.

Table 5.9 Steps to complete 16 concept maps of ATCs with the relationships between the researcher (R) and the core teacher (CT)

Stage	Content	Agent
Step 1	Sorting key words into clusters	R
Steps 2 and 3	Deciding primary key words and four areas with them while sorting key words into clusters several times	R
Step 4	Reflecting the sorting results repeatedly	R
Step 5	Checking the sorting results	CT
Step 6	Revising each concept map with reflection and reflexivity, compared with any other data	R/CT
Step 7	Discussing to complete each concept map	R/CT
Step 8	Completing 16 concept maps of ATCs	R

These eight steps needed to be conducted elaborately and cyclically, and the researcher discussed with the core teacher and educed appropriate suggestions. However, the most significant ideas came from the researcher's own subjective and reflexive analysis. In order to locate the best representations of each concept map, I as a researcher considered my own teacher cognition as the key concept, while referring to several different views and thoughts reflexively and reflectively (see Appendix IV for more details).

It was demanding to clearly describe the researcher's thought processes and discussion about the nature of the 10 PTs' cognitions. I thus demonstrated a summary description of how

each ATC could be consisted of and in what ways its factors could influence each other, in addition to representing the concept map. I actually took the following three steps in making 16 concept maps of ATCs:

- 1) The researcher extracted primary key words through the sorting-out exercise of the applied KJ method in order to better see the process and outcome of JEFLL teacher cognition.
- 2) The researcher described the summaries of 10 PTs' interview remarks and observation facts in association with the primary key words, which have been extracted through the applied KJ method.
- 3) The researcher distributed the factors or components in each area related to the primary key words to demonstrate the relationships or interactions. That was because such area distributions could show the dimensional views in addition to the descriptions.

5.13 The complex four-area diagram created by the applied KJ method

I surmised that each ATC was complex while sorting out clustered key words in the applied KJ method. I sorted out and grouped them into some common categories, when the process was repeated several times with the help of the core teacher and the other PTs (cf. Table 5.9). In the first place, I put each card of key words on the desk randomly, thinking about the relationships and grouping the words, and then realized that it would be the best way to represent the process and the outcome of ATCs (cf. Figure 5.4). Through the reflexive relationships between the researcher and the core teacher, I found that each ATC comprises four areas divided by four primary key words.

Regarding the reason why 'the complex four-area diagram' has been developed to show each concept map of ATCs, it should be clearly stated so as to ensure trustworthiness and

credibility. As shown in Figure 5.3, while mapping or sorting out selected key words several times, I found the property to show topics (contexts), collectiveness, holistic understanding, and connectedness (unity) anchored by primary key words in each ATC. For me as the researcher, it was considered to depict the most salient components of JEFLL teacher cognition and the signature dynamics of JEFLL teacher cognition in *Eigo Kyoiku* as an attractor conglomerate in CAS, when creating each concept map of ATCs.

There are a number of reasons why I have selected the four-area diagram as the concept map which could represent how ATCs are structured and related to each other. It was a natural process through the applied KJ method after initiating research with a provisional network model of JEFLL teacher cognition (see Figure 3.4). In other words, the diagram appeared by itself through the sorting-out task process. As I sorted out a number of key word cards and thought about the distributions again and again (see Figure 5.4), I came to see what I should do to create a concept map. It was not a nest- or tree-structure but a four-area diagram, because I assumed it could show better aspects of JEFLL teachers' dilemma or thought processes regarding teaching and teacher education. The main reasons for the choice of the complex four-area diagram are summarized as follows:

- 1) The complex four-area diagram can be effective to represent the nature of PTs' ambivalent thoughts in the *Eigo Kyoiku* context as an attractor conglomerate and to highlight 16 topics of ATCs. [**topics** or **contexts**]
- 2) The primary four key words in each diagram, which are selected through the researcher's several sorting-out processes, can anchor complex PTs' cognitions in CAS to see them as a whole. [**collectiveness**]
- 3) The complex four-area diagram can simply show the interrelationships of PTs' situated cognitions, in which knowledge is inseparable from behavior [**connectedness** or **unity**]

4) The complex four-area diagram has been created through the researcher's natural thought processes, as each data 'speaks for itself' in the KJ method. It means that it can well represent the researcher's subjective and reflexive exploratory process and outcome regarding the nature of JEFLL teachers' cognitions as the signature dynamics, as described in the third step of RQM. [**holistic understanding**]

The next chapter presents the four-area diagram for the 16 ATCs based on these conceptions.

5.14 Research dissemination about research guiding questions (RQs) 1, 2, 3 and 4

I did not simply aim to answer the four RQs, but just intended to conduct the present research so as to think about the nature of JEFLL teacher cognition from a social constructivist viewpoint and a Japanese teacher culture philosophy (cf. Sugimoto, 2003). The next chapter will provide the results and discussion of the Main Study based on the research design. Here I state the policy and standards of how to discuss the research results regarding RQs 1, 2, 3 and 4 with reference to complexity theory or CAS. The results and discussion in the next chapter could be significant to develop this research field of LTC under the present innovative qualitative exploratory research design and methods using the applied KJ method and the complex four-area diagram or the concept map in association with RQM.

1) RQ 1

The nature of JEFLL teacher cognition regarding teaching and teacher education should be grasped as social cognitive processes in relation to complexity theory, as I have discussed so far. In the next chapter, I intend to answer this RQ by demonstrating A) illustrative quotes from PTs, B) the summary descriptions of ATCs, and C) the concept map of ATCs and discussion. I do not aim to generalize the nature of JEFLL teacher cognition or provide the

typicality of it, but I will present the results of the research exploration to identify the nature of JEFLL teacher cognition as part of attractor states under the exploration of the 10 PTs' cognitions.

2) RQ 2

The process for answering RQ 2 is closely related to the one for RQ 1. The concept map represents influential factors to develop the 10 PTs' cognitions. It is important but difficult to find evidence of the process of forming teacher cognition to persuade PTs to change or refine their teacher cognition, but some specific influences may possibly be identified by understanding how each component is related to each other. The concept map may not be sufficient to see what influences can help shape 10 PTs' cognitions, but thoughtful discussion can be useful to understand their cognitions, especially positive influences (PIs) to effectively help shape JEFLL teacher cognition. By focusing on PIs, I assumed that some effective influences can be better identified than negative ones, which cannot be totally neglected but partly mentioned. I did not intend to generalize or transfer the findings, but the PIs obtained among the 10 PTs could be useful for further research to understand LTC in CAS. Therefore, I focus on the positive sides in order to see in what ways they make sense of teaching and teacher development.

3) RQ 3

RQ 3 is closely related to the researcher's observation data in association with the interview data. In order to see the consistency and divergence between teacher cognition and actual practice of teaching, I attempted to notice the 10 PTs' cognitions about 16 ATCs and their actual behaviours or practices in the classroom while observing their teaching in the classroom and working at school. In these data analysis processes, I extracted some aspects of

influential factors and represented them in the 16 concept maps of ATCs, and then considered RQ 3 in association with both RQs 1 and 2 as well as RQM, because RQ 3 requires the researcher's total thought processes regarding the 10 PTs' cognitions. In the next chapter, I will discuss some specific aspects of differences between the 10 PTs' cognitions and their actual performances, and present a summary in relation to the 16 concept maps of ATCs by highlighting the main influences on their teaching.

4) RQ 4

RQ 4 focuses on additional issues which are related to sociocultural differences in the concept of LTC. I first assumed that teacher cognition may be a universal concept while LTC may possibly be a sociocultural-, local-bound and rather situated-concept. In the Japanese context, the concept of LTC can therefore include more complex factors than the provisional network model to represent JEFLL teacher cognition in Chapter 3 (see Figure 3.4). It should be discussed more carefully on the basis of the research results than I expected. Moreover, in the process of thinking about and creating the concept map, I came to realize some different conceptions about this research field of LTC as CAS. I will discuss such issues in the next chapter, referring to what overall picture of LTC emerges from the present exploratory study.

Chapter 6 Results and discussion of the Main Study

Chapter summary

This chapter presents the background information on 10 PTs as the research subjects and the main findings and discussion of the Main Study with respect to the topics of 16 ATCs. By presenting the 10 PTs' cognitions as one collective group, the findings emerging from systematic and collaborative application of the applied KJ method are discussed from a complexity theory perspective. The results show the complex features of each ATC by depicting the concept map or the four-area diagram in order to better see the nature of JEFL teacher cognition. This chapter accordingly highlights and disseminates 16 ATCs, each of which summarizes the 10 PTs' cognitions collectively and represents the process and product of the researcher's exploration.

I decided to focus on 16 concept maps of ATCs instead of 10 PTs individually and present 16 summary descriptions and concept maps of ATCs in order to present the research findings. Before presenting the results and discussion in this chapter, I firstly refer to the basic background data for 10 PTs and then demonstrate 16 ATCs in three complementary ways: 1) the illustrative quotes from PTs, 2) the four areas (attractor states) divided by four primary key words and the summary descriptions, and 3) the concept map or the four-area diagram of ATCs. Finally, necessary discussion is added to each topic of 16 ATCs. I assumed that it could be the best way to consider my subjectivity and reflexivity and explore the nature of 10 PTs' cognitions in association with RQM qualitatively, and thus the results will be disseminated together with interpretation. Following the data representations, I will finally discuss the issues of JEFL teacher cognition in accordance with the four RQs in this chapter.

6.1 The background of 10 PTs

Each PT's background information was extracted in the course of interview and observation. The most important thing in terms of sampling is that each teacher had a variety of backgrounds, such as teaching experiences, school types, school culture, and motivations. As Table 6.1 shows, the data were not sampled from a common group with similar beliefs and knowledge or intentionally collected from a particular group of teachers, as already explained in Chapter 5. As in the following descriptions for each teacher in Table 6.1, 10 PTs were considered to be well balanced in the sampling distribution: e.g. age, gender, experience, school, and teaching style.

The group of 10 PTs may not be intended to be representative of JEFLL teachers generally, but they can reflect aspects of JEFLL teachers' cognitions. An advantage of working with 10 PTs is that they would have acquired considerable experience of working within the complexities and contradictions of *Eigo Kyoiku* as described in Chapter 2. If it is indeed the case, as at first sight it seems to be, that *Eigo Kyoiku* has slowly evolved into quasi-permanent 'attractor states' with reference to CAS, then these 10 PTs' cognitions may well cast some light on the understanding of JEFLL teacher cognition which is integral to *Eigo Kyoiku*.

Table 6.1 The background descriptions of 10 PTs

CASE	NAME	BACKGROUND
1	SUZU	He was then a 14-year experienced upper-secondary school teacher; earned master's degree; eager to develop his English knowledge and skills; especially interested in English speech and CLT classroom activities; and working at a prestigious girls' school at that time and also active in some research projects. He is a very hard working teacher but does not want to teach English for the university entrance exam, which is very important among prestigious upper secondary school teachers in Japan. As he was very interested in this research, I asked him for sustainable cooperation.
		He was then a 10 year experienced lower secondary school teacher: a local district leader of teachers holding meetings; eager to teach and

2	ZUMI	enjoy teaching; has lots of classroom ideas to share with other teachers; eager to develop teaching methods and techniques; and being familiar with ICT and pop culture, such as games and manga, which students are interested in. He is a very reliable teacher and respected by many students as well as colleagues. Although he was interested in this research, he was too busy with many things to do, so I could not contact him so often.
3	MIHI	She was then a 7 year experienced lower secondary school teacher working at a special education school; sometimes teaching English but mainly taking care of students with special needs with other teacher colleagues; but wants to develop her English teaching knowledge and skills; and very active and interested in English language and culture. She was interested in special education but wanted to teach English to lower secondary students, so she was interested in participating in this research.
4	FUKU	She was then a 20 year experienced lower secondary school teacher whose teaching is well-evaluated; has experienced one-year in-service teacher education and sufficient professional knowledge and skills; still really interested in providing better teaching and learning as well as educating students; and working well with her colleagues. She really seems to be enjoying working as a lower secondary schoolteacher, although it is a very hard work in Japan. She is also very cooperative with this research because she always wants to improve herself.
5	NIHI	He was then a 25-year experienced lower secondary school teacher with a variety of professional knowledge and skills, such as participating in some projects and textbook editing; being respected by colleagues and students with good humour and reliable personality; working at a school leader and enjoying teaching with ALTs; and interested in teaching English and educating students. He has good colleagues to share classroom ideas with and always enjoy working with them.
6	KOKO	He was then a 20-year experienced upper secondary school teacher. I have known him since he was a university student; and played baseball at high school and university days; wanted to be a teacher who coaches a baseball team rather than one to teach English. However, he also liked to teach English and was a adept teacher to manage all students with good sense of humour. He was good at teaching but he did not insist on CLT but teaching English on his own methods. He is respected by his colleagues because of his friendly personality.
7	TAKA	He was then an over 20-year experienced leading teacher at lower secondary school; well known for moral/ethical education in his local education district; and providing good practices of moral education and worked well. He is interested in educating students rather than teaching English. He is a passionate teacher who most colleagues respect and rely on. He did not have proper pre-service teacher education and he seemed to develop his teaching knowledge and skills by his own practical experiences.
8	NINO	She was then a 20-year or more experienced upper secondary school teacher; earned her master's degree while working and taught English to adults on a part-time basis; and interested in studying and researching ELT as well as teaching English in the classroom practically. She thus joins some study groups and wants to develop her professional knowledge and skills. She is very cooperative with academic research, especially interested in learner and teacher beliefs. She therefore has collaborative attitudes to this research. And she really likes to

		communicate with people.
9	TOME	He was then a 30-year or more experienced upper secondary school teacher; working as a deputy headteacher; having experience in teaching at primary school for five or six years after graduating from primary teacher education; and starting to teach in upper secondary school after obtaining the English teacher license while working a primary teacher. He can very well understand students because of such teaching experience. He is also interested in English language and culture. As deputy headteacher, he has to observe teachers' classrooms to evaluate them, so has learned how differently each teacher teaches.
10	KOHI	He was also then a 30-year or more experienced upper secondary school teacher and currently worked as a deputy headteacher; often sharing ideas with TOME about school administration matters; and worked for some prestigious schools and been admitted as an expert to teach English for the university entrance examination. In 30s he worked as a leading teacher, so he participated in the overseas study programme in the United States for 3 months. He is interested in educating students so he likes to commit himself to being together with students.

Regarding their teacher education backgrounds, two teachers (KOKO and KOHI) completed a proper English preservice teacher education course for secondary school, seven teachers (SUZU, ZUMI, MIHI, FUKU, NIHI, TAKA and NINO) completed the faculty of foreign languages or arts and earned necessary credits for English teacher licensure, and one teacher (TOME) finished a proper preservice teacher education course for primary school and then earned an English teacher license while teaching at a primary school. Each PT's individual background information should be important to analyze his or her interview or observation data.

6.2 In-depth exploration of the 16 summary descriptions and concept maps of ATCs

I assumed that the complex relationships on JEFLL teacher cognition could be identified in the process of creating the concept map on the basis of the interview and (classroom and ethnographic) observation data. The procedures are, as I have discussed, rigorous and closely related to trustworthiness and credibility in this research (see Table 5.8). It was thus planned that the 16 summary descriptions and concept maps of ATCs present both the process and

product and illustrate their qualitative validation processes by focusing on 10 PTs' holistic and collective cognitions. The 16 topics of ATCs are already listed in Table 4.7. In order to better see aspects and components of the 10 PTs' cognitions and their influential factors in terms of the 16 topics of ATCs, each section will thus comprise the following three parts under the heading to show the distinctive characteristics of ATCs:

- Heading: one sentence to represent the distinctive characteristic of ATCs
- A. Illustrative quotes from PTs
 - PTs' quotes as representative remarks
- B. The summary descriptions of ATCs
 - Four areas (attractor states) fed by 4 primary key words
 - The validated summary of 10 PTs' cognitions about ATCs
- C. The concept map of ATCs and discussion
 - The four-area diagram to represent 10 PTs' cognitions about ATCs
 - Discussion based on the concept map to explore signature dynamics

Lest there be any misunderstanding about the data analysis process and the data representation, I hereby reconfirm that the results and discussion for each summary description and concept map of ATCs summarize the researcher's thought processes about what individual 10 PTs think, know, believe and do, in collaboration with the core teacher and the others, and also refer to their cognitions as well.

I did not highlight each PT, although 10 PTs' cognitions are naturally all different, and instead, I focused on 16 ATCs or topics of JEFLL teacher cognition. Therefore, the descriptions are summarized as if 10 teachers were one person based on the policy: topics or contexts, collectiveness, holistic understanding, and connectedness or unity. That is because it can be

feasible and effective to achieve the research purpose to identify the nature of JEFLL teacher cognition. The research did not aim to find the difference of each teacher's awareness of teaching and teacher education, but to see some characteristics of JEFLL teachers' thought processes; i.e. their teacher cognition about teaching and teacher education. In order to explore to what extent LTC is situated in the Japanese context, I focused on the 16 topics which can characterize JEFLL teachers' cognitions extracted through the Preliminary Study. Moreover, the following concept maps also aim to explore a new qualitative method to identify the nature of JEFLL teachers' cognitions through the researcher's subjective exploration using the applied KJ method. For that purpose, I have selected the four-area diagram that has been created through the researcher's natural thought processes based on RQM drawing on complexity theory.

6.2.1 ATC 1 of 'Difficulty to teach': *PTs feel obliged to have ideal classrooms in their mind*

ATC 1 is strongly related to the Japanese traditional teacher education and school culture (see *Eigo Kyoiku* described in Chapters 2 and 3). After the analysis, ATC 1 of 'Difficulty to teach' can be summarized in one sentence: ***PTs feel obliged to have ideal classrooms in their mind.***

A. Illustrative quotes from PTs (originally Japanese)

I have to get along with my colleagues, so I always teach the same thing the same way. I want to encourage my students to speak or write English autonomously, but it is difficult to have a consensus among colleagues. I just have to teach textbooks. -- SUZU

I have made efforts to encourage and motivate students to learn English and to find good

B. The summary descriptions of ATC 1

Table 6.2 Summary descriptions of ATC 1: 4 areas (attractor states) of 'Difficulty to teach'

1) classroom reality and ELT	2) ELT and ideal classroom
3) school culture and classroom reality	4) ideal classroom and school culture

*Classroom reality, ELT, ideal classroom, and school culture are 4 primary key words.

<p>1) classroom reality and ELT</p> <p>PTs try too much to prepare for teaching and evaluate themselves under the ambivalence between ELT theories and classroom realities/practices that they have been provided in teacher education programmes. PTs are fundamentally eager and sincere to teach English to students and educate them from the viewpoint of the whole person education, so they prepare for their English teaching as best they can and try to make their students learn English diligently and actively. PTs always try to provide better English classrooms, think about methods, techniques, tasks, activities and materials, reflect on themselves, and discuss with colleagues if they have time. However, PTs have only to evaluate themselves based on their own standards. The teaching in real classroom situations seems to have no standards that EFL teachers follow.</p>
<p>2) ELT and ideal classroom</p> <p>PTs can be expected to help provide a fun and motivating classroom atmosphere which has been called for by ELT theory-based knowledge and skills, especially CLT-based ideas. PTs adore some prototypes of the English classroom where charismatic teachers can teach English effectively, vigorously and joyfully. In preservice teacher education, PTs are normally introduced ideal ELT theories and practices to teach English in the ELT methodology courses, when they have already realized the difference between ideal and real situations. However, PTs do not discuss how to cope with such real situations and they have to follow theoretical teaching methodologies and respect such ideal thoughts when they actually teach in the classroom.</p>
<p>3) ideal classroom and school culture</p> <p>PTs feel no strong social need for most Japanese people to use English in daily life, so student needs for English learning can make teachers rather stressed by planning what to teach and how to teach English in the classroom. PTs are in most cases inconsistent with the realities in school and sometimes incompatible with the ideal classroom which is provided in ELT course books or ESL teaching methods. However, even in preservice teacher education, each teacher educator's concept of a good classroom is different and very theoretical sometimes. One of the ideal English classrooms is considered as the classroom that is conducted in English only with perfect English knowledge and skills. Some PTs think that English teachers should be perfect in teaching English.</p>
<p>4) school culture and classroom reality</p> <p>Classroom activities are strongly related to school culture, even in English classrooms. Traditional school culture, which PTs have to follow, can influence their teacher cognition. Many PTs are really worried about students' poor motivation and feeling of difficulty in English learning. The English language is totally different from the Japanese language, so PTs believe it is difficult for Japanese-speaking people to learn</p>

English, just as they experienced themselves. Thus PTs strongly believe that it is difficult to teach.

C. The concept map of ATC 1 and discussion

ATC 1 of 'Difficulty to teach' is the most featured concept map to be characteristic of JEFL teacher cognition. The following concept map or four-area diagram is created as the researcher's analysis product of 10 PTs' cognitive processes about 'Difficult to teach.'

Figure 6.1 ATC 1: 'Difficulty to teach'

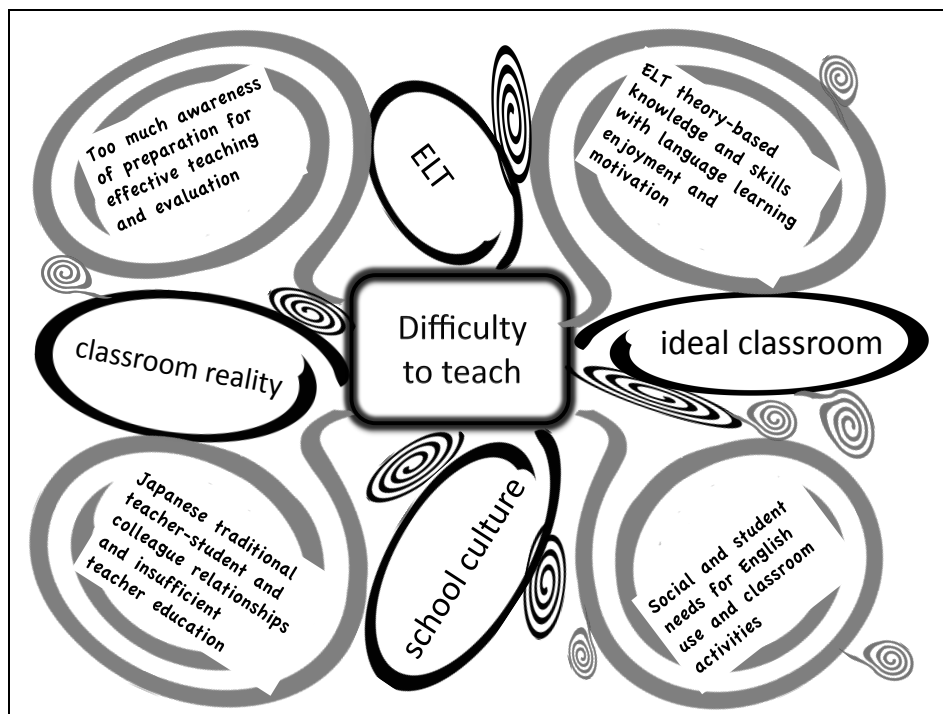


Figure 6.1 shows that four primary key words feed attractor states described in the four areas. In other words, it shows that PTs realize the difference between ideal and reality while having a collective image about good language teaching and learning and seeing what an English classroom should be. Due to PTs' vague conceptions about what makes English teaching difficult, they really feel obliged to have ideal classrooms in their mind under the historical,

traditional, social and cultural pressure.

Many PTs feel that they have not been provided with sufficient opportunities to think about how to act in the classroom. The ideal classroom that most PTs could hold in their mind is therefore related to their necessary conceptions, such as English use, pleasure, good motivation, lively activities, good management, and effective learning. On the other hand, their teaching is influenced by classroom realities which include traditional disciplines, complex classroom situations, unmotivated learners, large class sizes, and many types of class workload. Many PTs believe that it is difficult to master English, according to their own actual experience, and they are teaching English to their students without sufficient confidence of English language knowledge and skills as well as teaching knowledge and skills, because they have not had sustainable teacher education, clear standards or philosophy about teaching English.

6.2.2 ATC 2 of ‘Target-language-speaking culture(s)’: *PTs think cultural knowledge motivates students*

The analysis about ATC 2 of ‘Target-language-speaking culture(s)’ can be summarized in one sentence: ***PTs think that cultural knowledge strongly motivates students.*** The following teacher statement can represent such views clearly.

A. Illustrative quotes from PTs (originally Japanese)

Cross-cultural understanding will motivate my students to learn English, and, I believe, it is really interesting and exciting to know different cultures from ours in learning English. – MIHI

Cross-cultural understanding is one of the important learning contents, and foreigners’

ways of thinking behind their languages are strongly related to 'culture.' -- NIHI

B. The summary descriptions of ATC 2

Table 6.3 Summary descriptions of ATC 2: 4 areas (attractor states) of

'Target-language-speaking culture(s)'

1) knowledge and international understanding	2) international understanding and intercultural
3) intercultural and understanding yourself/others	4) understanding yourself/others and knowledge

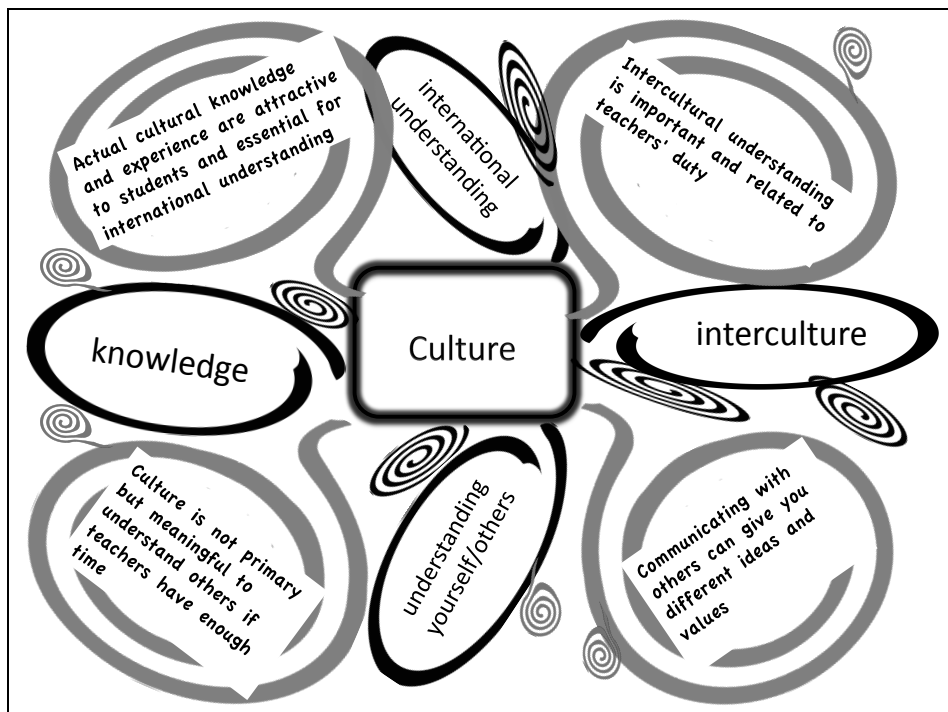
*Knowledge, international understanding, intercultural and understanding yourself/others are 4 primary key words.

<p>1) knowledge and international understanding</p> <p>PTs have to focus on international understanding when teaching English, but they have insufficient knowledge about culture in fact. When they teach English-speaking cultures, they just teach their students cultural knowledge in many cases, but do not understand actual cultural experience. PTs themselves are learners in terms of international understanding, so they are interested in English cultural knowledge, which is strongly related to academic knowledge but not practical experience.</p>
<p>2) international understanding and intercultural</p> <p>Intercultural communicative competence (ICC) is one of the aims to learn a language. PTs also consider it to be one of the aims in their English classrooms, but their understandings of ICC can be different and include some misunderstandings. PTs thus think that both international understanding and ICC can be important, but many of them do not teach well since they do not understand international culture or ICC appropriately.</p>
<p>3) intercultural and understanding yourself/others</p> <p>PTs tend to think that it is important to teach how to understand others in teaching English. Understanding oneself and others is part of ICC to many PTs, who have a variety of viewpoints regarding how to teach cultures. Some PTs tend to focus on just understanding each other but do not focus on teaching English for communication. In other words, as they think that teaching English while teaching ICC can be difficult, they may rather highlight understanding each other in intercultural understanding, but others do not always think so. Each teacher has a variety of views about intercultural communication.</p>
<p>4) understanding yourself/others and knowledge</p> <p>PTs are interested in cultures and think that understanding others is important. However, they have dilemmas between teaching English linguistic knowledge to focus on reading and educating students through the whole school activities, since they are often required or forced to do so due to the social needs. Moreover, as many PTs have little experience to develop an understanding of English-speaking cultures, they are more interested in cultural knowledge. PTs' such strong interest in cultures can possibly cover a variety of cultures that range from small culture to large culture. To them, it seems that culture is content knowledge and cultural understanding has unclear purpose when teaching English. PTs are interested in culture to understand themselves as well as students.</p>

C. The concept map of ATC 2 and discussion

The summary descriptions are followed by the concept map of ATC 2 (Figure 6.2), which demonstrates four attractor states in relation to four primary key words: knowledge, interculture, international understanding, and understanding yourself/others.

Figure 6.2 ATC 2: 'Target-language-speaking culture(s)'



PTs' cognitions appreciate desirable concepts of the target-language-speaking culture and cultural knowledge/awareness of others as teaching content. International or intercultural understanding is a goal provided by the Course of Study, but PTs actually tend to think that culture is just knowledge to motivate students to learn English rather than skills to communicate with and understand others. However, most PTs have not lived or studied in English-speaking countries, and in some cases they do not have time to easily visit

English-speaking countries even in summer school holidays.

Culture is indispensable for language learning, but PTs seem to have a different view about culture and language, which range from cultural knowledge to intercultural communication skills. ATC 2 may be practically concerned with understanding yourself or others, because PTs feel that international understanding is idealistic and hard to teach in the classroom. The most significant meaning of this concept map is that the target-language-speaking culture is an essential component of the nature of JEFL teacher cognition, but it is probably distinct from the culture that comes from PTs' actual knowledge and experiences. PTs are unsure of sufficient knowledge about English-speaking cultures, strongly feeling that culture is important subject content knowledge and its knowledge can motivate students.

6.2.3 ATC 3 of 'Learning vocabulary': *PTs like vocabulary learning and think students should, too*

The third component of the nature of JEFL teacher cognition or 'learning vocabulary' is typical of good language learners. The research found that *PTs like vocabulary learning and think students should, too*. The following teacher quotes can clearly demonstrate it.

A. Illustrative quotes from PTs (originally Japanese)

There may be lots of vocabulary building ways. Students have to learn core vocabulary first of all. If they don't have sufficient vocabulary knowledge, they can't probably get any language skills. Vocabulary learning is essential from the early language learning stage.
– KOKO

So far I have worked for several upper high schools. Most teachers tried hard to let students build vocabulary, using methods such as vocabulary quizzes and school

vocabulary competitions. Anyway, they really emphasise teaching vocabulary. – NINO

B. The summary descriptions of ATC 3

Table 6.4 Summary descriptions of ATC 3: 4 areas (attractor states) of ‘Learning vocabulary’

1) knowledge and language learning	2) language learning and communication
3) communication and quiz	4) quiz and knowledge

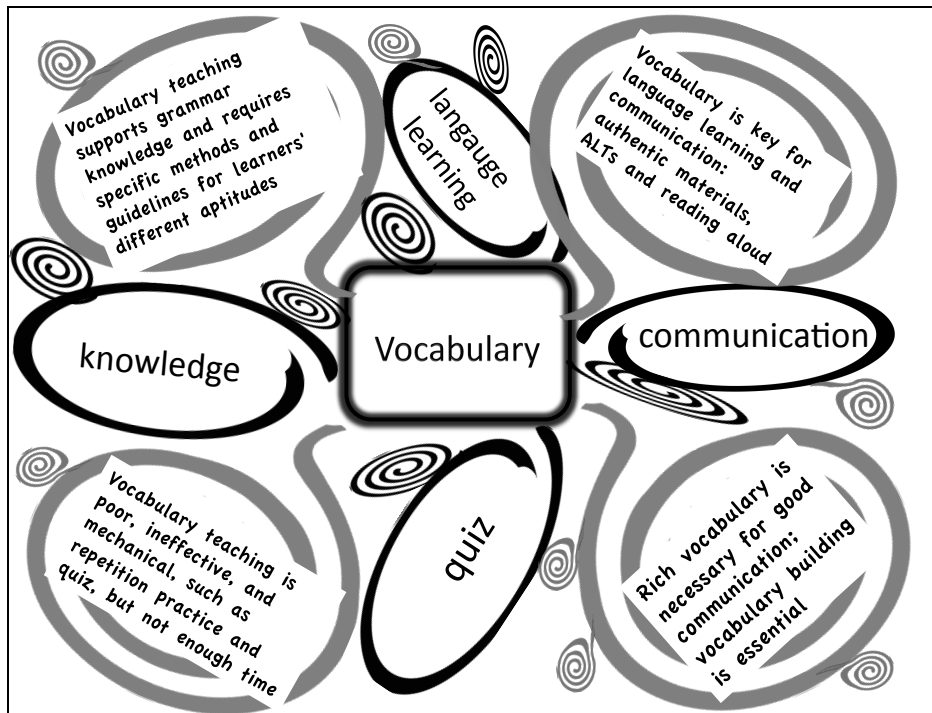
*Knowledge, language learning, communication and quiz are 4 primary key words.

<p>1) knowledge and language learning</p> <p>PTs think that teaching vocabulary is essential and apparently rather easy to teach compared to teaching grammar. They tend to focus on lexical meaning, pronunciation and form (especially spelling), which are mainly related to test knowledge but not quite practical. That is because teachers themselves are interested in English words and phrases; e.g. especially idioms, phrasal verbs and collocations. Moreover, they expect their students to have correct knowledge about vocabulary usage, which is related to grammar knowledge. Many PTs have not had sufficient knowledge about English use. Although teaching vocabulary is not difficult, many PTs do not know better vocabulary teaching methods.</p>
<p>2) language learning and communication</p> <p>Vocabulary knowledge is helpful for good communication and authentic materials are especially useful to motivate students to learn English in accordance with their interest, such as music and movies. ALTs or NESs are also good motivators who can provide practical English words and phrases for teachers as well as students. Many PTs believe that they could communicate in English if they had more vocabulary. It follows that they would have such experiences as trying to find appropriate words when using English. However, they assume that reading aloud is very effective to build up more vocabulary.</p>
<p>3) communication and quiz</p> <p>PTs believe that vocabulary building is essential to develop communicative competence, but the important point is how they think they should teach vocabulary. They need better methods or strategies to encourage their students to learn more words and phrases effectively. Their fundamental ideas are related to quizzes or games that can be just fun in many cases but not practical or communicative. Actually the most needs for many students are to pass the entrance examination, so their vocabulary is liable to be narrow and unpractical in real communication. Many PTs feel some stress about such vocabulary teaching.</p>
<p>4) quiz and knowledge</p> <p>PTs think that vocabulary learning is very important in classroom activities as well as in communicative competence, but their vocabulary teaching is poor or ineffective. They just encourage their students to repeat and memorize words and phrases and give quizzes and tests to them. These quizzes and tests are not always practical or effective in terms of good language learning. One of the big reasons for many PTs to do so is that schoolteachers are busy doing many things in school. Another reason is that many teachers and students are not satisfied with such traditional classroom activities, which are not practically related to communicative competence in historical perspectives. However, they cannot change such traditional classroom culture.</p>

C. The concept map of ATC 3 and discussion

Based on the summary descriptions, the concept map of ATC 3 has been created as in Figure 6.3 that shows four attractor states in relation to four primary key words: knowledge, communication, learning, and quiz. The figure shows that PTs' cognitions represent appreciation for vocabulary learning, and they strongly believe that vocabulary is important for language learning and communication.

Figure 6.3 ATC 3: 'Learning vocabulary'



Learning vocabulary is a basic component of the nature of JEFL teacher cognition, but the concept map of ATC 3 may be more complex than expected. PTs' vocabulary teaching may apparently go for CLT activities, but it is actually different. PTs strongly feel that vocabulary is essential for communication but they have not found appropriate methods to build up their students' vocabulary effectively. In many cases, vocabulary teaching focuses on simple and

unpractical knowledge for quizzes: e.g. Japanese translation, idioms, word formation, and inflection. For many PTs, vocabulary teaching is probably just part of test-taking knowledge.

JEFL teacher cognition about learning vocabulary is strongly related to the tradition of vocabulary teaching. PTs like to make use of a dictionary when learning English and strongly believe that bilingual dictionaries are very useful. They often recommend learners to learn vocabulary from a dictionary. The strong culture of English learners' making use of bilingual dictionaries seems to have influenced their learner beliefs and attitudes. Accordingly, PTs like vocabulary learning and they assume that students should like vocabulary learning, too.

6.2.4 ATC 4 of 'Learning grammar': *PTs take easy ways to teach grammar*

People may think that grammar knowledge is basic and essential to be an English teacher. The analysis concludes that *PTs take easy ways to teach grammar*. They like to teach grammar as shown in the following teacher statement.

A. Illustrative quotes from PTs (originally Japanese)

My colleagues really enjoy teaching grammar. Grammar is worth teaching for teachers but not for students. Learning grammar is important but it's not enough. – TOME

It is necessary to teach English grammar and usage in Japanese. Grammar teaching has been neglected for the past decade, so the disparity gap in students' English ability is widening. – KOHI

B. The summary descriptions of ATC 4

Table 6.5 Summary descriptions of ATC 4: 4 areas (attractor states) of 'Learning grammar'

1) knowledge and function/meaning	2) function/meaning and communication
3) communication and form	4) form and knowledge

*Knowledge, function/meaning, communication and form are 4 primary key words.

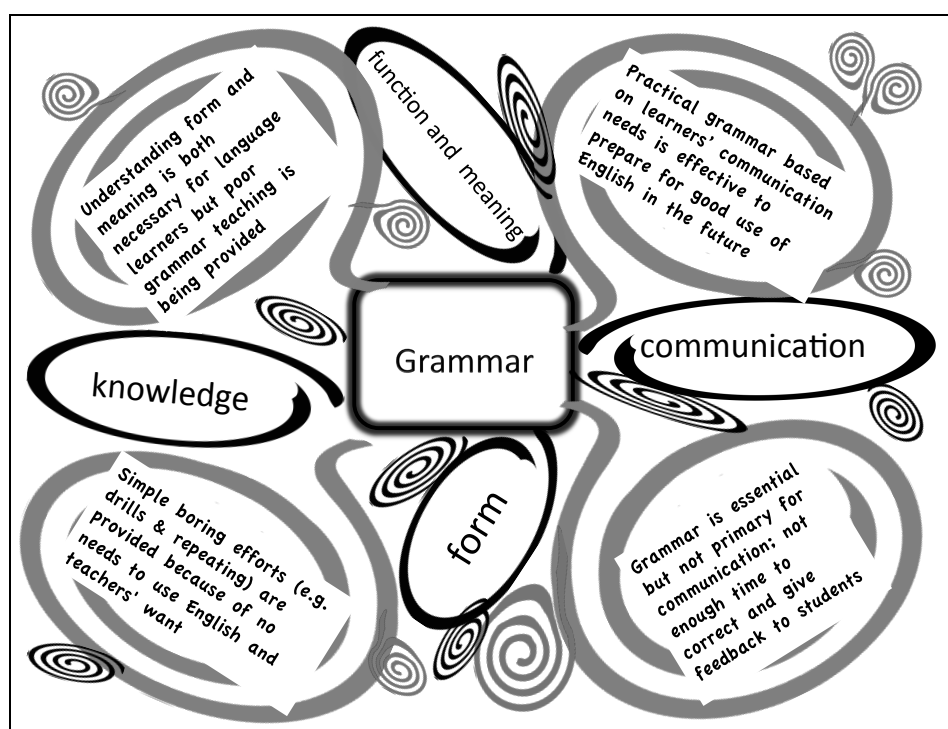
<p>1) knowledge and function/meaning</p> <p>PTs insist on grammar knowledge or accuracy especially; they tend to focus on correcting mistakes that their students made and testing the accurate usage and knowledge. Many students thus try to use English accurately even when they communicate in English. Or they separate English communication activities from English grammar learning. These two learning activities are not effectively interrelated with each other; and grammar teaching is provided in order to cope with the test or grammar quiz. That is because it is rather easy for teachers to teach to their students, but there can be no communication activities.</p>
<p>2) function/meaning and communication</p> <p>PTs try to seek for better ways to teach practical grammar of English, which is based on English communication needs and will be useful for students' future use of English. It is important how PTs see grammar or what kind of perception they have when learning a language. PTs think that actual communication experiences and authentic materials are very important and useful to students, and they also think that a proper understanding of grammar is necessary before them. They are often in a dilemma between real communication activities and classroom learning activities, but aim to teach grammar after all.</p>
<p>3) communication and form</p> <p>PTs like to teach English grammar, because they believe it is essential to understand grammar for students to use English well, and students can only learn English at school for a short time. PTs believe that their students need to have sufficient English use training while getting appropriate English knowledge, but they would not have time to do so if they learned English by themselves. PTs therefore give students assignments to be able to understand necessary grammar rules. It is the fast track for students. That is because PTs normally have 40 students in the classroom and teach 200 or more students in a week.</p>
<p>4) form and knowledge</p> <p>PTs evaluate students' efforts and patience to do grammar drills and repetition practice. They think that English learning can train students' thinking or analytical skills in relation to their academic background and will help them develop themselves. In many situations, PTs believe that most secondary students do not need to use English as long as they live in Japan. The most important needs are related to their academic background, such as graduating from a prestigious university or passing an employment test for civil servants. Moreover, most PTs' experiences are strongly related to their students' learning experiences, so they want to focus on grammar teaching for the entrance examination and academic knowledge. PTs really want to teach grammar as they were taught and believe that their traditional grammar teaching is based on the social needs.</p>

C. The concept map of ATC 4 and discussion

Following the summary descriptions, the concept map of ATC 4 (Figure 6.4) shows how knowledge, communication, function, and meaning as primary key words are related to creating attractor states. It seems that the 10 PTs follow the traditional ways or cultures

because it is easy for them to do so with the traditional complex role of teachers. The figure shows their appreciation for practical grammar of English based on English communication needs and their expectations or assumptions that grammar is helpful for students' future use of English.

Figure 6.4 ATC 4: 'Learning grammar'



In language learning, linguistic knowledge, such as grammar, lexis and pronunciation, is necessary for language learners, and such knowledge has been taught as the basis of language skills; listening, reading, speaking and writing. However in many cases, these skills-getting practices and activities have not been provided to learners so often, due to substantial reasons that have been developed culturally and geographically. The fourth section in Figure 6.4 reflects the historical English education background in Japan, in which grammar teaching has always been the primary concern even in CLT classrooms. ATC 4 thus shows a

fundamental concept among PTs.

Most PTs actually follow traditional teaching called the grammar translation method, although they try to introduce the CLT methods into their classrooms. As a result, they feel conflict or incongruence being caught between two or more different approaches when teaching English, and take easy ways to teach grammar.

6.2.5 ATC 5 of ‘Translation’: *PTs view translation as necessary for students to cope with exams*

ATC 5 of ‘Translation’ was not identified as a prominent feature among JEFLL teacher cognition in the first place, but while interviewing and observing, I realized that PTs still insist on translation into Japanese and especially reading text as correctly as possible. The research thus concludes that *PTs view translation as necessary for students to cope with exams*. The following teacher quotes show why PTs believe translation is necessary.

A. Illustrative quotes from PTs (originally Japanese)

In my class, I give my students Japanese translations of the English text. Students translate the text into Japanese at home, and I check their understanding in English in the classroom. Translation skills are necessary for students to cope with university entrance exams, after all. – NINO

Many students insist on Japanese translation always. The English course syllabus says that students are required to translate the text into Japanese. I don’t like it. – SUZU

B. The summary descriptions of ATC 5

Table 6.6 Summary descriptions of ATC 5: 4 areas (attractor states) of ‘Translation’

1) Japanese and language learning	2) language learning and English
3) English and content learning	4) content learning and Japanese

*Japanese, language learning, English and content learning are 4 primary key words.

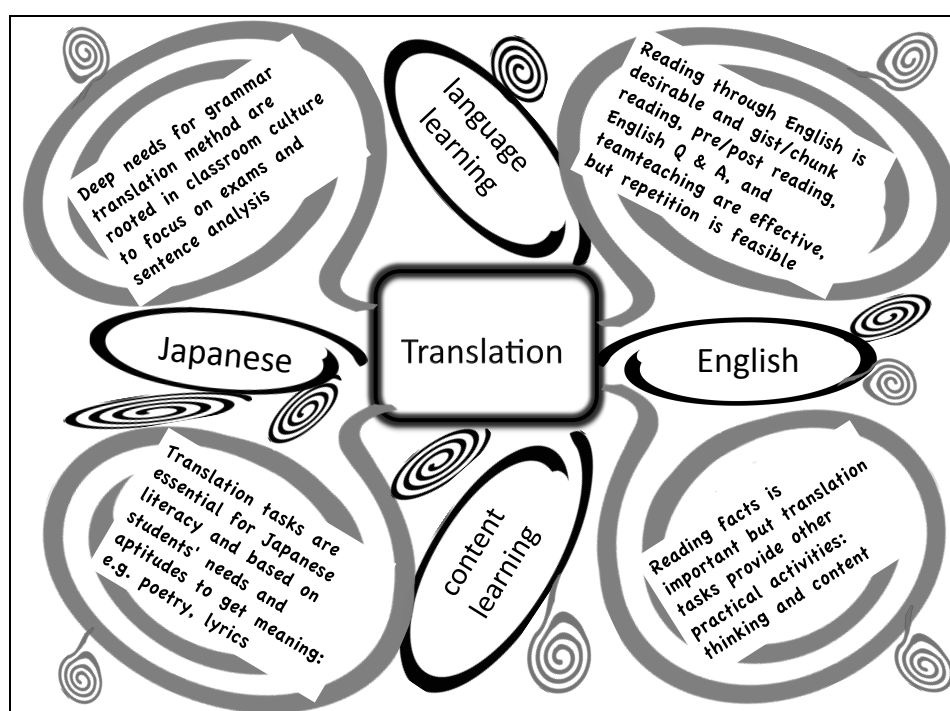
<p>1) Japanese and language learning</p> <p>PTs have to consider many things except teaching subjects in the classroom. In such situations, the grammar translation method can work effectively in terms of students' development, such as student discipline, career guidance and cognitive skills. PTs believe that translation activities can lead to understanding Japanese and thinking skills, and also they can help develop students' academic and social knowledge and skills.</p>
<p>2) language learning and English</p> <p>PTs see that several reading activities or strategies are effective and useful for students to improve their reading skills and reading through English is important, but the fact is that it would take time to do so, due to several reasons in relation to school and classroom culture: e.g. large class size and teacher-student relationships. PTs may want to teach English as the ELT methodology recommends or with the use of CLT methods or other activities that are provided by many language teaching resource books if applicable. However, they persist in repetition practice, such as reading aloud or copying, which is strongly related to the traditional learning culture in the East Asian region.</p>
<p>3) English and content learning</p> <p>PTs still believe that reading books or magazines in English can be useful to see the world or catch new information. It would be good to read an English passage for understanding what it says, but it was not possible for many secondary students to do so without sufficient support or preparation time. PTs do not just focus on skills training because it is not interesting and sometimes hard to manage such skills getting tasks due to a large class size. They want to teach content knowledge related to English literature or cultural background, and students also expect to learn such content knowledge. PTs believe that content learning can develop their thinking skills or cognitive knowledge.</p>
<p>4) content learning and Japanese</p> <p>PTs think that translation tasks are useful for students to develop their Japanese language literacy as well as English language literacy. Translation knowledge and skills are also based on students' needs to cope with exams. If they do not have any Japanese translations, students cannot be satisfied or relieved because they believe they are asked about the Japanese meaning for English words or phrases in the exam. PTs sometimes want their students to appreciate English poems and song lyrics or teach English stories in order to motivate them to learn English and interest them, in which case translation is necessary.</p>

C. The concept map of ATC 5 and discussion

In some aspects, translation is effective for learners to understand the sentence structure and grammar and think about language and culture. ATC 5 of 'Translation' (Figure 6.5) is thus a concept map to demonstrate some complex ideas about two distinct languages and language learning vs. content learning. The following diagram shows how Japanese, English, language learning, and content learning as primary key words create attractor states.

Translation requires both English and Japanese language knowledge and skills and also needs sociocultural background knowledge as well as linguistic and language learning knowledge. PTs see that reading comprehension through English is the goal for any learners and they wish to do so, although their classroom realities are different.

Figure 6.5 ATC 5: 'Translation'



The important issue is why PTs think that translation is necessary in English classrooms and they tend to highlight translation in reading activities. Translation is considered to be a rather difficult skill, and many PTs consider translation to be important to assess learners' English proficiency levels as well as cognitive levels. PTs thus emphasize the correct or accurate reading to see if their students understand the sentence structure or grammar. Most PTs want to teach content, such as literature, story, poetry, drama, and song lyrics, and do not just want to teach language skills, such as listening, reading, speaking and writing, even

when they focus on communication. They have to motivate their students to be interested in English first of all, and focus on learning content to stimulate students' interest through using Japanese, because they think communication in English only cannot sustain their students' learning motivation well. PTs view translation as necessary for students to cope with exams and maintain motivation.

6.2.6 ATC 6 of 'Understanding the national curriculum': *PTs still wonder what the goal is*

The Course of Study does not refer to specific target attainment or set standards or goals for students to achieve, but demonstrates the principles of teaching so as for teachers or textbook editors to make a syllabus, plan what to teach and how to teach the subject, and use what kind of resources they use. ATC 6 of 'Understanding the national curriculum' has an ideological conflict in terms of the historical background of the Course of Study. The research concludes that *PTs still wonder what the goal is*. The following teacher quotes can illustrate the fact.

A. Illustrative quotes from PTs (originally Japanese)

Teacher educators at our Local Education Authority ask me to make a lesson plan in accordance with the Course of Study. On the other hand, when I ask the university teacher educators, they often say to me, for example, 'You don't have to care about the Course of Study,' or 'I'm not sure what the practical communication is.' I wonder which I should listen to. – ZUMI

The Course of Study is just 'a pie in the sky' in actual classrooms. I agree with it, but it should see the reality of students. – KOKO

B. The summary descriptions of ATC 6

Table 6.7 Summary descriptions of ATC 6: 4 areas (attractor states) of 'Understanding the national curriculum'

1) school/classroom and idealistic concept	2) idealistic concept and education policy
3) education policy and practicality/reality	4) practicality/reality and school/classroom

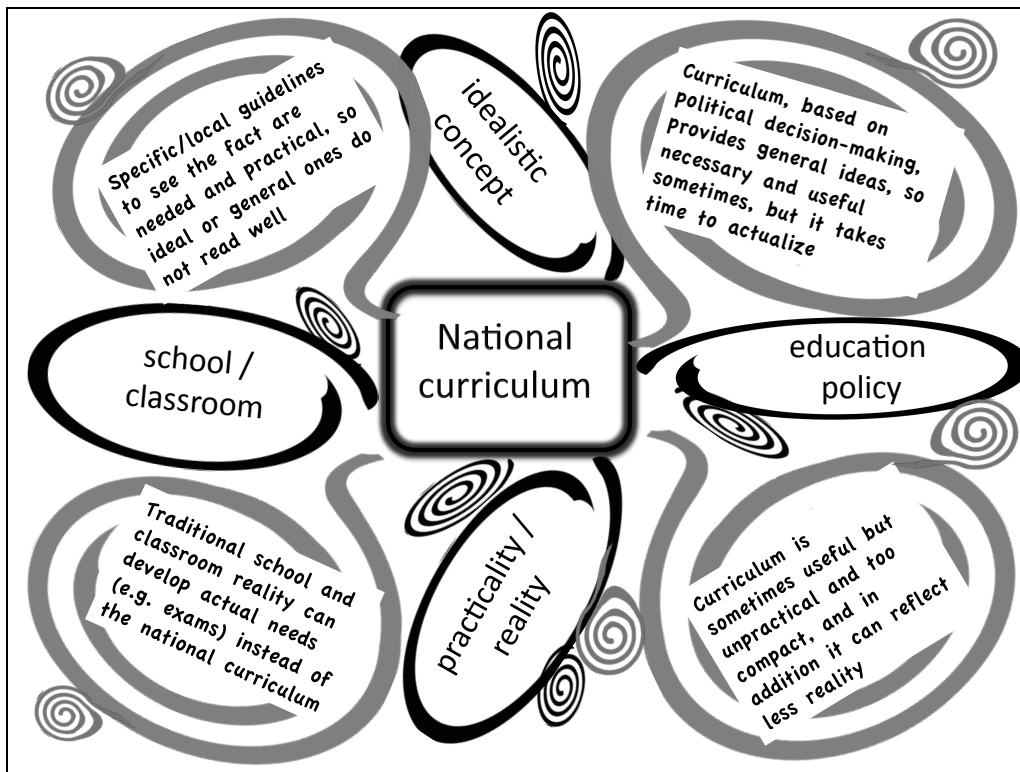
*School, classroom and idealistic concept, education policy and practicality/reality are 4 primary key words.

<p>1) school/classroom and idealistic concept</p> <p>There are large distinctions between school or classroom realities and the idealistic concept that the Course of Study presents; as a result, although the textbook follows the statutory regulations and includes all the contents that the Course of Study describes, PTs actually have to meet the needs that students have to pass their entrance exams. If students are not motivated to learn English, then PTs will be forced to teach basic English knowledge and skills which are not necessarily related to practicality and do not reflect the objectives that the Course of Study shows. In such situations, the Course of Study is somewhat meaningless among PTs who need more specific guidelines of teaching and learning for both teachers and students.</p>
<p>2) idealistic concept and education policy</p> <p>PTs think that the Course of Study is necessary and essential, although they do not read it so often, and they do not object to what the Course of Study says. PTs just have a vague understanding of the aims and contents; for example, the foreign language subject aims 'to develop students' basic communication abilities such as listening, speaking, reading and writing, deepening their understanding of language and culture and fostering a positive attitude toward communication through foreign languages.' PTs agree with it but they wonder what they should do to achieve the goal.</p>
<p>3) education policy and practicality/reality</p> <p>The Course of Study is useful for PTs to write a syllabus that has to be submitted to the principal or open to the public. It is good to write a syllabus but the problem is that it can be part of ritual activities, and it may not show how teachers teach in the classroom. For PTs, the Course of Study itself may be meaningless but MEXT approved textbooks and some guidebooks of the Course of Study could be significant. It follows that some complicated English education systems have been established in order to suit the traditional learning culture or meet the social needs.</p>
<p>4) practicality/reality and school/classroom</p> <p>Teachers' and students' actual demands are not all related to the curriculum that the Course of Study presents, and tend to follow the traditional grammar translation method and rote memory activities. The Course of Study may not make PTs teach as it aims to do in terms of English due to the general or unclear descriptions, so they have to follow the traditional school or classroom reality that has been conducted as it was.</p>

C. The concept map of ATC 6 and discussion

Based on the above summary descriptions, Figure 6.6 depicts four primary key words (school/classroom, education policy, idealistic concept, and practicality/reality) and attractor states. The figure shows PTs' cognitions about necessity of the curriculum guidelines for what to teach. However, the fact is that PTs really wonder what their professionalism is and do not have a clear idea about curriculum development.

Figure 6.6 ATC 6: 'Understanding the national curriculum'



PTs do not always need to teach English by understanding clear or specific teaching guidelines. That is because each school or local education authority has its own curriculum or teaching guidelines that have been passed down from previous teachers or developed in the teacher community. However, the Course of Study organizes the English curriculum and influences the textbook editing, and the textbook is especially important at lower secondary

school because PTs have to follow the syllabus of the textbook. It would be fair to say that the textbook certainly provides the curriculum. Teachers do not have to read the guidelines in many cases. PTs thus wonder what the goal is when teaching English and do not think much about the aims described in the Course of Study. In other words, they just follow the social or student needs, such as university entrance exams.

6.2.7 ATC 7 of ‘English language teaching knowledge and skills’: *PTs are really worried about their teaching*

ATC 7 of ‘English language teaching knowledge and skills’ depicts that PTs are working in a complex schooling system. The research concludes that *PTs are worried about their teaching*, which is closely related to ATC 1 (Difficulty to teach). There are complex reasons why they feel it is difficult to teach and are worried about their professionalism as language teachers.

A. Illustrative quotes from PTs (originally Japanese)

I know it's not good to teach in my own way and soon I'll be viewed as a dinosaur, but I can't find any good place, time and colleagues to study together so easily. Each study group or in-service teacher education programme seems self-satisfying and just to say, 'We're right.' It's humorous. – NIHI

It is necessary for English teachers in primary, secondary, and tertiary education, including ALTs, to share ideas with each other at a workshop in a frank or informal manner. Such communication will be able to make a solution. – MIHI

B. The summary descriptions of ATC 7

Table 6.8 Summary descriptions of ATC 7: 4 areas (attractor states) of ‘English language teaching knowledge and skills’

1) school/classroom and theory of teaching	2) theory of teaching and teacher education
3) teacher education and practicality/reality	4) practicality/reality and school/classroom

*school/classroom, theory of teaching, teacher education and practicality/reality are 4 primary key words.

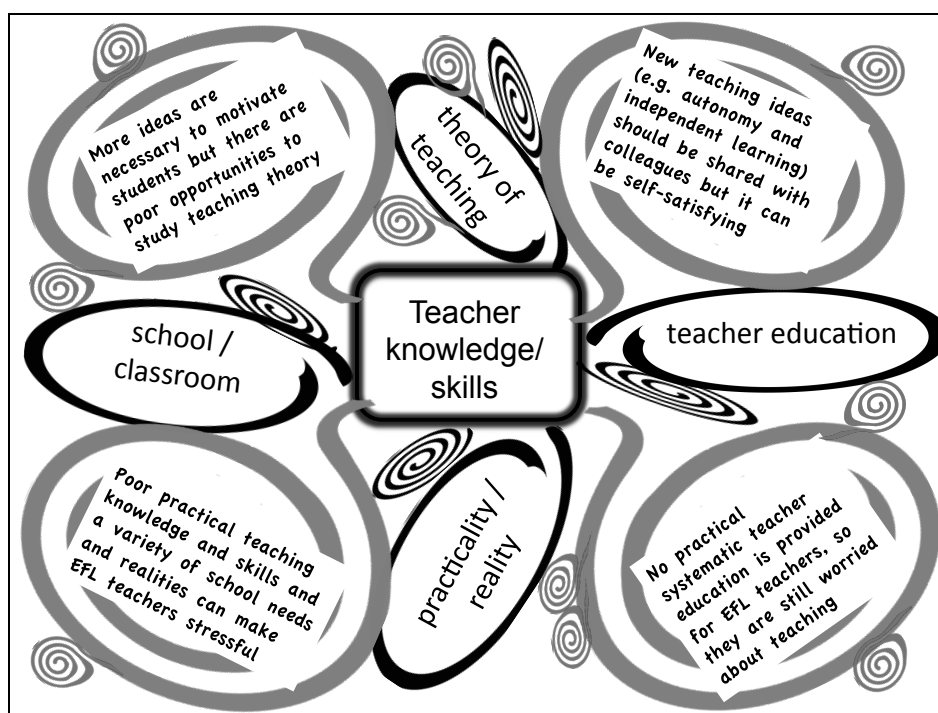
<p>1) school/classroom and theory of teaching</p> <p>PTs want to get more classroom ideas, such as syllabuses, resources, activities, tasks, and tests, which are all used in the everyday classroom. They are always worried about how to motivate their students to learn English and how to help them enjoy learning English, seeking for better ways to promote their students’ effective learning. However, they feel they do not have time to study because they have too much work at school. Some PTs think that theory does not work in practical situations, some do not care about any English teaching methods or are not interested in teaching English as the ELT methodology presents, and others just follow their own practical knowledge and skills that have been provided in their school days.</p>
<p>2) theory of teaching and teacher education</p> <p>PTs seek for new teaching ideas and are also interested in them always, but they do not have so many opportunities to study and share ideas with colleagues. They have too much to do as schoolteachers. Most PTs hope to study or visit the target language speaking countries to improve their language knowledge and skills and get resources for tomorrow’s classrooms. However, it is difficult for them to do so even in summer holidays. In some cases, PTs’ knowledge and skills are self-satisfying and narrow and therefore they cannot share ideas with their colleagues.</p>
<p>3) teacher education and practicality/reality</p> <p>EFL teacher education in Japan does not meet the needs of PTs in terms of language teaching knowledge and skills. In preservice teacher education, teacher trainees have to study the English language mainly and teaching knowledge and skills are not the main part of the programme actually. The current system is still not complete but requires teachers to take the individual teacher learning process. It follows that PTs may not have sufficient teacher knowledge and skills even if they are qualified on paper.</p>
<p>4) practicality/reality and school/classroom</p> <p>PTs have rather poor practical teaching knowledge and skills which especially do not reflect school needs and realities appropriately. Some of them may not have a good command of English for classroom situations, some may wonder how to teach English even if they can use English properly, and others are not interested in English teaching but mainly are interested in other schoolwork, such as coaching sports club activities or educating and caring for students in the whole person education concept. That is because their professionalism is not clearly focused on teaching English. It can make PTs feel stressed in some cases.</p>

C. The concept map of ATC 7 and discussion

The concept map in Figure 6.7 shows that four attractor states are depicted between

primary key words: school/classroom, teacher education, theory of teaching, and practicality/reality. In the diagram, each attractor state can represent two types of knowledge and skills in teacher education: one is practical or on-the-job and the other is theoretical or academic. It also implies the needs of language teaching methodology and practical teaching experiences (apprenticeship of observation) in teacher development. PTs may seek for new or better theories or ideas regarding teaching or teacher education. The concept map can show adoration for teaching knowledge and skills, which can be related to ELT theories and practices, while the actual needs are different.

Figure 6.7 ATC 7: 'English language teaching knowledge and skills'



Not all PTs are satisfied with their own English language teaching knowledge and skills. The concept map clearly shows that PTs were expected to have different aspects of knowledge and skills from learning what to teach and how to teach a language in their preservice teacher

education, but some PTs are worried about their teaching due to the incomplete teacher education system. The current teacher education system emphasizes the multiple teacher role model that comprises hard commitments to schoolwork as an educator as well as a teacher of English. Due to such sociocultural educational traditions, PTs are really worried about their teaching.

6.2.8 ATC 8 of ‘Interaction with students in the classroom’: PTs *are expected to have better relationships with students*

ATC 8 of ‘Interaction with students in the classroom’ may be closely related to the issue of class size. If the class size is bigger, then it will be naturally difficult to interact with and support each student. JEFLL teacher cognition about interaction with students in the classroom can therefore be considered to be unique in terms of their expectation to have close relationships with students even in large classes. The analysis concludes that ***PTs are expected to have better relationships with students***. The following teacher quotes reflect its background well.

A. Illustrative quotes from PTs (originally Japanese)

Good teacher-student relationships are created in daily communication with students.

Such human relationships are precious in school education in Japan. I think teachers who can't teach well don't have any good relationships with students. – ZUMI

Classroom atmosphere is important for communication-centred teaching. I like cheerful and lively students rather than calm and quiet students when teaching English. – TOME

B. The summary descriptions of ATC 8

Table 6.9 Summary descriptions of ATC 8: 4 areas (attractor states) of 'Interaction with students in the classroom'

1) emotional culture and teaching goals	2) teaching goals and learning efficacy
3) learning efficacy and classroom realities	4) classroom realities and emotional culture

*emotional culture, teaching goals, learning efficacy and classroom realities are 4 primary key words.

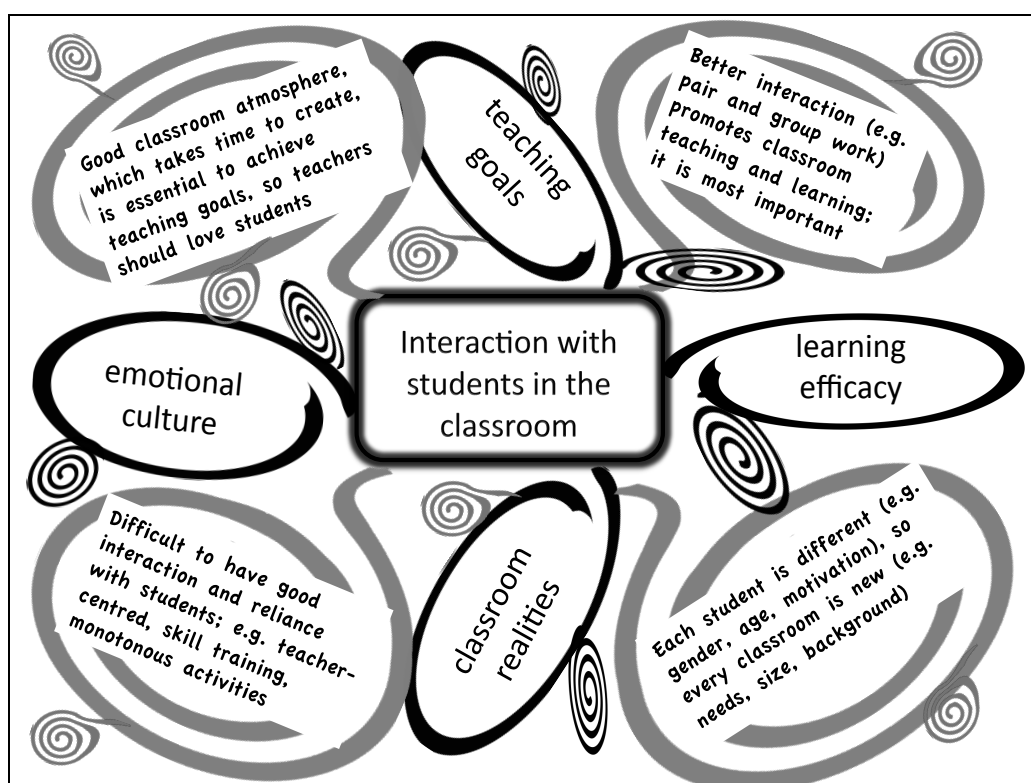
<p>1) emotional culture and teaching goals</p> <p>It is natural that most PTs like to be respected by their own students. They think that the classroom should be especially comfortable or well disciplined. In order to achieve the aims or goals that they set in their classrooms, PTs think it important to have emotional rapport or human reliance with students in the classroom. They therefore make efforts to understand all students and talk with them in many situations as well as in the classroom. However, they sometimes feel that it is hard to interact well with students.</p>
<p>2) teaching goals and learning efficacy</p> <p>In terms of English communication activities or tasks, effective interaction between students could be very important and necessary. PTs have to create such collaborative relationships among their students. However, they would be asked much effort and ability in order to create and maintain such a good classroom atmosphere. Teachers might need well-balanced personality, elaborate preparation, actor-like performance, and other talents, so that PTs think that they should be respectable teachers who can do many things for their students. However they feel it is hard to interact well with students in the classroom even if they intend to do so.</p>
<p>3) learning efficacy and classroom realities</p> <p>JEFL teachers think that not all students want to learn well in the classroom and they do not learn in similar ways as others do. Today's classroom is not the same as tomorrow's classroom. Classroom realities can easily change good interactions into bad interactions. PTs are thus aware that many students may need to have close interaction even in the classroom.</p>
<p>4) classroom realities and emotional culture</p> <p>PTs feel it is difficult to have good interaction with students in the classroom; for example, some students do not answer properly even if they know the answer, some just listen to the teacher, make notes and take tests, and others are not motivated to learn English in the classroom, and end up just sitting at the desk. PTs thus make efforts to maintain a relationship of trust with students by talking with them often and caring about them in other school activities.</p>

C. The concept map of ATC 8 and discussion

Figure 6.8 shows that four attractor states are represented in relation to four primary key words: emotional culture, learning efficacy, teaching goals, and classroom realities. Good or effective interaction with students in the classroom is especially important in English

classrooms, but PTs tend to think more about emotional relationships in addition to learning efficacy, considering their students' emotions while achieving teaching goals in the classroom. PTs want to create better interaction with students in the classroom in order to promote preferable teaching and learning.

Figure 6.8 ATC 8: 'Interaction with students in the classroom'



Classroom language is another key issue when discussing teacher cognition about interaction with students. Although most PTs can speak English fairly, some of them are not willing to speak English in teaching English. It can be strongly related to how teachers interact with students, but not to their English ability exclusively. Interaction in English can be distinct from the one in Japanese for many PTs. Some PTs may assume that they have to perform cheerfully to let students enjoy learning English, which is sometimes not fit for their

attitudes to interact with students when speaking in Japanese.

Better interaction and relationships with students should be essential for good teachers. However, emotional school culture and a variety of classroom realities can often make teachers worried about interaction with students in the classroom. ATC 8 of 'Interaction with students in the classroom' can be essential to all schoolteachers. It may depend on classroom culture, but many PTs are not very confident about interacting with students in the classroom because they are expected to have better relationships with students.

6.2.9 ATC 9 of 'School education and teaching English': *PTs are worried about dual burdens*

Eigo Kyoiku has been regarded as not only teaching English but also educating students to be good citizens or have good personality. ATC 9 of 'School education and teaching English' is hard to convey because it comes from traditional school culture in Japan. The analysis concludes that ***PTs are worried about dual burdens***. The following teacher quotes reflect such traditional educational background.

A. Illustrative quotes from PTs (originally Japanese)

Schoolteachers have to play many roles, such as subject teachers, counselors, trainers, and parents. We teachers all have realized soon after starting to work as schoolteachers that we are not just English instructors. – NINO

I strongly believe my educational purpose is to help shape each student as a human being that can live well in society. Teaching English is not my main work. – TAKA

B. The summary descriptions of ATC 9

Table 6.10 Summary descriptions of ATC 9: 4 areas (attractor states) of ‘School education and teaching English’

1) English proficiency and teaching English	2) teaching English and human development
3) human development and academic skills	4) academic skills and English proficiency

*English proficiency, teaching English, human development and academic skills are 4 primary key words.

<p>1) English proficiency and teaching English</p> <p>PTs are not always employed as professionals of teaching English. They have to work as schoolteachers before teaching English. It means that they do not need to have high command of English but should be qualified as good educators who are eager to work for students in many aspects of school activities, such as discipline, counseling, and career guidance. PTs should need multiple knowledge and skills: e.g. adequate English proficiency, fair teaching knowledge and skills, respectable personality, and cultural or athletic special skills.</p>
<p>2) teaching English and human development</p> <p>Good English teaching is not always equal to teaching English based on theory and practice of ELT methodology or splendid ELT knowledge and skills. English knowledge and skills have some varieties in accordance with students’ needs and school demands. PTs think that not all students need to use English, so they should teach basic and necessary English linguistic and other background knowledge primarily. In the classroom, therefore, they try to focus on their students’ human development for their future career as well as English study skills and English knowledge.</p>
<p>3) human development and academic skills</p> <p>PTs’ professions should be considered to have a variety of academic and social knowledge and skills, because they try to focus on the topics that each textbook passage refers to, such as peace, ecology, and geography. PTs try to explain about such background knowledge in the classroom to motivate their students to learn English. In many cases, PTs have to complement the text with some other related fact or information as well as background knowledge. However, PTs are not satisfied with the amount of time they have for their own professional development.</p>
<p>4) academic skills and English proficiency</p> <p>PTs are still learners of English and really want to study something about the English language itself, literature and culture, and they are also eager to commit themselves to school education including coaching sports teams and counseling and supporting students who have worries and problems regarding how to live. PTs are not always professional English teachers, and they are still studying English while working as schoolteachers. In real school situations, they have to cope with plenty of complicated problems in relation to student matters.</p>

C. The concept map of ATC 9 and discussion

Figure 6.9 shows how four primary key words (English proficiency, human development, teaching English, and academic skills) are working with four attractor states. The diagram

illustrates that PTs value students' human development and believe that excellent teaching comprises not only teaching English but also educating through all school activities.

Many PTs' English proficiency is not always appropriate especially in speaking and writing, and they are still rather English learners even after they are qualified as English teachers.

However, PTs are strongly involved in their students' human development, and their human attractiveness or personality can be the most influential factors for students in many cases.

Teacher educators often underscore teachers' personality or human nature to love each student and have high moral values. Excellent teaching is not always linked to just teaching English in the classroom, and in other words, PTs are not all evaluated in terms of how they teach English but rather what content they teach in their English classrooms, such as humanistic values, study skills for exams, and world knowledge. The concept map shows part of their complex teacher cognition about the meaning of school education in relation to *Eigo Kyoiku*.

Figure 6.9 ATC 9: 'School education and teaching English'



This concept map represents the issues of school culture clearly. Every JEFLL teacher probably says that *Kyoiku* is an indispensable key word even when teaching subjects in the classroom. Most PTs also have sacrificed their time to teach, care for and educate their students. As the society expects that schoolteachers should commit themselves to students' human development as well as academic development, PTs are worried about the dual burdens: school education and teaching English.

6.2.10 ATC 10 of 'Knowledge about (English) linguistics': *Linguistic knowledge is one of PTs' tools*

ATC 10 of 'Knowledge about (English) linguistics' may illustrate a slightly distinct conception from language teachers' cognitions in other countries. The analysis concludes that PTs have a different approach regarding interest in linguistics and *linguistic knowledge is one of their tools*. PTs' special persistence to linguistics has been developed through a long history of English education. The following teacher quotes show it clearly.

A. Illustrative quotes from PTs (originally Japanese)

Linguistic knowledge is really important for us English teachers. If you clearly explain about English grammar and usage, you can make strong relationships with students. –

KOKO

Linguistic knowledge or English language knowledge is essential to us, so I would like to try as hard as possible to study linguistics. However, I'll study it in the holidays because of busy schoolwork. – FUKU

B. The summary descriptions of ATC 10

Table 6.11 Summary descriptions of ATC 10: 4 areas (attractor states) of 'Knowledge about (English) linguistics'

1) learner knowledge and self-fulfillment	2) self-fulfillment and teacher knowledge
3) teacher knowledge and classroom teaching	4) classroom teaching and learner knowledge

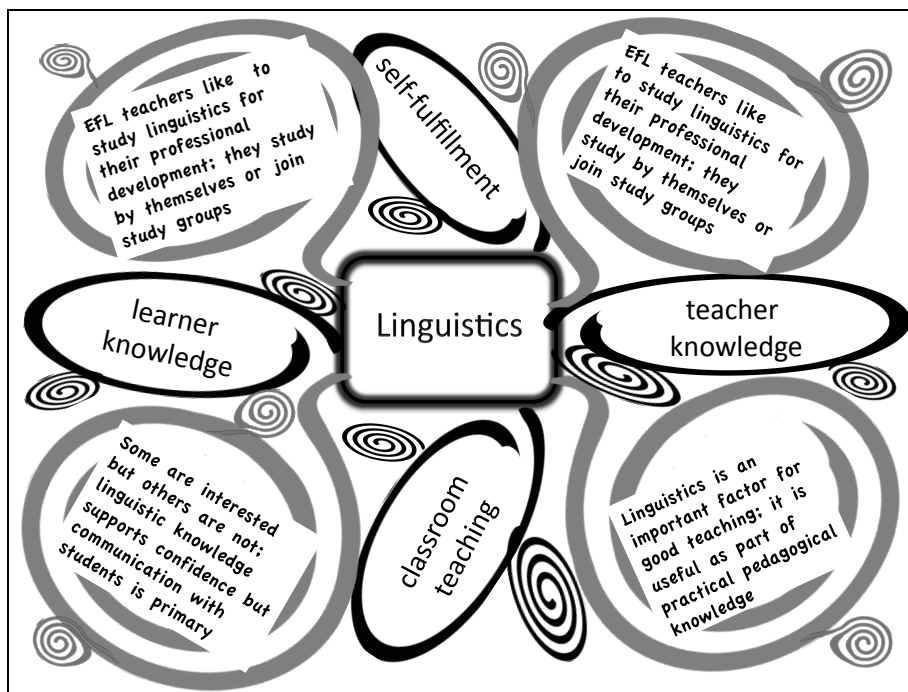
*Learner knowledge, self-fulfillment, teacher knowledge and classroom teaching are 4 primary key words.

<p>1) learner knowledge and self-fulfillment</p> <p>For PTs, studying linguistics is essential to teach English to their students who want to pass the entrance exam or English proficiency test to find a good job. PTs also have to improve their English communication skills or read English literature, but the most helpful knowledge is English linguistics knowledge, especially grammar, vocabulary, and pronunciation. However, PTs do not have so many opportunities to attend in-service teacher education programmes or have in-school seminars with their colleagues. They therefore study linguistics, reading books by themselves and joining some study groups in order to improve their English language knowledge.</p>
<p>2) self-fulfillment and teacher knowledge</p> <p>PTs are interested in both aspects of linguistics: theoretical and applied linguistic knowledge. PTs believe that they have to highlight grammar, vocabulary and pronunciation in the classroom, because such formal knowledge and teaching skills are PTs' minimal requirements. Even in preservice teacher education, university teacher educators who specialize in linguistics emphasise fair knowledge and skills; e.g. they say, 'Teachers should not make mistakes in their English.' Insistence on correctness is required for PTs to teach in the classroom, so they are somewhat nervous to speak English or have communication activities in their classroom.</p>
<p>3) teacher knowledge and classroom teaching</p> <p>Good teaching does not necessarily make fun classrooms with a variety of activities and tasks. PTs believe that linguistics can be helpful to solve such students' problems, so it is also one of the important factors to teach well. If PTs do not have sufficient linguistic knowledge and always use informal or incorrect English in the classroom, it will be harmful to their students' English. PTs therefore think that relevant linguistic knowledge is part of practical pedagogical knowledge.</p>
<p>4) classroom teaching and learner knowledge</p> <p>Naturally, not all PTs are interested in linguistics. Some are interested in English literature and others are interested in communication or culture. PTs have weak points in no small part in terms of English use, especially speaking and writing in real communication, because they have less experience to use English in daily life. Although it takes time or costs money for PTs to have such authentic experience to study abroad or live overseas, it is not so difficult for them to study linguistics for good English usage, and it would be also helpful to teach students English and to communicate with them, because correct English linguistic knowledge is required by students who especially desire to cope with English tests.</p>

C. The concept map of ATC 10 and discussion

Figure 6.10 shows that learner knowledge, teacher knowledge, self-fulfillment, and classroom teaching make four areas or attractor states. It can illustrate that linguistic knowledge is a PTs' powerful tool to teach English in the classroom and PTs are interested in both aspects of linguistics: theoretical and applied linguistic knowledge.

Figure 6.10 ATC 10: 'Knowledge about (English) linguistics'



There are two reasons why PTs are interested in knowledge about English linguistics. One is related to learner knowledge and the other is teacher knowledge. Students need linguistic knowledge to pass the entrance examinations, which focus on questions about usage, grammar, and vocabulary exclusively. This traditional English teaching and learning system in Japan has influenced JEFL teacher cognition about linguistics. Moreover, PTs want to achieve their own goals as language learners or researchers, whose interest is closely related to their learning styles or strategies, and they believe that their learning experiences are

helpful for their students. Such traditional collective teacher cognition about linguistics may have strongly influenced PTs' cognitions. The concept map shows that linguistic knowledge is one of PTs' powerful tools.

6.2.11 ATC 11 of 'In relation to standards, qualifications, recruitment and employment': *PTs suffer from the teacher education system*

ATC 11 is concerned with PTs' standards, qualifications, recruitment and employment, which can strongly influence their teacher learning and knowledge. It seems that some PTs are confused about the unstable teacher education system. The analysis concludes that ***PTs suffer from the teacher education system***. The following teacher quotes show it clearly.

A. Illustrative quotes from PTs (originally Japanese)

English teachers don't actually see what English should be taught to students. It is not clear, so they are asked to do everything for students at school. – SUZU

The most important quality as a schoolteacher is to manage and control students well.

Teaching English is a secondary factor. However, I wish I could have studied the English language and teaching methodology a lot more. – ZUMI

B. The summary description of ATC 11

Table 6.12 Summary descriptions of ATC 11: 4 areas (attractor states) of 'In relation to standards, qualifications, recruitment and employment'

1) employment needs and English language	2) English language and ELT education
3) ELT education and personality/communication	4) personality/communication and employment needs

*Employment needs, English language, ELT education and personality/communication are 4

primary key words.

1) employment needs and English language

PTs realize the social demand that has been assigned to them. As PTs have not had sufficient knowledge and experience in English-speaking countries and their knowledge is limited, it seems that parents and students do not ask them to teach or show English-speaking culture. They are just required to teach their students basic English knowledge or skills to cope with the entrance exams, for instance.

2) English language and ELT education

PTs are professionals for teaching English, so that they hope to be proud of teaching English. They always want to have updated sufficient knowledge and skills of language teaching and learning, such as ESP, learner autonomy, classroom activities (e.g. speech and debate), and they improve their English proficiency in order to be respected by students or colleagues.

3) ELT education and personality/communication

There are a number of required teacher education programmes provided to schoolteachers; some are related to subject teaching and others are concerned with professional development in different topics. Certainly teacher education programmes or seminars are provided statutorily. **However, these in-service teacher education programmes do not meet PTs' needs.** For example, they do not have enough opportunities to visit English-speaking countries to participate in some courses or seminars. Only a small number of selected PTs can get such experience.

4) personality/communication and employment needs

PTs are schoolteachers in the first place and their primary job is not always teaching English but doing many things at school: e.g. homeroom class management, counseling, career guidance, sports coaching and managing cultural activities. PTs are not always evaluated regarding their English teaching. Or if they insist on teaching English in the classroom without doing other miscellaneous schoolwork, they might not be respected or mutually evaluated by their colleagues. The fact is that PTs cannot focus on teaching English only.

C. The concept map of ATC 11 and discussion

Four primary key words (employment needs, ELT education, English language, and personality and communication) were set in relation to four attractor states. Figure 6.11 shows that PTs believe they should be professional to teach English and have sufficient knowledge and skills in ELT so that they can be proud of teaching English, but their definitions of professionalism can be slightly varied and they have to face the realities.

Standards, qualifications, recruitment and employment for schoolteachers are not stable in Japan. In addition, teacher standards are unclear and based on idealism, and teacher qualifications comprise traditional subject knowledge and pedagogical knowledge. These facts can also confuse PTs in terms of what knowledge and skills are necessary for teachers to be

professional. In many cases, each local education authority requires student teachers to have an adequate personality and ability, and subject knowledge is not the primary factor to be a schoolteacher. Even if PTs have high English knowledge and skills, they will not be evaluated highly. English language knowledge and skills are important in most cases but personality and communication ability are more important.

Figure 6.11 ATC 11: 'In relation to standards, qualifications, recruitment and employment'



PTs do not have clear standards of what they should do. In 2009, the teacher renewal system officially started and teachers have to renew their qualification or license every 10 years, but the renewal programme can be diversified and sometimes criticized as meaningless or ineffective for their professional development. PTs suffer from the current unstable teacher education system as well.

6.2.12 ATC 12 of ‘Within-school or collaborative studies’: *PTs seek good collegiality*

Collegiality is considered to be essential for schoolteachers, but the current teacher education system in Japan may not support JEFLL teachers’ collegiality. The fact is that some PTs seem to have worries about collaborative work with colleagues and need more useful and meaningful study based on their own needs at school. Although within-school or collaborative studies are actually hard for teachers to carry out at school, collegiality is always key for them. The analysis concludes that *PTs seek good collegiality*. The following teacher quotes refer to how teachers develop with colleagues.

B. Illustrative quotes from JEFLL teachers (originally Japanese)

I do want to share opportunities to observe classrooms with colleagues. Classroom observation is very helpful from preparation to reflection. I believe your teacher learning depends on whether or not you have good colleagues or mentors to share your professional development with. – ZUMI

If we have a project requested, we will carry out the research, but, generally speaking, we have no within-school or collaborative study about subject teaching. We are busy. – NIHI

B. The summary descriptions of ATC 12

Table 6.13 Summary descriptions of ATC 12: 4 areas (attractor states) of ‘Within-school or collaborative studies’

1) school realities and autonomy	2) autonomy and teacher relationships
3) teacher relationships and duty	4) duty and school realities

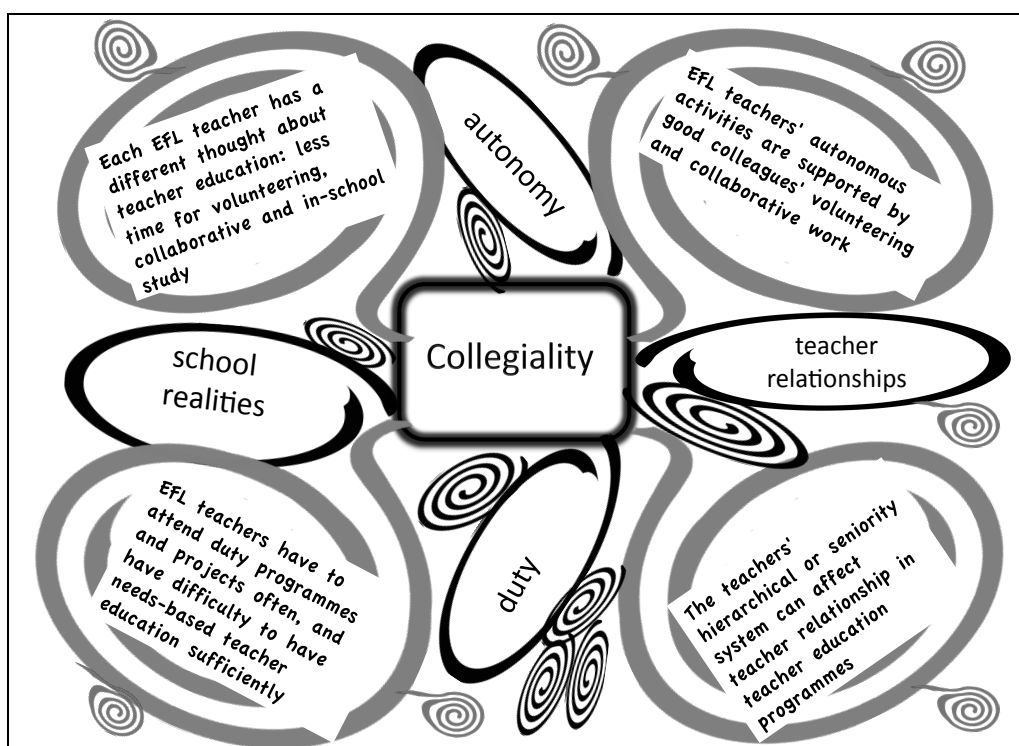
*School realities, autonomy, teacher relationships and duty are 4 primary key words.

<p>1) school realities and autonomy</p> <p>As there are different cultures between lower and upper secondary schools, PTs have different backgrounds in terms of their teacher education; it means that they may not have common core knowledge and skills of language teaching. PTs do not have meaningful or effective in-school group study, and many required projects may not provide good results to PTs. They need to identify their own interests and develop their own professional knowledge and skills.</p>
<p>2) autonomy and teacher relationships</p> <p>PTs respect cooperation with their colleagues as well as their professional autonomy. They work with their colleagues in each teacher stage. Colleagues are always important for PTs to improve their teaching methods and can influence what they are doing at school. PTs think that autonomy is important but they cannot be independent. They need voluntary-based collaborative support from other teachers and teacher educators, but collaborative support may be difficult because they could not have common aims.</p>
<p>3) teacher relationships and duty</p> <p>Many duty teacher education programmes are not substantive for PTs, who just attend the course or seminar in a ritual way. Discussion can thus be formal and meaningless for PTs, but they have to follow the rules or customs that the predecessors did. For example, there are classroom demonstration seminars to be held regularly for PTs, in which they gather and observe a demonstrated classroom and discuss teaching. Such seminars can work to make good PTs' relationships and establish their hierarchical system as well.</p>
<p>4) duty and school realities</p> <p>Duty teacher education programmes are provided to PTs in school or in local districts. In some cases, PTs are busy coping with them. The programmes are not always based on PTs' needs or what they are interested in or want to develop as their professional knowledge and skills. Ideally speaking, such programmes can help make PTs' collegiality through working together, but they are actually compulsory and have to be reported formally. PTs feel that collaborative work with colleagues is necessary but they are not willing to do so because they do not want to spend their time doing such duty work while being busy with much schoolwork.</p>

C. The concept map of ATC 12 and discussion

Figure 6.12 shows that four attractor states are presented between four primary key words: school realities, teacher relationships, autonomy, and duty. PTs realize that collaboration or cooperation with colleagues is considered important, making efforts to maintain effective teacher relationships, but they actually cannot do this so well. The following concept map will represent their dilemma in relation to their colleagues in schoolwork and their desire to seek good collegiality.

Figure 6.12 ATC 12: 'Within-school or collaborative studies'



Good collegiality should be effective and helpful, but the hierarchical or rigid teacher culture is not always desirable for PTs to develop their professional knowledge and skills. Some PTs thus have their own volunteering study groups, which are free from the top-down formal organization and based on their needs and wants. Even under such situations based on their autonomous teacher collegiality, however, PTs can furthermore have complex teacher cognition about collegiality and within-school collaboration and seek good collegiality.

6.2.13 ATC 13 of 'Classroom observation': *PTs want to have practical classroom observation*

PTs seem to believe that classroom observation is essential for their teacher development. However, they think that formal or ritualistic classroom observation provided as the in-service teacher education programme may not work effectively so as to help teachers reflect on their

teaching. The analysis concludes that *PTs want to have practical classroom observation.*

The following teacher statements explain such teacher realities.

A. Illustrative quotes from PTs (originally Japanese)

Classroom observation should be provided at least once a year. However, some teacher advisers or educators comment in the seminar after observing the classroom. It is just an event and does not change EFL teachers' thoughts drastically. – NIHI

There have been few opportunities to observe my colleagues' classrooms, but only the head teacher came to see my class for mandatory inspection and just gave me suggestions. – KOKO

I really want to participate in classroom observation seminars provided by other schools, but I can't leave school so often because there are no substitute teachers for me. – KOHI

B. The summary descriptions of ATC 13

Table 6.14 Summary descriptions of ATC 13: 4 areas (attractor states) of 'Classroom observation'

1) busy schoolwork and reflection	2) reflection and classroom ideas
3) classroom ideas and routines	4) routines and busy schoolwork

*Busy schoolwork, reflection, classroom ideas and routines are 4 primary key words.

<p>1) busy schoolwork and reflection</p> <p>Not all PTs feel like observing their colleagues' classrooms or having themselves observed, because they assume that observation is assessed. However, they actually want to see others' classrooms, if they have any chance, although they do not want to show their own teaching. PTs thus have ambivalent attitudes for classroom observation, but the fact is that classroom observation cannot be conducted effectively to develop their professional knowledge and skills for better teaching.</p>
<p>2) reflection and classroom ideas</p> <p>Ideally, classroom observation can be effective for professional development in</p>

<p>accordance with reflective thinking. PTs believe that collaborative classroom observation would be helpful if they did well in school. Observing their colleagues' classrooms and discussing teaching and learning with them could certainly be useful but they did not actually do collaborative classroom observation. They think that English classrooms should be managed and coordinated well like some talented or charismatic English teachers do.</p>
<p>3) classroom ideas and routines</p> <p>In-service teacher education programmes have regular classroom observation events, but they may be so ritualistic that they cannot provide meaningful reflection to them very well. In such classroom observation events, PTs cannot share ideas flexibly on the basis of their own needs and discussion can be rigid and not reflective. Many classroom observations tend to focus on teacher performances and teaching skills, and sometimes very narrow perspectives. Accordingly, PTs need to have more practical functional classroom observations.</p>
<p>4) routines and busy schoolwork</p> <p>PTs think that conventional classroom observation events are not interesting. They are not always motivated by observing other teachers' classrooms. They need useful and helpful classroom ideas which can be used for their actual classroom activities as well. They would not reflect on their classrooms even if they see what other teachers do in the classroom, and could not change what they are doing. For PTs, classroom observation is just an event for teacher performance. PTs actually need more practical ideas for classroom observation but do not have sufficient time to think about their own teaching.</p>

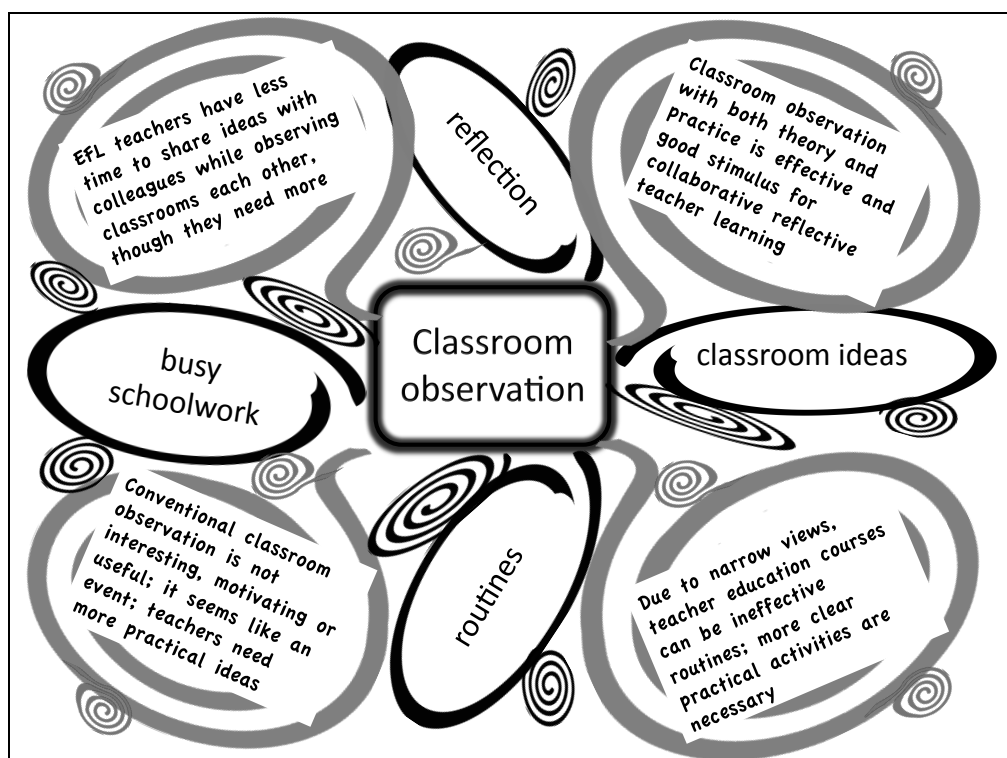
C. The concept map of ATC 13 and discussion

ATC 13 can clearly show that classroom observation is strongly related to the formal lesson study. As shown in Figure 6.13, between four primary key words (busy schoolwork, classroom ideas, reflection, and routines), four attractor states depict that, although PTs like to have classroom observation for their reflective thinking about teaching and need to have a suitable stimulus for their collaborative work with colleagues, they actually need more practical ideas.

The traditional classroom observation seminar may not possibly satisfy PTs to develop their professional knowledge and skills. JEFL teacher cognition about classroom observation can thus be complex and cannot always be related to reflective teaching. PTs believe that observation can provide knowledge and skills helpful for their teacher development. However, the fact is that classroom observation has not been conducted so frequently and most PTs do not want to be observed by their colleagues. Accordingly, they do not reflect on themselves or change their own ways of teaching, whether their teaching is good or not.

PTs want to know how their colleagues are teaching and their students are learning. If they found out anything good and helpful for their classrooms, they would take useful resources and activities in their classrooms. They believe that classroom observation can be useful and helpful to change their classroom teaching, but they cannot make good use of classroom observation due to a lack of time or support in the current teacher education system as well as their epistemological beliefs about education. Accordingly, PTs actually want to have practical classroom observation only to find out convenient lesson ideas for tomorrow's classrooms.

Figure 6.13 ATC 13: 'Classroom observation'



6.2.14 ATC 14 of 'Importance of textbooks or teaching materials': *PTs need textbooks*

Although PTs say that teachers are more important than materials, they strongly believe that materials are essential and want better materials as well. The analysis concludes that *PTs need textbooks*. The following teacher quotes show it clearly.

A. Illustrative quotes from PTs (originally Japanese)

Well, we understand our students best, and textbook editors do not, so we should make efforts to prepare and teach them English appropriately. Textbooks are just resources and we teachers have to make good use of them. It's our caliber. – NINO

I would like to use my own hands-on materials and prepare well for class, but I don't have time to do so. That's why we have to use additional materials provided by the textbook companies. – KOHI

B. The summary descriptions of ATC 14

Table 6.15 Summary descriptions of ATC 14: 4 areas (attractor states) of 'Importance of textbooks or teaching materials'

1) teacher realities and goal settings	2) goal settings and professional teachers
3) professional teachers and textbooks	4) textbooks and teacher realities

*Teacher realities, goal settings, professional teachers and textbooks are 4 primary key words.

<p>1) teacher realities and goal settings</p> <p>PTs are so busy with many things to do that helpful better materials are always needed in accordance with their school realities and their students' aptitudes and proficiency. Materials should be focused on clear and specific learning goals because it is effective to use them even when teaching less motivated students in the classroom. However, as PTs cannot get such effective materials so easily, they may just follow the textbook content and provide uninteresting classrooms. They need useful and helpful materials but it will take much time to find or make useful hands-on materials.</p>
<p>2) goal settings and professional teachers</p> <p>PTs believe that better teachers can motivate students to learn English, and at the same time authentic materials and a specific syllabus can also encourage them to get interested in English language learning. Good teachers should not simply rely on a textbook's syllabus or adhere to some readymade materials, can teach well to make their teaching aims clear and specific to their students, and should always see their students' learning and think it important to educate them. However, PTs think that such teachers cannot be actualized so easily.</p>
<p>3) professional teachers and textbooks</p> <p>PTs need good textbooks that meet their needs in the classroom, but they are not satisfied with the current MEXT approved textbook. Some PTs are committed to editing textbooks and workbooks and others make efforts to find or make hands-on materials for their students in the classroom. PTs think that professional teachers should</p>

prepare these teaching materials for themselves. However, they strongly believe that materials should be as important as teachers. PTs eventually follow the textbook syllabus due to the school curriculum, even if they have sufficient knowledge and skills in terms of teaching English.

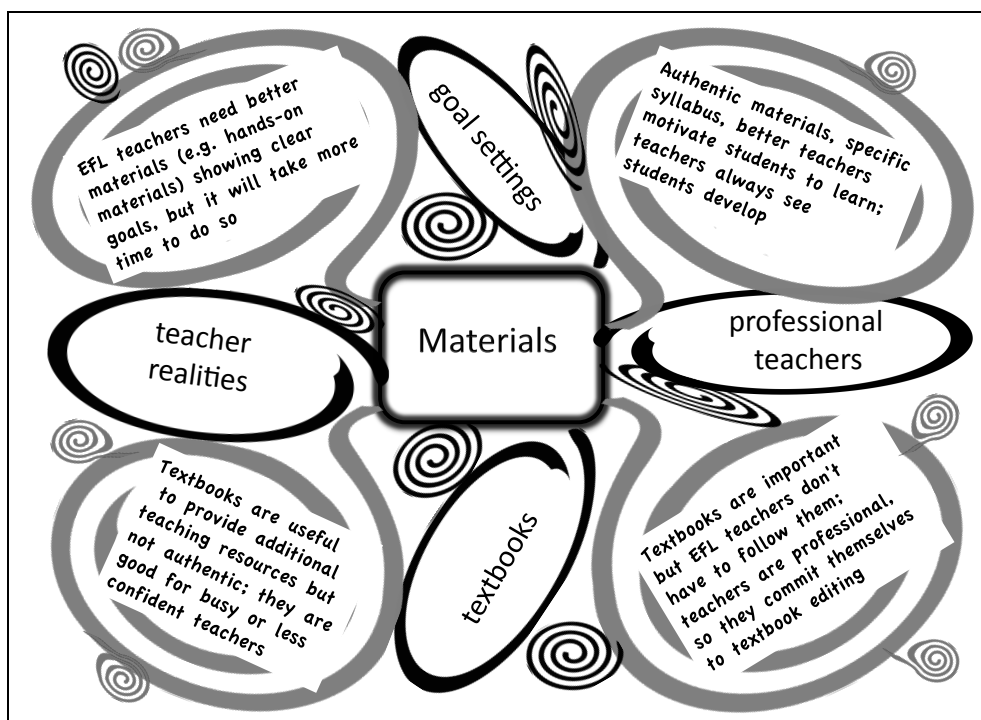
4) textbooks and teacher realities

Almost all PTs think that using a textbook effectively is good and convenient. The knowledge and skills students have to learn is fundamentally regulated by the textbook syllabus: e.g. reading skills that students should foster, words and phrases that they should learn, and grammar that they should know. Listening and speaking skills are also based on the textbook syllabus, but they are not clearly regulated. PTs do not always oppose to the current situations because they do not have enough time to consider or reflect on their classroom teaching.

C. The concept map of ATC 14 and discussion

In Figure 6.14, four attractor states are represented in relation to teacher realities, professional teachers, goal settings, and textbooks. PTs believe that better teachers, authentic materials and specific syllabuses can motivate students to learn English, but they have to face the realities that they cannot do so.

Figure 6.14 ATC 14: Importance of textbooks or teaching materials



PTs feel the necessity for textbooks because their professional knowledge and skills are not limited to teaching English but related to diverse school activities. Since they do not have enough time to prepare their lessons, they actually rely on textbooks and teaching materials. However, textbooks and teaching materials may not always be fit for students' English ability or motivate them to learn English. PTs thus try as hard as possible to satisfy their students by adding to or editing materials.

PTs actually do not need to think about what they should teach specifically and have only to depend on more helpful textbooks and teaching materials than their own teaching knowledge and skills. It is easy for them to do so due to their busy and complex work environments. They accordingly need more convenient and useful materials as well as textbooks.

6.2.15 ATC 15 of 'Teacher as a role model': *PTs are required to have multiple burdens*

JEFL teacher cognition about 'Teacher as a role model' can be strongly related to not just a subject teacher but also a schoolteacher with a respected personality or as the whole person. It seems that PTs are also required to play a number of role models for their students and cannot focus on teaching English only. The analysis concludes that ***PTs are required to have multiple burdens***. They have to think about many things even while teaching.

A. Illustrative quotes from PTs (originally Japanese)

Teachers' influences on students are very great because you're the one of the few adults who students communicate with in daily life. You don't understand the meaning of influence on students so long as you are just seen as an English teacher. – KOKO

Student trust can be obtained from teaching English in the classroom, but more trust can come from homeroom activities and club activities. I believe it is precious to raise and improve students' ability and intend to do my best to achieve it. – FUKU

B. The summary descriptions of ATC 15

Table 6.16 Summary descriptions of ATC 15: 4 areas (attractor states) of 'Teacher as a role model'

1) social/adult and ideal teacher	2) ideal teacher and learner
3) learner and real experiences	4) real experiences and social/adult

*Social/adult, ideal teacher, learner and real experiences are 4 primary key words.

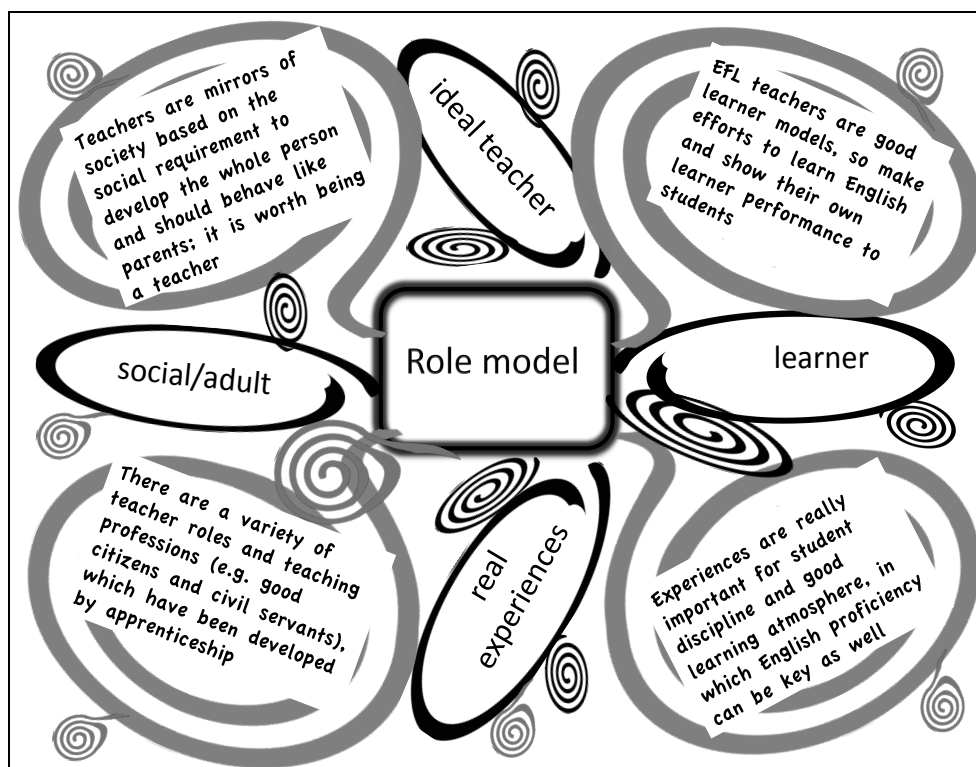
<p>1) social/adult and ideal teacher</p> <p>PTs have to be schoolteachers before being language teachers. In some cases, they work exclusively as class teachers who focus on class activities or sports coaches who manage school sports teams, and in other cases, they have to cope with many disciplinary problems at school before teaching English. PTs even meet the social requirements which are strongly related to the whole person education in English classrooms. Moreover, they try to teach some contents, such as peace and ecology, through reading and translating English passages into Japanese. Such teaching would be a reward for PTs.</p>
<p>2) ideal teacher and learner</p> <p>PTs should be good learner models and want to show their learning styles and strategies to their students. PTs believe that it is effective to show students how teachers are learning English. If they have sufficient experience to live and study in English-speaking countries, they can show their knowledge and skills to their students well, but if they do not, they can only show their students their knowledge and skills, based on their learning styles or strategies developed in the traditional school culture. Accordingly, PTs' learner models can be different and their concepts about role models are also distinct, and there are a variety of teachers who can provide various English classrooms. Students are liable to cope with different types of teaching and can have problems to learn.</p>
<p>3) learner and real experiences</p> <p>Practical teaching experiences are essential for PTs who are often worried about student discipline and classroom management. However, PTs want to develop their English proficiency to communicate in English more fluently because better English language knowledge and skills are fundamental to be an accomplished teacher in the end. PTs think that professional teacher knowledge and skills are related to both English language knowledge and skills and practical teaching knowledge and skills. They need more time to develop as professionals, but it is difficult to actually have enough study time or they have insufficient support to gather practical experiences.</p>
<p>4) real experiences and social/adult</p> <p>Although PTs should be role models to their students, they have different concepts or images of ideal teachers. There are a variety of EFL teacher roles, such as subject teaching, counseling, career guidance, coaching, group manager, and pastoral care, and also the conceptions of teaching professions are also considered to be different among teachers, students and parents; that is, PTs are always required to be good citizens as civil</p>

servants. Students listen to their teachers and take notes well, and school manners are rather strict. These social teacher role settings are based on the 'apprenticeship of observation' or traditional school culture in Japan. It cannot be changed so easily even if changed apparently in regulations.

C. The concept map of ATC 15 and discussion

ATC 15 of 'Teacher as a role model' can be summarized as a concept map which well illustrates that JEFL teachers should be developed on the basis of the traditional school culture. Figure 6.15 shows how attractor states emerge in relation to four primary key words: social/adult (model), learner (model), ideal teacher, and real experiences. PTs should be good learner models to make efforts to learn and use English in their classrooms. They really want to and have to show a variety of role models as well as their learner performance to their students.

Figure 6.15 ATC 15: 'Teacher as a role model'



PTs are considered to be not just language instructors or tutors but also schoolteachers or educators. Moreover, they have to be role models of English speakers, English learners, and successful learners, while teaching English in the classroom. It is especially important to show the learner model to students, because students look at and listen to what the teacher is doing and saying or how he or she is performing in the classroom. In addition, PTs are requested to be social or adult models in many school activities as well. The society expects schoolteachers to work and perform many roles for students. PTs should therefore meet their expectations. The concept map clearly represents that PTs have to work hard with diverse functions of role models and are required to have multiple burdens. Teacher performance can be the most influential resource to students.

6.2.16 ATC 16 of ‘Relationships with students out of the classroom’: *PTs value emotional relationships with students*

Communicating with students in the classroom is significantly important for effective English teaching, but communicating with students out of the classroom can also be important to provide good teaching. The analysis concludes that ***PTs value emotional relationships with students***. The following teacher quotes clearly show the emotional trust between teacher and students.

A. Illustrative quotes from PTs (originally Japanese)

I have been together with my students for 90 per cent of my work as a teacher either out of class or in class. Such out-of-class activities can greatly influence my English classroom activities. I remember very well that one naughty boy supported me as a newly qualified teacher, saying, ‘I will study English because you teach me. I like you. I trust you. You

always think about us.’ – NINO

It’s very important. Better human relationships can make better English classrooms. A

lot of out-of-class experiences are closely related to providing ‘real’ education. – KOKO

B. The summary descriptions of ATC 16

Table 6.17 Summary descriptions of ATC 16: 4 areas (attractor states) of ‘Relationships with students out of the classroom’

1) human development and emotional relationships	2) emotional relationships and ELT classrooms
3) ELT classrooms and realities	4) realities and human development

*Human development, emotional relationships, ELT classrooms and realities are 4 primary key words.

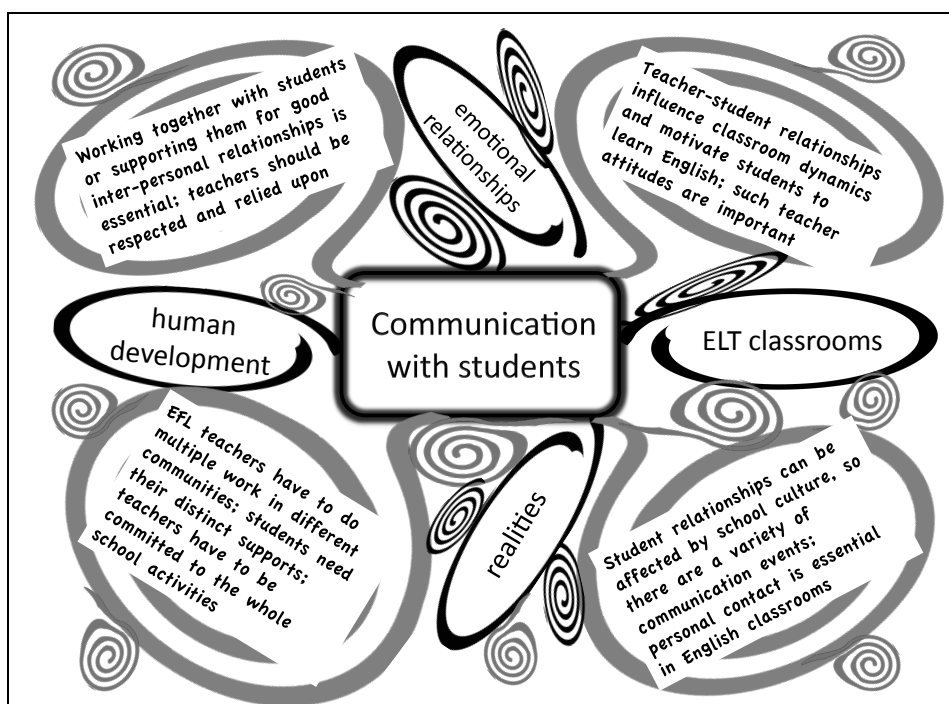
<p>1) human development and emotional relationships</p> <p>PTs want to work together with students in school activities: e.g. having lunch together, cleaning the room together, chatting, practicing sports together, and volunteering. They make good inter-personal relationships with students while working together. Such emotional reliance and support is closely related to a number of school activities including learning and communication. Close relationships between teacher and students are key in every school activity. PTs therefore engage in many school activities as schoolteachers. Moreover, they are forced to intervene in their students’ private lives for their human development.</p>
<p>2) emotional relationships and ELT classrooms</p> <p>PTs are not always evaluated in their English ability and teaching methods. Emotional or friendly relationships between teacher and students or rapport with students is essential for good teachers. Even when teaching English, PTs may not provide appropriate teaching without such rapport. Just English skill training in the classroom is not always requested, but both teachers and students assume more diverse expectation for English classrooms: e.g. entertainment, art, cultural knowledge, people, current social issues, literature, and science. If PTs provide their students with them effectively and appropriately when teaching English, they will probably be loved or respected by their students.</p>
<p>3) ELT classrooms and realities</p> <p>School or classroom cultures are different as teachers and students are. However, each school has its own culture and it cannot be changed easily. English teaching also has some traditional teaching and learning styles in each school, so PTs have to follow the teaching methods, assessment methods and disciplines. However, the common core is always the relationships and communication with students in a variety of school events, such as class activities and sports activities. Especially personal contact with students is essential even when teaching English in the classroom.</p>
<p>5) Realities and human development</p> <p>PTs as well as other schoolteachers have to do many things in school activities, and each school has a different community, such as the subject teacher</p>

community, class teacher community, club activity community, and pastoral care community. Schools have multiple functions in which PTs work for students' human development as well as teaching English in the classroom. PTs, however, want to engage in student matters and do not want to teach English only. The fact is that all PTs are not quite interested in teaching English and some are more interested in educating students or contributing to students' human development while coaching a baseball team or a football team, for instance. PTs strongly believe that communication with students in many situations can also be helpful for teaching English in the classroom.

C. The concept map of ATC 16 and discussion

Figure 6.16 shows that human development, ELT classrooms, emotional relationships and realities let attractor states emerge. In the diagram, teacher-student relationships influence classroom dynamics and motivate students to learn English, but it is also related to the whole person approach based on *Eigo Kyoiku*.

Figure 6.16 ATC 16: 'Relationships with students out of the classroom'



The phrase 'out of the classroom' includes diverse situations which PTs have to be committed to. In other words, the relationships with students may be maintained everywhere and every

time and may not be limited to the classroom only. The key word 'ELT classrooms' focuses on teaching English and is structured from English teaching methods, techniques and materials, but PTs tend to consider 'human development' as an essential factor to teach. And 'friendly' or close relationships with students can be characteristic, but the 'realities' are actually more complex in their working situations. These relationships may be difficult to understand but are very important to grasp the nature of JEFLL teacher cognition.

The working language in the classroom is actually Japanese in English classrooms. That is because emotional relationships with students are the top priority to make effective teaching, although many PTs try to use English as much as possible in the classroom. The nature of JEFLL teacher cognition about relationships with students is thus concerned with emotional or close relationships or mutual trust with students even when teaching English. PTs believe that English teaching is not just teaching a language but also educating or helping develop their students' human nature. Close relationships between teachers and students can make a distinct English classroom atmosphere and influence many aspects of classroom activities. PTs therefore value emotional relationships with students.

6.3 Summary

In this chapter, 16 concept maps regarding PTs' cognitions have been presented as the results of the data analysis of *noticing*, *collecting (recording)* and *thinking (reflecting)*, by applying the applied KJ method in association with RQM through the mixed-methods approach, including a questionnaire, semi-structured interviews, in-depth interviews, classroom observations, and ethnographic observations. The findings in the Main Study are summarized as follows:

The 10 PTs tend to feel obliged to have ideal classrooms in their mind; think cultural

knowledge motivates students; like vocabulary learning and think students should, too; take easy ways to teach grammar; view translation as necessary for students to cope with exams; still wonder what the goal is; are really worried about their teaching; are expected to have better relationships with students; are worried about dual burdens; think that linguistic knowledge is one of their tools; suffer from the teacher education system; seek good collegiality; want to have practical classroom observation; need textbooks; are required to have multiple burdens; and value emotional relationships with students.

Chapter 7 Conclusion: the nature of JEFL teacher cognition

Chapter summary

Four RQs are discussed based on the results of the Main Study while representing the nature of 10 PTs' cognitions, possible influential factors, and differences between teacher cognition and actual behaviours in this chapter. It is important to consider LTC as CAS through conducting the Main Study, and the findings show that LTC is situated socially, culturally, and locally. This chapter thus presents a summary of the research results and the implications for further research on LTC. Ten further suggestions related to the research results are added as part of the implications in relation to 16 concept maps of ATCs. A complex network model for JEFL teacher cognition, which has been demonstrated by the research results, is also represented as the final research summary. Seven research topics are finally discussed with the implications for LTC research.

In the present thesis I have discussed LTC on teaching and teacher education, which is hard to see empirically, by highlighting JEFL teachers, and have tried to confirm my assumption that their coherent traditional philosophy of English teaching has been constructed socially, locally and culturally in their working traditions. Regarding the research methodology I have applied, there may be criticisms that this research has defects empirically and objectively or it may not have substantive data, although I have already argued such research methodological issues in Chapters 4 and 5. I have used the concept map as an analytical process and outcome in order to better identify each aspect of the nature of JEFL teacher cognition and address the four research guiding questions (RQs). Although it may be hard to clarify all the

characteristics of JEFLL teachers' cognitions by demonstrating 16 concept maps of ATCs and discussing JEFLL teachers' cognitions as part of CAS in association with RQM, I will refer to each RQ and summarize the research findings in the first part of this chapter, discussing the research results in general.

7.1 The summary of four RQs (research guiding questions)

Dörnyei (2011: 6) talks about the way of investigating CAS under his RQM, which was accidentally similar to my research model to investigate into the nature of LTC:

Even very complex systems tend to arrive at certain salient outcomes, and although we cannot predict in advance what these outcomes might be, when we see them we recognise them. The idea behind RETRODICTION is that by identifying the main emerging system prototypes we can work 'backwards' and pinpoint the principal factors that have led to the specific settled states.

This exploratory research was started under the four RQs in association with RQM. The results and discussion of 16 ATCs in the Main Study are not all directly related to the answers to the four RQs, but should be summarized in each of the following four RQs: 1) the nature of JEFLL teacher cognition; 2) particular influences to effectively help shape JEFLL teacher cognition; 3) JEFLL teachers' cognitions being consistent with their actual practice of teaching; and 4) the concept of LTC to be helpful for JEFLL teacher development.

7.1.1 RQ 1: The nature of JEFLL teacher cognition

In general, the results and discussion in each concept map of 16 ATCs could possibly help identify the nature of 10 PTs' cognitions about their teaching and teacher education. First of

all, the nature of JEFL teacher cognition in terms of RQ 1 has been specifically explored to some extent by making the 16 concept maps with the 10 PTs in this research. I expect that the following summary statements of each ATC can illustrate the distinctive characteristics of the nature of JEFL teacher cognition. They are marshaled into a simple one-phrase statement based on the reflective and reflexive process of the data analysis with the collaboration between the researcher and the core teacher.

Before presenting the 16 summary statements, I would like to confirm that the nature of JEFL teacher cognition should be considered as a set of mental, social, cognitive and emotional processes (e.g. believing, thinking, learning, and knowing) as well as the outcomes of these processes (e.g. their beliefs, learning, assumptions, and knowledge), as I have already defined the term LTC in this research (see 1.7). ATCs should also be considered as elements and should not be generalized as necessarily true for all JEFL teachers, but the following 16 distinctive characteristics can be suggested as the nature of JEFL teachers' cognitions:

Table 7.1 The 16 distinctive characteristics of JEFL teachers' cognitions

- JEFL teachers feel obliged to have ideal classrooms in their mind (ATC 1)
- JEFL teachers think that cultural knowledge motivates students (ATC 2)
- JEFL teachers like vocabulary learning and think students should, too (ATC 3)
- JEFL teachers take easy ways to teach grammar (ATC 4)
- JEFL teachers view translation as necessary for students to cope with exams (ATC 5)
- JEFL teachers still wonder what the goal is (ATC 6)
- JEFL teachers are really worried about their teaching (ATC 7)
- JEFL teachers are expected to have better relationships with students (ATC 8)
- JEFL teachers are worried about dual burdens (ATC 9)

- Linguistic knowledge is one of JEFL teachers' tools (ATCs10)
- JEFL teachers suffer from the teacher education system (ATC 11)
- JEFL teachers seek good collegiality (ATC12)
- JEFL teachers want to have practical classroom observation (ATC 13)
- JEFL teachers need textbooks (ATC 14)
- JEFL teachers are required to have multiple burdens (ATC 15)
- JEFL teachers value emotional relationships with students (ATC 16)

Johnson (2009: 10) points out that 'Ultimately, learning to teach is conceptualized as a long-term, complex, developmental process that is the result of participation in the social practices and contexts associated with learning and teaching.' Through this exploratory research, I have identified that it is necessary to conduct research into teacher cognition from a sociocultural perspective. That is because I found that the 10 PTs can have complex teacher cognitions about teaching and teacher education and may be distinct in some respects from language teachers in the international context. In creating the 16 concept maps of ATCs, I realized that it is necessary to consider some situated conditions, such as society, culture and locality. Such situated, social, cultural and local factors can transmute a language teacher's thought processes, i.e. teacher cognition. While gathering and analyzing the data of JEFL teachers' cognitions through this exploratory research, I strongly felt that each PT thinks and cares deeply about students and school culture, especially as shown in the concept maps of ATCs 8, 9, 15 and 16.

7.1.2 RQ 2: Positive influences (PIs) to effectively help shape JEFL teacher cognition

In general, there are a variety of complex influences to help shape JEFL teacher cognition,

whether they are effective or not. In each data analysis process of making 16 concept maps of ATCs, some influential factors were identified: e.g. uncertainty of teaching and teacher education (ATC 1) and social needs for close relationships between teacher and students (ATC 9 and ATC 16). Among such influential factors, particular influences to effectively help shape JEFL teacher cognition on teaching and teacher development have been identified. Regarding RQ 2, I discuss this issue under the above-mentioned 16 characteristics of JEFL teachers' cognitions based on the 10 PTs' cognitions, considering in what ways JEFL teachers make sense of teaching and teacher development.

I have selected the positive influences (PIs) after several steps of the data analysis, in order for the 10 PTs to shape better teacher cognition, and have decided not to disseminate the negative influences in this session because the PIs can better show the ways to help shape JEFL teacher cognition and it is feasible to answer RQ 2, although they can naturally include aspects of the negative influences. PIs, which are summarized as in Table 7.2, can therefore help understand the development of JEFL teacher cognition.

Table 7.2 Positive influences (PIs) to help shape JEFL teacher cognition

- PI 1. Specific purposes of English teaching and EFL teacher education (ATC 1)
- PI 2. Intercultural communicative competence (ICC) (ATC 2)
- PI 3. Effective or useful vocabulary size for students (ATC 3)
- PI 4. Appropriate grammar knowledge and skills for students (ATC 4)
- PI 5. Practical meaning of translation in the Japanese sociocultural context (ATC 5)
- PI 6. Flexible curriculum design for each classroom context (ATC 6)
- PI 7. Teaching knowledge and skills in the Japanese education context (ATC 7)
- PI 8. Fair classroom relationships between teacher and students (ATC 8)

- PI 9. English teaching and ESP/LSP (ATC 9)
- PI 10. Practical knowledge about linguistics in relation to teaching (ATC 10)
- PI 11. Practical or professional teacher standards and qualifications (ATC 11)
- PI 12. Informal collaborative reflection with colleagues (ATC 12, ATC 13)
- PI 13. Materials design and syllabus design by teachers themselves (ATC 14)
- PI 14. Language teachers as learner or communicator models (ATC 15)
- PI 15. Professional relationships between teacher and students (ATC 16)

I have summarized influential factors as 15 PIs in the above table, which are provisional ones to help shape better JEFL teacher cognition, or which, if possible, could change teacher thoughts and beliefs into effective or useful ones. For example, PI 15 (Professional relationships between teacher and students) is extracted from ATC 16 (JEFL teachers value emotional relationships with students) in the process of the data analysis. It may be difficult to change JEFL teachers' collective awareness for close relationships with students, but it would be necessary for JEFL teachers to build more professional relationships with students, focusing more on English teaching, compared to the current close emotional relationships.

As the obtained data is from the 10 PTs, these 15 PIs will need to be validated in the next phase to see if they are effective or not. In such a qualitative validation process, the current research design may be upgraded by focusing on the individual teacher, such as a case study.

7.1.3 RQ 3: Differences between JEFL teacher cognition and actual performances

As for RQ 3, I have already considered the issues in discussion of each concept map secondarily. However, I have not referred to what nature of JEFL teacher cognition specifically is consistent or divergent from actual performances in the classroom. That was because I had wondered if it would be difficult to show the fact clearly and could not see what

teachers actually thought, knew and believed. Although their actual behaviours were visible, observed and recorded, they were also influenced by the researcher's views and might not be the fact. The fact is that it was accordingly difficult to see the differences between what the 10 PTs think, know and believe and what they actually do in the classroom.

It would be hard to show the data analyzed transparently. However, I had only to find some differences between the 10 PTs' cognitions and actual performances through the researcher's subjective and reflexive data analysis process with the help of the core teacher. I demonstrate the summary results in the following table. They are factual at least from the researcher's point of views and can be related to the main influences on JEFLL teachers' cognitions from the retrodictive approach.

Table 7.3 Differences between 10 PTs' cognitions and actual performances

<p>Most PTs' feelings of difficulty in teaching English are divergent from actual teaching behaviours in the classroom, but the classrooms the researcher had observed were all appropriate from the researcher's point of views. (ATC 1)</p>
<p>Most PTs said that target-language-speaking cultures are interesting, but they did not focus on the cultures so eagerly or frequently in actual classrooms. It is partly because textbooks deal with a variety of international topics in accordance with the Course of Study. (ATC 2)</p>
<p>Most PTs highlighted vocabulary when teaching in the classroom. They were actually interested in vocabulary teaching as they said, because they were still learning vocabulary as learners. (ATC 3)</p>
<p>Grammar is essential to PTs themselves in both teaching and learning, and grammar teaching is also appropriate for the traditional classroom management. They actually liked</p>

to teach grammar. (ATC 4)
Translation into Japanese is necessary in the Japanese socio-cultural system of teaching and learning. Most PTs did translation work in the classroom based on the academic and social needs. (ATC 5)
The Course of Study is a necessary set of guidelines for PTs, and can unconsciously influence their teaching in the classroom, along with the hidden curriculum, even if they do not read it thoroughly. (ATC 6)
Most PTs' English language teaching knowledge and skills may be insufficient in accordance with the traditional hidden teacher standards. Actually several hidden standards are working complicatedly in relation to the Japanese traditional education philosophy. (ATC 7)
Most PTs tried to interact well with students in the classroom but seemed to be not satisfied with the normal student interaction, although they had fair relationships with students. (ATC 8)
School education and teaching English are inseparable and indispensable dual purposes for most PTs. They strongly wished to be good educators after all. (ATC 9)
Knowledge about (English) linguistics is necessary for most PTs on the basis of the traditional preservice English teacher education curriculum. They basically focused on linguistics when teaching in the classroom. (ATC 10)
Teacher standards, qualifications, recruitment and employment are all so confusing that most PTs are anxious about their professionalism and have different conceptions about aims, teaching methods, and classroom activities. (ATC 11)
Most PTs expect effective within-school or collaborative studies, but they actually did not have ones at school because of several reasons. Moreover, some were not interested in their

professional development as language teachers. (ATC 12)
Most PTs think that classroom observation is effective for practical teaching ideas but not for reflective teaching. Actually they did not see each other's classrooms so often. (ATC 13)
Most PTs strongly relied on textbooks and teaching materials. Textbooks or teaching materials are actually as important as teachers, although they say teachers are key. (ATC 14)
Most PTs think that they should adopt a number of role models for their students, but their images of role models were different respectively. There are actually a variety of role models that are presented to students. (ATC 15)
Most PTs think that emotional or close relationships with students in many situations are important. They were actually doing so at school, but they sometimes felt the burden of communicating so much with students. (ATC 16)

While considering RQs 1 and 2, I discussed this RQ concurrently, because the analysis required the total thought processes regarding JEFL teacher cognition. Teacher cognition, as in Borg's LTC framework (see Figure 3.1) and a provisional network model to represent JEFL teacher cognition (see Figure 3.4), is a complex entity influenced by many different factors. It would be hard to see clear cut-off points between cognition and behaviour even if interview and observation data were compared specifically. Therefore, the aforementioned aspects of PTs' cognitions in relation to their behaviours would be to some extent significant when understanding the main influences on PTs' teaching and teacher development.

7.1.4 RQ 4: the overall picture of LTC to be helpful

LTC includes beliefs, knowledge, thoughts, learning, emotions, assumptions, and other thought processes that language teachers hold when teaching a language. The notion of the

language teacher still may not be familiar to Japanese society and culture, and the term ‘teacher cognition’ is also a new concept to language teachers and teacher educators, although Japanese researchers have come to use ‘*Kyoshi Ninchi*’ (教師認知) as the translated term. As there was not yet a stable definition about *Kyoshi Ninchi* and most people did not specifically see what I was doing in interviewing and observing JEFLL teachers, I first realized that it could be difficult to locate their teacher cognition or *Kyoshi Ninchi* quantitatively.

Throughout this research, I have realized that LTC seems to be closely related to society and culture to some extent. Teacher cognition may be universal but the concept of LTC may not be completely appropriate for the Japanese context. As discussed so far, the discussion of LTC cannot be limited to language teaching in the classroom but must include the whole school activities at secondary school in Japan. For the teacher culture and context in Japan, LTC can possibly include more complex factors than the network model of provisional elements and processes in JEFLL teacher cognition that I showed in Figure 3.4. It should be discussed more carefully on the basis of these research results.

Given the research results, I still wonder what overall picture of LTC has emerged from this exploratory research and could be helpful for JEFLL teacher development. First of all, JEFLL teachers are different from other subject teachers in terms of teaching subject content and language. Even if they feel that there are no differences, their goal settings might not focus on teaching English but on the whole school education, or they are not aware of teaching English as language teaching. In other words, JEFLL teachers are not always language teachers, so that JEFLL teachers’ cognitions called ‘*Kyoshi Ninchi*’ may not be limited to language teaching. The notion of *Kyoshi Ninchi* must be extended to or include more complex classroom or teaching situations, and moreover should be considered in the social, cultural and local context.

Secondly, the fact is that most PTs feel that they may not have sufficient professional knowledge and skills to teach English. *Kyoshi Ninchi* regarding JEFLL teachers may be primarily concerned with language teaching or teacher education, but it needs to be discussed on the basis of the educational infrastructural traditions in the Japanese context. It should be researched socially, culturally and locally to some extent in this respect as well. If not, it could be hard to find what JEFLL teachers really think, know, believe, do and reflect on.

Thirdly, LTC research, as Borg (2003a, 2006a) suggests, should be complex to conduct actually. Especially, language teaching comprises some distinct aspects of teaching from other school subjects, such as math and science, which also have their own inherent concepts. It should be nonetheless necessary to consider the reality of classroom teaching which may be a complex entity, since the teacher's decision-making can be very influential in students' learning attitudes and performances. LTC is therefore worth researching. *Kyoshi Ninchi* may possibly have a different conception from teacher cognition. It must be situated and include social, cultural and local aspects for teacher research.

Accordingly, LTC can provide new perspectives for language teachers and researchers socially, culturally, and locally. In this respect, teacher cognition in Japan may be transformed into *Kyoshi Ninchi*, which can provide a different assumption to think about JEFLL teacher development. Such local aspects of LTC should be piled up and developed into a practical model of teacher development which reflects what language teachers should think, know, believe, do and reflect on when teaching a language.

7.2 A JEFLL teacher model as the signature dynamic

I will present a JEFLL teacher model as an entire entity that can hold all 16 properties of JEFLL teacher cognition. It may be called 'the signature dynamic,' which is a comprehensive

overview of the particular teacher's functioning or the essential movements and developments within a system (cf. Dörnyei, 2011). It will be helpful to understand what the nature of JEFLL teacher cognition can comprise and how each component interacts with each other. Also, a JEFLL teacher model can show what the research identifies through this exploratory research.

A JEFLL teacher model to represent key characteristics of the 10 PTs' cognitions

A JEFLL teacher thinks it is **difficult to teach** English in the classroom partly because he/she has some **ideal concept of English classroom** in his/her mind (ATC 1). He/She therefore insists on teaching **cultural knowledge, vocabulary and grammar** in the classroom because he/she believes that **such knowledge is useful** to students (ATC 2, ATC 3 and ATC 4). When teaching English, the teacher thinks that **translation is also necessary** for students' needs (ATC 5). However, he/she wonders **what the goal is** (ATC 6) and **how he/she should teach English** (ATC 7). As he/she is **expected to have better relationships with students** (ATC 8), the teacher is often **worried about dual burdens strongly related to education culture** in Japan (ATC 9), and he/she likes to rely on **linguistic knowledge** (ATC 10) **due to the insufficient teacher education** (ATC 11), including **poor collegiality** (ATC 12) and **classroom observation** (ATC 13). The teacher feels it is difficult to teach without textbooks or materials because **textbooks provide him/her with important curriculum information** (ATC 14). At school he/she is actually **busy doing many things and working hard as a schoolteacher** (ATC 15). Moreover, he/she believes that the teacher should be **responsible for students' human development** and be **committed to the whole school activities** because he/she strongly thinks that **emotional relationships with students** (ATC 16) are really significant even in teaching English.

The above-mentioned JEFL teacher model cannot represent all JEFL teachers but the model is considered to demonstrate an archetype of the JEFL teacher. The model could be helpful to understand the nature of JEFL teacher cognition regarding teaching and teacher education. In this chapter, I conclude my thesis by adding further discussion to the four RQ topics. Especially I highlight the following issues to discuss in association with complexity theory:

1. Difficultness or quality of difficulty to teach English to students in the classroom (ATC 1)
2. Teaching cultural knowledge as an attractive learning target (ATC 2)
3. Teaching pronunciation, vocabulary, grammar and translation (ATC 3) (ATC 4) (ATC 5)
4. Teaching goal settings and pedagogical content knowledge (PCK) (ATC 6) (ATC 7)
5. Teaching professions (ATC 9)
6. The teacher qualification system (ATC 10)(ATC 11)
7. Collegiality and classroom observation in school (ATC 12) (ATC 13)
8. Necessity of textbooks and teaching materials (ATC 14)
9. Multiple burdens and role models (ATC 15)
10. Close emotional relationships with students (ATC 8) (ATC 16)

These ten issues are all closely related to the nature of JEFL teacher cognition on teaching and teacher education as I have discussed so far. I assume that the following discussions in terms of the 10 issues will be helpful to develop the methods to identify the nature of LTC and to solve other questions regarding LTC: e.g. the psychological context of instruction, discrepancies between theory and classroom practice, quality portraiture of teaching in all its complexity, effective pre- and in-service teacher education and professional development, descriptive information about subject-specific teacher cognition and pedagogy, and how

teachers develop (see Borg, 2006a). They will also be related to the implications for further research on LTC, especially on teacher cognition of nonnative speaking language teachers, such as JEFLL teachers.

7.2.1 Difficultness or quality of difficulty in teaching English

Teaching is generally a complex system provided by the teacher, and it would be difficult to see how it is structured and processed. The research found that most PTs think that teaching English is difficult and the estimated reasons are due to the traditional English teacher education and their mental recognitions about English teaching. On the other hand, the interview and observation data indicated that all the teachers had appropriate professional knowledge and skills in terms of teaching English.

Some people may say that Japanese people tend to be shy or reserved, are modest, and do not like to be outstanding, or others may say that Japanese teachers do not think it is difficult to teach English but think it is challenging. Such reasoning may be somewhat understandable and partly true, but the research results suggested that JEFLL teachers' feelings of difficulty do not always come from their modesty or the traditional Japanese cooperative culture, but primarily from the idealism or adoration of teaching professions that were created at the beginning of teacher education. Since JEFLL teacher cognition on difficulty to teach English comprises a variety of complex factors related to ELT methodology, school culture, ideal classroom, and classroom reality, understanding LTC regarding teaching difficulties should be more valued especially by teachers, teacher educators and researchers. Further research needs to be conducted to explore LTC about emotional aspects of teaching, such as easy vs. difficult, fun vs. boring, and effective vs. meaningless.

7.2.2 Teaching cultural knowledge

JEFL teachers are interested in cultural knowledge as well as language knowledge, but they are not always concerned with ICC. When teaching culture in the classroom, they tend to highlight the facts or knowledge of culture because their students are interested in overseas cultures, such as people, music, films, arts and sports, even if they are not motivated to study at school. Cultural knowledge is thus sound motivation to encourage students to learn English.

JEFL teachers may think that the term ‘international understanding,’ which is set as part of the attainment targets, represents teaching cultural knowledge. According to the research results, many JEFL teachers possibly misunderstand the meaning of international understanding and think that translation is useful and necessary when teaching their students cultural knowledge. Most PTs see that ICC can be a significant concept to teach but do not know much about how to teach ICC. They therefore like to teach students how to understand themselves or others through studying different cultures. For example, many PTs seem to think that group working can give students appropriate opportunities to understand other classmates or how to communicate with them.

Cultural knowledge is a significant part of the nature of JEFL teacher cognition regarding teaching and teacher education. However, it is not closely related to ICC or cultural experience. The fact is that many JEFL teachers have not had sufficient experience to actually interact with people from other cultures and ethnicities. The research found that teacher cognition can be culture-dependent and applicable to the local context in many aspects and the cultural approach is important to explore LTC in the local context. JEFL teachers should have appropriate knowledge and experience about ICC before and during teacher education in order to help develop appropriate language teacher cognition about culture. In addition, different types of data need to be compared: e.g. NES vs. NNES teacher cognition about

cultural awareness.

7.2.3 Teaching pronunciation, vocabulary, grammar and translation

Pronunciation, vocabulary, grammar and translation are essential knowledge and skills for JEFLL teachers to teach their students. The research found that PTs strongly believe that vocabulary and grammar knowledge is as important as pronunciation. Regarding translation, they are not always eager to translate English into Japanese, but have to meet the students' academic needs. They may just teach their students traditionally piled-up English knowledge that has been provided by textbooks or other materials related to examinations.

The research results suggest that many JEFLL teachers believe translation can help learners understand vocabulary and grammar, being strongly related to an intellectual exercise.

Vocabulary and grammar learning is also another intellectual exercise, because the English language is fairly distinct from the Japanese language in terms of vocabulary, grammar and pronunciation. Regarding pronunciation, which is basic to learn English, most JEFLL teachers tend to teach each distinct individual sound in the primary or introductory stage, but gradually do not highlight pronunciation due to the students' academic needs.

In preservice teacher education at university, English language structure knowledge is important but may not be appropriately provided for student teachers' needs. The teacher employment test provided by each local teacher authority generally focuses on English knowledge, such as vocabulary, grammar and translation, as well as communication skills. Even in in-service teacher education, developing English language knowledge and skills is still essential for most JEFLL teachers, but schoolteachers are too busy in most situations to develop their professional knowledge and skills as language teachers. Many JEFLL teachers eventually tend to think about what they are doing in tomorrow's classes and try to find convenient teaching ideas, such as vocabulary and grammar practices, games, and readymade

worksheets or materials.

JEFL teacher cognition about pronunciation, vocabulary, grammar and translation is as deeply-rooted in language learning culture as ever and does not change so easily. Such aspects of LTC seem to be universal although there are some varieties. The point is what kind of conceptions about pronunciation, vocabulary, grammar and translation JEFL teachers have when teaching to students. For example, if teachers believe that the American accent is good, students will learn the American accent. In reading, if teachers insist on accuracy, students will have to focus more on grammar and interpretation of each sentence. JEFL teacher cognition can therefore influence students' learning strategies through these classroom activities. By understanding the nature of JEFL teacher cognition about pronunciation, vocabulary, grammar and translation appropriately, JEFL teachers' teaching and teacher education can be reconsidered so as to focus more on practical English teaching approaches.

At first, I intuitively assumed that these explicit aspects of LTC were rather comprehensible and easy to identify because there were a number of research papers regarding them (cf. Borg, 2003a). However, the present research results showed that even 10 PTs have different conceptions about teaching language form and structure. They suggested that the concept of complexity theory can be applicable to the research of LTC as a complex system, as Larsen Freeman (2012: 206) argues that 'Dynamic change in the form of language evolution, language processing, language change, language use, language acquisition, language development, etc. is central to our concerns as applied linguists.' Further research on teacher cognition therefore should be conducted in relation to the applied linguistics as well.

7.2.4 Teaching goal settings and PCK

PTs' teaching goals are varied in working as schoolteachers, and their PCK might not always have a common basis, according to the research results. Also in each English

classroom there are a variety of classroom realities. Each teacher does not have a common concept regarding what to teach and how to teach English in the classroom. In other words, they may not actually realize to what extent they should teach English to their students. Moreover, they may wonder what they should teach and how they should teach English in some cases.

Unspecific goal settings can make JEFL teachers less confident in teaching English in the classroom. The research results suggested that the 10 PTs' PCK is so complex that they cannot have sufficient teacher education even in terms of teaching English, because they are required to do too much work at school. The implicit or hidden education framework has strongly influenced what they should do when teaching English in the classroom and working at school. JEFL teachers' teaching knowledge and skills have been based on the Japanese traditional education philosophy, especially *Eigo Kyoiku*. It is probable that many JEFL teachers cannot cope with these socioculturally systematic problems. The current EFL teacher education system should be reconsidered in order for JEFL teachers to develop their professional knowledge and skills and work well as English teachers at school.

Further research on teaching goal settings and PCK is essential in LTC research. More exploration can specify what the traditional JEFL collective teacher cognition is and make JEFL teachers aware of their teacher cognition even in the current teacher education system. In this area, questionnaire research, such as the LTCI, is still effective.

7.2.5 Teaching professions

When discussing teaching professions, it is important to make sure that most JEFL teachers are schoolteachers. As discussed in Chapter 6, the 10 PTs actually have dual burdens: English teaching and the whole person education. In other words, they feel obliged to work effectively in accordance with the educational policy. In addition, the purpose of teaching

English is not closely linked with the practical needs of learning English, since there are some criticisms that school education should not cultivate human resources to support economy or industry. JEFL teachers can be liable to have their own isolated or distinct purposes regarding teaching English that have been created through a complex of the traditional Japanese English education system or *Eigo Kyoiku*.

It is probable that most JEFL teachers strongly wish to be respected educators as any schoolteachers do. The ultimate case for valuing the whole person education is that, for example, some PTs highlight teaching English grammar and translation and have their students think about content issues in Japanese, such as ecology and peace, even in English classrooms. JEFL teacher cognition on teaching professions is therefore more related to the schoolteacher role than the language teacher, because they have inseparable and indispensable dual purposes implicitly: school education and teaching English.

Concerning this topic of JEFL teachers' cognitions about teaching professions, there has been less research so far since their teacher culture is complex and has not been considered academically as I have discussed in Chapters 1 to 3. Further research should be necessary from cultural and local perspectives, such as longitudinal research or case histories, in order to better see JEFL teacher cognition about teachers' professions.

7.2.6 The teacher qualification system

Most PTs are not satisfied with the current teacher education system, and they have to cope with the realities surrounding their working society. Linguistic knowledge is thus part of the strongest and most important tools for them to teach English. In preservice teacher education, the research results suggested that linguistic knowledge is usually the most necessary knowledge for JEFL student teachers to attain to work as an English teacher. Moreover, the current teacher qualification system actually does not exclusively focus on English subject

knowledge and skills, but rather provides education theory, general pedagogy and education psychology. In addition, most newly employed teachers learn to teach while working as a teacher practically with no standards or guidelines for teacher qualifications. JEFL teachers are eventually likely to have different conceptions about aims, teaching methods, and classroom activities, even if they are qualified as a teacher.

According to the research results, the nature of JEFL teacher cognition about teacher education highlighting less practical content, such as the study of linguistics and literature, clearly shows the defects for the current teacher qualification system. While the system cannot be drastically renovated in the short term, it is necessary to understand what knowledge and skills JEFL teachers actually need to develop. If they had such reflective opportunities to think about their own teacher cognitions on these issues, they could change and make better development so that they might be able to provide better teaching confidently. I have realized through the present research that the current teacher qualification system has influenced the development of JEFL teacher cognition, but further empirical data needs to be gathered and analyzed in order to better see how it has been formed.

7.2.7 Collegiality and classroom observation in schools

Collegiality is regarded as important and influential for language teachers to develop their own teacher cognition, but the reality is different. Most PTs naturally hoped for better collegiality in teacher education as well as at school in the present research. Collegiality is not always strongly bound or tied in accordance with each different school culture, and many PTs thought it difficult to maintain good mutual relationships with their colleagues due to several reasons. For example, within-school teacher education programmes including *Jyugyo Kenkyu* or lesson study are being provided as rituals or formal events in most schools, but PTs were not satisfied with such ritualistic or unpractical events. They actually did not often see

classrooms or share ideas with colleagues. They are not eager to have any reflections on their teaching or change their own teaching styles so drastically, even if they realize they should change their teaching.

It seems that the primary reason for most PTs to observe other teachers' classrooms is to find convenient teaching ideas for tomorrow's class. They do not often intend to reflect on their teacher beliefs or knowledge. The research results suggested that PTs need to have informal collaborative reflective study for specific teaching issues with their colleagues. In the JEFLL teacher culture, informal talk or discussion can be important because they are not good at discussing or communicating formally or officially (cf. the discussion about *Uchi* and *Soto* in 2.17). Moreover, some of them are not only interested in their professional development as language teachers, but also in many aspects of school affairs, such as class activities, club activities and pastoral care. It is especially important for JEFLL teachers to think about all school things together and discuss subject teaching in relation to them rather informally. Sociocultural viewpoints of JEFLL teacher cognition about collegiality therefore should be much more carefully considered in relation to their awareness of teacher work in each school culture.

One effective way for possible further research to see the nature of LTC about collegiality can be a collaborative research project between researchers and teachers. Especially informal qualitative research methods, such as brainstorming, interactive talks, discussions, case studies, and journal writings, based on collaborative reflection or action research, need to be applied in order to identify how JEFLL teachers know, believe, think, do and reflect in terms of collegiality. Such comfortable and easygoing relationships between researchers and teachers can make a better collegial classroom observation.

7.2.8 Necessity of textbooks and teaching materials

Materials development is core knowledge and skills for language teachers along with curriculum development and teaching methodology. JEFLL teachers have to use the MEXT approved textbooks and tend to rely on the textbooks, but at the same time try to provide some other materials to their students. The publishers also realize what materials JEFLL teachers want to have in addition to the textbook, and provide workbooks, grammar books, vocabulary books, and additional materials for teachers and students who want to follow a traditional way of language learning, such as grammar knowledge and translation.

One of the big problems is that all the 10 PTs thought they do not have sufficient materials development knowledge and skills. It seems that most of them just see their colleagues' techniques and try to follow their ways based on their own practical experiences, as described in 'the apprenticeship of observation' (Lortie, 1975). If their colleagues' classroom materials are effective and they have made good 'communities of practice' (Wenger & Lave, 1991), they can share sufficient knowledge and skills for materials development. However, such grass-roots methods are not always effective and can sometimes lead to unsupported and distinct ways of teaching.

There are convincing reasons for most PTs to rely on textbooks and materials. JEFLL teachers are generally not entitled to develop their own English curriculum substantially, and how to use textbooks and additional materials is the most important part of curriculum development. In some cases, they just see what their students have learned regarding textbook items but do not have to check how their language proficiency is. The research results found that JEFLL teacher cognition about textbooks and teaching materials probably has been created by the traditional core concepts that teachers, teacher educators and textbook publishers have constructed in *Eigo Kyoiku*. However, further empirical research should be conducted from historical perspectives since Japan has a long tradition of textbook

and dictionary compilations. It is predicted that there are some collective beliefs which can influence the development of JEFLL teacher cognition, but we have not had any substantial empirical evidence so far.

7.2.9 Multiple burdens and role models

JEFLL teachers are required not only to teach English but also to do many things at school. They are trying to support as many as 40 class students to work hard together in many kinds of school activities. That is because collaboration, cooperation and group harmony are still strongly valued in Japanese society and culture. According to the research results, many PTs feel like being leaders, coordinators, adult models, counselors, friends and parents for their students. Even when teaching English in the classroom, they have to play many role models as they do in other school activities.

Regarding the English language, PTs are still language learners. They do not use English very well or have ample knowledge enough to answer all grammar questions. At the same time, they have to meet complex demands as schoolteachers and think that they should play a number of role models in the eyes of their students. JEFLL teachers choose what kind of role model to be for their students. In some cases, the role model they choose does not have to be as a good English learner or a good English communicator, but can be as a good adult model or a good schoolteacher model.

However, JEFLL teachers' images of what kind of role models to be in the eyes of their students are diverse and complex. It means that their own personality can be the most important factor for them to select their role model type. This may be strongly influential to the development of JEFLL teacher cognition. It is closely related to the multiple burdens of schoolteachers, so that it is too complex to describe and also too difficult to discuss as far as JEFLL teachers goes. This research found that there can be a variety of cognitions which JEFLL

teachers have developed. Such complex JEFLL teachers' cognitions should be further researched, as Complexity theory suggests that it is important to take a more holistic view of reality and 'Complex systems iterate – they revisit the same territory again and again, which means that the present level of development is critically dependent on what preceded it' (Larsen Freeman, 2012: 206).

7.2.10 Close emotional relationships with students

The research results show that PTs were rather eager to have close emotional feelings of relationships with students as schoolteachers or educators on the traditional basis of the Japanese education system. For example, students in most schools are permitted to enter the teachers' room to chat with teachers, and in some cases teachers are always together with students even during breaks, at lunchtime, at cleaning time and after school. Such emotional relationships between teacher and students are very unique, as I have already discussed.

Close emotional relationships seem to have been constructed implicitly or in hidden curriculum because many PTs had similar experiences in their school days. They are not school regulations or their formal duties assigned by a school principal, but are considered to be volunteer work. The society has traditionally required teachers to devote themselves to their students as parents do, and many teachers care little about working on holidays for their students. On the other hand, if their relationships can work well, they will have effective classroom management and produce a better learning atmosphere. Close emotional relationships with students are thus very important for JEFLL teachers to provide effective English classrooms.

Some PTs were, however, worried about such close emotional relationships with students. Relationships with colleagues as well as students are always important at school culture in Japan, compared to some other Western countries. Although all PTs did not agree with such

emotional relationships at school, they accordingly set a high value on such relationships when even teaching English in the classroom. Many PTs were trying to do so as best they could, but concurrently felt the burden of such emotional communication with students.

It may be hard for most JEFLL teachers to maintain close emotional relationships with students while using English only in the classroom. It is therefore natural that communicating in Japanese is essential in English classrooms in many aspects. The research found that many PTs do not insist on the English-medium instruction or intend to break their emotional relationships. It is thus important to reconsider JEFLL teacher cognition about relationships with students. Further research is necessary in terms of relationships between teacher and students: e.g. what kind of relationships with students are effective for better language classrooms?

7.3 The nature of JEFLL teacher cognition

I started this thesis by stating my personal journey of exploration in Chapter 1 and referred to the literature review. I then presented the network model of JEFLL teacher cognition in Figure 3.4, and started to research what the nature of JEFLL teacher cognition is. My assumptions were examined under a qualitative exploratory research design through the researcher's subjective and reflexive philosophy of *noticing*, *collecting (recording)* and *thinking (reflecting)* and the applied KJ method in association of RQM. Mixed methods including questionnaires, interviews and observations were applied when collecting and analyzing the data in the elaborate procedures.

As discussed in Chapter 6, I found many kinds of variable characteristics of PTs' cognitions regarding teaching and teacher education. They were too complex to be identified clearly because each teacher is distinct and individual. The 16 ATCs that I discussed in Chapter 6 may just represent part of JEFLL teacher cognition. However, it is reasonable to say that the

nature of JEFLL teacher cognition has been partly identified in terms of teaching and teacher education. Here in conclusion, I present another framework of a complex network model of JEFLL teacher cognition in accordance with the research results in order to better show how the 16 ATCs that have been identified through the entire research process are related to a provisional network model of JEFLL teacher cognition in Figure 3.4.

JEFLL teacher cognition should be regarded as the processes as well as the products or outcomes in a complex system. Its nature will be summarized as in the following diagram. Figure 7.1 shows that the 16 ATCs extracted as the research results are distributed around JEFLL teacher cognition in the centre. Especially the Course of Study on the top and '*Kyoiku*' or the Japanese traditional education on the bottom are highlighted in the diagram. The two factors are especially powerful to the development of JEFLL teacher cognition according to the research results. Other components of JEFLL teacher cognition which were extracted through the research analysis are distributed surrounding JEFLL teacher cognition and *Eigo Kyoiku* as its attractor conglomerate. Each component is also closely linked to the related elements in accordance with the Course of Study and *Kyoiku*. The network model as shown in Figure 7.1 may still be complex and hard to see what is happening in JEFLL teacher cognition, but it will be useful to conceptualize what JEFLL teachers think, know, believe and do in the Japanese EFL context.

Regarding the nature of JEFLL teacher cognition, I have confirmed to some extent that the network model (see Figure 3.4) I set before the present research can be useful to understand how JEFLL teachers are working at school and have developed their teacher professions. Especially in terms of 16 ATCs, I have realized how PTs' cognitions are related to the provisional network model of JEFLL teacher cognition. However, the network model of JEFLL teacher cognition about teaching and teacher education can comprise complex elements and processes, which are all interrelated and interacted with each other and always changing in a

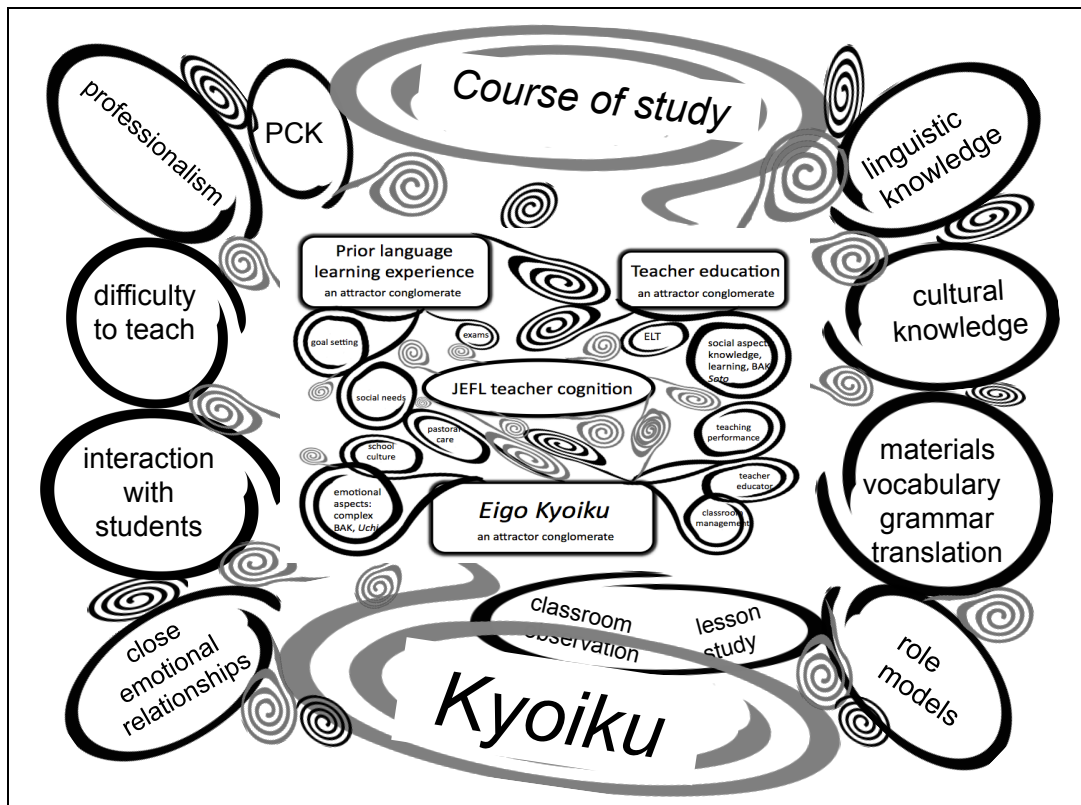
nonlinear way, but maintain its complex system, as in Figure 7.1.

Teacher cognition is or should be open and dynamic, which means it is hard to identify and generalize. The complex network model can show its complex nature of JEFL teacher cognition. The most important point of this network model is thus summarized as two aspects:

- 1) Embodying and visualizing the complexity of JEFL teacher cognition
- 2) Clarifying the relationships among distinctive components of JEFL teacher cognition

Regarding the first point, Figure 7.1 demonstrates how JEFL teacher cognition is structured and what it comprises. For example, two impact factors (the Course of Study and *Kyoiku*), which are strong attractor conglomerates, are functioning to help another attractor state emerge or self-organize.

Figure 7.1 A complex network model regarding the nature of JEFL teacher cognition



Regarding the second point, Figure 7.1 presents 10 distinct components of JEFL teacher cognition: 1) linguistic knowledge; 2) cultural knowledge; 3) materials, vocabulary, grammar and translation; 4) role models; 5) lesson plan and classroom observation; 6) close emotional relationships; 7) interaction with students; 8) difficulty to teach; 9) professionalism; and 10) PCK. Although further research is needed in terms of how they are related to and influenced by each other, they are all attractor states, iterate in a complex LTC system, and can certainly help develop JEFL teacher cognition.

Figure 7 apparently looks static and absolute, but it is always moving and changing as in CAS and should actually be depicted in animations using three dimensional (3D) representations, as well as all 16 concept maps. Although all the diagrams are drawn in two dimensions in the present thesis, I actually intended to create an animated 3D network model which can depict how each attractor or attractor state interacts with one another and how dynamic and adaptive it is while moving, changing, self-organizing and emerging. However, all the diagrams are effective to demonstrate what the researcher did and what the nature of 10 PTs' cognitions on teaching and teacher education is.

7.4 Further research and implications for LTC

In conclusion, I will suggest what kind of research should be conducted primarily in terms of LTC from a sociocultural perspective (Johnson, 2009), especially in the local context, based on the relationships between cognition and practice in language teaching that Borg (2003a: 96-99) discussed. The five issues Borg presented are: 1) reasons for teachers' decisions; 2) teachers' departures from their lesson plans; 3) cognition and context; 4) cognition and experience; and 5) PPK (pedagogical practical knowledge), BAK, and pedagogic principles. Following these issues, I set seven issues regarding further LTC research and its implications

before making a conclusion to this thesis regarding the nature of JEFLL teacher cognition, with reference to the application of complexity theory to LTC research.

7.4.1 Processes of teachers' decision-making

Through JEFLL teacher cognition research, I have found that the mixed methods, comprising questionnaires, interviews and observations under the researcher's subjectivity and reflexivity in collaboration with 10 PTs, are useful and effective to identify the process of language teachers' decision-making in teaching a language. Moreover, the research found that complexity theory is applicable in conducting LTC research. Especially, JEFLL teachers' decision-making can be complex to grasp and should not be limited only in the classroom. It also includes other multiple factors, such as relationships with students outside the classroom and miscellaneous school activities.

The philosophical interpretation and qualitative approaches are more effective than the empirical inquiry and quantitative approaches in this research field. Moreover, the research results suggested that language teachers' decision-making processes could be closely related to their situated cognitions that have been developed socially, culturally and locally. If it were true, LTC research would be helpful to locate the better teachers' decision-making process for effective language teaching. This exploratory research methodology, which may be an exceptional one, can contribute to the understanding of complex processes of teachers' decision-making.

7.4.2 Conceptual, terminological and definitional variability

I have found that there is a variety of concepts, terminologies and definitions regarding LTC. Through this research, I have used the term 'language teacher cognition (LTC),' but it may not be appropriate in some cases, because it can cover many different concepts that teachers are

committed to. When trying to explore the language teachers' mental or emotional world and identify the nature of LTC in its whole process, LTC should be useful to see what language teachers think, know, believe and do concurrently, but when trying to explore an individual language teacher's conceptions or thought processes, it is better to discuss each case socially, culturally and locally than universally and generally. In other words, the concept of teacher cognition can be a socioculturally-oriented one and have variability in each context. It can be complex, so that what is important is not to differentiate or categorize the terms but to accept the variability and explore the whole concept of teacher cognition in each sociocultural context.

It is important to see LTC as a complex system. LTC thus should be regarded as: 1) being open and dynamic; 2) operating under conditions that are not in equilibrium; 3) systems; 4) adapting both through interaction with the environment and through internal reorganization/self-organization; 5) changing over time; 6) being emergent; 7) being in nonlinear relation to its cause; 8) maintaining the structure of a complex system; 9) a complex system including its environment; 10) displaying behavior over a range of timescales and at different levels of complexity; 11) sometimes displaying chaotic variation; and 12) iterating (cf. Larsen Freeman, 2012: 205-206). Dörnyei's RQM, in that sense, is useful and has the potential to conduct LTC research, so long as it tries to consider all the variables together.

7.4.3 Social and institutional contexts of classrooms

Classroom research (cf. Nunan & Bailey, 2009) or lesson study (cf. Fernandez & Yoshida, 2004) should be conducted on the basis of each social and institutional context. It is a context-dependent inquiry, and it seems difficult to generalize what a language classroom is. I have found through this research that the 10 PTs have some common beliefs and behaviours in the classroom, which are partly related to their professionalism and the current teacher

education system, but each classroom can be dynamic and changeable due to many different factors in different contexts. Teacher decision-making in teaching and teacher development can be influenced by each classroom context and other complex factors. The concept map shown in Chapter 6 is helpful to see what teachers are doing in the classroom from their thought processes in the light of the social and institutional contexts. We should therefore consider language classroom issues as part of social and institutional contexts and take into account a viewpoint of LTC research.

I have already referred to the usefulness of a three-step research of RQM in the language classroom (see 3.19). Regarding the potential of RQM in CAS, Dörnyei (2011) argues that:

Although in dynamic systems we CANNOT predict the behaviour of the system with certainty, the essence of the proposed RQM approach is that we CAN understand salient patterns – or essential underlying mechanisms – associated with typical system outcomes.

Also in LTC research, it is difficult to predict what teachers think and do in the classroom, but I assume that it is possible to identify the salient patterns or the concept maps regarding some aspects of LTC in association with the related contexts.

7.4.4 Processes through which language teachers' cognitions and practices are transformed

I have talked with some 60 JEFLL teachers in total through the present research. All the teachers' reported beliefs seem to have allegedly changed while working as schoolteachers, according to the interview. I realized how and why some of them had changed their beliefs but I could not see if they were true. If the longitudinal case research is possible, the present

research method will be able to be useful and helpful to identify the changing processes of LTC. Also, the case history could be appropriate to identify the processes through which language teachers' cognitions and practices are transformed. However, it might be difficult and take time to carry it out.

The methods I applied in this exploratory research were primarily based on the researcher's subjectivity and reflexivity. It means that the researcher quality was an important part of the methods. Especially when exploring language teachers' thought processes, the researcher's thought processes have to be reflexive and reflective to better see them. Moreover, collaborative exploration for teacher thought processes in association with other teachers' subjectivity could be effective to see the transformation process of language teachers' cognitions and practices.

Here in such teachers' transformation processes, RQM has the potential as well. In addition, the process of creating and redefining the concept map will help develop teachers and be related to reflective teaching or teacher development. The fact is that the 10 PTs in the Main Study reflected themselves and the researcher especially did so with them and the KJ method and RQM were helpful for their reflection. The exploration which was conducted in this research can perhaps be useful for reflective teacher development (cf. Schön, 1983) to think about cognitions and practices.

7.4.5 Idiosyncratic nature of language teachers' cognitions and practices

Each language teacher is naturally different. We should not forget this point. Generalization is important for scientific research but individualization is necessary and helpful in teacher research. The individual approach thus needs to be taken to explore LTC. The anthropological approaches thus may be promising and helpful to identify the idiosyncratic nature of language teachers' cognitions and practices, since teacher cognition

may be developed in a social, cultural and local context. Again in this regard, the researcher's subjective views are important as well as the reflexive views. I believe that teacher education should support each teacher's autonomous development and language teachers should maintain their own philosophy of teaching and learning. Therefore in terms of LTC research, the most important point is idiosyncraticity that pertains to each language teacher.

Language teaching and learning is chaotic and complex, so that each language teacher should be regarded to be distinct and autonomous. As already discussed in Chapter 6, the 10 PTs' cognitions and practices were actually different, although they were summarized as the concept map. The idiosyncratic nature of language teachers' cognitions and practices can therefore make a solution to better understand the nature of LTC. The present research can suggest a number of ways to uncover such a complexity of LTC, in that the concept map can specify part of each aspect of LTC by focusing on each teacher as well as a holistic view of teacher reality. The present research results suggest that the subjective, reflexive and holistic views can make account of the individual and idiosyncratic nature of LTC.

7.4.6 Relationships between cognitions, practices and learning outcomes

Understanding the relationships between cognitions, practices and learning outcomes that language teachers are concerned with is very important for teaching and teacher development, but the research results showed that it might be difficult. Through this teacher cognition research, I focused on JEFLL teachers but did not focus on students. That was because I assumed it would be more complex than teacher research. However, when I observed the JEFLL teachers' classrooms, I realized dynamic relationships between teacher and students in the classroom.

The approach I adopted in the present research focused on teachers themselves and their views on students, and it is different from action research and reflective teaching. Perhaps it

may be called teacher research and should be part of teacher philosophy on teaching and learning. The concept of LTC as I have discussed so far can be useful and helpful to explore the relationships between cognitions, practices and learning outcomes. From this point of view, the language classroom should be regarded as a complex learning community with the support of a language teacher so as for language learners to attain knowledge and skills about the target language, communication and study skills. LTC research thus will be one of the useful methods to understand language learning. The methods applied in the present research may be available to identify relationships between cognitions, practices and learning outcomes, which are somewhat difficult in the traditional scientific research methods.

7.4.7 What happens in classrooms

LTC is naturally related to the language classroom. A language classroom is different from other subject classrooms in terms of the target language being a classroom managing language at the same time. Also, language, thought and culture are closely related to each other, and language teachers have to consider them all when teaching in the classroom. However, although it is often said that JEFLL teachers should teach through English, many teachers do not follow it and have different views about education. Through this JEFLL teacher cognition research, I strongly felt that JEFLL teachers have to make use of Japanese due to several convincing reasons. In my personal experiences so far as well, most non-native speaking language teachers used their mother tongue in necessary situations in many countries. It is therefore necessary for researchers and teachers to see real language classrooms and what is happening in reality, in consideration of each language learning needs and its social, cultural and local contexts.

This exploratory research was limited to 10 PTs' cognitions about teaching and teacher

education in the Main Study after surveying 62 JEFLL teachers in questionnaire research in the Preliminary Study. It may be impossible to generalize the research results and apply them to another context. However, what is happening to some aspects of the 10 PTs' cognitions is a fact or a credible or trustworthy interpretation or exploration. Some may be global and others may be local, but both are important. We have to confirm this aspect in teacher research. However, I as teacher researcher am satisfied with the research results which could help answer my initial questions represented in my personal journey of exploration in Chapter 1 that JEFLL teachers' coherent traditional philosophy of English teaching has been constructed socially, locally and culturally in their working traditions.

If I conclude this thesis in a simple phrase, I would say, 'You can't see the forest for the trees, but you can't see the trees for the forest.' LTC is regarded as complex systems, but it can be significant and necessary for language teaching and learning. Moreover, LTC should be viewed as a situated concept in a social, cultural and local context. We must see the forest and the trees concurrently.

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Appendix I. 62 JEFL teachers' demographics

CASE	TEACHING EXPERIENCE	NO. OF INTERVIEW	NO. OF OBSERVATION	CASE	TEACHING EXPERIENCE	NO. OF INTERVIEW	NO. OF OBSERVATION	
1	1~3	0	0	32	1~3	1	1	
2	1~3	0	0	33	1~3	1	1	
3	11~20	0	0	34	1~3	1	1	
4	11~20	0	0	35	1~3	1	1	
5	11~20	0	0	36	1~3	1	1	
6	21~30	0	0	37	1~3	1	1	
7	21~30	0	0	38	1~3	1	1	
8	21~30	0	0	39	1~3	1	1	
9	31~	0	0	40	1~3	1	1	
10	4~10	0	0	41	1~3	1	1	
11	4~10	0	0	42	1~3	1	1	
12	4~10	0	0	43	1~3	1	1	
13	1~3	1	1	44	1~3	1	1	
14	1~3	1	1	45	1~3	1	1	
15	1~3	1	1	46	1~3	1	1	
16	1~3	1	1	47	1~3	1	1	
17	1~3	1	1	48	11~20	1	1	
18	1~3	1	1	49	11~20	1	1	
19	1~3	1	1	50	21~30	2	0	(*)
20	1~3	1	1	51	21~30	2	1	*
21	1~3	1	1	52	21~30	2	1	*
22	1~3	1	1	53	21~30	2	2	**
23	1~3	1	1	54	11~20	3	2	**
24	1~3	1	1	55	11~20	3	2	**
25	1~3	1	1	56	11~20	3	4	**
26	1~3	1	1	57	21~30	3	1	**
27	1~3	1	1	58	21~30	3	1	**
28	1~3	1	1	59	31~	3	1	**
29	1~3	1	1	60	31~	3	1	**
30	1~3	1	1	61	4~10	3	1	**
31	1~3	1	1	62	4~10	3	2	**

Appendix II. Sample case background details (originally written in Japanese)

CASE 1: SUZU

[Procedures]

I first interviewed SUZU in November 2007 but I had known him since he became a public school teacher or a full-time teacher. When I asked him for an interview after telling him the purpose of this research, he was willing to accept my offer because we had already known each other and he was interested in good English teaching methods. I had a number of in-depth interviews including exchanging emails on a regular basis. I visited the schools he had worked at several times and observed five classrooms, while observing his working situations and colleagues ethnographically.

[Background]

He was then a 14-year experienced upper-secondary schoolteacher. Graduating from a 4-year university where he had studied English language and earned a teacher license, he had worked as a full-time private high-school teacher for a year but he quitted that job because he did not want to follow the school policy. And then he worked as a part-time teacher for several years at several public schools until being recruited as a full-time public upper-secondary schoolteacher. In Japan the teacher employment system has been competitive and it is difficult to take a stable full-time position. During his full-time employment, working hard, he studied at a postgraduate course on a part-time basis for six years and earned a master's degree of applied linguistics, although such a degree means nothing for promotion and salary. It seems that he did not make use of any supporting system, such as a scholarship or sabbatical. After completing the course, he joined a short-term Fulbright programme in the US and a short-term British Council programme in the UK. He has always been eager to develop his English knowledge and skills since starting as an EFL schoolteacher. He is especially interested in English speech skills and is now working at a prestigious girls' school. He can therefore focus on English teaching and research for the moment, compared to the situations in two previous schools.

[Ethnographic observations]

SUZU is a good learner of English and can speak English fluently, visiting the US several times, but not good at working with colleagues or students at school, partly because of his personality and rather poor class management, which he himself was worried about. Some colleagues seemed to criticize him as a narrow-minded person, because he was eager to do what he wanted to do, such as his study or English speech contests. In a sense, he always aimed to achieve his own goals, sometimes forgetting collaboration with his colleagues. Collaboration with colleagues is part of important school culture in Japan. When observing him teaching in the classroom, I certainly felt that he could not communicate with his students so well, although his teaching was well planned. I heard some of his colleagues saying that they were worried about his classroom management and disciplinary ability. On the other hand, his eagerness to teach English seemed to be well evaluated by his colleagues. Some school head teachers evaluated him well. He really liked to teach English well and study applied linguistics or do SLA research. He was therefore cooperative with my research and I selected him as a participant of 10 EFL teachers because he was interested in teacher cognition research.

[Classroom observations]

SUZU's lessons were videorecorded four times. However, their classroom interactions are not transcribed but stored in the computer hard disk together with the audiorecorded interview data. All the data can be easily taken out. The featured classroom behaviours are extracted and coded as key words.



Appendix III. The interview and observation process

1. The researcher contacted the teacher to ask for an interview in relation to the questionnaire results, and get permission to observe his or her classroom.

2. The researcher visited his or her school and talked with him or her for approximately one hour. The interview was audiotaped after getting permission. After or before the interview, the researcher observed and videotaped his or her classroom with permission from the school (teacher, students and their parents). See the audio data of interview with PTs and the video data of observing their classrooms for more details.

3. The researcher summarized the interview and classroom (ethnographic) observation content as follows: e.g. (The original memo is written in Japanese.)

Sample interview summary (notes) [CASE 4: FUKU]

I met her in February 2008. She works in a secondary school and has 12 years of teacher experiences. Her teaching seems to be popular among local teachers in her working areas. She talked about her preservice teacher education and referred to one impressive professor at her university, who I have already known about very well and is well-known to English teachers and English teacher educators in Japan. By his words, she decided to become a secondary teacher in her university days. In Japan, even when you take a course or required credits for getting a teacher license, you don't have to become a teacher or you can't become a teacher so easily even with a teacher license. She said her motivation to be a schoolteacher was not fixed at that time. In my impression, she apparently looked like a serious and strict teacher and a person with strong will, but when she started to talk, I felt she was a very gentle and kind person and always considered her students very well.

And she mentioned about several teachers who have influenced her teaching. She said she had met many good teachers until then and was thankful for the meetings with them. It means that she is always eager to teach English and seek for good teaching, and therefore she has met influential teachers so far. In the previous year, she had a one year in-service teacher education programme, when she said she had many precious experiences and meetings and could consider her teaching ways. During the programme, she met a well-known English teacher with his prestigious reputation and got a great impact from him because he did splendid practices in not only teaching English but also working as a schoolteacher. She said she was very impressed that he was working for his students from 7 in the morning to 9 in the evening. Perhaps she might be easily influenced by some other teachers, but such experiences seemed to encourage her to believe that her so-far teaching methods or practices were correct. She was confident of her own English teaching in the classroom.

She has good colleagues in her current school. She works with two English teachers and conducts a collaborative project to make a 40-student normal classroom divided into two

small classes. She is a project leader and provides the same lesson activities with other teachers. Such efforts are part of a voluntary project; their workload may be hard, but they are doing it for their students. She herself proposed this project of her own.

Before interviewing her, I had an opportunity to watch her classroom video. Her teaching is very systematic and tries to avoid wasting time as much as possible. She seems to be fully prepared for her classrooms so as to manage her classrooms very well. In fact she provides a number of worksheets, picture cards and other materials just for one class. Students are also working very hard. In the video, her way of teaching calmly and steadily is very impressive.

She started her teaching work at a special education school for children with health impairment and worked there for three years very eagerly. At that time she didn't teach English but she considered her work sincerely so she once decided to work as a special education teacher, but she transferred to a secondary school where she had a terrible experience with bad students. However, she coped with such hard situations to teach English with a respectable teacher.

Her teaching principles seem to be related to 'English plus'; e.g. to learn something, to develop self-assertion skills, and to foster humanity, through learning English; i.e., it means that English learning can influence some other learning knowledge and skills.

Her good personality and human relationships with colleagues at her school work very well and are very important factors for her to conduct good English classrooms. Her experience of one-year in-service teacher education programme was a turning point or a great impact for her to reflect on her teaching. Through the programme she came to consider the importance of teaching grammar and she tries to make use of such grammar approaches in the course of her classroom teaching practices.

She is a very aspiring teacher who is always focusing on good teaching. She said that most students are studying very well in English classrooms taught by her colleagues. She is thankful for her colleagues being willing to work together with her. Their team-teaching practices can make learning effective and a good atmosphere. The successful point may be their collaborative relationship, her good leadership and sufficient discussion.

She considers human relationships and English classrooms to be precious. In terms of student relationships, the most important thing is to communicate with them in the classroom. It is her strong beliefs.

Further questions:

What kind of English proficiency, motivation and attitudes does she want to focus on when teaching English to her students?

4. The researcher showed the teacher the summary notes of the interview and classroom (ethnographic) observation and had him or her to check the content on a face-to-face basis or by email.

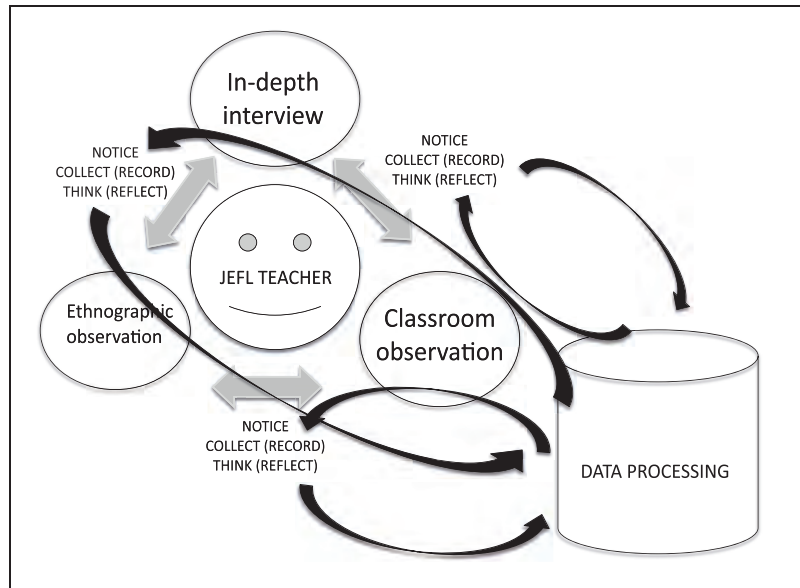
5. The research asked the teacher further questions based on the summary notes.

6. The researcher tried as much as possible to visit the teacher and talk with him or her about related topics, while showing the ongoing data.

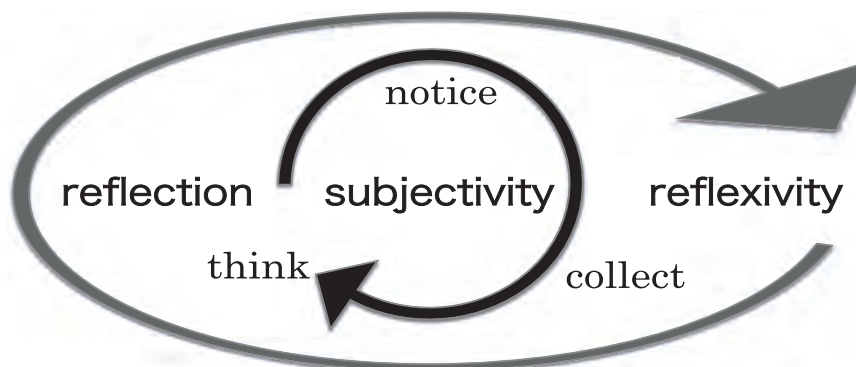
7. In the final stage, the researcher asked the teacher to make additional comments about each 16 TC if he or she wished: e.g.

8. All the data was accumulated to create a concept map in order to understand ATCs.

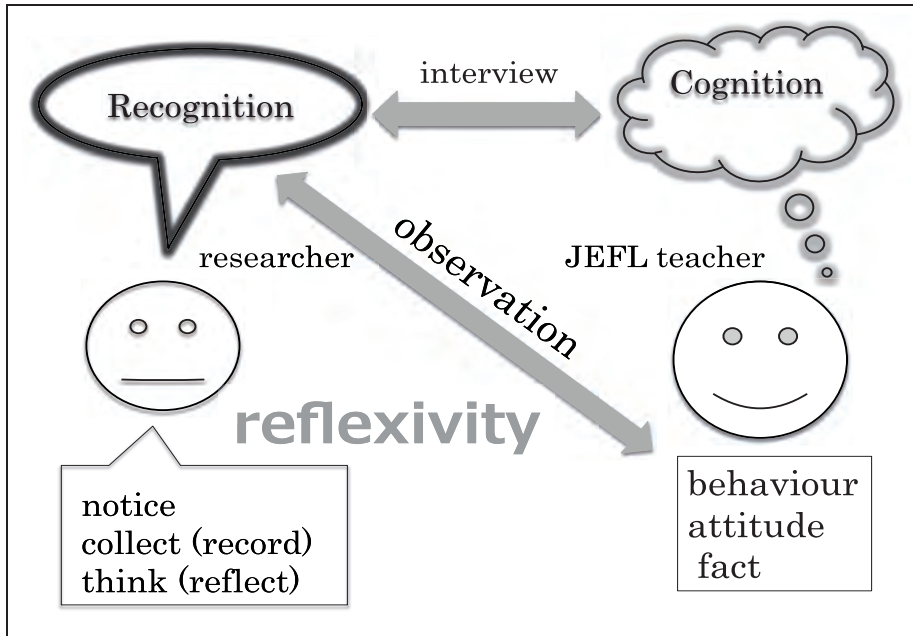
9. The procedures of the data processing of interview and observation are depicted as in the following diagram. All the qualitative data was collected and processed by the researcher with the help of the core teacher.



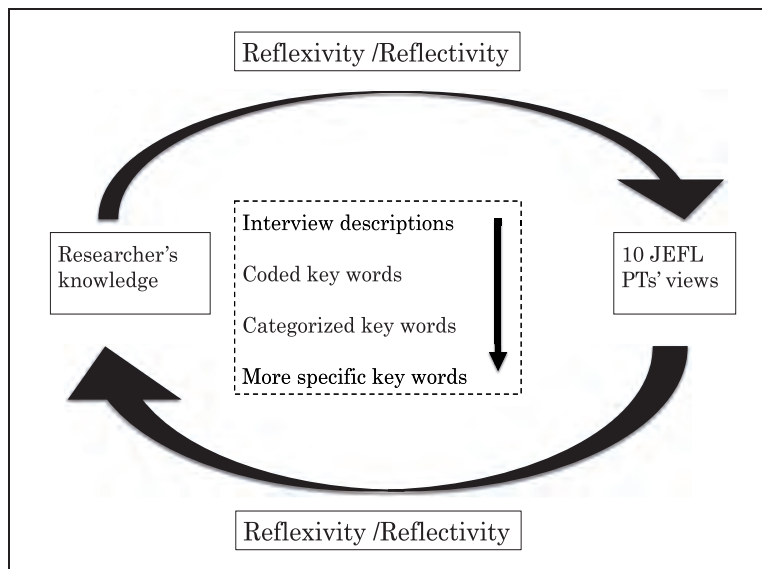
10. The researcher's subjective process in relation to reflexivity and reflection can be depicted as in the following diagram:



11. The data gathering and analysis of *noticing*, *collecting (recording)* and *thinking (reflecting)* are conducted in the following diagram:

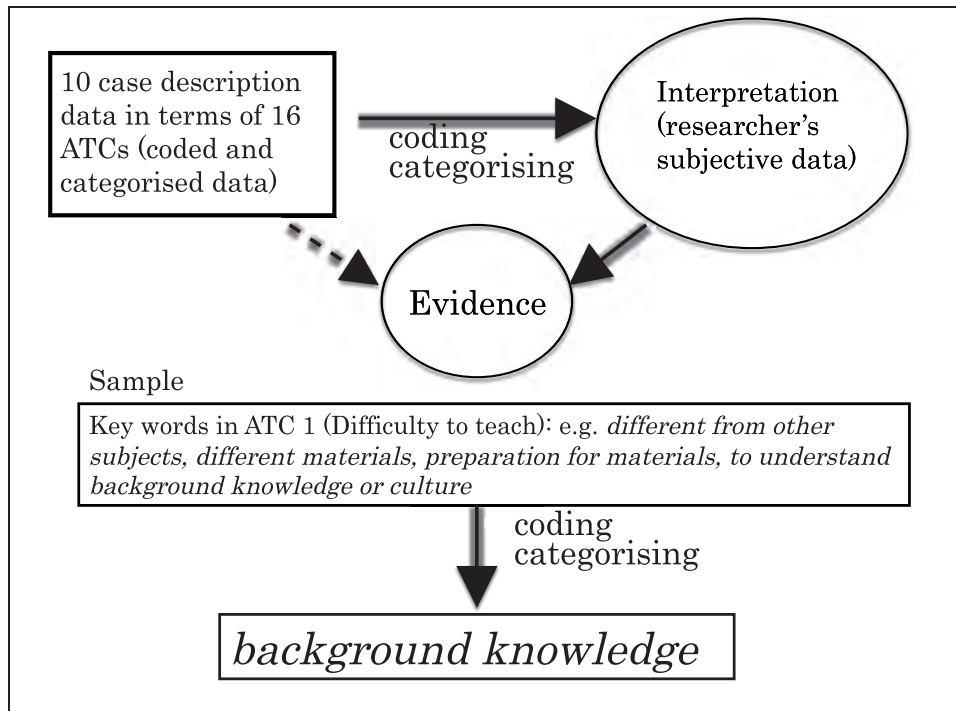


12. The researcher's attitudes and relationships with 10 PTs are maintained in a reflexive and reflective way as depicted in the following diagram:



Appendix IV. The coding and categorizing process

The process of coding and categorizing key words is described in the following procedures.



The coding procedures have two stages.

[1ST STAGE]

1. Listening to interview recordings
2. Choosing key words while listening to and reading notes
3. Putting key words into the computer, making a list of key words
4. Sorting out key words in the alphabetic order

[2ND STAGE]

5. Clustering key words into some categorized groups
6. Deciding extracted key words to create the concept map

1ST STAGE: e.g. Part of key words extracted from SUZU's interviews

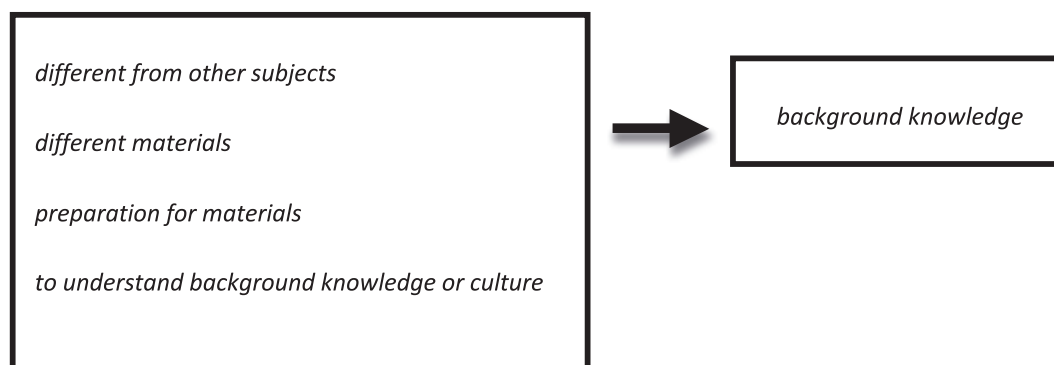
Category 1: language learning knowledge and skills					
	TC1	TC 2	TC 3	TC 4	TC 5
CASE 1 SUZU	large-class-sized classroom management	essential	essential	essential	essential
	student relationships	actual experiences	actual experiences	actual experiences	partly important
	students' lack of motivation	authentic materials	authentic materials	authentic materials	Students' needs
	classroom activities or learning	Culture study is attractive	not so easy to teach	boring grammar teaching	syllabus settings
	Group harmony with colleagues	Aha-effect	good motivation	minimal requirements	grammar translation method
	monotonous teaching	Topics or contents are interesting	how to teach	sentence/phrase structures	chunk reading
	no active classroom	ALT	different learner aptitudes	form and meaning and practice	translation-centred culture
	ideal classroom	Talking about cultures	necessary drills for spelling or writing	chunk as a basic unit	to understand the sentence structure
	realities vs models		no particular approaches for teaching vocabulary/ very normal methods to present new words	grammar understanding and mechanical practice necessary	not just translating but also other practical activities
	School/Planning/Teacher talk/Activities/Relationships/Performances			explanation/repeating/reading aloud	not focusing on translation/ try to let students repeat
normal classroom/planned/First not confident to control students but good management/not contact each student individually/teacher-centred/not intimate/no show-up					

1ST STAGE: e.g. Key words extracted from the interview data in ATC 1 (Difficulty to teach)

according to students, active classroom, balance between model and reality, balance between structure and function, balance between theory and practice, can understand students, can't afford to enjoy, can't say 'easy', classroom activities or learning, classroom management, colleague relationship, cultural understanding, depends on colleagues, different factors in language classroom, different from other subjects, different materials, different situations, different student needs, different students, different students, different teaching, each teacher difference, easy to cope with students, effective practice, effective teaching, English as a difficult language, to enjoy teaching, evaluation/assessment, gap between theory and practice (reality), good discipline, good students, group harmony with colleagues, hard to motive students, hard to provide language activities, ideal classroom, inappropriate situations to learn English, lack of classrooms, lack of exposure time, large-class-sized classroom management, male students, many lecture-type classes, many students with no needs, monotonous teaching, more flexibility for syllabus, motivating students, exam (quiz)-oriented teaching approach, no active classroom, no practical needs, not difficult teaching, not enough experience, not to have creative classroom activities, poor exposure time, preparation, preparation for materials, realities vs. models, requirements for English proficiency, seeking for effectiveness, social needs for skill-training of English improvement, student relationships, students not interested in English, students not prepared to learn English, students' responses, students' lack of motivation, to teach as I wish for now, teacher-centred, teaching knowledge and skills necessary for exams, test-centred teaching, to identify key teaching points, to let students work, to teach all in English, to understand background knowledge or culture, unmotivated students, working at a special school,

2ND STAGE: e.g. Clustering key words in ATC 1

The above key words were sorted out and clustered to better identify their features as in the following diagram [sample]:



2ND STAGE: e.g. part of clustered key words in ATC 1 [sample]

background knowledge, classroom activities, classroom management, classroom variety, colleague relationship, cultural understanding, discipline, effective practice, effective teaching, effectiveness, English exposure, English language, enjoyment, evaluation/assessment, flexible syllabus, for test and exam, gender difference, ideal vs. reality, key teaching points, lack of experience, material variety, monotonous teaching, motivation, preparation, requirements, situation dependency, social needs, structure and function, student relationship, student variety, teacher-centredness, teaching in English, theory vs. practice, working variety

2ND STAGE: Deciding extracted key words to create the concept maps [sample]

ATC1	ATC2	ATC3	ATC4
background knowledge classroom activities classroom management classroom variety colleague relationship cultural understanding discipline effective practice effective teaching effectiveness English exposure English language enjoyment evaluation/assessment flexible syllabus for test and exam gender difference ideal vs. reality key teaching points lack of experience material variety monotonous teaching motivation preparation requirements situation dependency social needs structure and function student relationship student variety teacher-centredness teaching in English theory vs. practice working variety	a variety of genres or media actual experiences Aha-effect ALT attractive authentic materials broad perspectives class culture communicating with others content vs language cultural differences cultural knowledge cultural understanding culture and language different ideas and values diversifying views English plus English use essential exchange programme extent of teaching important intercultural understanding interesting international understanding language as a tool liberal arts mutual understanding mutual understanding not enough time not primary specific situations Teacher's duty unclear meaning understanding others	actual experiences authentic materials better methods communicating with ALTs communication communication basis communicative needs courage to speak English different learner aptitudes essential essential everyday quiz for reading for reading skills good motivation how to teach key key for communication mechanical practice more specific guidelines more vocabulary build-up motivation necessary not effective not enough not enough time not good at teaching not necessary not so easy not to teach opportunities to learn pile-up tasks positive learning practice for spelling or writing preparation read aloud repeating practice rich vocabulary rote memory spelling contest starting supporting grammar sustainable development varieties vocabuild contest vocabulary buildup vocabulary test	activities actual experiences authentic materials balance of teaching basic basic basic drill basic knowledge boring chunk communication cyclical teaching effective efforts essential essential explanation fill-in-the-blank tasks form and meaning good use how to teach important in Japanese integration key language knowledge language system or framework minimal explanation minimal requirements no opportunities to use English not communicative activities not enough not enough time not necessary not necessary not primary oral work effective as well poor grammar teaching practical useful grammar practice preparation for english use presentation/practice/feedback/correction reading aloud reflection repeating sentence/phrase structures short time to teach step-by-step grammar teaching students' needs teachers' want the best way too many points too much grammar learning understanding structure worksheet