Doctoral Dissertation

Investigating the Transformative Power of a Collaborative and Reflective Teacher Development Program: The Case in High School English Education in Japan

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Masaya Abe

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現代社会文化研究科

阿部　雅也

ABSTRACT

In recent years, the developmental aspect of personal professional growth in team dynamics have been increasingly emphasized in teacher education. Exploring teachers' learning processes is significant in improving professional skills because reflection and a heightened consciousness of teaching beliefs impact classroom practices. Improved teacher skills correlate to improved student learning and thus have educational implications. The research presented here uses the collaborative and reflective nature of teacher development (TD) to investigate teacher learning by focusing on how collaborative reflection promotes transformational beliefs and practices at schools. This dissertation uses a unique collaborative TD program to describe in-service EFL teachers' learning processes. Data from participants in the TD program reveal how it developed their skill sets by transforming their beliefs and practices at schools.

Chapter 1 details the foundation of my dissertation and outlines the structure of my argument. The first section presents a background of the research project. The second section states the aims of this dissertation project by detailing the issue I identified from my experience as a teaching consultant at a Prefectural Education Center. These aims are followed by an introduction to the TD program in this study and a roadmap of the following chapters.

Chapter 2 reviews relevant literature to this dissertation project focusing on how teacher learning leads to transforming teacher beliefs and practices. It first discusses some theoretical and empirical conceptualizations that I drew on to conduct this study with an overview through a sociocultural lens of how teacher learning has been treated in TD. After a discussion on significant differences between TD and TE, I explore how reflection leads to teacher autonomy. I use empirical studies to discuss how collaborative peer reflection in TD positively influences teacher motivation, autonomous learning and professional expertise. The final core topic explored in the literature review is on how the relationship between teacher knowledge, cognition, beliefs, and sociocultural issues relate to leadership and curriculum management in schools. This chapter ends with a chapter summary that includes a rationale and aims for the following studies.

Chapter 3 presents and details the four studies that describe: the transformation process of an individual novice teacher through an analysis of her teaching journal (Abe & Kato, 2019), the beliefs of teachers and students about language learning and teaching (Abe, 2020a), the distinct features of the collaborative TD program and the level of difficulty in utilizing their learning to school practice (Abe, 2020b), and the effect of the TD program on teachers' transformation of beliefs, practices, and collaboration at schools (Abe, 2020c).

Chapter 4 discusses the four studies from chapter 3 and how their findings led to developing a collaborative TD model. The integrity of the studies deserves rigorous evaluation, and this chapter starts here. Then, by comparing these four studies with the literature review on teacher autonomy, relationships between reflection, motivation and transformation, this chapter proposes how these concepts can be connected to design effective TD programs. Other factors such as teacher knowledge, cognition, the influence of pedagogical beliefs, and sociocultural issues are also discussed in how they specifically relate to teacher leadership and curriculum management in schools. To link the studies with effective TD programs. I discuss the phases that relate to team collaboration, namely, the relationship with the transformation model (proposed in study 1) and the three dynamics (proposed in study 4). Put simply, three triggers of collaboration (dissonance, prioritization of students, and collaborative initiatives) findings stemming from the studies are closely involved with each other. Finally, the three perspective shifts are explained in detail, as they are incorporated into the TD program titled the "Co-creative Transformation Model Through Interrelational Contextualization."

Chapter 5 focuses on the proposed model, discussing proposals for its utilization and pedagogical implications. Examples of how to incorporate the model into TD programs are provided. I finish with a summary of this dissertation and suggestions for future research.

Keywords: Teacher development, Collaboration, Transformation, Reflection, Foreign language education

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LIST OF ABBREVIATIONS

BoE: Board of Education

CoS: Course of Study

LS: Lesson Study

MEXT: Ministry of Education, Culture, Sports, Science and Technology

Off-JT: Off-the-Job Training

OJT: On-the-Job Training

RQ: Research Question

TD: Teacher Development

TE: Teacher Education

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CHAPTER 1: INTRODUCTION

This chapter is divided into three sections that detail the foundations of my dissertation and outline the structure of my argument. The first section presents a background of the research project. The second section states the aims of this dissertation by presenting the issues I have identified using two principal examples of why improved teacher development (TD) would benefit language teachers in the current Japanese context. The final section overviews the following chapters providing the reader with a clear roadmap of how the proposed TD program was developed, why it was developed and its future potential.

1.1 Background to the Dissertation

Schools have been expected to be open to and collaborate with the neighbouring regions under the leadership of school principals. The current situation of public schools in Japan is that schools have more complicated and diversified problems than ever, in part due to the globalization of educational settings since the rise of 'Society 5.0' indicated in the 5th Science and Technology Basic Plan (Cabinet Office, 2016) by Cabinet Decision in Japan. Also, the 2nd Teaching and Learning International Survey (TALIS) by the Organization for Economic Co-operation and Development (OECD) (2015) detailed that the working lives of teachers in Japan are unusually busy compared to teachers in other OECD countries. Inside Japan, the overwork of teachers is well known, and a response to this has been to strengthen school management functions by constructing a team structure of professionals from various fields. The official response, that stated "Future improvement measures for building 'School as a team,'" by the Central Education Council (the Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2015) has received backlash from teachers who feel they are too busy to start new initiatives and they don't have time for such collaboration or on-the-job training (OJT).

In 2018, MEXT announced that systematic lesson study (LS) and curriculum management is the activity on development, organization, implementation, evaluation and improvement of the

curriculum (MEXT, 2018, p. 2). This approach to curriculum organization is becoming increasingly important as the management of schools is being restructured to make them more autonomous.

Since I started my career as a high school English teacher in the early 2000s I have been trying to improve both my teaching and language learning abilities. Throughout my teaching career, I have regularly reflected on how my teaching could be more effective, often in response to noticing when students do not react well in class. Unsatisfied with the institutional training opportunities on offer I began to participate in private seminars and workshops to improve my teaching. Years later, I started the position as a teaching consultant at the Niigata Prefectural Board of Education between 2013 and 2015. In this role, I was blessed with a chance of being in charge of teacher training programs for high school teachers who were at many different levels of their teaching careers. Whilst training I found teachers to fall into two general types: ones who enthusiastically adopted new methods of teaching to improve their practices, and others who refused to change or adopt anything different to what they had been doing for years (these teachers seemed not to acknowledge the negative feedback that their learners gave them about their teaching). Being dedicated to supporting the professional growth of teachers and the language skills of their learners, I thought long and hard about why the second group of teachers were so reluctant to make the most of the opportunities offered to them. At first, I assumed that the differences in their attitudes to learning could be attributed to their aptitudes and personalities, factors that are hard to influence during training. However, later in my Ph. D. research I read Golombek and Johnson (2004) and came to understand more deeply that "learning to teach is a socially mediated activity", and that the development of a teachers' skillset is highly dependent on the specific social activities in which they engage, including emotional and cognitive dissonance.

1.2 Aims of the Dissertation

There are two major reasons why this research on collaborative TD is needed in the Japanese teacher education (TE) settings. These two reasons are:

(i) The school culture of LS in OJT originated in Japan is disappearing especially in high school level. (ii) Very little empirical research has been conducted on the impact of TD programs on the participant teacher's transformation, and the utilization of developed skills at schools in Japan.

LS as a form of TD was developed in Japan and it is widely believed to help create relationships and mutual respect among teachers. These relationships are strengthened through fostering colligability by regularly observing each other's lessons in school OJT (Akita, 2004). However, this school culture is now disappearing in Japan. Sato (2010) claims that one of the biggest causes of this is related to the workload of teachers. Since around 2005 high school LS has been disappearing in Japan, more so than at the primary level. Sato (1998, p. 80) notes that the educational culture in high school is totally different from that of elementary and junior high schools. He provides detailed discussion for why high schools have been lagging in terms of OJT, and concludes that the causes relate to the weak influence of the principal on curriculum management, ,especially due to professional subject community's high pride in their speciality that prevents them from accepting advice on lesson studies from managers with backgrounds in other subjects.

From years of my experience conducting this collaborative TD program as a teaching consultant and teacher-educator, where I took notes and followed up on teachers, I noticed a pattern of participants experiencing transformations in their teaching practices. This highly meaningful observation is the genesis of this dissertation. The following chapters will explain, critique and explore the transformative power of this TD program. Special attention will be paid to how the collaborative atmosphere of the project enhanced teachers' belief transformation of school-based collaborative practice, and on teachers' critical reflection and motivation.

Few empirical studies on the effectiveness of OJT and LS in Japanese public schools have been conducted. In addition to the lack of studies, and looked at below, is the current trend of deteriorating high school LS. This dissertation investigates the declining use of LS by evaluating the distinct features of this program against features from other TD programs and proposes an all-encompassing TD model. When a LS discussion in our project activity is

heated up, we frequently end up in finding many teachers facing challenges of collegiality in educational settings. It is hoped that this dissertation will be useful for teachers who want to explore their own professional development, as well as teacher trainers who want to introduce a collaborative program that positively affects both individual growth and school-wide educational practices.

1.3 An Introduction of TD Program on this Study

As a teaching consultant conducting teachers' lesson studies (LS) and seminars, I took notes on how teachers learn to teach during the seminars and LSs they attended. Through regular evaluation at these events, I was planning how to offer opportunities to transform the teaching practices of higher numbers of teachers. As I started to research this and collected more data from teachers, I initially set up a voluntary project team called "Can-do Project." This first initiative was straight forward: teachers brought their lesson reports and videos of students' performances to weekend seminar meetings where they discussed and learned from each other. This project led to establishing a voluntary TD program called "Project S" in 2016, which was later ran by the Niigata Prefectural Senior High School English Education and Research Association and high school English language teachers. The program has grown and currently consists of three projects; Project S, Project O, and Project E. Each project has a primary teacher trainer who plans and organizes teacher-training events and activities for participant teachers annually.

The "S" of the first project stands for teachers' and students' "Smile," and it aims to increase the number of student smiles in classrooms. The reason we used this unorthodox unit of measurement was to gain a general understanding of student satisfaction. This satisfaction is an indicator of their motivation levels and linked to teaching skill and the level of teachers' critical reflection on their teaching practices. To achieve this aim, participants talk, listen to and consult each other about their daily practices and difficulties. Project S consists of about eight small group sessions of three or four people, every month in the local areas of participants. Each group is a kind of collaborative reflection

circle discussing classroom practices with teachers from other schools. In addition, it holds large group workshops (three joint projects) at the end of the semester, as well as irregular special sessions where guest instructors talk on various educational themes.

In 2017 two other projects emerged from project S. Project "O," which stands for "Open class," aims to improve participants' teaching practice by promoting OJT and collaborative LS within schools (Akita, 2004). This project exists, primarily, to support teachers who will be demonstrating their class at a prefectural conference held by the Niigata Senior High School English Education and Research Association each fall. Participants of this project help to demonstrate to teachers how to elaborate on their teaching plans by sharing ideas and providing advice on ways to improve their classes. Regular meetings are held monthly in addition to irregular training sessions held by outside lecturers. Project "E" stands for "Evaluation and Entrance Examination." In training sessions held twice a year, participants reflect on practices they have conducted each semester and discuss how to make better assessments to improve their practical skills. In small group sessions, they discuss their own classroom practices and issues they have encountered relating to implementing the latest Course of Study (CoS). This project also supports participants in conducting research on university entrance exams. Each project has its aim, and this TD program as a whole is ultimately aimed at teachers' individual professional growth and their student's smiles at schools.

The majority of the teachers work at the high school level. The program they attend consists of half-day workshops held every two months and small-group consultations where a variety of teaching skills and practices are introduced. The program is essentially a workshop style that emphasizes teachers' collaborative reflection, mutual exchanges of ideas among participants, and actions. Participants are encouraged to share their advice and opinions as much as possible. The listeners are encouraged to accept other members' constructive feedback without judgement, and a professional atmosphere is encouraged. To facilitate these exchanges, participants are occasionally asked to reflect on how they feel about the comments they receive from others. Through this practice,

which has some similarities to the support offered in a counselling context, participants can experientially learn how to navigate their feelings and grow professionally in group work.

By incorporating situated and experiential learning into group work, participants help each other reflect on their teams at schools and gain new perspectives about themselves and awarenesses of the benefits of team collaboration. The program also includes workshops where participants collaboratively construct a lesson plan which they later demonstrate. They start the lesson plan discussion using the students' background and what they can do at the moment, and what kind of skill(s) they want them to acquire in future as a base. This exercise is possible mainly due to the program being Off-JT where participants from different schools can meet in mutual settings as this discussion space forces teachers to discuss from the very fundamental premises of "what skill?" All these features of the program are in place to offer participants new experiences and opportunities to transform their practices at school.

1.4 Overview of the Dissertation

This paper starts with a general literature review that focuses on TD. Chapter 2 explores key concepts from the dominant theoretical perspectives of TD. The reason for starting here is to provide a solid foundation for how important TD is for teachers and how complex the background is for teacher trainers to navigate when developing their TD programs. There are three dominant themes explored and critiqued in this chapter that form the foundation of developing the TD program put forward here:

- Historical and theoretical perspectives
- Reflective practitioners
- Evolution of TD

Dominant theories of TE and TD from social constructivist perspectives, including the sociocognitive conflict theory of Piaget, and the sociocultural theory of Vygotsky, are critically reviewed. This review is followed by considering lessons gleaned from Piaget's and Vygotsky's work

that relate to teachers' learning, autonomy, reflection, motivation, knowledge, cognition, and beliefs. The potential of collaborative TD through critical and collaborative reflection and LS as a way of teacher learning and curriculum management is discussed. Teachers as reflective practitioners date back to the beginning of the 20th century from renowned educational philosopher Dewey. The ultimate goal of TD is to increase the number of teachers who can deal with the complexity of teaching, who can observe, analyze, and develop their practice to provide excellent teaching for the benefit of their learners. It is thus of critical importance to introduce systematic inquiry and critical reflection into any TD curricula. I will then empirically evaluate the evolution of TD against the backdrop of English-education reform and innovation in English language teaching. In the fifth and final section, I focus on LS and TD systems at school as an OJT. I consider how to feasibly initiate this type of training by assessing foreseeable issues relating to leadership and actions of teachers. In Chapter 3, I put forward four case studies from my research that represent the transformative power of TD programs. The primary reasons these studies are introduced are to give examples of issues future trainers to prepare for and to show how this TD program can lead to achieving the objectives of the CoSs for primary education (MEXT, 2017a) and secondary education in Japan (MEXT, 2017b, 2018).

General Discussion is provided in Chapter 4 to link the results of the studies with the literature review. Finally, Chapter 5 proposes changes that could eventually lead to future innovatory practice of the present program. A desired TD model is discussed and suggested as where participant teachers engage in reflection and collaboration. This will be followed by a summary of this paper and suggestions for future research.

CHAPTER 2: GENERAL LITERATURE REVIEW

This chapter offers a literature review as it relates to this dissertation project. It first reviews on the main ideas of TD compared with teacher education, followed by the topics relating to the later studies on teacher reflection and autonomy, belief studies, and finally transformation of practice.

2.1 Social Constructivist Perspectives on Human Learning

The social constructivist perspectives have been developed from theorists who view language learning primarily in social terms. Being positioned in sociological theory the focus of these perspectives is on the interdependence of social and individual processes in the co-construction of knowledge. By evaluating the social and cultural influences on cognition, through Piagetian and Vygotskian lenses, this review places these key elements of trainee TD as fundamental in the growth of learning and cognitive development.

2.1.1 The Sociocognitive Conflict Theory of Piaget

The theory of sociocognitive conflict derived mainly from Piaget's work, is defined by the ability to hold different views about the same thing or object among peers in a group. As members in the group interact with each other, they experience contradiction between their existing understanding and what they are experiencing, sometimes challenging the established norms, and this leads the whole group to reach a state of "disequilibrium" (Palincsar, 1998). This conflict reveals how a learner's "disequilibrium forces the subject to go beyond his current state and strike out in new directions." (Piaget, 1985, p. 10). It is regarded as higher-order thinking that leads to fundamental changes in individuals, as Perret-Clermont (1980, p. 12) puts: "Cognitive conflict created by social interaction is the locus at which the power driving intellectual development is generated." A perspective that demonstrates how the contradiction between the learner's existing understanding and what they experience causes disequilibration. This disequilibrium has the potential to empower learners to question their beliefs and guide them to try out new ideas.

On the topic of the most effective life stage sociocognitive conflict enhances learning, early studies found children-children interactions to be more effective than in children-adults. Later studies on similar comparison of peer vs adult-child interactions, Damon (1984), to reconcile the differential experiment results of the earlier Piagetian studies, concluded that peer interaction works better for their development when the learners needed to give up existing understanding to reach a new perspective, while interactions with more skillful partners or adults produced better results when learning does not require a transformation of perspective.

2.1.2 Vygotsky's Sociocultural Theory

Child development theorists and educational researchers have demonstrated how learning is achieved by social processes. This work is now through modern socio-cultural theory and developed from the few translations of Vygotsky's work. In his Sociocultural Theory, he put that "The social dimension of consciousness is primary in time and in fact. The individual dimension of consciousness is derivative and secondary" (Vygotsky 1978, p. 30, as cited in Wertsch & Bivens 1992). For instance, on the mechanisms of individual development, he insisted that as learners participate in various joint activities and internalize the effects of collaborative activities, they acquire these strategies and knowledge of the world. Leontiev, a former colleague of Vygotsky, suggested that "the process of internalization is not the transferal of an external activity to a preexisting internal 'plane of consciousness'; it is the process in which this plane is formed" (Wertsch & Stone, 1985, p. 163, as cited in John-Steiner & Mahn, 1996, p. 197).

Against the prevailing views at that time, that learning is an external process, and development is an internal process, Vygotsky was concerned with the unity and interdependence of learning and development. He was also against Piaget's theory insisting that "maturation is viewed as a precondition of learning but never the result of it" (Vygotsky, 1978, p. 80) To support this view, Vygotsky (1978, p. 86) introduced the concept: The Zone of Proximal Development (ZPD) as an alternative approach response to the idea that learning should be adjusted to the learner's developmental level (See Figure 1). He made clear distinctions between the 'actual' and the 'potential' developmental levels: the 'actual' refers to the level a learner can accomplish alone whereas the 'potential' level demonstrated what learners can do with peer support. These levels show "the distance between the actual developmental level as determined by independent problem solving and

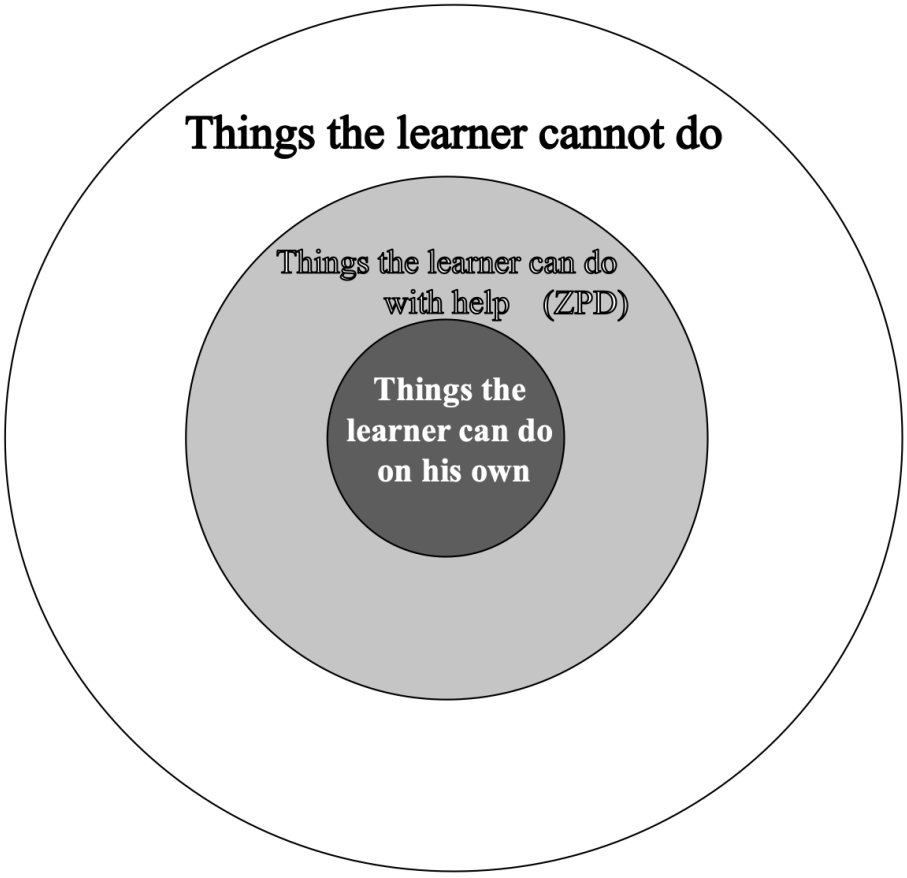

Figure 1 The zone of proximal development (ZPD) (Vygotsky, 1978, p. 86)

the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 85). The ZPD better indicates learners' socially mediated cognitive development in a more dynamic way rather than their individual accomplishment. Another fundamental aspect of his view is that human activity is mediated by semiotics explained by him as: "language; various systems of counting; mnemonic techniques; algebraic symbol systems; works of art; writing; schemes, diagrams, maps and mechanical drawings; all sorts of conventional signs and so on" (Vygotsky, 1981, p. 137). These semiotic means are both the tools that facilitate the co-construction of knowledge, and the means that are internalized for future independent activities. This is the core concept of the theory of development and self-transformation by human activity. Humans actively work on the external world and transform themselves by transforming the external object. And humans develop through the internalization of semiotics (tools) from the inter-psychological process to the intra-psychological process through such active participation in a learning activity.

In the 1990s, intellectual challenges began to query Vygotskian philosophies with questions such as "Is it only in vertical relationships such as teacher and students that people learn?" Arguments that learning from horizontal relationships between students is also possible sparked new learning theories (Ueda & Nakahara, 2013, p. 98). In his discussion of "Neo-Vygotskian" views of collaborative learning, Shoy (1993, p. 50) proposes that communication is increasingly viewed as the main factor that drives learning. He emphasizes the paradigm-shifting perspectives on ZPD. In Vygotskian views, it used to be dominant to view ZPD as a "subject-subject" relationship assisting a "subject-object" relationship. However, more recent views of Neo-Vygotskian principals lean toward the understanding of the triangulation of a "subject-object-subject" relationship functioning as the primary unit, with a "subject-subject" relationship also indivisibly supporting the former.

This shift to a "subject-object-subject" view shows that learning activities are not only internal but also external as learners interact through the use of semiotic tools. In learning activities, object change is mediated by the interaction between the subject and the subject, and the self-

transformation is achieved only through the interaction between the subject and the subject. At that time, the tool (symbol) that mediates between the subject and the object is a recognition method, and the tool (symbol) that mediates between the subject and the subject is an exchange method. This view can also be utilized in the context of teacher learning where social interaction is more emphasized.

As we have seen above, learning is not a passive activity, or simply a transferal of knowledge, but more a dynamic process of creating meaning through social interactions in a learning community.

2.1.3 A Sociocultural View of Teacher Learning

Although Vygotsky's contribution to the field of psychology is undoubtedly profound, not much is known about his influence on TD. Based on the Vygotskian sociocultural theory, there is a wealth of research that relates to teacher education (e.g., Golombek & Johnson, 2004; Johnson, 2009; Johnson & Golombek, 2011; Negrete-Cetina, 2020). Human learning is a socially mediated activity, as discussed so far, that is situated in social contexts (Vygotsky, 1978). Likewise, teacher learning is also unique to individual teachers, and one approach to TD cannot be applied to all (Johnson, 2009; Johnson & Golombek, 2011). In accordance, the sociocultural perspective shows that individuals have their own way of learning (Johnson & Golombek, 2016).

An example of the Vygotskian sociocultural theory on TE is in a case study reported by Johnson (2015), of four novice teachers who were scaffolded during their teaching. Although they were first found this technique difficult, they developed a new conceptualization once expert mediation was provided. There are, of course, many ways of engaging in meaningful interaction with educational actors and events. Johnson and Golombek (2002, p. 6), referring to Dewey, conceptualize narrative inquiry "as a systematic exploration that is conducted by teachers and for teachers through their own stories and language." Golombek & Johnson (2004) demonstrate how narrative inquiry creates a mediational space where both emotional and cognitive dissonance are explored. Narrative inquiry as a tool is versatile as it can utilise both written and spoken processes (Harrington 1994; Olson 1995; Golombek, 1998). Golombek and Johnson (2004) elaborate on the notion of mediational space as being a context where emotional and cognitive dissonance can be explored. They focus on

the transformation experienced through narrative inquiry, suggesting that "teacher-authored narratives are not simply a device used to story one's experience, but a semiotic tool that facilitates TD and can document how teachers participate in and constitute their social reality" (Golombek & Johnson, 2004, p. 324). Keeping on-line journals also has, in view of the research directly above, the potential in promoting interaction and collaboration amongst trainee teachers (Towndrow, 2004).

2.2 Language Teacher Development Toward Autonomy

As the focus of this dissertation is on presenting a language TD approach that is both encompassing and purposeful, and for it to be applied in future TD/TE programs, I first need to define TD and TE. This dissertation emphasizes what is needed in programs to facilitate those who want to grow and develop as language teachers by providing the tools to continue "with their professional development as language teachers once their period of formal training is over" (Richards & Farrell 2005, p. 1). While TE through specific courses of action can be closed "within a fixed time period once criterion are satisfied," TD, focusing more on idiosyncratic and individual characteristic aspects of teaching, is "open-ended, and it continues until the teacher decides to stop" (Freeman, 1989, p. 42).

Teacher training, in general, is considered leaning more toward imposing participants received knowledge from outside. Bowen (2004) compares this with a "from-the-outside view" (p. 1) of teacher training. From the standpoint of my previously instructing in-service teachers as a teaching consultant in the Prefectural Education Center, the Tomlinson's claim (2003, p. 2) that teachers are sometimes "surreptitiously pushed in pre-determined directions" in their courses, sounds not too far from the reality. Richards (1989) claims that the present training-oriented approach of TE, if it just aims to provide teachers with "conceptual and analytical tools" (p. 83), does not provide enough support for teachers who want to pursue their continued lifelong growth and development. Another proponent of TD, Freeman (1989) emphasizes, is the importance of a combination of factors of teacher training and TD in TE.

Differences between the European and American perspectives of TD are worth considering to provide further rationale to my teacher training approach laid out below. The European view of professional growth is more reliant on the individual being something the "teachers themselves undertake" whereas in North America it is typically "conducted by a teacher educator" (Johnston 2003, p. 10, as cited in Miller 2004, p. 2). Cullen (1997) states that (in general) in-service professional development for teachers traditionally consists of short term or one-shot programs conducted by outside 'experts,' and is a practice that also applies to the Japanese context.

American-style expert-led training contrasts from a constructivist point of view that positions participant teachers as the ones who decide the course content following their own pursuit of development. A definition of self-direction is given by Brockett and Hiemstra (1991, p. 29) as "characteristics of an individual that predispose one toward taking primary responsibility for personal learning endeavours." This importance of teachers self-directing in their learning is emphasized by Nunan and Lamb (1996). Other researchers have also recognized the value of self-direction in professionals' personal developmental processes (Hill, 2000; Stuart & Thurlow, 2000; Bailey, Curtis & Nunan, 2001). Larsen-Freeman (2004, p. 71) suggests that teacher educators need to "do a better job of not only researching teachers' knowledge bases but also of helping teachers develop their own situated relationship to disciplines which might expand or contribute to this knowledge base." As for the distinction between the terms "professional development' and 'teacher development," professional development is more commonly referred to as 'continuing professional development (CPD)' at an institutional level (Barduhn, 2002) and it is a career-oriented and narrower term.

One of the processes of reflective exploration, "exploratory practice," which came out of the move towards classroom-based research in general, is sometimes contrasted with academic research. It uses "familiar classroom activities, rather than 'academic' research techniques, as the investigative tools" (Allwright & Lenzuen 1997, p. 73). It attempts to reach an understanding of what is going on in classrooms without emphasizing changes and aims with the aim of contributing to classroom practice and supporting teachers' CPD. Allwright (1999) discusses the effectiveness of 'reflective

practice,' 'exploratory practice' and 'action research' that leads to teacher autonomy and asserts them as models for language TD. The next section deals with reflective practice in detail.

With the importance of reflective practice and autonomy in TD in mind, I would like to propose the concept of "reflective TE through development." I will first present research from the TD program in this study on how in-service teachers, especially expert teachers in a study group, develop their knowledge and skills in addition to cultivating their attitudes and awareness. I will then explore how we can apply and incorporate these findings to programs for teachers of all different levels, including those who have finished formal training, and pre-service teachers in institutional TE programs. This will be "TE through development," where participants gain awareness by contextualizing their knowledge and skills so that they can begin the "process of reflection, critique, and refinement" (Freeman, 1989, p. 40).

2.3 Teacher Reflection, Collaboration and Motivation

This section describes the relationships between teacher reflection, collaboration and motivation as teacher motivation is influenced by reflection in teaching practice. It outlines the relationship among teacher reflection, motivation, and transformation after detailing the concepts of reflective teaching and collaborative reflection.

2.3.1 Reflection

Reflective teaching is a method that teachers follow to examine the overall effectiveness of their teaching practices. It involves "thoughtfully considering one's own experiences in applying knowledge to practice while being coached by professionals in the discipline" (Schön, 1996, as cited in Ferraro, 2000, p. 1). The idea of reflective thinking stems from educational philosophy. Dewey (1933, p. 9) defines reflection on action as "the active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it." He suggests that people engage in reflection when they are faced with problems that do not have clear answers. Reflection, in its essence, occurs as a consequence of conflict, and in practice, the act of critically questioning

oneself may be challenging for some practitioners. It is a strongly supported action to habitualise, as Thornbury (1991, p. 146) states "the process of reflection is itself an instrument of change" for teachers to meet student's needs. Giving reason to this practice, Golombek and Johnson (2004, p. 323-324) state that "recognition of contradictions in teaching context" is a "driving force" in teachers' professional development. I support these statements and am convinced, from my own experience as a teacher trainer, that TE programs would improve by utilizing well-thought-out reflection activities.

Bailey, Curtis, and Nunan (2001) divide reflective practices into two categories: "reflection-in-action" (while teaching) and "reflection-on-action" (before and after teaching). The former includes teachers' examination of their teaching processes and spontaneous modifications, while the latter refers to more systematic reflection over time with teaching practices elaborately planned and evaluated afterwards. Critically reflecting on teaching practices leads teachers to better understand themselves and their students. According to Korthagen (1993, p. 317), critical reflection, unlike mere reflection, supports the development of teachers to challenge their own teaching beliefs through critical self-analysis, gaining a heightened awareness of their actions. Such critical reflection raises teachers' awareness of their own teaching and brings about positive changes (Liou, 2001). In sum, critical reflection encourages teachers to question and challenge others' underlying assumptions in their professional settings. Doing this, Richards and Nunan (1990) state, is a way for teaching practices to be improved. Reasons for this improvement are related to individual affective filters and peer support. Teachers feel more confident in experimenting with their teaching and trying new things when critical reflection is an ongoing process (Richards & Lockhart, 1996, p. 4). Along with increased confidence, reflective practice supports practitioners with opportunities to create new goals.

Reflection is widely thought of as a personal action, a process of inner dialogue, and in Prawat's words a "conversation with self" (1991, p. 741). More contemporary thinking sees reflection as both an individual and a group pursuit where teachers can also develop awareness collaboratively in reflection among peers (Manouchehri, 2002). Mann (2005, p. 111) introduces several examples of peer observation including by Good and Brophy (1987), and Pennington and Young (1989), that

highlight its benefits. Cosh (1999, 2004), examines seven different models and demonstrates a reflective model that encourages “active teacher development.” This model accentuates the benefits of collaborative reflection in peer observation, emphasizing teacher autonomy and creative reflection rather than critical or judgmental LSs. Another form of peer reflection with positive teaching skill outcomes is in writing. Abe and Kato (2019, p. 83) reported how journal writing helps teachers to critically reflect on and increase motivation towards goal setting. Keeping a journal was found to be an aid that gives participants a clear view of the transformation of their practices. This journaling finding satisfies a need for relatedness. As seen here, TD is seen as a life-long process of growth which may involve collaborative and/or autonomous learning (Crandall, 2000, p. 36). The purpose of this review is to emphasize the importance of incorporating collaborative reflection into TD programs and that by doing so there is a high probability of increased teacher autonomy and enhanced professional expertise.

2.3.2 Teacher Motivation

Motivation, a famously broad-ranging process, is put simply by Dörnyei (2001, p. 7), as something that “explains why people decide to do something, how hard they are going to pursue it, and how long they are willing to sustain the activity.” Self-Determination is a theory of motivation that demonstrates how “human motives can be placed on a continuum between self-determined (intrinsic) and controlled (extrinsic) forms” of motivation (Dörnyei, p. 10-11). Self-Determination is a theory (SDT) suggests that optimal human functioning arises from the satisfaction of the three basic human needs of competence, autonomy, and relatedness (Ryan & Deci, 2000), and if those needs are not fulfilled, the person fails to thrive. It directly relates to teacher education as intrinsic and autonomous motivations are likely to thrive in environments that are supportive of autonomy. Or, from a different angle, competence frustration or unrelatedness are likely to result in helplessness or loneliness at work, leading to a lack of motivation (Ryan & Deci). Unsurprisingly then, researchers have identified several autonomy-supportive behaviours of educators, such as; provision of choice, allowing criticism, encouraging critical thinking, and demonstrating the intrinsic value of a behaviour

(Gagne & Deci, 2005; Roth et al., 2009). Latham (1998, p. 82) points out that "intrinsic rewards play the pivotal role; a teacher who loves seeing students grow and develop will likely be more satisfied than a teacher who doesn't feel that kind of love, regardless of extrinsic factors."

When teachers reflect on their practice when writing teaching journals, for example, the act of writing "acts as a stimulus to the generation and exploration of ideas" (Richards & Nunan, 1990, p. 201). The writing process makes teachers reflect on their experiences in class. Through this reflection, teachers critique their existing knowledge, create new beliefs or knowledge-based practices. Woolfolk Hoy et al.'s review of teacher beliefs demonstrates that self-efficacy beliefs, (how teachers perceive themselves), are particularly important in triggering a transformation in teaching, as they put: "Research on teacher identity, efficacy, and change reminds us that the teachers' motivation, emotional responses, and openness to change are closely tied to beliefs about self" (2006, p. 729). In professional practice, lasting change in the behaviour of teachers occurs as a result of trying something new, reflecting on its consequences, and then trying it again with alterations as needed or desired (Schon, 1983, as cited in Pennington, 1995, p. 706). To reveal this continually renewing developmental cycle, this dissertation investigates the transformative power of the TD program described below. I examine the act of keeping a written teaching journal using the three key reoccurring findings discussed above: reflection, motivation, and transformation.

2.4 Teacher Knowledge, Cognition, and Beliefs

Teachers' beliefs are known to be closely related to their knowledge, which both influence teachers' decision making in classrooms. This section details the framework used to discuss the TD below, and describes the relationship among teacher knowledge, cognition, and beliefs. First, it outlines Wallace's three models as they form the base of the TD program before dealing with the concepts of cognitive apprenticeship and knowledge transfer.

2.4.1 Wallace's Three Models of Teacher Education

Wallace (1991, p. 6-13) describes three main models of TE: the applied science model, the craft model, and the reflective model. (See Figure 2)

Figure 2. Three main models of teacher education (Wallace, 1991)

The applied science model encourages participants to study theories and research findings as "received knowledge" and put them into practice. The craft model requires participants to observe examples of "master" practitioners and imitate these demonstrations as "experiential knowledge" in their own classrooms. In the reflective model, teachers continue a "reflective cycle." This practice-reflection cycle in practice starts by teaching in class whilst being observed, then observing other teachers, and then a period of reflection on prior teaching experiences with colleagues and teacher trainers to discuss alternative methods. To increase the effectiveness of these models, Wallace (1991) evaluates issues relating to them. The craft model can sometimes be too static, meaning that trainees tend to regard teaching techniques as authorized pre-existing knowledge from "master" teachers. The applied science model incorporates the separation of research and practice. In response to the issues relating to the applied science and craft models, he recommends the reflective model as a compromising middle path in TD. The reflective model "gives due weight both to experience and to the scientific basis of the profession" (1991, p. 17), by incorporating aspects of the other two models. These three models are needed in all TD, but in different degrees depending on teacher experience and understanding. These models are used to analyze data throughout this dissertation and

consideration is purposefully given to both their constraints, and the primary 'teacher experience' variable.

2.4.2 Expertise; Cognitive Apprenticeship and Knowledge Transfer Through Social Interaction

As a general rule, more experienced (and assumedly knowledgeable) teachers are trusted to pass their accumulated skills onto newer/less experienced teachers. This section explores knowledge transfer through the concept of 'cognitive apprenticeship' and 'situated engagement'. Information in this sub-section will be used in later discussion as a primary tool to mediate analysis.

A cognitive apprenticeship is one form of learning that occurs as experts and novices interact socially while concentrating on accomplishing the task. Collins et al. (1989, p. 456) define this form of learning as learning-through-guided-experience using cognitive and metacognitive skills and processes. Metacognition here refers to a person's knowledge about the cognitive processes necessary for understanding and learning: a metacognitive person knows how to learn because they are aware of what they know. The resulting increased personal focus demonstrates an awareness and regulation of their mental processes (Griffith & Ruan, 2005). However, knowledge is not limited to the internal mechanisms of an individual's cognitive ability. Knowledge in the workplace is developed contextually as practitioners respond to and grow from the specific context in which they operate (Lave & Wenger, 1991). For schoolteachers, a cognitive apprenticeship can be seen as a more detailed approach to peer support. Teaching and learning through a cognitive apprenticeship need to make tacit processes "visible to learners" so that they can observe and practice them (Collins et al., 1989). This visual focus of interaction is supported by Brown et al. (1989), who attempted to visualize cognitive processes so that they could be applied to learning at school. The driving force here is the belief that if they are not physically seen, they cannot be clearly shared as goals. Seven methods represent cognitive apprenticeship, of which Collins et al. (1989) refer to modelling, coaching, and fading predominantly, they also add that scaffolding is part of the coaching process.

For Lave and Wenger (1991), learning and participation in social practice is almost the same thing, whereas learning and knowledge is an "engagement in changing processes of human activities" (p. 12), known as "situated learning," through interactions between novice and expert. Learning in a cognitive apprenticeship which occurs through "legitimate peripheral participation" in "communities of practice" (Lave & Wenger, 1991), where even a beginner is treated as a "legitimate member" who interacts with various members and learns according to their own stage of development. Vygotsky (1978, p. 86) describes this as closest to the level of development in his "Zone of Proximal Development (ZPD)" model already discussed above in 2.1.2. In the traditional apprenticeship system, not so much educational considerations for task levels are taken, but in the legitimate peripheral participation, tasks are often chosen according to the learners' demands or development level of learning.

The notion of "situated knowledge" has been adopted in school-based settings by a number of researchers as a way of understanding teachers work and professional knowledge. For instance, Tsui（2003, p. 38）points out the gaps between novice and expert teachers under four criteria: efficiency, selectivity, the ability to improvise, and deeper and principled presentation and analysis of problems. Leinhardt (1988) investigated expert teachers' use of situated knowledge in selecting and using examples to explain concepts to learners. She found that teacher knowledge is developed in the specific context of the school and a classroom setting, just as seen in other professional fields. This kind of knowledge is embedded in the context, and teachers often use situated knowledge rather than "generative knowledge" which is context-free, principled, and can be generalized across situations. This shows how important OJT is for teachers. But even when we are conducting Off-JT outside schools, teacher educators should also keep in mind that it is important to make teacher learning situated in context as much as possible in "communities of practice".

2.4.3 Teacher/Student Belief Studies

One definition of 'beliefs,' by Kalaja and Barcelos (2003), is the "opinions and ideas that learners (and teachers) have" (p.10). Over time, numerous studies have investigated the similarities

and differences between student and teacher language learning beliefs. The Beliefs about Language Learning Inventory (BALLI), created by Horwitz (1985, 1987, 1988), was the first instrument to systematically research learning beliefs, and widely used amongst researchers. Data collection using BALLI has its critics though, such as Sakui and Gaies (1999, p. 473), who question its limitations. They stated that the questionnaire was an unreliable instrument as it did not use complementary sources of data, which makes responses easily misinterpreted. These researchers highlight the need for qualitative resources that allow respondents to express their views and experiences more clearly, for example, by them writing beliefs not listed on the questionnaire.

Teachers' beliefs vary depending on training, previous teaching experience, principles derived from an approach or method, and experience as learners themselves (Richards & Lockhart, 1996, p. 31). Learners' beliefs, however, are influenced by the social context of learning and can influence both their attitude toward the language itself as well as toward language learning in general (Tumposky 1991, as cited in Richards & Lockhart, 1996, p. 52). Graden (1996, p. 387) argued that since language teachers change their teaching styles through the influence of their learners, their beliefs tend to be more unfixed than learners' beliefs on language learning.

Differences between teachers' and learners' beliefs can sometimes lead to a mismatch between their assumptions about what is useful to focus on in a language lesson (Richards & Lockhart, 1996, p. 53). Schulz (2001, p. 256) stated that discrepancies in student and teacher belief systems could be harmful to language learning, affecting students' confidence, motivation and willingness to communicate in the target language (Horwitz, 1988; Peacock, 2001a).

2.4.4 Four Areas of SLA; Behaviourist, Innatist, Cognitivist/Developmental, and Sociocultural

The SLA theories used in Study 2 of this dissertation project to analyse questionnaire findings are: Behaviourist, Innatist, Cognitivist/Developmental, and Sociocultural. These main four perspectives are focused on as they are dominant theories in understanding language acquisition.

- The Behaviourist

Behaviourists view language development as the formation of habits and automated responses to pre-rehearsed dialogues. Classroom activities using behaviourism emphasize mimicry and memorization (Lightbown & Spada, 2013, p. 104) and teaching approaches, such as the Audio-lingual method and PPP, have long been linked to this theory. In the Behaviourists' view, error analysis plays an important part in predicting one's progress in language learning.

Behaviourism is often linked to the Contrastive Analysis Hypothesis (CAH) that hypothesizes that the habits formed in the acquisition of the first language interfere with the acquisition of the second target language (Lightbown & Spada, 2013, p. 104). The CAH suggests that a first language can be contrasted with the target second language to predict the errors that learners are likely to make (Shortall, 1996, as cited in Willis and Willis, 1996, p. 31). In contrast to the CAH, Lightbown and Spada (2013, p. 104) point out that many errors are not predictable based on a learner's first language. This can be understood clearly as learners do not always make errors that can be predicted by a simple comparison of their first and second languages. This discovery once led to the rejection of CAH and Behaviourist approach, but they have been revisited and revised into other theories encompassing their foundations.

- The Innatist

Krashen and Terrell (1983) assert in his acquisition-learning hypothesis that there are two language systems, one the result of conscious learning, and the other a process of natural and unconscious acquisition. Those two systems are impermeable and separately stored in the mind. What is learned does not filter into the acquired system. He suggests that we 'acquire' language as we are exposed to samples of language that we understand (Krashen & Terrell, 1983). This hypothesis corresponds to the way that children acquire their first language – with no conscious attention to language form (Lightbown & Spada, 2013, p. 106).

Krashen's comprehensible input hypothesis (1984, as cited in Brown, 2007, p. 295) states that we acquire language by understanding input which is "a bit beyond" our current level of acquired

competence. He calls this level of input 'I + 1', with 'i' symbolizing the level of language already acquired and '+ 1' a metaphor for language that is just one step beyond that level (Lightbown & Spada, 2013, p. 106).

The Affective Filter was later put forward and describes factors that impede language acquisition. This hypothesis describes non-linguistic variables, such as attitudinal and motivational factors, that affect a learner's progress. According to Krashen, language acquisition will occur in environments where anxiety is low and defensiveness is absent (Brown, 2007, p. 295).

- The Cognitivist/Developmental

Learners often fail to acquire enough skills in SLA, cognitivists and developmentalists regarded SLA as constructing knowledge that will become automatic in their final stage of learning. This automatizing is accomplished by a process of restructuring (McLaughlin, 1990, p. 120). During restructuring "the components of a task are coordinated, integrated, or reorganized into new units, thereby allowing the … old components to be replaced by a far more efficient procedure" (McLaughlin, 1990, as cited in Brown, 2007, p. 300).

The dominant interaction hypothesis was developed by Long (1996) from Krashen's comprehensive input hypothesis. Interaction hypothesis focuses on how language input can be made comprehensive with modified interaction, such as negotiation of meaning. According to this hypothesis, language is acquired as learners interact and attempt to communicate in the target language. The output hypothesis, developed by Merrill Swain (1985), posits that if learners do not have opportunities to produce comprehensible output for others, they neither see the limits of their language ability nor develop the need to find more effective ways of expressing their meaning.

- The Sociocultural Perspectives

There are three main aspects to the Vygotskian sociocultural perspective that are transferrable to language learning: mediation, social learning, and genetic analysis. The concept of mediation suggests that all human activity is mediated by tools or signs (Vygotsky, 1981). Therefore, the importance of language in its essence lies in how it transforms human behaviour. The second aspect,

social learning, suggests that the ability to read and write is a social practice rather than an individual skill (Vygotsky, 1981). According to Vygotsky (1978, p. 57), “Every function in the child’s cultural development appears twice: first, on the social level, and later on the individual level; first between people (interpsychological), and then inside the child (intrapsychological).” Going further, he wrote that one’s development fundamentally occurs through interaction with peers, a social learning that allows individuals to advance through their zone of proximal development (ZPD). The importance of ZPD in Vygotskian thought is seen in its definition: “the distance between the actual developmental level and potential level of development as determined through problem-solving under adult guidance or in collaboration with more capable peers.” (1978, p. 86). Genetic analysis, the third component of the Vygotskian view suggests that the interpretation of learning should take into account broad, social, cultural, and historic trends (Vygotsky, 1978). According to this view, mental functioning can only be understood when one understands their origins or developmental histories.

2.5 Teacher Leadership Action Toward Transformation

This section explores expert/novice and mentor/mentee relationships as well as sociocultural issues related to leadership and curriculum management. These micro (personal) and macro (institutional) and meso (social) layers allow a wider view of teacher working conditions that can be zoomed into to look at their individual actions and abilities.

2.5.1 Mentor and Mentee Relationship and its Contextualization to OJT

The first type of relationship beneficial to improving TD through peers is that of mentor and mentee. There seems to be no single definition of mentoring, but a mentor can be seen as an individual with experience-based professional experience in their client’s field of work, and a mentee is a person learning about the profession. Thus, mentoring is sometimes compared to coaching. Both mentoring and coaching are concerned mainly with achievements in the present and the future, but they are very different. For most people, the term coach conjures up images of sports, but it is also very common in the fields of technology and business. Parsloe and Wray (2000) make a distinction between

coaching and mentoring by stating simply that a mentor provides support of a more general nature in an ongoing capacity whereas a coach typically focusing on assisting clients' particular goals to be accomplished. This nature of a loose and sustainable connection of mentoring allows teachers to be engaged in their ongoing longitudinal development.

Mentor/mentee relationships vary at many different levels, and "along a spectrum from highly functional to highly dysfunctional, with most occurring in-between" (Gormley, 2008, p. 45). How the mentor/mentee relationship is formed affects how successful the relationship becomes. There are three types of relationships that each have a powerful influence on how the mentoring relationship is perceived: "collegial friendship, informal mentoring, and co-mentoring" (Clarke, 2004, p. 127). These relationships are summed up as the communication flows "one way from mentor to protégé" in formal mentoring, whereas informal mentoring "takes place in an informal manner," and "dialogue" occurs typically in co-mentoring, in relationships based on reciprocal benefit (p. 127).

Fairbanks, Freedman and Kahn (2000, p. 103) define mentoring in TE as "complex social interactions that mentor teachers and student teachers' construct for a variety of professional purposes and in response to the contextual factors they encounter." Context is, as we are seeing, a key part of mentoring. For example, Lai (2005) describes three components that impact mentor-mentee relationships: relational, developmental and contextual. Both mentors and mentees develop personally and professionally affecting each other in cultural and situational settings while focusing on achieving their own goals. An example of TD that utilizes mentoring in Japan since 2006 is from the Yokohama City Board of Education (2011) that has been conducting an initiative called the "School Human Resource Development Training Program through Mentoring Teams." This initiative intentionally and systematically sets up mentoring teams in school OJT, where mid-career teachers with a teaching experience of between 5 to 10 years support novice teachers within their third year of experience. They have reported that this system not only helps solve the problems of new teachers, like poor teaching ability, but also provides an opportunity for mentors themselves to reflect on their own significance at work, and motivation for their own career development.

Scribner and Cole (1974) insist that all human cognitive processes emerge from the social and cultural context, which produce differences in thought and, therefore, in public behaviour. Therefore, it is almost impossible to consider teacher's de-contextualized fragmented knowledge as general and transferable that can be utilized at any time.

However, the practice in schooling is sometimes found to be mismatched to this idea. Resnick（1987）insists that most of the intellectual activities in schools are designed as individual work such as homework and in-class exercises, whereas outside of school, shared cognition through collaboration is emphasized. He also adds that outside of school, available resources are used to make contextualized reasoning depending on the situation, but in schools, logical reasoning by symbol manipulation is valued. This would directly apply to TE, too. Formal training offer "discrete, decontextualized knowledge or skills to master by the end of the training" (Nagamine, 2007, p. 25). Those teachers are also instructed to acquire predetermined skills through "imitation, recitation, and assimilation" (Britzman, 2003, p. 46). When humans carry out intellectual activities, we cooperate with others and tools and use them as resources to organize their activities. However, in school education, in general, 'individual' is the unit of learning activity and evaluation, and this culture mirrors in traditional TE, too. But is this kind of knowledge transferable? Probably not. This is why, as we have seen in 2.4.2 above, teacher knowledge is developed in the specific context of the school and a classroom setting, and it is this "situated knowledge" teachers use rather than "generative knowledge." This is why we need to situate teacher learning in OJT. This dissertation project basically deals with TD activities utilizing mentor systems in Off-JT, but will later discuss its contextualization to school OJT, just as the participant teachers do in the TD program in the general discussion and conclusion.

2.5.2 Post-Heroic Leadership in Business Setting and in Educational Settings

The second type of professional relationship is also associated with business settings but holds characteristics applicable to the language teaching context. Post-heroic leadership stems from

the shift in business management to moving away from the traditional hierarchical structure with a 'hero' at the top.

Groups and organizations around the world have been adapting to the fast-paced competitive global market, where knowledge and skills are being emphasized more than years of employment. This shift has seen businesses move towards a leaner and flatter organizational structure, with teams evolving to adopt more fluid structures (Cohen & Bailey, 1997). In this organizational model, collaborative leadership takes precedence, and this leadership is shared by members of the organization. Fletcher (2004) and Mehra et al., (2006) argue that this type of leadership is regarded as more important than the heroic leadership that was previously dominant in business.

Looking back on the history of companies, even charismatic business owners who seem to be leading alone, are actually supported by brain trusts; expert individuals who serve as advisors to top management clients. Kanai (2005) gives such examples of brain trusts in companies, for instance, Dai Ibuka and Akio Morita for Sony, Konosuke Matsushita and Arataro Takahashi for Matsushita Electric Industrial, and Soichiro Honda and Takeo Fujisawa for Honda. The leadership these brain trusts exhibit focuses on shared values and distributed, collective leaderships (Denis et al., 2001). The umbrella term for this leadership style is referred to as post-heroic leadership. Fletcher (2004) defines post-heroic leadership as a shared social process where there is an emphasis on collective achievement and teamwork. The concept of leadership as a process suggests more focus on the dynamic, multidirectional, collective activity (Fletcher, 2004, p. 649). He considered post-heroic leadership in terms of outcomes, including mutual learning, greater collective understanding, and positive action. Under this idea, Leadership is perceived as a distributed property of the team where any member can exert influence and engage in leadership activities under the appropriate situation. There is no clear hierarchy within the team, and members accept both leadership and followership exerted by multiple team members.

Another model on leadership to consider in building the TD program is called the "Co-creative Leadership" (Schieffer, 2006). The concept is based on transformational leadership, but it sheds light on practical issues of difficulty when, for example, complexity and dynamics have arisen in the system as individuals cannot hold high-level perspectives. This model emphasizes the relevant perspective incorporated into the transformational leadership model to achieve outcomes of organizational intelligence and success. Schieffer demonstrates three perspectives incorporated into his leadership model: individual, multi-, and system perspectives. In the individual perspective, each person faces difficulty since they are not aware of different perspectives such as each unit's logic of individual organizations, their vision and rationality. These perspectives all create notion discrepancy, internal conflicts and work to restrict organizational productivity. Here, Schieffer emphasizes that the model does not aim at harmony or constant agreement, but rather recognizes these gaps as positive states. He notes that superficial harmony and understanding of common direction leads to a hidden contradictory interpretation of objectives. The second multiple perspective is "the creation of a space for possibilities," where various perspectives are brought together in a common "perspective space." Here the emphasis is not on one single correct perspective but various perspectives portraying each valid extract of a shared reality. The third, system perspective, is where individual perspectives are better understood within the space for possibilities, and the participants develop a system perspective that allows the organization to concentrate its energies in one direction. The idea here seems to match the fundamental concept of transformational leadership, but the last two perspectives need more discussion and concrete explanations on how to utilize the "space for possibilities". How multi- and

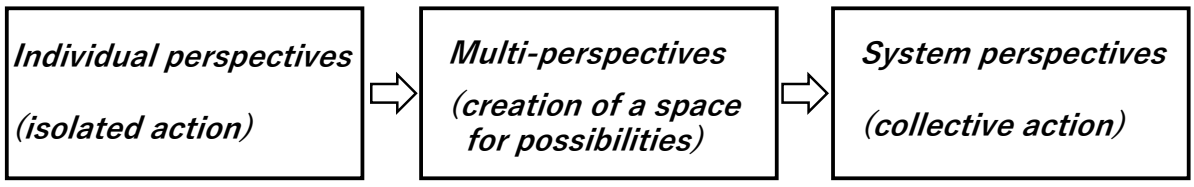

Figure 3 Co-creative Leadership (Schieffer, 2006, p. 608)

system perspectives cope with individual contradictory perspectives and lead to collective action, since an individual's perspective derives from their own beliefs, are issues that will be discussed in later chapters.

The research in organizational management has implications for education in this dissertation. School organizations today also require increased capacity for leadership of the many, rather than focused on one central authority figure. Shared leadership, distributed leadership and many similar approaches attempt to meet the demand for social capital in schools. Leadership in recent decades also has become a more fluid process. In other words, "one could be taking on leadership roles and responsibilities in one situation or at one time and then switch to a followership role in another situation or time" (Scott, Jiang, Wildman, & Griffith, 2018, p. 2). Thus, relationships and context become more important in a non-hierarchical way of leading. Collective leadership extends beyond the notion of full participation of the collective in leading the group to encompass the idea of serving others, networking, and social interactions across the group (Bordas, 2016).

2.5.3 We-Oriented Culture and Learning: Cross-Bordering from "I" to "We Perspective"

To introduce collective leadership to schools, what kind of perspectives should one have? This section further explores this egalitarian concept of relationship in group dynamism, primarily on cross-bordering from an "I" to a "We" perspective. This perspective will also be quoted in the later discussion.

Derived from observations of people interacting in Latino, African American, and Native American cultures, Bordas (2012) suggests an "I to We" shift in social dynamics. In a we-oriented culture, the common good of the whole community is more emphasized and valued more than the individual "I" (Bordas, 2012). This collective, people-centred view of leadership values collective leadership over individual leadership (Bordas, 2001) and exists in Japanese sub-cultures. Suburban areas, in particular, share similar characteristics of this collective we-oriented culture which motivates an attempt of modelling such leadership in teacher collaboration in Japan.

Learning theory in Japan gives support to the we-oriented perspective. Saeki (1995) defines the collaborative relationship between learners as “The doughnut theory of learning,” where the learner “I” broadens and deepens the perception of the external “They” world. The point here is that “I” can only get through to contact the third person “They” by mediating “You” next to her or him. Mizuochi and Abe (2014, p. 147) further develop this and define “We” as “a group where the members share the same goal, mutually enhancing each other.” (See Figure 4) The difference between the “You” and “They” relation is whether or not they can work together toward the shared goal.” “I” can participate in the “They” world only by mediating “You” (an empathic other). Mizuochi and Abe (2014, p. 147) also define “We” as a “group that shares goals, responsibilities, and outcomes.”

The concept of the “We” world in learning applies to adults, too. Kobayashi et al. (2010, p. 31) examined teacher collaboration in an elementary school in Japan and found that, this “We”

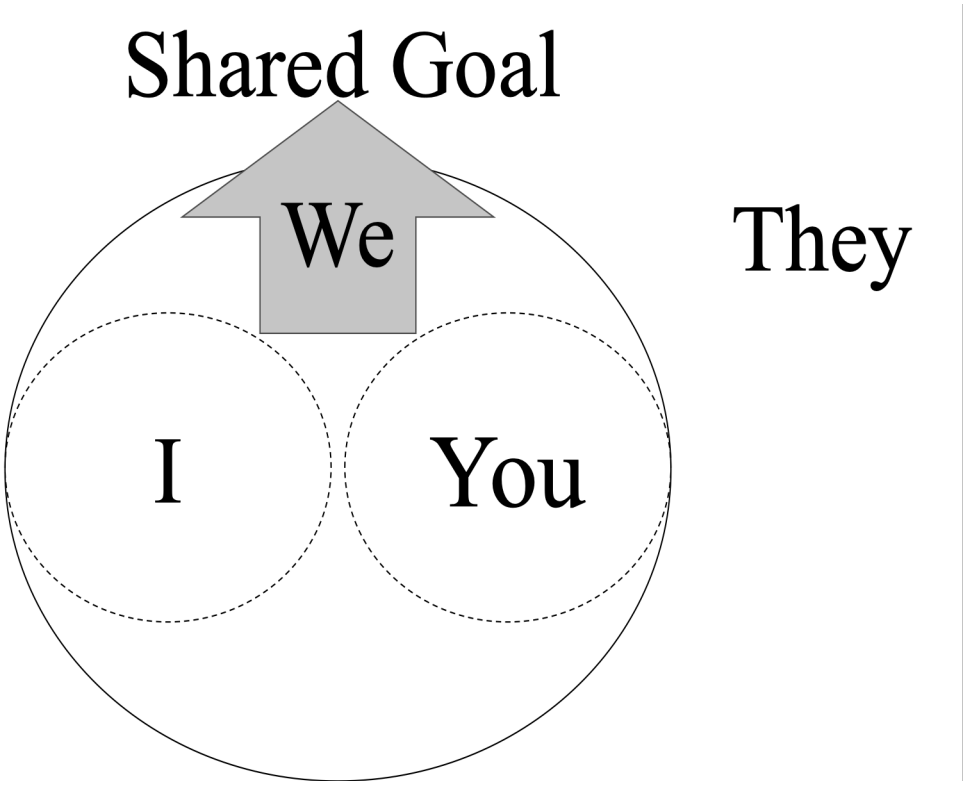

Figure 4. “We” World with a Shared Goal (Adapted from Mizuochi & Abe, 2014)

perspective is also applicable in causing transformation of practice in teacher training and professional development.

Learning is not something that "I (learner)" develops alone. According to Vygotsky, emphasis on the role of social interaction in learning and development and 'good learning' occurs in the ZPD already discussed above. The ZPD is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem-solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86) This space between actual and potential performance is assessed through social interaction between the learner and "the more knowledgeable other" (MKO). This MKO could be a teacher, parent, or even a more experienced peer, who scaffolds the learner.

From social psychology, the theory of “cognitive dissonance” (Festinger, 1957) is concerned with how a person deals with inconsistency between their cognitive processes. The idea of ZPD mentioned above is sometimes discussed in the field of adventure education relating to comfort, growth, and panic zone (Panicucci, 2007). (See Figure 5) He states that intellectual development and personal growth occurs when people are out of their zone of comfort (p. 39). He also says that people rarely go out to this area by themselves as it is uncomfortable out there, and they need to have a “carefully facilitated experience” to achieve learning (p. 41). This implies that a learner sometimes needs someone who leads beyond their comfort zone, scaffolds, shows models, and sometimes gives purposeful careful facilitation.

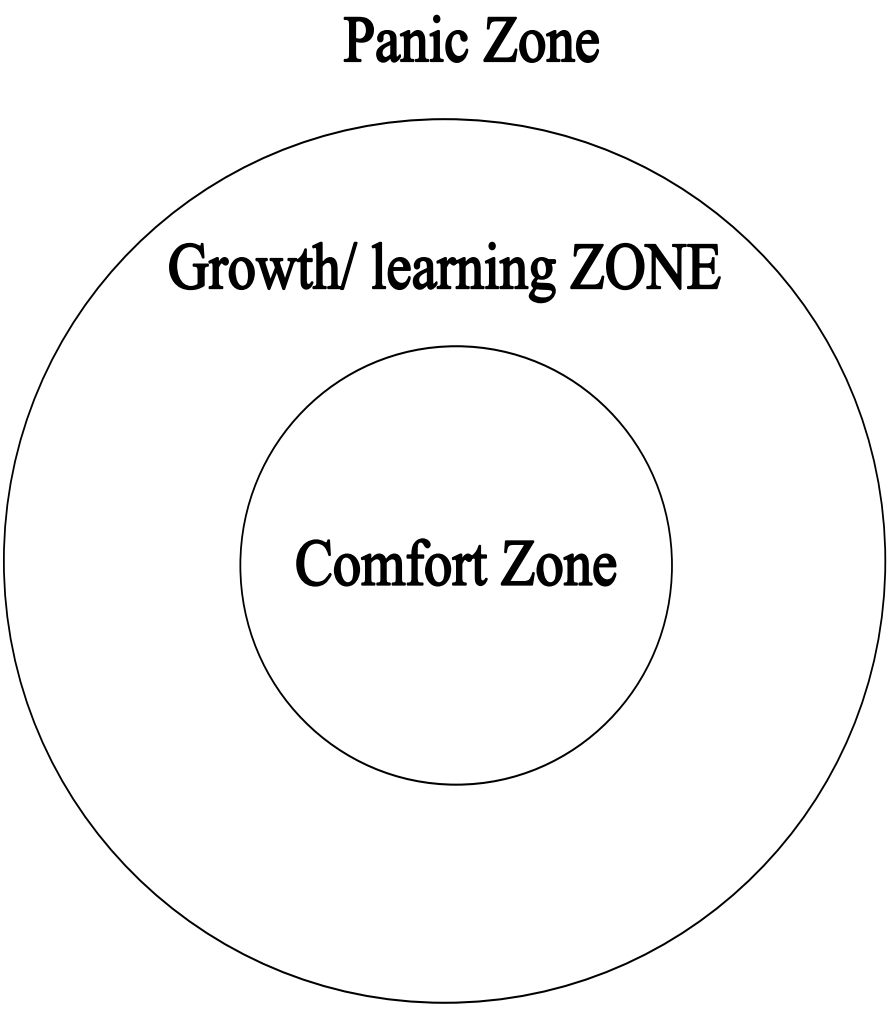

Figure 5. Comfort zone model (Adapted from Panicucci, 2007)

2.5.4 Issues Concerning School Leadership and Organization Management in Japan

This section introduces a final leadership system: middle leaders. Here I bring the discussion on leadership strategies to TD by examining their applicability to school cultures. First overviewing the management of school organizations in Japan, I will explore the possibility of middle-up-down management in schooling.

Leadership includes social influence and the leader's role in setting a purpose or vision of change, whereas management is associated with fulfilling organizational goals and processes (Liphadzi et al., 2017). Leadership should be systematically exerted in school organizations to give teachers the support they need to achieve their mission of influencing students' outcomes. School organization management is the responsibility of the Prefectural Boards of Education (BoEs) in Japan. Kitabayashi (2018, p. 173) writes about three different BoE management systems: the "School Management Plan (Tokyo, 2020)", the "School Education Goals and Management Policies (Gunma Prefecture, 2020)", the "School Image and Priority Goals (Saitama Prefecture, 2016)." These schemes are systematically administered when principals present them at the beginning of the school year, and all the faculty members will be aware of them as their own goals. This is how the school organization management works and applies to most prefectures across Japan. An important issue, however, is the types of goals set by principals and prefectural BoEs. One of the most widely known and supported theories in terms of organization management in Japanese schools is Goal Setting Theory. Numerous studies by BoEs follow the basic premise of Locke and Latham (1990) that individuals committed to specific difficult goals and were provided with feedback that will produce better results in their performance than those with unchallenging or unclear goals. However, the reality is that the goals presented are often targeted over other subjects and often too vague to change the way teachers teach (MEXT, 2004).

In the field of Educational Administration, teachers' improvement of teaching ability has been discussed through the theories of principal leadership as well as the professional community of teachers. The former focuses on the principal's support for teachers' lesson practice, such as the

learning environment in classrooms, teacher motivation, curriculum management, and the on-the-job training (OJT) system at schools (Hallinger, Bickman & Davis, 1996; Hallinger & Murphy, 1986). On the other hand, the latter theory of professional community posits that the interaction among teachers together with the culture of LS at school directly affects teacher empowerment in areas such as openness of practice, colleagueship, reflective dialogue, and shared responsibility for school management and its improvement (Bryk, Camburn, Louis, 1999; Bryk & Schneider, 2002). These theories are based on the premise that the principal leadership builds a systematic LS within the school OJT and improves individual teachers' practice. However, there is a profound problem with these conventional models in that they are focused on one leader in an organization. As we saw in 2.5.2 above, when we look at the reality of the business world, leadership is more and more distributed in fluid processes. Focusing on one central authority may prevent middle-level leadership. To activate teachers' OJT at schools, especially encouraging leadership and autonomy in middle-level teachers, a theory called "middle-up-down management" (Asano, 2007) would be useful. Asano examined the ideal form of middle-level leadership in organizational management that has attracted attention in recent years as schools are expected to change the situation mentioned above. "Middle-up-down management" (Nonaka, 1988) is originally a management style from general business administration settings, where middle managers who often serve as leaders of teams and task forces play a central role in resolving the contradiction between the ideals of the top manager and the realities encountered at the bottom. This management style is viewed positively for school settings by the Ministry of Education (MEXT, 2004), who see it as supplementing the shortcomings of top-

down and bottom-up management (See Figure 6). The reason for MEXT favouring middle-up-down management is simple: Kitabayashi (2018, p. 176) explains how the middle leaders such as grade chiefs, division chiefs, and subject chiefs play major roles in achieving collective school goals. Although top-down management can be quickly directed by principals, faculty members may end up being passive and non-responsive. Bottom-up management may make it possible to prioritize consensus building through dialogue involving all participants that leads to setting clear goals, decisions may be slow and time-consuming. Middle-up-down management can compensate for the disadvantages of both top-down and bottom-up management. However, if good middle leaders are absent, such consensus building is hopeless. In other words, the other role of the principal is to develop human resources by fostering middle school teachers into middle leaders. In addition, the training of personnel by the principal should be carried out not only for mid-level faculty members but also for all faculty members including young faculty members.

2.5.5 Japanese Lesson Study Culture in Danger

This final section of the literature review overviews the situation of LS in Japan under the principal's leadership. This focus on principals is connected to the later discussion on the need for a desired collaborative TD model, with a focus on high school settings.

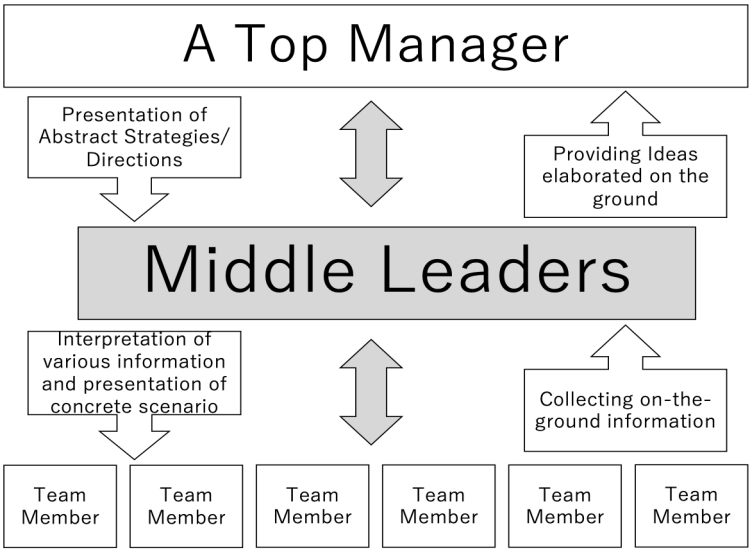

Figure 6. Middle-up-down Management (MEXT, 2004)

In 2018, MEXT announced that systematic LS and curriculum management is the activity on development, organization, implementation, evaluation and improvement of the curriculum (MEXT, 2018, p. 2). This approach to curriculum organization is becoming increasingly important as the management of schools is being restructured to make them more autonomous.

Although this school culture of LS originated in Japan, it is now disappearing. Sato (2010) claims that this culture has almost died out in Japan. One of the biggest causes of this is related to the workload of teachers. Since around 2005 high school LS has been disappearing in Japan, more so than at the primary level. Sato (1998, p. 80) notes that the educational culture in high school is totally different from that of elementary and junior high schools. He provides detailed discussion for why high schools have been lagging in terms of OJT:

1 Weak influence of the principal on school management

2 Professional community's higher specialty in subjects excluding other subjects

3 Large disparities of academic outcomes among schools (due to entrance examinations)

While this previous research is vital for our purposes, it must also be noted that clear goal setting, as well as teacher's autonomy, do not come naturally to most schools. The school system is not set up to foster professional growth in middle or novice (less experienced) teachers. Appropriate opportunities for systematic curriculum management through modelling collaborative systematic OJT as well as Off-JT under school organization management should also be provided to teachers who are attempting to absorb knowledge, especially young teachers at their initial stage of learning to teach. Given this contextual paradigm, I would like to propose a TD model which fosters middle-level teachers' collaborative reflection that leads to their transformation in their unique school management practice. The next section discusses my previous studies on a TD program that forms the focus of this study. Participants in the study group all took part voluntarily and contributed to the model of Off-JT. An aim is for their positive experiences is to spread and positively affect school OJT more widely.

2.6 Transformation Model

The literature review so far makes clear the convergence and overlap among the research on the role of reflection, motivation and transformation (see Figure 1). This comprehensive model

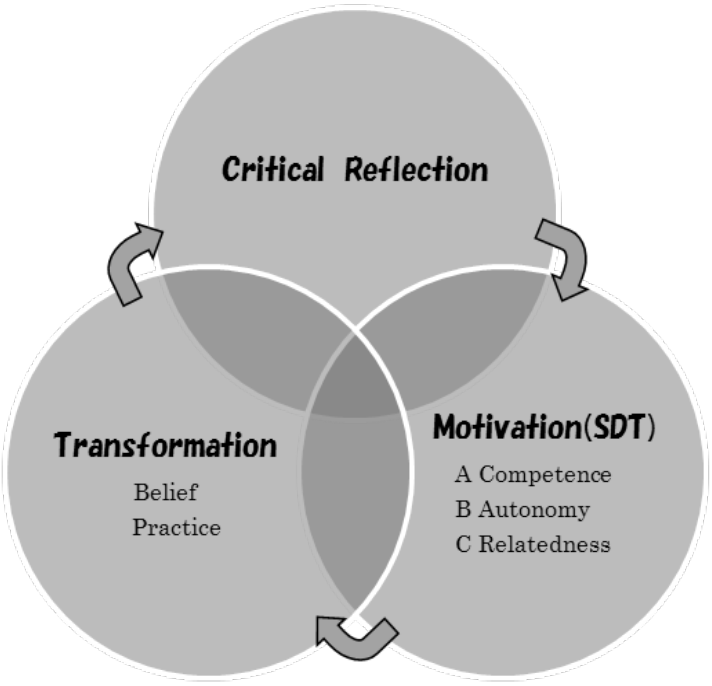

Figure 7. Transformation model in practice

integrates these three variables into a unified framework that clearly shows how teacher beliefs and practices are transformed. Although the procedure does not necessarily occur in this order, both critical refection and motivation seem indispensable in achieving teacher transformation. The mechanism of enhancing teachers' critical reflection and motivation eventually leading to transforming their beliefs and teaching practices requires further exploration. Thus, by analyzing a trainee teacher's narratives, questionnaire and interview responses, the following studies investigate processes involved in TD. The data analysis focuses on three aspects; critical reflection, motivation and transformation. Among those factors, autonomous motivation seems to play a central role because autonomy is involved with all the factors in the cycle and connects them together. Motivation here will thus be examined according to the three innate needs in SDT; competence, autonomy and relatedness.

2.7 Summary of This Chapter

This chapter provided a general literature review of the present study. Focusing mostly on the primary theme of teacher learning that leads to the transformation of beliefs and practices. I discussed some theoretical and empirical conceptualizations that were drawn upon to conduct this study. It has first overviewed how the teachers' learning, has been treated in TD through sociocultural lenses. After discussing the difference between TD and TE, it also confirmed that reflection that leads to teacher autonomy is the current trend in those fields. Various empirical studies have shown that peer-collaborative reflection in TD has a positive effect on developing teacher motivation, autonomy and professional expertise. This research has also examined the relationships between teacher knowledge, cognition, beliefs, and sociocultural issues related to leadership and curriculum management in schools' professional expertise.

The collaborative nature of the TD program in this study provided a rare opportunity for the participant teachers to experience transformations in their teaching practices. The idea of original LS by Akita (2004) is widely believed to help create relationships among teachers where there is mutual respect, strengthened by fostering colleagueship through observing each other's daily lessons. However, few empirical studies support the effectiveness of such a program in the culture of LS in school OJT in the Japanese context. In addition, high school LS is said to be deteriorating, as discussed above. This dissertation attempts to contribute to this issue by investigating the distinct features of this program from other existing TD programs, finally aiming to elaborate and propose a TD/TE model, which has provided a rationale for the four studies in the next chapter.

The overall aim of this dissertation is to reveal how the collaborative nature of the TD program actually promotes teachers' collaboration at schools. Under this aim, the following grand research question (RQ) is explored:

Grand RQ: What are the elements of TD program that promote transformation and collaboration of language teachers at schools?

This grand RQ is divided into four small RQs below, which will be discussed in the next chapter in each study.

RQ1: What kind of transformation does the teaching journal promote?

RQ2: Is there any gap of student/teacher beliefs about language teaching/learning?

RQ3: What kind of transformation or obstacle occurred in the participants when trying to apply what they had learned in the program?

RQ4: How does the program promote teachers' transformation of beliefs and collaboration at schools?

CHAPTER 3: STUDIES

Having read through the research articles on teacher development programs, I introduce my four studies chronologically, since one study gave insight to the next, triggering another study. The first study disclosed the transformation process of an individual novice teacher and found the teacher having a reflection and transforming her belief and practice with teaching journal writing. This triggered my interest in the second study, investigating the beliefs of teachers and students since study 1 suggested the importance of beliefs in teacher training. Study 2 revealed that the biggest problem of the study group was the belief gaps with other teachers. This seemed to be causing problems in the utilization of the teacher learning in the project to the school OJT. These findings in study 2 motivated me to conduct further research in Study 3 on the utilization of the teacher learning, investigating the distinct feature of this program and whether it changed teachers' practice as well as the difficulty of utilizing their learning. As study 3 disclosed team collaboration was one of the biggest concerns of participant teachers, Study 4 aimed to confirm how experts are promoting collaboration in schooling.

3.1 Study 1

When I was a teaching consultant and was conducting teacher training programs to teachers at all different levels from novice to expert, I was interested in what makes so much difference between those who transform their teaching practice dramatically, and those in the opposite side, who never change after many years of teaching experiences and teacher training sessions. So, study 1 exploratorily investigated how transformation occurred in teachers by looking at teaching journals expose a teacher's development over time from the perspectives of critical reflection, motivation and transformation.

3.1.1 Aim of the Study

Schön (1983) pioneered the importance of teacher self-reflection, now an established paradigm used when designing language teacher education and research. One tool for reflective

practice, suggested by Bailey (1983) and Richards & Nunan (1990), is keeping teacher journals. Some of the strengths of teacher journals relate to the recording of events, reflective processing, and idea formation. Teacher journals are unobtrusive, and they allow events to be reported in their natural contexts (Reis, 1994, as cited in Bolger et al, 2003, p. 580). The primary disadvantages to journals relate to how time-consuming they are, and the high levels of intrinsic motivation needed to maintain them.

There are some examples of empirical research into EFL teacher education at the high school level in Japan. Tojo (2016) investigated her own journal whilst instructing at a university in Japan over a semester. From analyzing recurrent themes and patterns, she analyzed changes to her teaching practices over time. Looking at another example in Asia, Ho and Richards (1993) studied ten teachers' journal entries, who were enrolled in an in-service teacher education programme in Hong Kong, and identified five dominant themes; theories of teaching, approaches and methods, evaluating teaching, self-awareness, and questions about teaching. The focus of these two teacher journal studies relate to the nature of reflective thinking and the benefits of reflective journals. Influenced by findings from previous studies, the aim of the research here was to investigate how a high school trainee teacher used a diary and transform her classroom practices.

3.1.2 Method

3.1.2.1 Participants and Data Collection

The first author worked at Niigata Prefectural Education Center as a teaching consultant, in charge of in-service teacher training courses for High School English teachers at all stages. The courses for new teachers were long (ten months in duration), extensive, and dealt with all kinds of needs in teacher training. This research examines the teaching journal of one of the participants in it.

All the new English teachers taking the course were asked to keep a journal in order for them to reflect on their practice at their own pace. The format and media (paper or digital) were free in form, and they were asked to bring them to each training session (approximately once a month). The author randomly asked several teachers if they could offer their journals for research purposes, and

one volunteered (hereafter, Teacher A). Teacher A worked at a public high school in Niigata Prefecture, Japan, having been teaching for two years as a part-time and full-time lecturer until employment. Her journal was written in Japanese from 28th April to 15th October 2015.

In this report, data was analyzed both quantitatively and qualitatively. In addition to the journal data collected, Teacher A completed a questionnaire of 10 open-ended questions and a one-hour phone interview about her journal. For the sample data of the collected journal, questionnaire and interview, see appendices 1, 2 and 3.

3.1.2.2 Procedure

Teacher A's journal was written section by section of the reading textbook she dealt with in her class. Narrative comments in the journal were chosen to be investigated, and descriptions such as teaching procedures itemized from lesson plans were excluded. From the diary entries covering six lessons, two lessons were initially chosen (lesson 2 in May, and 5 in September) as the tentative subjects of analysis. These entries were similar in length and both contained a certain amount of description of classroom events. All the entries of those lessons were typed using Word, and, in line with the method introduced in Tojo (2016), sentences were divided into meaningful phrases by the first author, which will be called "turns" in this paper. (e.g., Turns 550-552: I tried the same guessing activity at the beginning of the second period today, / and students seemed to be focused on their work / as the activity seemed to function as a refreshment of the spirit). (Categorized as: 2c Teacher's new approach to the teaching/ 2d Student's reaction to the approach/ 3b Positive evaluations of Students).

In order to retain the appropriateness and objectivity, the same work of dividing into phrases was conducted again two days after the first work (Guest, Namey & Mitchel, 2012). If there was any discrepancy between first and second work, it was reconsidered again to ensure its consistency. As the total number of divided phrases from those lessons counted not far apart, (55 lines in Lesson 2 and 54 in Lesson 5), it was concluded that those two lessons were appropriate for comparison and investigation. Those lines were analyzed and coded using six coding categories with thirteen

subcategories. The work of coding was also reconsidered a few times until there were no discrepancies. The five categories were derived through a modification of Ho and Richards's (1993) framework (reviewed above) for qualitative research on teachers' journals. One category "6 Time and Section No" showing dates and textbook information and some other subcategories evaluating teaching from students' states were added to it with reference to Tojo (2016). The teacher-training course, conducted by the first author, spanned from April to September 2015, the content of which covering all the five categories of Ho and Richards's framework (as shown in the introduction). There was no explicit guidance on how to write journals, but the importance of reflection was often emphasized in lectures. Data was organized into six categories as shown in Table 1 below and in Appendix 1.

3.1.3 Findings and Discussions

This section shows the analysis findings of Teacher A's journal, questionnaire and interview data from the perspective of reflection, motivation, and transformation. Table 1 presents the topics that Teacher A wrote about, and their frequencies appearing in Lessons 2 and 5.

Table 1

Comparison of Number of Turns

Category	Subcategory	L2 in May		L5 in Sep	
1 Theories of teaching	1 Classroom exp changing T's theories	3	5%	2	4%
2 Approaches and methods	2a Content of a lesson	7	13%	3	6%
	2b Procedures adopted during the lesson	12	22%	3	6%
	2c T's new approach to the teaching*	4	7%	14	26%
	2d S's reaction to the approach*	4	7%	7	13%
3 Evaluating teaching	3a Positive evaluations of T's teaching*	2	4%	5	9%
	3b Positive evaluations of Ss *	4	7%	9	17%
	3c T's problems *	3	5%	0	0%
	3d S's problems *	3	5%	3	6%
	3e Solutions	3	5%	0	0%
4 Self-awareness	4 Setting goals	1	2%	3	6%
5 Questions about teaching	5 Questions about teaching	4	7%	0	0%
6 Time and Section No.	6 Time and Section No.	5	9%	5	9%
	Total	55	100%	54	100%

Note. L = Lesson; T = teacher; S = students; exp = experience.

*One proposition "students or a teacher" was added with reference to Tojo (2016)

3.1.3.1 Analysis of Reflection

The increase in student-centredness is evident in the quantitative analysis (See Table 1). The total percentage of description about students (Subcategories 2d, 3b and 3d) rose to 35% in Lesson 5 (Sep) from 20% in Lesson 2 (May). The increase is especially outstanding in subcategory 3b "positive evaluation of students," increasing more than twice in number in four months, from 4 turns (7%) in Lesson 2 (May) to 9 turns (17%) in Lesson 5 (Sep).

Most initial entries by Teacher A demonstrated a rather naïve view of teaching with little reflection.

〈L2-Part3〉 15th May, 2015

Turn 228-229: As students in 1-1 are being lazy, the atmosphere of the classroom is a bit strange.

This entry is apparently one of the very first descriptions of students. Richards and Nunan (1990, p. 221) pointed out that "a diarist should ask why? Why did I write that? What evidence do I have for the statement?" for substantiated insights in reflections. This entry includes only Teacher A's subjective view of the classroom without reflecting on reasons for the perceived behavior or actions to take to make behavior more conducive to learning. As the semester progressed though, her diary entries became more student-centered and critically reflective. Her later diary entries showed her reflecting on the students and trying to figure out the reasons behind students' activeness. (Italicized by the author)

〈Lesson5-Part3〉 12th September, 2015

Turn 541-542: The classes are progressing more smoothly these days *as students are used to new worksheets and reading-aloud activities*.

Turn 543-544: *I am sometimes surprised to find students usually getting lower grades on tests are actively involved in this kind of creative activity*. This can never be observed in activities testing their grammatical knowledge or true-false accuracy.

Turn 545-546: I find it interesting that those students come up with some rather eye-catching ideas. *This might be one of the strengths of open-ended questions that I regularly give them*.

The underlined parts show further inquiry on her teaching practice relating to the cause and effect of teaching and learning, a finding that demonstrates her development of critical reflectivity. Asking only "how to" questions would be easier for us practitioners, but to "go beyond the search for instructional techniques alone to a concern of 'what' and 'why'" (Richards & Nunan, 1990, p. 201) creates a more critically reflective teacher.

3.1.3.2 Analysis of Motivation Based on Self-Determination Theory

- A. Fulfillment of need for “Competence” (in SDT)

The quantitative data in Table 1 gives promising evidence for Teacher A’s “need for competence” as seen by the increase of positive comments on her teaching practice. Her entries show increased reporting of Subcategory 3a “Positive evaluations of Teaching” from 2 turns (4%) in Lesson 2 (May) to 5 turns (9%) in Lesson 5 (Sep), and Subcategory 3b “Positive evaluations of Students” from 4 turns (7%) to 9 turns (17%). This is also reflected in her negative comments on teacher’s teaching in Subcategory 3c “Teachers problems,” as they decreased to 0. This is relevant to Richards and Lockhart (1996, p. 4) observation that “when critical reflection is seen as an ongoing process and a routine part of teaching, it enables teachers to feel more confident in trying different options and assessing their effects on teaching.”

The following journal description shows how her “need for competence” was filled.

〈Lesson5- Part 2〉 5th September, 2015

Turns 524-529: When I gave out the copies of students’ excellent examples of writings collected from activities in which they guess what the main character is feeling or express their own opinion, *they were intent on reading them and looked quite happy to find their own work on it.*

Turns 530-532: They were also eagerly conveying the grounds for their opinion when I asked students to share their ideas in pairs after writing activity. *It is a good trend*.

Turns 533-535: *I am glad* that students are trying harder to read between the lines of the text. I will keep this kind of inferential activities.

The underlined parts indicate the enhancement of motivation in her teaching when she saw positive change in students and achieved a sense of positive professional development. Teacher A stated in her interview that she gained confidence and felt motivated when writing these comments on her journal, and later looking back at them. These findings are in agreement with Latham, (1998, p. 82-83) who points out that best rewards for teachers are intrinsic, like “seeing a child develop and

making a difference in a child's life" rather than extrinsic ones such as salary. Such achievement in one's teaching could possibly fulfill their need for competence and sense of self-efficacy.

- B. Fulfillment of need for "Autonomy" (in SDT)

In addition to the increase in positive comments on her teaching practice discussed above, there is also an increase in 4 "setting goals" from 1 turn (2%) in Lesson 2 (May), to 3 turns (6%) in Lesson 5 (Sep), where she states what she wants to try in the future (See table 1). This indicates her increasing autonomy and improvement in teaching. These changes could have been caused when the need for competence was filled by the positive changes in her teaching and her students' behavior, as seen above.

Teacher A's questionnaire also supports the increase in her sense of autonomy in her improvement of teaching,

Question: What was a burden in keeping your journal writing?

Teacher A: We trainees were given journal writing as an assignment of the training. If I regarded it as "forced assignment" or "what we have to do," it would have appeared to us troublesome or tiring. But, at a certain point, *I made up my mind to utilize this opportunity of journal writing for improving my own teaching skills aiming at the demonstration class in the end of the training course*… As a result, I was not so conscious about submission or who will read it later, including my supervisor or teaching consultant, and *I was even enjoying writing it with a light heart myself*.

Question: Did you devise in any way for keeping the habit of journal writing?

Teacher A: I consistently kept it in mind that *I wrote my journal entirely for my own use*, freely writing what comes to my mind, thinking that *it has to be just good enough for my own future reference*.

Writing a teaching journal is an autonomous action. Teacher A's "need for autonomy" seemed to be filled in her conscious self-determination as she decided to utilize this assignment for her own

improvement of teaching. Furthermore, she wanted to continue reflecting on her journal in the future which could encourage her to set further goals.

- C. Fulfillment of need for "Relatedness" (in SDT)

Diary studies may not be ideal to explore relatedness as they are "first-person accounts of a…teaching experience documented through regular, candid entries in a personal journal" (Bailey, 1990, as cited in McDonough & McDonough, 1997, p. 122). However, in the following comment Teacher A expresses her thorn as colleagues in her English-department year team, showed a "need for relatedness." Teacher A questions herself:

〈Lesson6〉 20th September, 2015

> *What is the best way to cope with this difficult situation?* (Referring to Teacher A and two other teachers making up one team in charge of nine classes in the same year). I sometimes find it very hard to do anything like tests and other attempts because the way teachers teach varies from class to class, as does the progress of classes. When I adopt activities such as reading aloud or communication in my classes, the progress in my class tends to be behind other teachers, whose classes consist of nothing but the grammar translation method. The other teachers only focus on progressing through the textbook, *and I am sometimes told off by them, saying "You are teaching too carefully and thoroughly!*" *Will this situation be better off if there is a unity of purpose in our English-department team?* Nevertheless, I definitely don't want to give a class focusing only on the coverage and progress of the textbook!!!!

We can see that Teacher A's need for "relatedness" is reflected in her unvarnished statement. There is also a sign of personification of her journal where Teacher A puts a question in the latter part, serving as a "cognitive act" (DiCamilla & Lantolf, 1995, p. 353) in a problematic situation. The following is a questionnaire extract, further supporting this implication.

Question: What is your teaching journal like to you?

Teacher A: It is like an excellent understander or a contemporary who listens to me saying "Yes, yes, I know what you mean!" but at the same time gives an opinion saying, "There could be another viewpoint like this." (Including my experience of getting an idea while writing)

From her comment above, we can infer that the need for relatedness is fulfilled by her journal who listens and responds to her while writing. In her later interview, she also says:

Teacher A: "Writing journals itself was process of brainstorming and investigating my teaching practice, playing a role of 'LS conference on my own,' where I could objectively examine what I felt and analyze my own issues."

Interestingly enough, although she was working on her own, she felt as if she was with somebody else discussing her class in collaboration. In this sense, keeping a teaching journal can act as a "temporary other," (Golombek & Johnson, 2004, p. 313) deepening her reflection, as well as filling her "need for relatedness."

3.1.3.3 Analysis of Transformation in Teacher's Self-Efficacy Belief and Future Practice

Teacher A raises the issue of using a question-and-answer activity as a warmup to create an active classroom atmosphere in the following two turns:

〈Lesson2- Part 2〉 9th May, 2015

Turn212: I cannot come up with good topics or questions in small talk.

〈Lesson2- Part 3〉 15th May, 2015

Turn 230: How can I enliven the atmosphere in class 1-3?

Schön (1983, p. 50) refers to this type of initial insight as a "puzzling or troubling or interesting phenomenon with which the individual is trying to deal." According to Golombek and Johnson (2004) such initial emotional dissonance functions as a catalyst for the teachers' professional development. However, the following series of comments demonstrate that this earlier reflection led to more in-depth and critical reflection, and eventually to improvement in her questioning strategies in four months. In turns 252-255, she writes:

〈Lesson2-Part4〉 17th May, 2015

Turns 252-255: I noticed the students' response to my questions in English are getting quicker these days. Now that students are used to answering questions in English, *it is my turn to improve my questioning technique* in order to facilitate their understanding of the text as well as encourage their communication activities.

In these entries, Teacher A, identifying students' improvement in their question-answer response speed, shows positive attitude for change by declaring her own goal of teaching. In the following turns, over five months, when she introduced an inference activity in writing, she gives more positive evaluation on her students' reading ability. Following this, she states her goal of teaching, categorized as "4 setting goals." Interestingly, all such promising declarations were expressed right after her entries describing 3b "positive evaluation of students." These findings are compatible with Woolfolk Hoy et al.'s emphasis on teachers' self-efficacy beliefs to trigger transformation in teaching (2006, p. 729), mentioned above. This indicates how student responses impact teacher self-efficacy beliefs and her future practices, creating a synergy cycle. This implication found in this study provokes Schön's explanation of "interactive loop" in reflection- in-action (1983, p. 79), stating that the professional "shapes the situation, in accordance with his initial appreciation of it, the situation 'talks back,' and he responds to the situation's back-talk."

The following three underlined parts below indicate the improvement in her questioning strategies over time.

〈Lesson5- Part 2〉 5th September, 2015

Turns 533-535: I am glad that students are trying more and more to read between the lines of the text. I will keep *this kind of activity involving inference*.

〈Lesson5- Part 3〉 12th September, 2015

Turns 543-544: I am sometimes surprised to find students usually getting lower grades on tests are actively involved in *this kind of creative activity*. This can never be

observed in activities testing their grammatical knowledge or true-false accuracy.

Turns 545-546: I find it interesting that those students come up with some rather eye-catching ideas. *This might be one of the strengths of open-ended questions that I regularly give them*.

A week later, Teacher A affirmed an improvement of her questioning practice as follows:

〈Lesson6〉 20th September, 2015

… I think *I succeeded in coming up with at least one inferential question in each section of the textbook*. (i.e., Make a guess and express in a sentence what the main character is feeling at this point in the story) …

"Focusing on one's own behavior can be an uncomfortable process." (Richards & Nunan, 1990, p. 220) But this series of comments demonstrate how she changed her practice over time, with her journal serving as a "mediational space" (Golombek & Johnson, 2004, p. 311) to externalize her thoughts and feelings. Turns 212 and 230 revealed that writing journals posed a question for teaching practice, and Turns 252-255 did "trigger insights about teaching" (Richards & Lockhart, 1996, p. 7). Teacher A said in her later interview that the act of writing helped her reflect on her own practice, connect things, and generate and visualize new ideas for teaching. Her insight into her questioning strategies eventually brought about actual change in her practice during training. The transformation of her teaching practice is also evident quantitatively in her increased reporting of Subcategory 2c "Teacher's new approach to the teaching" from 4 turns (7%) in Lesson 2 (May) to 14 turns (26%) in Lesson 5 (Sep).

From the standpoint of conceptual change, it is notable, and very important in Teacher A's case, that she noticed the students' improvement herself as well as the effectiveness of open-ended questions from her own experiences through critical reflection. This all derived from substantial evidence in the classroom, and not just from mirroring the external knowledge gained while participating in the course. According to Hunt (1987), "the trajectory for teacher change is from

outside-in to inside-out." Teacher A's development reminds us that TD is a highly individualized process. In this sense, teaching journals are a powerful teacher-training tool as they encourage professional development in individuals themselves.

3.2 Study 2

The first study investigated a teaching journal and suggested its importance in teacher training, disclosing the transformation process of an individual novice teacher. It also found the teacher having a reflection on dissonance and her movement to seek relationships with journals. The second study investigates beliefs of teachers and students, which will be connected to later discussion.

3.2.1 Aim of the Study

Every teacher possesses a 'practical theory' of teaching which has been called the strongest subjective factor in her educational practice (Handal & Lauvås, 1987, p. 9). These beliefs or assumptions affect learners' beliefs, behaviours and attitudes toward language learning. However, few teachers have a deep understanding of the numerous Second Language Acquisition theories that academics provide. It is also claimed that few empirical studies appear to have researched in-service teacher training and student beliefs (Peacock, 2001a, p. 179). Hence, study 2 seeks to contribute to this relatively unexplored area of second language learning with an aim of providing insight for classroom practice and teacher training programs. The extent to which this gap, and the gap between teacher and student language learning beliefs, are explored. The survey data from teacher/student beliefs about language learning are framed through SLA models and analysed. The survey was designed to investigate discrepancies between student/teacher beliefs and SLA theories and hypotheses.

3.2.2 Method

This section includes the research questions and how the survey questions were developed, followed by an overview of the participants and survey methodology.

3.2.2.1 Creating an Original Survey Questions

In order to investigate SLA beliefs among teachers and high school students, an original survey was developed. The goal of the survey was to address differences between respondents' opinions towards language leaning and SLA theories, as well as between the respondents themselves.

Thirteen questions were created based on previous literature from Lightbown and Spada (2013), Yoneyama (2002), and Okada (2015) to see if either 1) Behaviourist, 2) Innatist, 3) Cognitivist/Developmental, or 4) Sociocultural Perspectives were dominant in teacher/student beliefs (See Table 2 below). Simplified language was used to facilitate complete understanding of the survey statements. For example, rather than using terms such as "SLA" or "first language", the survey simply referred to the first language as "language" and the language being learned as "new language." Acquisition and learning were used synonymously. Statements were arranged in random order so that respondents would not be influenced by the historical order of theories. Other demographic questions such as gender, age and years of teaching experience were also included to help with the data analysis by providing variables affecting responses.

Table 2

SLA belief questions

Category	Main Idea	Question Item
1) Behaviourist perspective	Early focus on errors	1. If beginning students are permitted to make errors, it will be difficult to speak correctly later.
	Habit formation and repetition	2. English learning is a matter of habit formation, so it is important to repeat pattern practice of questions and answers so that you can make correct responses.
	Error correction and stabilization	3. Erroneous English expressions should be corrected as much as possible by somenone around you as they become bad habits.
	CAH	4. If the newly learned language is close to your mother tongue, learning will be relatively easy.
2) Innatist perspective	Krashen's Input hypothesis *	5. An exposure to language in reading or listening to English that is a little beyond your ability to understand will not be so effective
	Krashen's Acquisition-learning hypothesis	6. English can be acquired simply by reading or listening to a lot of comprehensive materials (only input).
	Krashen's Affective filter hypothesis	7. I think that English learning may possibly be disturbed by emotions such as anxiety or low motivation.
3) Cognitivist/ Developmental Perspective	McLaghlin's Reconstructing	8. It is important to practice new expressions a lot so that you can use them promptly without much consciousness in conversation etc.
	Long's Interaction hypothesis	9. You cannot acquire English on self-education, because you improve by noticing what your partner's intended intention and learning expressions in actual interaction.
	Swain's Output hypothesis	10. By first trying to express something, you notice the gap between "what you want to tell" and "what you can express with your English ability" and your English improves.
4) Sociocultural and other Perspectives	Vygotsky's ZPD	11. In order to improve your English, it is important that you actually speak to your teachers and friends in English and learn with the help of them as scaffoldings.
	Schmidt's Noticing hypothesis	12. By paying attention to and noticing the difference between English you know and one actually used, you will be better expressing yourself in actual conversation.
	Long's Focus on Form	13. It is important to learn grammar or vocabulary when necessary in communication activities, not to learn it alone intensively.

Note: * Disagreement with item 5 supports Krashen's Input hypothesis

3.2.2.2 Research Questions

Using the survey mentioned above, the following questions are explored, investigating SLA beliefs among teachers and high school students, as well as exploring connections between classroom practice and teacher training programs (See Figure 8):

RQ1. Are teachers' and students' beliefs close to or divorced from SLA theories?

RQ2. Are teachers' beliefs close to or divorced from students' beliefs?

RQ3. Are there discrepancies of beliefs about effective SLA approaches among teachers themselves?

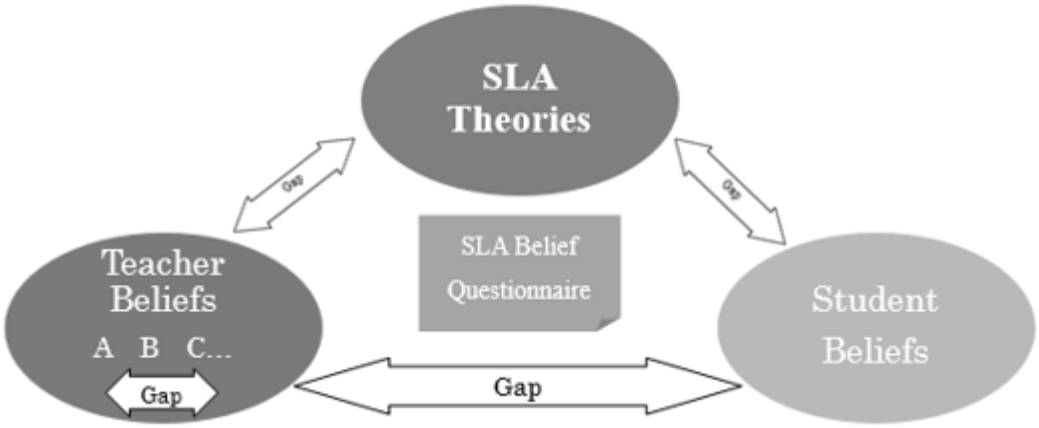

Figure 8. Discrepancies investigated in this study

3.2.2.3 Participants

The participants in this study were 35 high school English teachers and 496 high school students, from a public high school in Niigata Prefecture, Japan. All were Japanese L1 speakers. Student surveys were conducted in classrooms by participating teachers in this study.

3.2.2.4 Procedures

The survey was conducted using an online survey site; Survey Monkey, which collected and analysed the data. All teachers in the study completed the survey online, and the students completed paper copies. The teachers' and students' surveys were created in Japanese, and participation in the study was voluntary. All phases of the study were carried out in line with ethical principles in educational research; informed consent and confidentiality. The questionnaire was completed in class and no time limit was given. A four-point Likert scale was used to distinguish participants' opinions of statements about language acquisition. Respondents chose from a scale of 'agree' (1), 'rather more in agreement' (2), 'rather more in disagreement' (3), to 'disagree' (4).

At the end of each multiple-choice question in the teachers' questionnaire there was a comment section where they could provide details or reasons for their responses. At the end of the questionnaire a space was provided for teachers to write a personal reflection of their pedagogical beliefs and practices.

3.2.2.5 Analysis

To answer the research questions above statistically, questionnaire results were analysed using an independent samples t-test. The results of the statistics are broken down in Figure 9, and Tables 3-6 below. To quantify the degree to which the variables of beliefs about language learning and status as student or teacher covaried, a nonparametric correlational analysis using a two-tailed Spearman rank-order correlation test was applied. Participants' descriptive comments that provided rich insight to responses were analysed.

3.2.3 Results

3.2.3.1 Teacher/Student Beliefs Compared with SLA Theories

Figure 9 shows the mean points of each item: 1.5 points were given to any 'agree' response, 0.5 for a 'rather more in agreement' response, negative 0.5 for a 'rather more in disagreement' response, and negative 1.5 for a 'disagree' response. This method was chosen for its simplicity and ease of analysis.

The data from the survey in Figure 9 shows some general trends of agreement and disagreement between theorists and teacher/student respondents concerning effective language acquisition. The bar chart with plus number (right side) indicates affirmative attitude and minus number (left side) indicates a negative attitude toward SLA theory statements. An initial summary shows clear agreement and disagreement of teacher/student beliefs towards SLA theories.

Category	Item	Main Idea	T (N=35)	S (N=496)	S-T discrepancy	
1)Behaviourist perspective	1	Early focus on errors	-0.87	-0.09	0.78	*
	2	Habit formation and repetition	0.5	0.6	0.07	
	3	Error correction and stabilization	-0.39	0.55	0.94	*
	4	CAH	1.04	0.82	-0.22	**
2)Innatist perspective	5	Krashen's Input hypothesis	0.81	0.07	-0.74	*
	6	Krashen's Acquisition-learning hypothesis	-0.64	-0.52	0.12	
	7	Krashen's Affective filter hypothesis	1.3	0.53	-0.77	*
3)Cognitivist/ Developmental Perspective	8	McLaghlin's Reconstructing	1.19	1.04	-0.15	**
	9	Long's Interaction hypothesis	-0.36	-0.32	0.04	
	10	Swain's Output hypothesis	1.1	0.93	-0.17	
4)Sociocultural and other Perspectives	11	Vygotsky's ZPD	1.36	1.5	0.14	*
	12	Schmidt's Noticing hypothesis	0.9	0.96	0.06	
	13	Long's Focus on Form	0.56	0.73	0.17	

Note, S = student, T = teacher, S-T discrepancy = Discrepancy in ratings between teachers and students

* $p < .05$. ** $p < .01$.

Figure 9. Comparison of teacher/student beliefs with SLA theories

The strongest areas of agreement between teacher/student beliefs with SLA theories are seen in the comparatively newer SLA theories: 4) Sociocultural and other perspectives, and most of 3) Cognitivist/Developmental perspective (excluding Long's interaction hypothesis). Concerning the older theories, agreements with SLA theories are identified in item 2 "habit formation and repetition" and item 4 "CAH" in subcategory 1. These theories received positive agreement ratings from both teachers and students.

Opinions in item 6 show disagreement between teachers' and students' beliefs between some of the SLA theories: "Krashen's acquisition-learning hypothesis" and item 9 "Long's interaction hypothesis". The total points negatively ranged from -0.32 to -0.64 respectively. It is also notable (in

item 1) that most teachers (85 % shown in Table 3 below) opposed the idea of an early focus on errors. The mean points of teachers on this item reached as low as -0.87 and was the strongest disagreement towards an SLA theory. This significant discrepancy concerning EC is further discussed in the following sections.

3.2.3.2 Comparison of Teacher/Student Beliefs About Language Acquisition

Another focus of this study was to explore any gap between teachers' and students' beliefs about language acquisition. An independent samples t-test of the survey results revealed that in 13 of the questions answered by both teachers and students; 6 items (1, 3, 5, 7, 11) showed significant differences (*$p < .05$), and 2 items (4, 8) showed marginally significant differences (**$p < .01$) between teachers' and students' responses. (See Appendix 1 for the full results).

As shown in Figure 9 above, items 1, 3, 5, 7 showed a significant gap of more than 0.7 points between teachers and students language learning beliefs. Teachers comparatively lean toward Krashen's Monitor Theory, Innatism (items 5 and 7), while student participants focus more on Behaviourist theories (items 1 and 3). Responses from each SLA category are summarized below in this order 1) Behaviourist, 2) Innatist, 3) Cognitivist/Developmental, and 4) the Sociocultural theory perspective. Tables 3-6 present percentage compilations of teacher (N = 35) and student (N = 496) responses to each of the question items in the survey.

- Behaviourist Perspective Questions

Table 3 below shows the percentages of teacher/student responses to SLA belief questions related to the Behaviourist perspective.

Table 3

Behaviorist perspective questions: Frequencies of response

Item	Group	NR	4	3	2	1	Modal category
*1. If beginning students are permitted to make errors, it will be difficult to speak correctly later.	T	0	3	11	31	54	Disagree
	S	0	15	30	37	18	Neutral
2. English learning is a matter of habit formation, so it is important to repeat pattern practice of questions and answers so that you can make correct responses.	T	0	17	66	17	0	Rather more in agreement
	S	0	32	47	18	3	Rather more in agreement
*3. Erroneous English expressions should be corrected as much as possible by somenone around you as they become bad habits.	T	0	0	31	49	20	Rather more in disagreement
	S	0	25	57	15	3	Rather more in agreement
**4. If the newly learned language is close to your mother tongue, learning will be relatively easy.	T	0	60	34	6	0	Agree
	S	0	48	39	10	3	Agree

Note.
Values represent percentages. Percentages have been rounded to the nearest whole number and thus may not add up to 100.
'NR = the percentage of nonresponses per question,
4 = Agree, 3 = Rather more in agreement, 2 = Rather more in disagreement, 1 = Disagree.
S = Students. T=Teachers.
*Indicates a significant finding at $p < .05$. **Indicates at $p < .10$. For details, see the Appendix 1.

While the majority of students responded that errors should be corrected, teachers responded opposingly. Their combined frequencies of responses “Agree” and “Rather more in agreement” by teacher and student totaled 31% vs. 82% in item 3. This was the biggest gap between teachers and students found in this survey. This result agrees with the findings by Schulz (2001, p. 255), who partly attributed the strong favorable attitude toward corrective feedback shown in students to the way they are taught or tested (i.e., with predominantly form-focused, discrete-point tests). This could also apply to Japanese context, which was compared to a “fishbowl” by Yoshida, (2016, p. 32) where classes are teacher-led and teachers generally control learning content themselves. In the Japanese

context, classrooms are traditionally passive learning environments; grammatical structures, vocabulary to learn, drills to do, and dialogues to memorize are all supplied by the teacher (Yoshida, 2016, p. 32).

- Innatist Perspective Questions

Table 4 below shows the percentages of student/teacher responses to SLA belief questions related to Krashen's Monitor Model, and Innatism.

Table 4

Innatist perspective questions: Frequencies of responses

Item	Group	NR	4	3	2	1	Modal category
*5. An exposure to language in reading or listening to English that is a little beyond your ability to understand will not be so effective. (Disagreement with this statement supports the Input Hypothesis)	T	0	3	11	37	49	Agree
	S	0	12	32	43	13	Neutral
6. English can be acquired simply by reading or listening to a lot of comprehensive materials (only input).	T	0	3	11	54	31	Rather more in disagreement
	S	0	6	16	48	30	Rather more in disagreement
*7. I think that English learning may possibly be disturbed by emotions such as anxiety or low motivation.	T	0	80	20	0	0	Agree
	S	0	31	46	18	5	Rather more in agreement

Note.
Values represent percentages. Percentages have been rounded to the nearest whole number and thus may not add up to 100.
'NR = the percentage of nonresponses per question,
4 = Agree, 3 = Rather more in agreement, 2 = Rather more in disagreement, 1 = Disagree.
S = Students. T=Teachers.
*Indicates a significant finding at $p < .05$. **Indicates at $p < .10$. For details, see the Appendix 1.

Although teachers agreed on item 5 "input hypothesis", and item 7 "affective filter hypothesis", students tend to view these perspectives more negatively.

- Cognitivist/Developmental Perspective Questions

Table 5 below shows the percentages of student/teacher responses to SLA belief questions related to Cognitivist/Developmental perspective. In this category, teacher and student belief generally corresponded with positive responses, especially items 8 and 10.

Table 5

Cognitivist/Developmental perspective questions: Frequencies of responses

Item	Group	NR	4	3	2	1	Modal category
**8. It is important to practice new expressions a lot so that you can use them promptly without much consciousness in conversation etc.	T	0	69	31	0	0	Agree
	S	0	60	34	5	1	Agree
9. You cannot acquire English on self-education, because you improve by noticing what your partner's intended intention and learning expressions in actual interaction.	T	0	9	29	31	31	Neutral
	S	0	7	25	47	21	Neutral
10. By first trying to express something, you notice the gap between "what you want to tell" and "what you can express with your English ability" and your English improves.	T	0	63	34	3	0	Agree
	S	0	51	42	7	1	Agree

Note.
Values represent percentages. Percentages have been rounded to the nearest whole number and thus may not add up to 100.
'NR = the percentage of nonresponses per question,
4 = Agree, 3 = Rather more in agreement, 2 = Rather more in disagreement, 1 = Disagree.
S = Students. T=Teachers.
*Indicates a significant finding at $p < .05$. **Indicates at $p < .10$. For details, see the Appendix 1.

Opinions for item 9 remained neutral, divided between multiple-choices 1, 2 and 3. It is important to note that these low scores were due more to a conflict of opinion rather than lack of opinion. As can be seen in Table 5, there was a discrepancy in beliefs between 38% of the teachers (sum of Answers 1 and 2). This finding supports Long's interaction hypothesis (1996) that emphasizes learners' noticing in actual interaction rather than self-education. The other 62% showed

negative attitudes. Description comments revealed that many teachers who responded negatively seem to believe there should also be basic skills for communication which can be acquired through self-education. They also think their answer to this question depends on the definition of self-education. This area concerning item 9 of "Long's interaction hypotheses" calls for further study on classroom practice.

- Sociocultural Theory perspective questions

Table 6 below shows the percentages of student/teacher responses to SLA belief questions related to the Sociocultural Theory Perspective.

Table 6

Sociocultural theory perspective questions: Frequencies of responses

Item	Group	NR	4	3	2	1	Modal category
11. In order to improve your English, it is important that you actually speak to your teachers and friends in English and learn with the help of them as scaffoldings.	T	0	86	14	0	0	Agree
	S	0	67	30	3	0	Agree
12. By paying attention to and noticing the difference between English you know and one actually used, you will be better expressing yourself in actual conversation.	T	0	49	43	9	0	Agree
	S	0	53	41	6	1	Agree
13. It is important to learn grammar or vocabulary when necessary in communication activities, not to learn it alone intensively.	T	0	34	37	29	0	Rather more in agreement
	S	0	37	50	11	1	Rather more in agreement

Note.
Values represent percentages. Percentages have been rounded to the nearest whole number and thus may not add up to 100.
'NR = the percentage of nonresponses per question,
4 = Agree, 3 = Rather more in agreement, 2 = Rather more in disagreement, 1 = Disagree.
S = Students. T=Teachers.
*Indicates a significant finding at $p < .05$. **Indicates at $p < .10$. For details, see the Appendix 1.

This category also showed a correspondence of opinions between teachers and students. For items 11 and 12, more than 90% of both teacher/student respondents answered "Agree" or "Rather more in agreement."

3.2.4 Discussion

The goal of this study was to reveal the discrepancy in beliefs towards language learning. The purpose of exploring these beliefs was to gain insight into classroom practices in order to develop more effective teacher training programs. As discussed above, the most significant disagreement with SLA theories, as well as one between teachers and students, were expressed in relation to EC in items 1 and 3. As a qualitative inquiry is required, this area will be further analysed by using the teachers' descriptive comments.

3.2.4.1 Discrepancies in Teacher/Student Beliefs on the Need for EC

In the descriptive comments following the multiple-choice questions (item 3), the plurality of the participant teachers answered that errors should be corrected "on condition that it does not demotivate students". There is an implication of mismatch where those teachers believe they need to avoid giving too much negative feedback as they believe it will have a demotivating effect. However, students in this study were proactive about receiving correction and did not express the anticipated negative feelings (affective filters) such as anxiety or low motivation teachers believed would occur. Another finding concerning feedback from teacher perspectives was that as long as students are able to convey their messages, it is not always necessary to correct mistakes.

Other teachers commented that the extent to which students need EC depends on their individual characteristics, such as motivation or grades. These comments agree with the discussion made by Lightbown and Spada (2013, p. 208), suggesting that errors reflect the development of learners' interlanguage system and readiness for EC. Schulz (1996) also suggested that answers to questions pertaining to negative feedback depend on aspects of learner characteristics such as age, IQ, learning style, motivation and aptitude.

3.2.4.2 Discrepancies in Beliefs Within Teachers Themselves: As a Teacher, or a Learner?

As a result of the analysis of teachers' descriptive comments concerning their beliefs towards EC, there seem to be two main ways that teachers changed their beliefs. One is based on their

experiences observing students' improvement in classrooms. The other derives from experiences from teachers as learners in their own improvement or acquisition.

Teacher B introduces her own way of correcting errors as follows:

> I correct students' errors on the spot when I find them in a personal conversation like a pair work, and also when they make critical or grammatical errors such as word order. On the other hand, I ignore errors when they are made in a public speech, if they are minor, or if students are barely conveying the message across. I always try to be brief and unobtrusive in correcting them. These changes in my approaches may have occurred because I myself have become less concerned about making mistakes in language learning.

Teacher B first comment on error correction strategies from a teachers' perspective and explains her motivations, as coming from a learner's perspectives, in the very last sentence. The beliefs of Teacher B are based on both teacher and learner perspectives. This can also be defined as a discrepancy between teachers themselves in this study. If those beliefs are far apart, teachers may become torn between ideals and reality, especially in the Japanese "fishbowl" context discussed above, where students are studying a foreign language simply to pass entrance examinations, or get good grades on tests, etc. (Yoshida, 2016).

Teacher C also comments on her beliefs relating to EC:

> It is important for learners to accumulate a lot of experiences of pleasure in communication. When I became a teacher, I could not speak English fluently and was not confident about my language ability. Working with an ALT who often points out mistakes, I became less confident and not able to speak English. Afterwards, a new ALT was appointed, and we became good friends, spending a lot of fun time together inside and outside school. I gained confidence in my English through many experiences of communication. I think it is very

important for us learners to have many fun experiences communicating with native speakers.

Teacher C's belief stems from her experiences as a learner.

When those teachers' beliefs in comments were analysed, there were three perspective types; 1) from teachers' 2) from learners', and 3) from both teachers' and learners'. Interestingly enough, there was an implication of tendency in the types, in relation to their teaching experience; that is, the more experienced teacher participants were, the more likely they describe their belief and their experience from the learners' perspective. See Figure 10 for the result of the survey. The group of "only teachers' perspective" peaked at 6-11 years of experience while the "learners' included" group at 16-20 years.

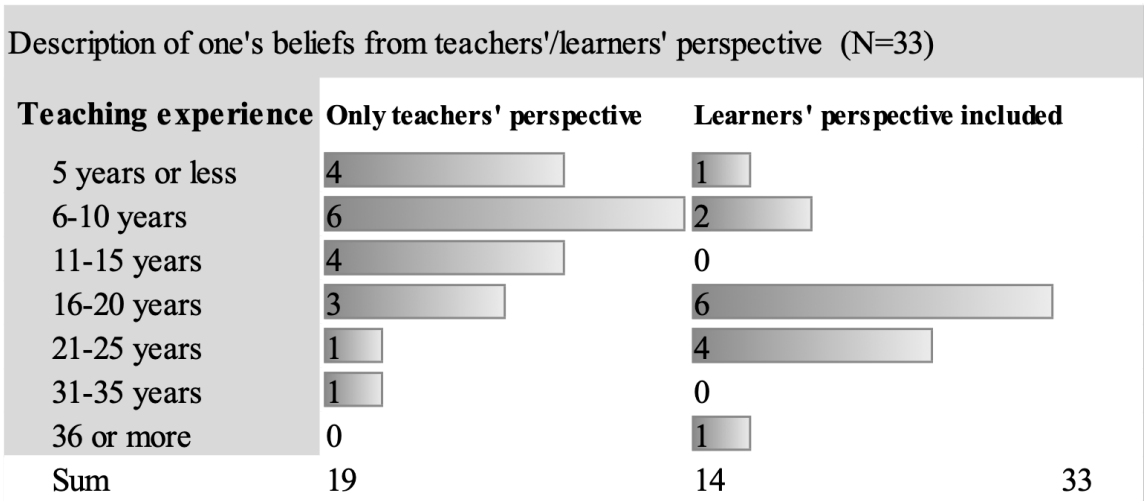

Figure 10. Teachers' vs learners' perspective

This implication of this study corresponds in part with a study on activity orientation in language teachers. This suggests that while beliefs of novice teachers reflect characteristics of both learner-centered and teacher-centered activities; mid-level teachers lean more toward teacher-centered, and the more experienced teachers toward learner-centered (Yamada, 2014). The study also showed that due to the influence of foreign language learning experience, differences of beliefs were identified not only corresponding to years of teaching experience, but also with age. This finding

gives much insight into how TE should be conducted in the Japanese context where teachers' compulsory training programs conducted by Boards of Education are normally organized in groups from the same employment year.

3.3 Study 3

The third study investigated the distinct feature of this program and whether it changed teachers' practice as well as the difficulty of utilizing their learning. As a result of questionnaire analysis, the distinct feature of this program turned out to be collaborative nature. Teacher trainers are demonstrating discrete leadership, with participants feeling like students. Collaborative learning is incorporated into collaborative teacher training. On the other hand, the result also revealed that participant teachers also think they have difficulty promoting collaboration in their own teams. This is how I was motivated to go on to Study 3.

3.3.1 Aim of the Study

Through the implementation of the new Course of Study in 2013, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has necessitated changes in English classroom practices. It has also made efforts to align teacher education (TE) with a communicative aim. As a consequence, several TD programs have been designed to help teachers continue their professional growth and fill in the gap between their current levels of teaching and the level the government requires them to be at. However, not many teachers have been successful in improving the scores of students' communicative competence, as seen in a 2019 MEXT survey that found students who have the equivalent to CEFR A2 level or higher is 40.2 %, whereas the government goal was 50%. Teachers themselves constantly fail to meet government English language targets, too. A free online exam called EF EPI (2018) also showed that Japan ranked 49th on a list of 88 non-English-speaking countries in Asia, rated two (low) on a scale up to five (very high).

The following research questions (RQ) are explored in this study to investigate the effectiveness of the program, and to discuss possible changes for future innovatory practice.

RQ1: Which of the above three models was regarded as most applicable to this program?

RQ2: What are the characteristics of each project?

RQ3: What kind of transformation occurred in the participants?

RQ4: What did participants consider to be the most distinct feature of this program compared with other in-service education programs?

RQ5: What problems and obstacles do participants perceive they will face when trying to apply what they had learned in the program?

3.3.2 The Teacher Development Program to Be Analyzed

The program that is the focus of this study was started in 2016 by a Senior High School English Education and Research Association in Niigata Prefecture, Japan. The program is mainly run on a voluntary basis by English language teachers working at the high school level. The program consists of three projects; Project S, Project O, and Project E. Each project has a main teacher trainer who plans and organizes teacher-training events and activities for participant teachers annually. As for the features of each projects, see 1.3 above.

3.3.2 Method

3.3.2.1 Researching Teacher Views of the Programs

To answer the research questions above, a questionnaire was developed based on the preceding interviews, the author's own experience as a teacher trainer and relevant literature on TD (Guskey's model (2000) and Wallace (1991)). The questionnaire was written in the L1 (Japanese) of all participants to ensure comprehension. Guskey's model (2000) suggests that evaluation of a professional development activity should first inquire about the participants' level of satisfaction about the usefulness and effectiveness of the program and then the program's impact on teachers' affective status, knowledge-base, and classroom behaviors. Following these guidelines, the questionnaire comprised five main sections asking the teachers: section 2 about their satisfaction level and usefulness of the course (questions 6-15), section 3 about their perceived impact on their affective status (questions 16-19), section 4 about the perceived impact of their classroom behaviors

(questions 20-24), and section 5 about their self-perceived impacts of their everyday behaviors from TD (questions 25-28). Demographic questions (gender, age and years of teaching experience) comprised section 1 (questions 1-5). The questionnaire also had descriptive questions (questions 29-30): such as problems and obstacles the participant teachers faced while applying what they had learned in the program; what participants thought was the most distinct feature in the program compared with other in-service education programs.

A survey was designed to investigate which perspective of Wallace's three main models teachers evaluated as the most applicable to the program. Among the above questions, twelve questions were developed for this purpose to see if either 1) the applied science model, 2) the craft model, and/or 3) the reflective model perspective was dominant in teachers' views (See Table 7). The goal of the survey was to capture the main feature of the program. Simplified language was used to facilitate complete understanding of the survey statements. A five-point Likert scale was used to distinguish participants' opinions of statements, with 1 indicating strong disagreement and 5 indicating strong agreement.

Table 7

Extract of questionnaire items related to the Wallace's three main models (1991)

Question categories / Three main models of teacher education (Wallace,1991)		Section 2	Section 3	Section 4	Section 5
		Level of satisfaction	Perceived impact on one's affective status	Perceived impact on one's classroom behaviors.	Perceived impact on one's everyday behaviors concerning teaching development
Wallace's three main models (1991)	Applied science model	Q11. I had an opportunity in the program to learn teaching methods and theories so that I could apply to classroom practice.	Q17. I have more desire to try out the teaching methods and theories that I learned in the program to my own class.	Q22. The teaching methods and theories that I learned in the program helped improve my class compared to before the program. (Give specific examples:)	Q26. I came to learn teaching methods and theories and apply them to my classroom practice more often compared to before the program.
	Craft model	Q12. I had an opportunity in the program to learn how to conduct classes by observing good examples of teaching practices.	Q18. I have more desire to try out good examples of teaching practices that I observed in the program in my own class.	Q23. The classroom tips I learned from observing good teaching practices helped improve my class compared to before the program. (Give specific examples:)	Q27. I came to learn from good teaching practices and apply them to my classroom practice more often compared to before the program.
	Reflective model	Q13. I had an opportunity in the program to experience the "reflection cycle" (in addition to gaining knowledge, one reflects on his classroom experience and apply it to the future practice).	Q19. I have more desire to continue the "reflection cycle" (reflecting on classroom experience and applying it to my future practice) that I experienced in the program.	Q24. Continuing the "reflection cycle" (reflecting on classroom experience and applying it to my future practice) helped improve my class compared to before the program. (Give specific examples:)	Q28. I have more confidence to continue the "reflection cycle" (reflecting on classroom experience and applying it to my future practice) compared to before the program.

3.3.2.2 Participants of This Study

The participants of this study were twenty teachers (55% female, 45% male) from different public high schools. with varying years of experience. Their level of experience is broken down as follows: teachers with more than 15 years of experience (75%), and young (in the 20s) novice teachers, with less than 5 years of experience (15%). Three trainer teachers and three participant teachers were chosen on a voluntary basis for post-training semi-structured interviews.

3.3.2.3 Data Collection

The data for this study came from multiple sources; a questionnaire, and semi-structured telephone interviews with the three trainers. The decision to combine questionnaire and interview data followed Borg's (2006, p. 7) observation of Peacock's (2001b) study that analyzing one data

source may tell us more about the limitations of questionnaires than the impact of TE on cognition. First, the trainers were interviewed to understand how the program was started, how it had been expanded, and what it focused on.

The questionnaire was first pilot-tested on the three trainer teachers who were interviewed to check item clarity. The final questionnaire was distributed to 92 teachers on a voluntary basis using the online survey site Survey Monkey, which collected and analyzed the data. Twenty-four teachers in the study completed the survey online. Four teachers were excluded from the statistics because they are in managerial positions and only participated in special annual events.

3.3.3 Discussion

To answer the research questions above, participant teachers' answers are analyzed quantitatively and qualitatively. First, the frequencies and means of questionnaire results were analyzed. This data was cross referenced with demographic factors to identify any associations with the results. Second, the open-ended question answers were analyzed qualitatively by grouping findings under the developed themes. The results of the statistics, Appendix, are broken down in Figure11 below. This section shows the analysis findings of questionnaire and interview data from the perspectives of the applied science model, the craft model, and the reflective model.

Question categories / Three main models of teacher education (Wallace,1991)	Section2 Level of satisfaction	Section3 Perceived impact on one's affective status	Section4 Perceived impact on one's classroom behaviors.	Section5 Perceived impact on one's everyday behaviors concerning teaching development	Average
Applied science model	4.2	4.2	3.6	3.8	4
Craft model	4.3	4.4	3.9	4.1	4.2
Reflective model	4.4	4.5	3.5	3.9	4.1
Average	4.3	4.4	3.7	3.9	

Figure 11. Questionnaire comparison among the three models (Wallace, 1991)

3.3.3.1 Analysis of Overall Result

With regard to RQ1, Figure 9 shows some general trends of agreement and disagreement among the three main models of teacher training (Wallace, 1991), showing the mean points of each item. Five points were given to any 'strong agreement' response, and 1 point for a 'strong disagreement' response.

Overviewing the results, scores in each model are generally high, indicating a good balance of this teacher education program. As seen in sections 2 "level of satisfaction" and 3 "perceived impact on one's affective status," participants' while-training perception received relatively high scores (4.3 and 4.4 in average). The latter sections concerning post-training changes received relatively low scores (3.7 and 3.9 in average) as seen in sections 4 "perceived impact on one's classroom behaviors" and 5 "perceived impact on one's everyday behaviors concerning teaching development." This implies that participant teachers had not reached a significant level of transformation of classroom practice. This tendency is most outstanding in the case of the reflective model, with a score of 3.5 in section 4. However, if we look at the score 3.9 in section 5, it also implies that their act of reflection continues to evolve, which shows promise for development and change. This state of figures seems to represent one of the three trainers' policy statements in the interview, "This program is not on the premise that one asks for knowledge, waits to be given something from other people, or seeks immediate effects." Unlike teacher training, TD involves the continuous and autonomous professional and personal growth of qualified and experienced teachers (White, 1988).

3.3.3.2 Analysis of the Characteristics of Each Project: S, O, and E

Regarding RQ2, an analysis of question results concerning Projects S, O, and E revealed that Project S was the most balanced of the three projects. Looking more closely at the result of the reflective model field questions, it should be noted that Project E has an especially strong tendency toward reflective model as shown in Q13, as more than 85 percent answered "Strongly agree." A Similar tendency of Project E concerning the reflective model was also

found in Qs 19, 24 and 28. On the other hand, Project O has a relatively strong tendency toward the applied science model as found in Q11, as many as half the participants answered “Strongly agree” (See Table 7 hereafter for each question item). Projects S and E have relatively strong tendencies toward the craft model as found in Q12, as more than 40% of respondents answered “Strongly agree.” Similar tendency of responses to this model was also found in Qs 23 and 27. There seems to be no problem with these tendencies since each project has its own purpose. However, it is debatable if some of the tendencies of Projects O and E really match their original targeted aims, as discussed in 1.3 above. These issues are further discussed below in 5.3.2.

3.3.3.3 Analysis of Practice Transformation

To answer RQ3, responses from descriptive questions 22, 23, and 24, were analyzed. These questions asked what kind of transformation had occurred in the participants. These results may imply in what way each of the three models were successful in fostering transformation in teaching practices. Answers concerning their improvements were categorized into five as shown in Figure 12 below. The first category “teaching techniques” got 16 responses: almost half of all 33 answers in the three models. Among the three, it was especially significant in the craft model, with 8 responses occupying 66.6 % of the answers within the same model. The second category was “class design,” but interestingly, this category had no responses in the reflective model perspective. The craft model had no responses other than the above two perspectives. In summary, the results implied that applied science and craft models seem to involve no collaborative practice, whereas the reflective model seemed to encourage both students’ reflection and teachers’ collaboration in this study.

Improvements	Q22 (Applied Science Model)	Q23 (Craft Model)	Q24 (Reflective Model)	Total
Teaching techniques	5	8	3	16
Class design	2	4	0	6
Evaluation	3	0	2	5
Students' reflection	1	0	3	4
Collaboration with colleagues	0	0	2	2
total	11	12	10	33

Figure 12. Comparison among the three descriptive questions; 22, 23, and 24

3.3.3.4 Distinct Feature About This Program from Other In-Service Education Programs

As for RQ4, answers to the first descriptive question "what participants thought was the most distinct feature about this program from other in-service education programs?" were categorized into six topics (See Table 8 below). The most common category was "Collaboration," where teachers learn "How to enhance collaboration among colleagues, an ability to connect with teachers outside the school, and an ability to cooperate in teams (sample answer by one teacher)." "Sympathy to members' problems" came second, followed by "Reflective attitude." The answer "Sense of equality" was seen only among those with more than ten years of experience.

Table 8

Distinct features of this program from other in-service education programs

	Categories of distinct feature about this program	Number of descriptions
1	Collaboration	10
2	Sympathy to members' problems	4
3	Reflective attitude	3
4	Sense of Equality	2
5	Learn about relationship with students	2
6	Tips for teaching	1
	Total	**22**

3.3.3.5 Problems Applying what Participants Had Learned in the Program

To respond to RQ 5, answers to the second descriptive question "what participants thought were the problems and obstacles encountered at school when they tried to apply what they had learned in the program?" were categorized into seven topics (See Table 9 below). The most common category was "Lack of opportunities or time to share ideas due to school-work overload," which is in line with the survey by Benesse (2016) that found more than 70% of high school teachers have a particularly heavy workload that prevented them from having enough time to prepare for their classes. "Practice and belief differences" came second, followed by "Lack of co-workership due to individualism" and the "Conservative attitudes of each teacher." Overviewing the result, these top four categories are all concerned about obstacles related to collaboration, occupying as much as 81.3 percent of all answers. The last category, "Lack of school on-the-job training (OJT) system supporting voluntary training

by school managers" could also be included in the figure, which was stated by one of the teachers with rich experience. This finding is discussed in the next section because of its potential to realize the goal of this TD program.

Table 9

Problems the participants face at school when applying what they learned in the program

	Categories of difficulty encountered at schools	Number of descriptions
1	Lack of opportunities or time to share ideas due to school-work overload	12
2	Practice and belief differences with other teachers	5
3	Lack of coworkership due to individualism	5
4	Conservative attitude of each teacher	4
5	Lack of aspiration and ability of each teacher	3
6	Evaluation system preventing practice changes	2
7	Lack of school OJT system supporting voluntary training by school managers	1
	Total	**32**

3.4 Study 4

As the study 3 disclosed team collaboration was one of the biggest concerns of participant teachers, Study 4 aimed to confirm how experts are promoting collaboration in schooling. The result showed that the expert teachers are having similar experiences to an individual novice teacher in the first study. Even experts initially have dissonance with other teachers, but later overcoming it with social interaction through contextualization of their learning in the project. They promote collaboration by discussing performance test scheme and evaluation, prioritizing students'

performance image. They are also found to have a teacher trainer's perspective to other teachers, showing discreet leadership in a flat relationship and balanced egalitarian view.

3.4.1 Aim of the Study

Due to economic and social changes in Japan that have increased the need for citizens to communicate in a wider range of English-speaking contexts, the government is in the process of drastically reforming public-school English education. One area being impacted the most by these changes to meet proposed policies is language teacher development (TD). Through the implementation of the new Course of Study in 2013, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) has necessitated changes in English classroom practices. It has also made efforts to align teacher education (TE) with a communicative aim. As a consequence, several TD programs have been designed to help teachers continue their professional growth and fill in the gap between their current levels of teaching and the level the government requires them to be at (Abe, 2020c). The primary issues related to achieving the aim of quality TD are the language competence of teachers, and their teaching approaches. Teachers who use English as a second language have consistently failed to meet government language targets. Additionally, public-school language teachers are regularly found to be teaching how they were taught and using non-communicative methods. Further evidence of poor teaching standards is reflected in student test scores. Students in Japan regularly appear at or near the bottom of any international test rankings like TOEFL, IELTs and TOEIC. For instance, the TOEIC test takers' results (Educational Testing Service, 2016) shows Japan is ranked 41st on a global scale in 2016, revealing that Japan is ranked just above second world countries such as Vietnam and Thailand. Similar results are found in other tests, such as TOEFL and IELTs, too. Inadequate student test scores are also frequently found in Japan's internal measures. The Japanese Ministry of Education (MEXT) (2019) created a target of 50% of students to pass the CEFR A2 level in 2019, but only 40.2% achieved this target. Issues, such as inadequate language ability and outdated teaching approaches have the potential to change through conscious awareness of them (Freeman & Richards 1996; Richards & Lockhart 1996).

The collaborative nature of this program provided a rare opportunity for the participant teachers to cause transformations in their teaching practices. This study will explore the transformative power of this TD program, focusing on how the collaborative atmosphere of the project promoted teachers' transformation of beliefs and collaborative practice at schools. The idea of original LS by Akita (2004) is widely believed to help create relationships among teachers where there is mutual respect, which is strengthened by fostering colleagueship through observing each other's lessons on a daily basis. However, there are few empirical studies supporting the effectiveness of such a program in the culture of LS in school OJT in the Japanese context. In addition, high school LS is said to be deteriorating, as discussed above. This study attempts to contribute to this issue by investigating the distinct features of this program from other existing TD programs, finally aiming to elaborate and propose an innovative and purposeful TD model through my upcoming research and discussion.

3.4.2 Method

This study examines the effects of a TD program by conducting a qualitative data analysis that focused on participants' application of their learning to OJT, especially on actual collaborative endeavors and their leadership at schools.

3.4.2.1 Participants

All participants are full-time high school English teachers. Table 10 provides a summary of the professional background of all four participant teachers. Teachers D and G can be categorized as expert teachers with more than twenty years of teaching experience, and maintain enthusiastic participation in project activities since they were started. Teacher F began to teach as a new teacher at the present school and categorized as a novice teacher. Teacher E, as middle level.

Table 10

Background of participants

Participant	Gender	Years of teaching experience	Years of experience in project activities
Teacher D	F	21	5
Teacher E	M	8	0
Teacher F	F	2	0
Teacher G	F	26	5

Teachers D, E, and F work for the same school and belong to the same grade team in charge of the 2nd year students. Their school was designated as Super Science High School (SSH). SSHs conduct education programs intensifying science and mathematics by the government support aiming to train superior scientific human resources. Most SSHs are public high schools. SSH conduct classes in cooperation with universities and research institutes with field work and students make presentations about their research in English. Teacher G works for a different High school in a different region and now works as a leader in her second round in the school in charge of the new grade. (In Japanese high schools, teachers are often attached to a grade team, and move up to the next grade with students at the end of school year.)

3.4.2.2 Data Collection and Analysis

Data was obtained from telephone and face-to-face interviews:

- March 7th, 2020 Teacher D
- March 9th, 2020 Teacher E
- March 10th, 2020 Teacher F
- March 26th, 2020 Teacher G

The interviews were electronically recorded with the consent of the participants and transcribed in full in Japanese. The data was analyzed using the Grounded Theory Approach (GTA) using the procedure laid out by Hadley (2017). The steps are:

(1) Making transcriptions from the data

(2) Open Coding (focusing on people's action)

(3) Focused coding and memo-ing (choosing three to five Open Codes that seem to have something in common and labeling them so that they show a high level of abstraction)

(4) Theoretical Clustering (choosing three Focused Codes that seem to have something in common and thinking of a title of this story, which will generate Conceptual Category)

(5) Concept formation and theoretical coding (select a core category and consider relationships among the categories generated from the last procedure (4) highlighting human action and social interaction, and

(6) Defining categories (explaining how the Focused codes from the chapters of the story, adding some quotes from scholarly literature as well as the present qualitative data based on the earlier memos).

GTA can be used to diagram in the relationship among the categories and to construct a conceptual model.

3.4.3 Findings and Discussions

Participant teachers' answers as well as interview data in research 1 are first shown as a foundation of the research 2, which investigated how teacher collaboration was enhanced by participant teachers at school, to answer the research question shown above

3.4.3.1 Emerged Categories and Social Processes

As a result of Grounded Theory inspired qualitative analysis of the interview data on team collaboration obtained from expert/novice teachers in research 2, nine social processes were generated, which were then organized into three categories shown below (Table 11).

Table 11

Categories and social processes generated

Title	Category	Social Process (*Expert)
A Developing Grounded Theory of Interrelational Contextualization in Japanese Secondary School English Language Curricula	Overcoming Dissonance	*01 Feeling Cramped Due to a Lack of Self-Confidence
		*03 Applying Collaborative Learning Experiences to School OJT
		01 Supporting New Teachers Through Teamwork
	Goal-sharing Prioritizing Students	*05 Prioritizing Students
		04 Recognizing the Importance of Goal Sharing
		*04 Backward Designing
	Exercising Fluid Leadership	03 Developing a Brain Trust Identity
		*02 Team Building (Acceptance of Diversity, Self-disclosure of Weakness, and Entrustment)
		02 Seeking Cooperative Synergy

All categories and social processes are summarized into a conceptual diagram (Figure 13), which shows the cause-result and interactive relationships of three categories and nine social processes: (1) Overcoming Dissonance, (2) Goal-sharing Prioritizing Students, and (3) Exercising Fluid Leadership. *Categories are shown in bold and social processes are shown in normal fonts, with arrows showing the relationships of all those categories and social processes. The following discussion will be based on this diagram.

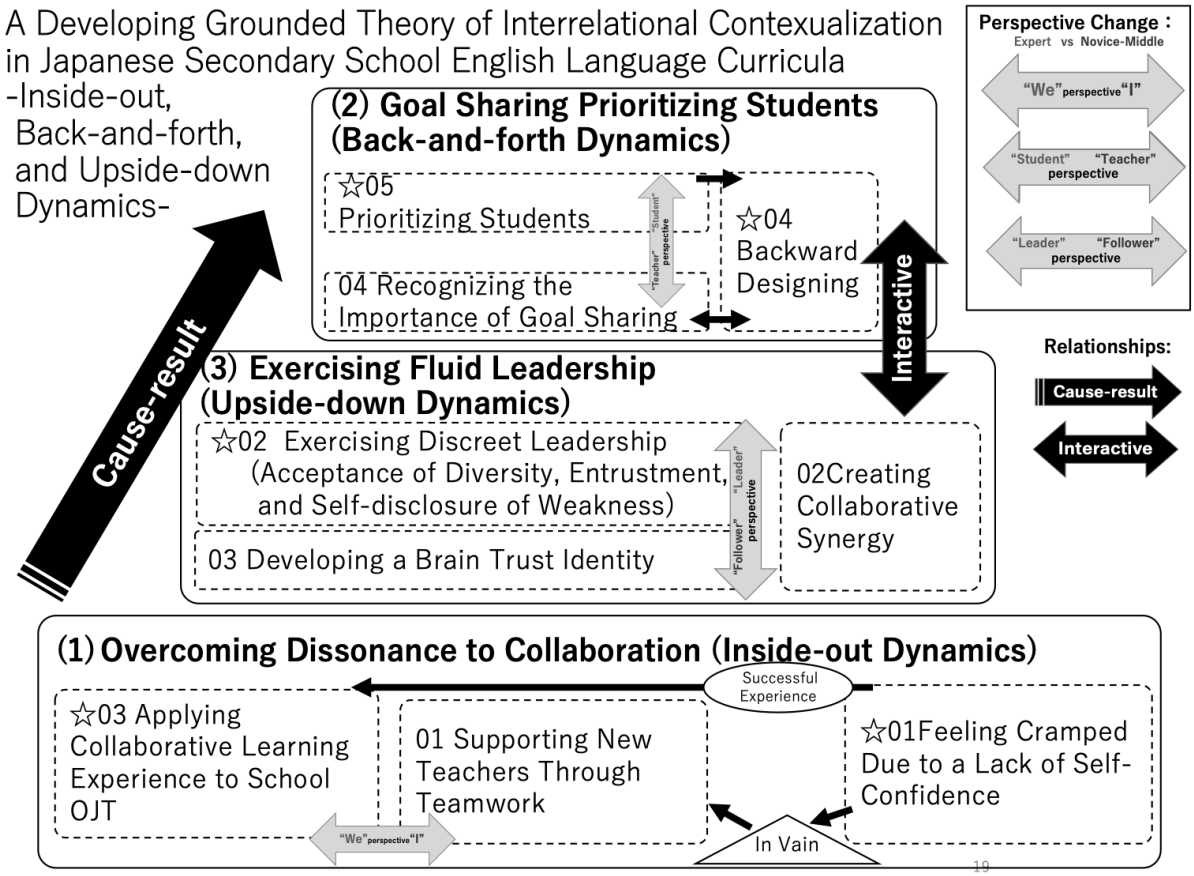

Figure 13. Categories and social processes generated

The first category "Overcoming Dissonance" consists of three social processes: "Feeling cramped due to a lack of self-confidence," "Applying collaborative experiential learning to the school," and "Supporting new teachers through team works." Expert teachers somehow "feel cramped due to a lack of self-confidence" when they move into new schools because of personnel changes,

however, they hesitate to exert their leadership or communicate their sense of discomfort to other members about teaching belief gaps. They sometimes encounter conflict of opinions about teaching. This feeling of dissonance (Golombek & Johnson, 2004) or lack of collaboration at school motivated those teachers to participate in project activities outside schools (Off-JT), to learn from mentors they encounter there about how to collaborate in schools, and later to "apply those collaborative learning experiences to school OJT," for example introducing team-building strategies and "supporting new teachers through teamwork."

The second category "Goal-sharing Prioritizing Students" seems to be prompted by the aforementioned category, "Overcoming Dissonance," and it consists of three social processes: "Prioritizing students," "Recognizing the importance of goal sharing," and "Backward Designing." "Goal sharing prioritizing students" is the key to promoting team collaboration, however, unifying the ways of teaching is not their goal. The purpose of collaboration is not to enforce a narrowed approach to each teacher, or not to decide the progress of teaching materials and to monitor them, but that each teacher steps toward the shared goal, and ultimately contributes to students' success in learning. To achieve this aim, it is important to clearly draw students' dynamic performance image as a shared goal ("prioritizing students,") to discuss evaluation plans, and to "design curricula backward" from the students' image; a method that was learned from project activities. This act of goal sharing helps the team become united (formation of "We" perspective) (Mizuochi & Abe, 2014, p. 148), conversely allowing for each teacher's freedom to choose their own ways of teaching. When each member "recognizes the importance of goal sharing," the "dissonance" will disappear, and the collaborative atmosphere is further enhanced in the team.

The third category "Exercising Fluid Leadership" consists of three social processes: "Developing a Brain Trust Identity," "Exercising Discreet Leadership," and "Seeking Cooperative Synergy." This seems to be occurring interactively with the second category "Goal-sharing Prioritizing Students." Expert teachers never impose the way they think is right but are always "exercising discreet leadership". They fully "entrust" decision-making of the team members and

assign their roles, which encourages one of the members to “develop his brain trust identity.” They sometimes “disclose their own weaknesses” and rely on members’ support. They also “accept diversity” among members and welcome their proposals about teaching practices. The expert teachers believe the power of “collaborative synergy,” in which better ideas will be generated through collaboration than their own decisions made by themselves, and the members also seem to believe that the team collaboration should ultimately enhance the students’ abilities.

To summarize the whole picture of this collaboration model, those expert teachers, after experiencing some degree of “dissonance” at school, are attempted to participate Off-JT, where they have a chance to elaborate lessons starting from discussing the students’ goal images. In this way, they learn from outside mentors how to collaborate in teams and bring such learning into their own school. When they apply that learning, they draw a clear image of students’ performances with colleagues and design student learning backward. They succeeded in demonstrating cooperative synergy of the team by exercising a discreet leadership. All these processes can be defined as the uniqueness of this program together with the level of satisfaction of this TD program revealed in research 1, quality of which cannot be easily found in many TD programs, and this unique collaborative model would hopefully contribute to the future TD programs inside and outside Japan. I will further discuss this prototype model in the next sub section by focusing on expert-novice gaps and interrelational dynamics elaborate on this desired TD model from the study findings.

3.4.3.2 Dynamics that Emerged from GT Analysis Focusing on Cross-bordering Perspectives

The process of GT data analysis on participant teachers’ action and interaction led to further insight. This analysis process made it possible for three major dynamics to emerge as: inside-out, back-and-forth, and upside-down dynamics. They were discovered in relation with the cross-bordering perspectives, which will later be discussed as recommended perspectives. I will now go into more depth of this GT analysis by looking at interrelational dynamics occurring in the collaborative endeavors of these expert teachers contexualizing what they had learned in their project activities.

Dynamics emerged as “Inside-out Dynamics,” were expressed as perspective change from “I” to “We” (Mizuochi & Abe, 2014, p. 148). For example, those expert teachers had no collaborative relationship with other teachers for the first several months, after they moved into this school, so they could not consult anyone, or share and develop their ideas of teaching. What changed this situation was their participation at project S where a voluntary small-group practice-sharing circle organized systematically meet ups in the local areas of their workplaces. As interview data discussed above also revealed, many participants in this project said; they feel free to disclose themselves and talk about not just their teaching practices but serious concerns or even complaints/conflicts they have with their school colleagues.

While Teacher G consulted with teachers from other schools or asked for advice from young teachers, she had an opportunity to reconsider her own way of collaborating with other teachers at school from a meta-cognitive perspective (Griffith & Ruan, 2005). For example, Teacher G gained other teachers’ perspectives, most notably older teachers’ views, sometimes noticing what she herself sounded more meta-cognitive in her colleagues’ opinions. In another situation, when Teacher G consulted young teachers in the project, she sometimes gained a meta-cognitive awareness of how other older teachers see younger teachers. It is also speculated that from her project activities, Teacher G had satisfied her need for relatedness (Deci & Ryan, 1985) by participating in a small group project instead of consulting with her colleague, which she had to give up at her school.

What kind of psychological change is occurring in these teachers in introducing such learning into schools? As discussed earlier, Mizuochi and Abe (2014, p. 148) define a “We” team as “a group where the members share the same goal, mutually enhancing each other.” When those expert teachers go out of school to the project and meet others with similar teaching goals and interests, they also meet mentors who helps improve their ability to teach.

These two expert teachers name the main feature of this project as “not having to worry about being denied by others.” Projects are, for the two experts, an outside, safe, secure, and collaborative learning environment with “informal mentors” (Clarke, 2004, p. 127), or “more knowledgeable other”

who scaffolds and encourages her to reach the “growth zone” (Panicucci, 2007). Interestingly, it was first in Off-JT that this “We” team was created. Only later and through successful experiences out there they started to believe in the power of collaborative LS, and it was finally brought into their own schools. These expert teachers say in their interviews that they learned how to talk collaboratively in the project activities. This participation in the project and “dialogue with co-mentors” (Clarke, 2004, p. 127) in a secure and collaborative environment seems to play a pivotal role in causing their transformation of beliefs and practices. Those two expert teachers succeeded in establishing the “We” team as a result of collaboration within the school. Interview data of Teacher D’s team members proves that each member in the team believes that the power of collaborative synergy will eventually enhance the students’ ability. Another finding was that young teachers are as concerned about their own evaluation or success as the team's.

As discussed above, after having learned how to collaborate in the project and having changed their beliefs and practices about collaboration, expert teachers D and G returned to school, having situated or contexualized their learning and meta-cognitive awareness in their own schooling environment. They realized the importance of team-building and goal-sharing, which resulted in increased interest in collaboration. All these behavioral and belief changes and contextualization in schooling can be defined as I-We perspective shift. This means that experts have broader identity as “We” team by going out and coming back in through goal sharing and sense of unity, eventually leading to the team’s success. Therefore, I would like to name these social processes “Inside-out Dynamics.”

Dynamics two emerged as “Back-and-Forth Dynamics,” expressed as teacher-student perspective change, where these expert teachers clearly draw students’ dynamic image of performance as a shared goal, discuss evaluation plans such as performance tests and semester exams, and to “design curricula backward” by “prioritizing students.” If this goal image is clear for everyone, the team can also change its plan reactively and flexibly according to, for example, the result of the achievement test on the way. This goal sharing allows each teachers’ freedom as well as room for

discussion about their ways of teaching. When each member "recognized the importance of goal sharing," the collaborative atmosphere was enhanced in the team.

According to Teacher G's interview:

> "A teacher does not change, after all, by other teacher's intended approach. (Omitted) One of the biggest factors that could change ones' mind, from my own experience, that he sees "students' change" in his own class. It is only when he sees it that he feels like trying something new. (Omitted) It is only in that moment when he talks about students' change happily that I start to make proposal to him about sharing goals or collaborating in the grade team."

Here, Teacher G is waiting for her colleague's optimum opportunity to change by accompanying his own learning pace. In the end, people change not because they "have to," but because they "want to" based on their curiosity and joy deriving from their own experiences and emotions. One source a leader has access to is promoting team collaboration in members' which works to increase "intrinsic motivation" (Deci & Ryan, 1985); and produces "want to" in the colleague's mind. Here, the act of goal-sharing seems to be playing a critical role in building a "We" team since Teacher G says in her interview that when the team had a shared goal in a convincing way, the "dissonance" disappeared, and the collaborative atmosphere was further enhanced in the team.

According to Teacher G's interview:

> "First, I talked to one of the teachers in my team about what kind of goal we could share. I proposed a performance test scheme and he agreed to do it together in the following school year. (Omitted) Students were found to be making so much effort, so I proposed putting the performance test results into evaluation. In order to do so, it is necessary that three of us follow the same scheme. (Omitted) So, we started to share our performance test procedure among three. I asked each member of the team to help elaborate the detailed plan. (Omitted) After all, it is important that everybody agrees upon the plan

> and work together in a convincing way. It's not good for students that the teachers do something simply because they were told to. So, I tried not to deny the members' opinion, and to create the plan together. (Omitted) It's not a compromise, but more like a positive discussion. You can make something better through discussion than what you think by yourself. (Omitted) If teachers in charge of the grade can collaborate in the team, the whole grade students can step up at the same time when they go up to the next grade, and we can say to students, "We finished this last year and you all cleared this performance level, so let's try debating this time." Everybody is doing the same activity in every class. (Omitted) The other day, I was talking with my fellow teacher that we were really looking forward to the students' outcome. It's great fun. We look forward to students' change very much as a team, and it's becoming greater fun for us to teach."

Mizuochi and Abe (2014, p. 164) emphasize the importance of sharing outcomes as well as goals and responsibility to build a "We" team as discussed in the literature. Promoting this kind of collaboration also made it possible for Teacher G's team to set the goals of all the students in each grade for each year in the grand design, and to share it with students. Since classes came to be seamlessly organized and managed toward the shared goal, it is now possible to aim at the next level immediately when starting a new school year, the unnecessary competitive atmosphere among classes disappeared, and the results of the external tests can now be celebrated among all the team members with satisfaction. If goals are shared in this way, autonomy will be created among teachers, and they will grow into an ideal team while each member achieves individual success.

When teachers built up a concrete image of students' performance as a goal, they started to conduct classes from the perspective of learners, and lessons changed to student-centered and student-driven, which further enhanced students' autonomy. By sharing goals with students, they also succeeded in fostering students' cross-border and meta-cognitive perspectives (Flavell, 1976), which

apparently got closer to teachers' view. As mentioned above, those two expert teachers succeeded in having team members gain goal-oriented and student-centered perspectives as a result of discussing the future dynamic image of learners' performance. The team succeeded in designing the evaluation scheme backward (Wiggins & McTighe, 2005), and eventually lead to nurture students' autonomy. There is a cross-border between the student and teacher perspectives, where teachers have student perspective and vice versa through projecting students' goal image forward and designing evaluation schemes backward. Therefore, I would like to name these social processes "Back-and-forth Dynamics."

Dynamics three emerged as "Upside-down Dynamics," expressed as fluid leader-follower perspective change as a result of an analysis of the two expert teachers. These teachers have been enthusiastic about improving their teaching techniques for many years and have made a number of open classes and presentations nationwide at teacher-training workshops. The most striking characteristic commonly found of these teachers is non-hierarchical and discreet Leadership, in which they prioritize consensus building with team members; their playing an active role in their own way. Teacher D tries not to decide too much by herself, as she says she prioritizes "the atmosphere of cocreation", in her interview, she says "What I always keep in mind is not to decide too much by myself and not to deny what other teachers say they want to do." While those expert teachers play mentor roles in the team, they sometimes expose their weaknesses, which leads to build a relationship of trust and co-mentorship (Clarke, 2004) building an informal relationship within the team. They also have perspective of the teacher trainer who tries to professionally develop team members with support, and it seems to be their pleasure to do so, just as in the support of their students in charge. For example, Teacher G learned to accept other teachers' opinions through project activities, deepening their relationship by knowing others through everyday casual conversation, analyzing their personalities which can later be utilized for team collaboration. She sometimes interspersed with topics about classes in such chats and also asked older teachers for advice so that those team members feel the joy

of contribution and attachment to the team. She also makes proposals for team's project without missing good opportunities for goal setting, such as when the students whom the members are in charge of have made dramatic progress (Abe & Kato, 2019), by guiding the team's collaboration and success. The Teacher D prioritizes the atmosphere of collaborative creation within her team, the same idea of which is found in post-heroic leadership (Fletcher, 2004), where leading and following are considered as two sides of the same set of relational skills and the distinction between their roles is blurring. Teacher D says in her interview that she trusts her students and colleagues because she is "now experiencing that students' abilities surely improve if teachers' expectations and outlooks are shared" Perhaps one of the reasons why they can collaborate now is this backward design (Wiggins & McTighe, 2005), which awakens the feeling of "heading toward the final goal." It is similar and related to Novice teacher's "04 Recognizing the importance of goal sharing." The question is, on the other hand, what could be the difference. She sometimes relies on Teacher E, where she is developing his brain trust identity by increasing teams' relations and motivation. Teacher E is now able to exercise his great leadership with full of self-efficacy, but this collaboration synergies are established on the basis of Teacher D's post-heroic and fluid leadership. Teacher E seems to be proud and confident that he can contribute to the team as a sub-leader, but as his comment in the interview shows, it is apparently the generosity and modest attitude of Teacher D that realizes flat relationships among members. Here, Teacher D seems to be exercising this type of discreet and fluid leadership by raising Teacher E's interests and awareness. Teacher D seemed to be playing a pivotal role in creating synergy in team collaboration. We would like to now focus on how Teacher D's team functions in the school organization.

Regarding "Middle-up-down Management," Teacher D is positioned between the middle class (chief class) and the manager, and is engaged in the up/down communication that connects the manager and the staff. It can also be considered that she contributed to give members guidance and advice, the building of colleagueship, and the creation of collaboration through horizontal

communication. Since the team was composed of a wide range of age groups, something similar to "middle-up-down management" worked in a small scale, leading to the training of young people as well as the middle class. The bottom-up class observation circle led to the activation of collaboration among colleagues, and its backwash effect is identified as the transformation of practice. The principal of Teacher D's school actually states that those teachers at the English department are, unlike other subjects, all attracted to their expertise in teaching methods, working with a common sense of purpose. Teacher D says the school atmosphere, especially faculty members are gradually changing towards student-centered view, part of which can possibly be attributed to the collaborative atmosphere of Teacher D's team. This will need further investigation and analysis in future research.

All these are characteristics of the current practice in the team, and the fact that the staff can feel free to make proposals depends largely on the breadth of leader teacher D and the learning of project who does not deny the followers. According to his interview, Teacher E sometimes seems to play a leadership role. There is a switch of leadership roles and fluidity (Scott et al, 2018) identified between leader and team members, and upside-down perspective change with the security and convincingness that are created from leaders' acceptance and self-disclosure, so I would like to call this typical interrelational atmosphere contexualized from the project learning "Upside-down Dynamics."

Analysis of the GT data on Japanese secondary school English language teachers above led us to identify their dynamics of contexualizing their learning interrelationally with team members at their schools, namely Inside-out, Back-and-forth, and Upside-down Dynamics.

3.5 Summary of This Chapter

In this chapter, I chronologically presented the salient, recurring themes of four studies. Through amalgamation, the themes of these studies made up the TD model presented in the dissertation. Summarized here, the themes of the studies are;

(Study 1) the transformation process of an individual novice teacher through an analysis of her teaching journal (Abe & Kato, 2019),

(Study 2) the beliefs of teachers and students about language learning and teaching (Abe, 2020a),

(Study 3) the distinct feature of the collaborative TD program and the level of difficulty in utilizing their learning to school practice (Abe, 2020b),

(Study 4) the effects of the TD program on teachers' transformation of beliefs, practices, and collaboration at schools (Abe, 2020c).

The overall research findings were positive as a result of the transformative methodology used in the unique in-service teachers' TD program. These results were shown through the processes of transforming beliefs and practices of the participant teachers at schools.

CHAPTER 4: GENERAL DISCUSSION

This chapter is organized around two major themes underlying this study — the participants' transformation cycle after participating in the program, and the actualization of their learning in their school collaboration. Following the grand research question, this chapter clarifies what this study has to say about the meanings of the observed phenomena. I refer back to the relevant research findings of the studies where necessary, and present evidence to support my claims and interpretations. I also discuss the research findings in reference to the relevant literature to gain further insights into the research findings. The research findings presented in the last chapter illustrate the program's transformative power of teacher collaboration. These findings encompass the complex and multifaceted nature of beliefs about language learning and team collaboration that lead to effective teaching in a team. Furthermore, the observed development of the participants was nonlinear and multilayered.

4.1 Summary of the Findings

The first study described the transformation process of an individual novice teacher and found the teacher to be reflecting on dissonance and movement to seek relationships with journals. A finding connected to the later discussion of "Inside-out Dynamics."

The second study, that investigated the beliefs of teachers and students about language learning and teaching came as a result of a primary finding in study 1 that suggested the importance of these beliefs in teacher training. Looking at the language learning beliefs of teacher's study groups, there were two perspective types disclosed: learner's and teacher's points of view. More expert or well-experienced teachers are found to have the former perspective, who do not lose the learner's point of view. This may correspond to study 4, "Back-and-forth Dynamics", in the diagram prioritizing students' points of view. It also turned out that the biggest problem in the schools of the participants in the study group was the belief gaps with other teachers. This seemed to be causing

problems in the utilization of the teacher learning in the project to school OJT. These two findings in study 2 motivated me to conduct further research in Study 3 on the utilization of teacher learning.

Study 3 investigated the distinct feature of this program and whether it changed teachers' practices. This study also explored the level of difficulty in utilizing their learning to school practice. The questionnaire analysis showed that the distinct feature of this program was in its collaborative nature. Teacher trainers typically demonstrate discrete leadership, with participants feeling like students. Collaborative learning is incorporated into collaborative teacher training. On the other hand, the result also revealed that participant teachers also think they have difficulty promoting collaboration in their own teams. This study motivated me to conduct Study 4.

As study 3 found that team collaboration was one of the biggest concerns of participant teachers, Study 4 aimed to confirm how expert teachers promote collaboration in schooling. The results showed that the expert teachers had similar experiences to an individual novice teacher in the first study. Even experts initially have a dissonance with other teachers, but later overcome it with social interaction through contextualizing their learning in the project. They promoted collaboration by discussing the performance test scheme, evaluation, and prioritizing students' performance images. They also had a teacher trainer's perspective to other teachers, showing discreet leadership in a flat relationship and balanced egalitarian view. The chronological themes that emerged from each research phase and the following observed findings are incorporated into table 12 below and explained in the first section. As study 4 contributes to the grand RQ of this dissertation, they are explained in more detail.

Table 12

The chronological themes that emerged from each research phase and the following observed findings

RQ: What are the elements of teacher development program that promote transformation and collaboration of language teachers at schools?				
Section Summary of Chapter 3	**Background of research**	**Research Question**	**Research Scope / Research Method**	**Results**
3.1 Study 1	Investigating exploratorily: -why some teachers improve / do not improve their lessons in training -what is the mechanism of transformation	What kind of transformation does the teaching journal promote?	Individual's transformation / teaching journal analysis	･Transformation Cycle (belief and practices) ･Student-teacher synergy ･Pseudo-social function of teaching journal
3.2 Study 2	Study1, implying that belief transformation seems to have a great influence on transformation, motivating me to conduct research on the English learning/teaching beliefs in a wider range of teacher groups, and compare the language learning beliefs of students, to be applied to future training	Is there any gap in student/teacher beliefs about language teaching/learning?	Student/teacher belief comparison / Questionnaire analysis (quantitative/ qualitative)	･ Student/teacher and teacher /teacher belief difference revealed ･ The more proficient teachers are, the more beliefs they tend to have from the learners' perspective ･ A need to talk about beliefs to students and colleagues (Issues of collaboration difficulty revealed) ･ A need to continue learning from the learners' perspective

3.3 Study 3	Study 2 (teacher/ teacher belief gap) implying a necessity to incorporate teachers out in the field and increase their commitment, as well as to investigate the practical application of their learning in schools after the program	What kind of transformation or obstacle occurred in the participants when trying to apply what they had learned in the program?	Individual's transformation of practice after PGM / Questionnaire/ interview analysis (quantitative/ qualitative)	▪ Collaborative PGM promoting school collaboration and transformation ▪ 80% having difficulty collaborating with colleagues
3.4 Study 4	-Study 3 disclosing that school collaboration was one of the biggest concerns of participant teachers -This project being a kind of specialty study group from the standpoint of teacher training, as the participants are highly conscious teachers who meet on days off -Further investigating how the program was enhancing collaboration in schoolings, aiming to involve general teachers into collaboration after the discussion of study 3	How does the program promote teachers' transformation of beliefs, practices, and collaboration at schools?	Post-training transformation of team collaboration in the field / Interview analysis (GTA)	Experts demonstrate three dynamics (Inside-out, Back & Forth, Upside-down) that gains perspective shift (I-We, teacher-student, leader-follower) utilizing their learning in the project and overcoming dissonance, leading to team collaboration, which is modelized as "interrelational contextualization" shown below.

4.1.1 Study 1

When I was a teaching consultant and conducting teacher training programs at all levels of teacher's careers (from novice to expert) I was interested in the variables between what caused some to transform their teaching practices dramatically, and those who made little or no transformation to their teaching practices after many years of teaching experience and training. Motivated by these questions and findings from my previous studies on the nature of reflective thinking and the benefits of reflective journals, study 1 aimed to exploratorily investigate how a high school trainee teacher used a diary and to transform her classroom practices. Looking at teaching journals exposed a teacher's development over time from the perspectives of critical reflection, motivation and transformation. In addition to this teacher's teaching journal, she completed a questionnaire of 10 open-ended questions and a one-hour phone interview about her journal. Narrative comments in the journal were chosen to be investigated, divided into meaningful phrases, analyzed and coded, and finally organized into six categories as shown in Table 1. (see Table 1 in 3.1.3).

There are several benefits related to the use of reflective journals. Firstly, the study showed that making a record of reflection over time helps teachers transform their practices. This transformation is circular and repeated as follows: noticing problems in the classroom, critically reflecting on practice, trying a new approach in class, students changing their behaviour in response to the teachers' approach, teachers' self-efficacy beliefs change, teachers' set goals themselves, teachers' transformation occurring in practice, and teachers' increased interest in students' responses and changes. This finding supports the integrity of the comprehensive model proposed in the figure below showing the mechanisms of how teachers' critical reflection and motivation eventually leads to transforming their beliefs and teaching practices. Another implication found in this study was a synergetic effect of student-teacher transformation cycle, where the teacher's promising declarations were observed right after her entries describing "positive evaluation of students," which seemed to create an enthusiasm for change. This emphasizes the importance of teachers formatively evaluating students' development and noticing such changes for teachers themselves, which could eventually

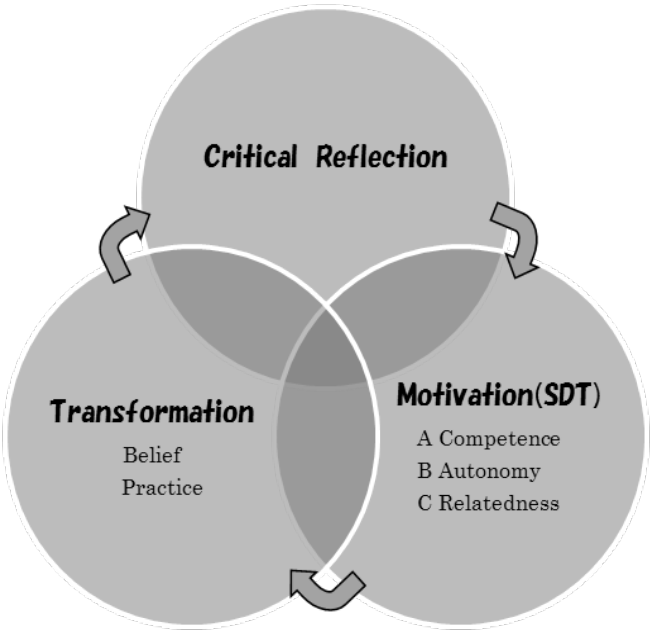

Figure 7. Transformation model in practice (Reprint)

foster teachers' self-efficacy beliefs and future practices, creating a synergy cycle. Finally, the pseudo-social function, where the act of writing made the practitioner feel as if she was with somebody listening to her story, discussing her class, deepened her critical reflection. These findings imply that a journal served as a powerful teacher-training tool because it revealed how these three factors functioned and encouraged transformation in teaching beliefs and practices. There was also an implication of critical weaknesses in the journal writing process in this study that, for some teachers, could be demanding or demotivating.

4.1.2 Study 2

Study 1, which attempted to analyze the teachers' transformations at the individual level, revealed the importance of teacher beliefs that might have a great influence on their teaching practices. Even the reflective teachers in the "study group" had quite different beliefs from each other. This finding motivated me to investigate teacher beliefs in the next study. Study 2 evolved from study 1 where I conducted a comparative survey of the language learning beliefs in a wide range of teacher

groups. Findings were cross analyzed with the beliefs of students with the aim of applying the transformative findings in our teacher training program.

This study 2 looked at how student/teacher beliefs differ from the perspectives of dominant second language acquisition (SLA) theories: 1) Behaviourist, 2) Innatist, 3) Cognitivist/Developmental, and/or 4) Sociocultural Perspectives, by using an original questionnaire designed to uncover the language learning beliefs of the 531 participants in the study (35 teachers and 496 students). This study showed that the language learning beliefs of teachers and students may not always correspond. By comparing beliefs with several SLA theories this study found that relatively newer theories and hypotheses/approaches were accepted both by teachers and students. Regarding RQ 1, the biggest discrepancy between teacher beliefs with SLA theory was found in the area of error correction (EC) in Behaviourism As for RQ 2, the analysis of the teacher-student gap revealed that there were four areas of discrepancy: in two areas of EC, Krashen's input hypothesis (Krashen, 1982, 1985), and affective filter hypothesis (Krashen, 1982). The comparison also found that participating teachers lean professionally more toward Innatism, while their students more toward Behaviourism. An analysis of teachers' descriptive comments implied a mismatch between teacher/student needs for EC, where teachers are trying to avoid corrective feedback because of their demotivating beliefs. However, it was clear that student perceptions opposed teacher beliefs and showed no negative feelings caused by EC. For RQ 3, there was an implication that two self-images concerning beliefs existed: teacher as a teacher, or as a learner. The former belief is based on experiences of observing students' improvement in classrooms, the other deriving from experiences of teachers as learners from their own learning history. This tendency of belief category in the survey showed an implication of correlation with years of teaching experience, in agreement with Yamada (2014). Effective teaching is likely to occur when teachers and learners come to a mutual understanding, a finding that also applies to teacher collaboration in a team. General implications are as follows:

1) Teachers should explain the purposes of activities to students based on knowledge from SLA theories.
2) It is important that teachers explore students' beliefs and make efforts to deal with potential conflicts between student beliefs and instructional practices (Schulz, 2001, p. 244).
3) We teachers should discuss our beliefs with other teachers, especially with ones from different age groups or backgrounds to broaden our pedagogical perspectives to enhance collaboration in a team.
4) We teachers should try to keep learning so as not to lose learners' perspectives, and try to bring any insights we gain into the classroom and share, as clearly as possible, with our students.

A suggestion for future study is to examine links or gaps between teacher beliefs and classroom practices.

4.1.3 Study 3

The huge belief gap in teachers found in study 2 initiated school-based field practice in teacher training. Study 3 aimed to find out how the teacher learning in the project activities were applied in schooling, and whether their practice changed after the training program. The following questions are explored in this study to investigate the effectiveness of the program, and to discuss possible changes for future innovatory practice: RQ1: What are the characteristics of each project? RQ2: What kind of transformations occurred in the participants, and RQ3: What problems and obstacles do participants perceive they will face when trying to apply what they had learned in the program? To answer these research questions, participant teachers' answers, from closed and open-ended questions are analyzed quantitatively and qualitatively. The results implied that the distinct feature of this program was "Collaboration" (see Table 8 in 3.3.3.4). Teachers learned through experience "How to enhance collaboration among colleagues, an ability to connect with teachers outside the school, and an ability to cooperate in teams (sample answer by one of the participant

teachers).” “Sympathy to members’ problems” came second, followed by “Reflective attitude.” The reflective model seemed to encourage both students’ reflection and teachers’ collaboration.

As for the second descriptive question “what participants thought were the problems and obstacles encountered at school when they tried to apply what they had learned in the program?” answers were categorized into seven topics. The most common category was a “Lack of opportunities or time to share ideas due to school-work overload.” “Practice and belief differences” came second, followed by a “Lack of co-workership due to individualism” and the “Conservative attitudes of each teacher.” Overviewing the result, these top four categories are all concerned with obstacles related to teacher collaboration, occupying as much as 81.3 percent of all answers. These study result implies that the participant teachers think the distinct feature of this program is that they can learn teaching techniques in the craft model (for example lesson study (LS) in project O which aims to promote OJT and collaborative LS within schools), and they can learn how to reflect on their practice by experiencing reflection in the program (for example collaborative discussion facilitated by expert teachers in Projects S and E), which will later help participants introduce students’ reflection in class and teacher collaboration in their teams. On the other hand, the result also revealed that they also think they have difficulty promoting collaboration in their own teams.

4.1.4 Study 4

- General Findings Through GTA Analysis

Since study 3 above revealed that participant teachers had difficulty collaborating in their own teams, despite the program’s collaborative nature, this study aimed to explore the transformative power of the program, focusing on how the collaborative atmosphere of the project promoted teachers’ transformation of beliefs and collaborative practice at schools. It aimed to produce an innovative and purposeful model of the TD program under the RQ below.

RQ: How does the program promote teachers’ transformation of beliefs and collaboration at schools?

This project is a kind of specialty study group from the standpoint of teacher training, as participants are highly conscientious teachers who meet on days off. We investigated how the

program was enhancing collaboration in schoolings, with an additional aim of involving general teachers into collaborations after the discussion in study 3.

This study examined how the program influenced teacher participants by conducting a qualitative data analysis designed to collect data on their application of learning from OJT. The focus of the analysis was on actual collaborative endeavour and their leadership at schools. All the participants were full-time high school English teachers. Two teachers, D and G, were categorized as expert teachers due to their twenty years of teaching experience. Other teachers, E and F, were categorized as middle and novice levels. Teachers D, E, and F work for the same school and belong to the same grade team in charge of the 2nd year students. Data were obtained from telephone or face-to-face interviews and analyzed using the Grounded Theory Approach (GTA) procedure laid out by Hadley (2017). This analysis generated nine social processes (see Table 11 below) with all categories and social processes summarized into a conceptual diagram (see Figure 13 below), which shows the cause-result and interactive relationships of three categories and nine social processes: (1) Overcoming Dissonance, (2) Goal-sharing Prioritizing Students, and (3) Exercising Fluid Leadership. *Categories are shown in bold and social processes are shown in normal fonts, with arrows showing the relationships of all those categories and social processes: the following discussion is based on this diagram.

In summary of this collaboration model, the expert teachers, after experiencing some degree of “dissonance” at school, attempted to participate Off-JT where they had a chance to elaborate on lessons starting from discussing students’ goals. In this way, they learned from outside mentors how to collaborate in teams and bring this learning into their own school. When they applied that learning, they developed clearer images of students’ performances with colleagues, and gave more thought to designing student learning goals backwards. They succeeded in demonstrating cooperative synergy teams by exercising discreet leadership. All these processes are defined by the uniqueness of this program and supported by the levels of satisfaction shown in research 1. The effectiveness of this unique collaborative model, a concept not found in much TD, can be borrowed and modified to fit

future TD programs in both ESL and EFL contexts.

Table 11

Nine social processes and three categories generated (Reprint)

Title	Category	Social Process (*Expert)
A Developing Grounded Theory of Interrelational Contextualization in Japanese Secondary School English Language Curricula	Overcoming Dissonance	*01 Feeling Cramped Due to a Lack of Self-Confidence
		*03 Applying Collaborative Learning Experiences to School OJT
		01 Supporting New Teachers Through Teamwork
	Goal-sharing Prioritizing Students	*05 Prioritizing Students
		04 Recognizing the Importance of Goal Sharing
		*04 Backward Designing
	Exercising Fluid Leadership	03 Developing a Brain Trust Identity
		*02 Team Building (Acceptance of Diversity, Self-disclosure of Weakness, and Entrustment)
		02 Seeking Cooperative Synergy

- Further Discussion on Experts' Cross-Bordering Perspectives in Each Dynamics

The process of GT data analysis on participant teachers' action and interaction led to further insights. This analytical process made it possible for three major dynamics to emerge as: inside-out, back-and-forth, and upside-down dynamics. They were discovered in relation with the cross-bordering perspectives, which will be discussed as recommended perspectives.

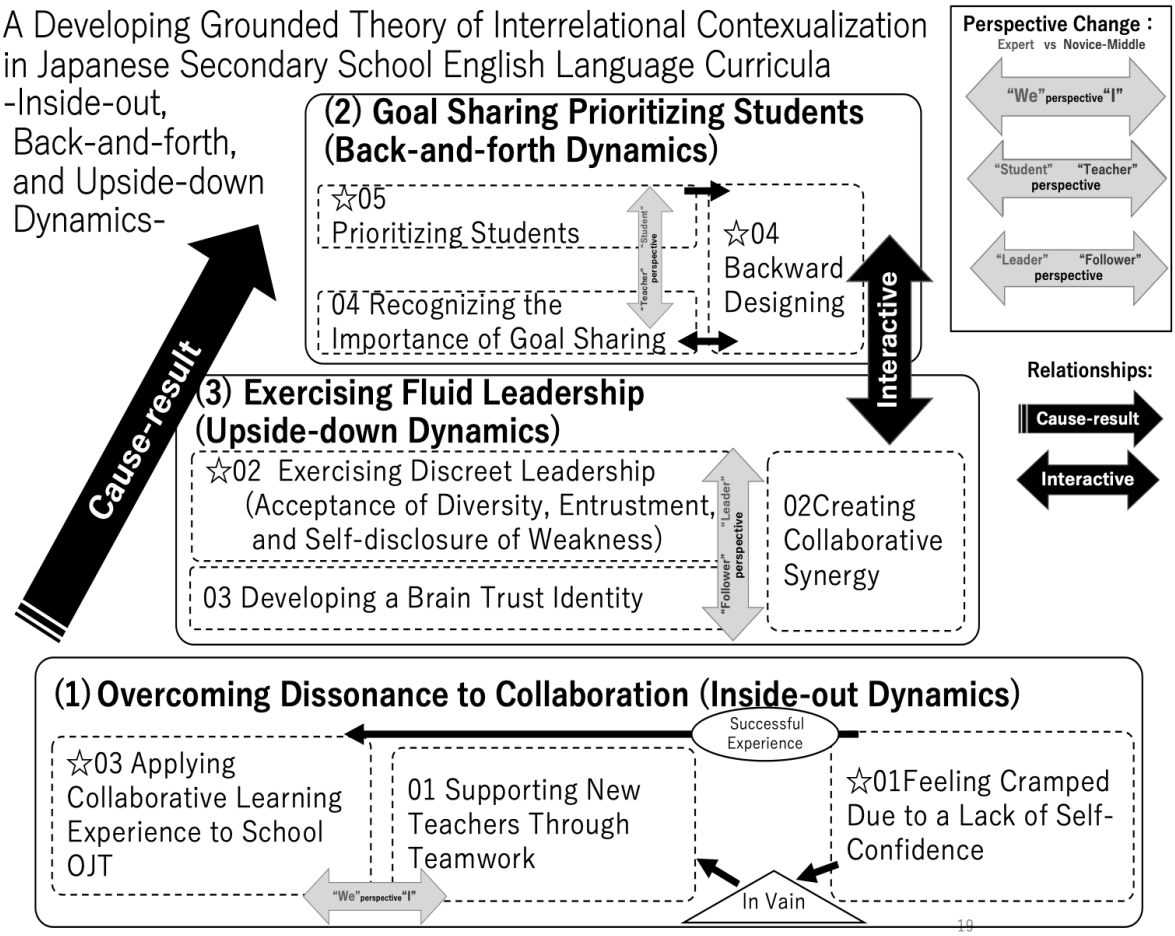

Figure 13. Categories and social processes generated (Reprint)

- Inside-Out Dynamics (I-We Perspective Shift)

The first "Inside-out Dynamics," were expressed as perspective changes from "I" to "We" (Mizuochi & Abe, 2014, p. 148). The expert teachers had no collaborative relationship with other teachers for the first several months after they moved into this school, so they could neither consult nor share and develop their ideas of teaching with others. After having learned how to collaborate in

the project and having changed their beliefs and practices about collaboration, expert teachers D and G returned to school, having situated or contextualized their learning and metacognitive awareness in their own educational settings. They realized the importance of team-building and goal-sharing, which resulted in increased interest in collaboration. All these behavioural and belief changes and contextualization in schooling can be defined as I-We perspective shift. This means that the experts have a broader identity in the "We" team by going out and coming back in through goal sharing and their sense of unity, eventually leading to the team's success. Therefore, I am naming these social processes "Inside-out Dynamics."

- Back-And-Forth Dynamics (Teacher-Student Perspective Shift)

Dynamics two emerged as "Back-and-Forth Dynamics," and expressed as a teacher-student perspective change. By reflecting on their teaching practice and collaboratively drawing students' dynamic image of performance as a shared goal, they succeeded in discussing evaluation plans such as performance tests and semester exams with team members, and "designing curricula backwards" by "prioritizing students." By sharing goals with students, they also succeeded in fostering students' cross-border and meta-cognitive perspectives (Flavell, 1976), which made them arrive closer to the views of teachers'. As mentioned above, the two expert teachers succeeded in having team members gain goal-oriented and student-centered perspectives as a result of discussing the future dynamic image of learners' performance. The team succeeded in designing the evaluation scheme backward (Wiggins & McTighe, 2005), which eventually led to nurturing students' autonomy. There is a cross-border between the student and teacher perspectives, where teachers have student perspectives and vice versa through projecting students' goal images forward and designing evaluation schemes backwards. Therefore, I am naming these social processes "Back-and-forth Dynamics."

- Upside-down Dynamics (Co-Creative Perspective Shift)

Dynamics three emerged as "Upside-down Dynamics," expressed as fluid leader-follower perspective change as a result of an analysis of the two expert teachers. The most striking characteristic commonly found of these teachers was non-hierarchical and discreet Leadership,

in which they prioritized consensus building with team members; they are playing an active role in their own way. The fact that the staff can feel free to make proposals depends largely on the breadth of leader teacher D and the learning of the project who does not deny the followers. According to his interview, Teacher E sometimes seems to play a leadership role. There is a switch of leadership roles and fluidity (Scott et al, 2018) identified between the leader and the team members, and upside-down perspective change with the security and convincingness that are created from leaders' acceptance and self-disclosure, so I am calling this typical interrelational atmosphere contextualized from the project learning "Upside-down Dynamics."

Analysis of the GT data on Japanese secondary school English language teachers above led us to identify their dynamics of contextualizing and their learning interrelationally with team members at their schools, namely Inside-out, Back-and-forth, and Upside-down Dynamics.

Study 4 eventually led to the development of a model of collaborative synergy created by participant teachers' "interrelational contextualization" at their schools. The results of the analysis, identified through the qualitative phase, were categorized into three categories and nine social processes: (1) Overcoming Dissonance Inside-out Dynamics), (2) Goal-sharing Prioritizing Students (Backward Dynamics), and (3) Exercising Fluid Leadership (Upside-down Dynamics). This classification was forced into a model of factors revealing three types of cross-bordering perspectives as a result of the interrelational contextualization between "I and We", "student and teacher", and "leader and follower". This perspective change is supported by Griffith and Ruan (2005), Mizuochi and Abe (2014), and Scott et al (2018), integrating social, cognitive, and psychological effects, all of which contribute to team-building and the generation of collaborative synergy.

4.2 Examination of the Integrity of the Three Dynamics - Application to All the Studies

In study 4, I have proposed the three dynamics; i.e., "Inside-out," "Back-and-forth," and "Upside-down Dynamics." The main idea of these dynamics was found to be "Overcoming Dissonance to Collaboration," "Goal Sharing Prioritizing Students (Teachers)," and "Creating

Collaborative Synergy." In this section, I would like to show its connections to the other studies and confirm the integrity of the three dynamics, by applying them all to the study results (studies 1 to 4 in this dissertation). The teachers' actions found in each study phase are incorporated into the table below and explained in the first section. I will examine each dynamic by picking out teachers' actions one by one. (See Table 13)

Table 13

Examination of three dynamics with teachers' actions in each study

Studies	**Dynamic 1** : Dissonance as a trigger of transformation	**Dynamic 2**: Prioritizing Students	**Dynamic 3:** Every issue related to collaboration
Study 1	D1S1: An individual teacher's dissonance triggering changes	D2S1: Students' change triggering teacher's goal setting	D3S1: Teaching journal showing pseudo-social function
Study 2	D1S2: Belief discrepancy among teachers in error correction	D2S2: Experienced teachers' tendency of describing their beliefs from the learners' perspective	D3S2: Study revealing teachers' belief gap that implies the need to share beliefs in teams
Study 3	D1S3: Team collaboration occupying 81.3% of obstacles at school	D2S3: The project S encouraging students' reflection and teachers' collaboration	D3S3: Both the feature of and obstacles after the program was about "collaboration"
Study 4	D1S4: Two teachers feeling cramped before going out to the project	D2S4: Drawing students' performance image as a shared goal to enhance team unity	D3S4: Collaborative synergy enhanced by participants' interrelational contextualization

4.2.1 Dynamics 1: Dissonance acting as a Trigger of Transformation

In this subsection, the first dynamics, "Overcoming Dissonance to Collaboration" will be examined focusing on teachers' dissonance. This functioned as a catalyst for change in each of the series of studies.

- D1S1: An Individual Teacher's Dissonance Triggering Changes

In Study 1, Teacher A felt dissonance about her class and her own teaching skills, for example in her questioning her own skills and the atmosphere of her class. This self-questioning turned out to be functioning as a catalyst for her professional development, triggering her transformation of practice within a four-month period. Such dissonance that teachers find in class can be defined as part of the synergetic effect of the student-teacher transformation cycle, later creating an "enthusiasm for change" (Jarvis, 1992, p. 142). This emphasizes the importance of teachers formatively assessing students' development and noticing such changes for teachers themselves. This eventually led to fostering teachers' self-efficacy beliefs, since the study found that all her promising declarations were expressed right after her entries describing positive changes of students.

- D1S2: Belief Discrepancy Among Teachers in Error Correction

Study 2 revealed many teachers' self-images from their existing beliefs, teacher as a teacher, or as a learner. The former is based on their experiences observing students' improvement in classrooms, the learner belief derived from their experiences as learners from their own learning histories. This tendency of belief category in the survey showed an implication of correlation with years of teaching experience. These findings give a lot of insight into how TE should be conducted in the Japanese context, where teachers' compulsory training programs conducted by Boards of Education are normally organized in groups from the same employed year. It should be noted that it can be changed to, for instance, according to areas of interest in pedagogy so that the teachers with varied ages and teaching experience mingle, and those gaps will give much new insight to their teaching.

- D1S3: Team Collaboration Occupying 81.3% of Obstacles at School

Study 3 revealed that the most common concerns were when teachers tried to apply what they had learned in the program about collaboration with their colleagues, this response occupied as much as 81.3 percent of all answers. It is inferred that those teachers are concerned about collaboration partly because they experienced a good atmosphere in collaborative LS and reflection in the project,

which raised dissonance in their school collaboration deficit. Conversely, it can be said that some degree of dissonance is a good sign of perspective shift, and a sign that they are in the process of growing as a teacher. On this, Golombek and Johnson (2004) note the catalytic role of emotional dissonance in the process of transformation.

- D1S4: Two Teachers Feeling Cramped Before Going Out to the Project

In study 4, expert teachers were found to have gone out to Off-JT, first having feelings of dissonance at schools because they were not accepted or did not have confidence in their own practice being good enough to be introduced to their teams. This phase of going out does mean a lot to later transformations of practice, since this inside-out dynamics finally gave them opportunities to experience collaborative lesson studies and reflections on the project. Here are two examples that show how those expert teachers in the project benefited from actually going out of school. Teacher D in study 4 said in her interview that it was thanks to the project activity that she stopped depending too much on textbook content that, in her view, dictates test content and switched to testing the skills they expect students to acquire. This discussion was initiated at the beginning of the school year and started backwards by first looking at what skills they wanted students to acquire by the time they graduate. The performance evaluation, the outcome here, was designed in this backward style. All these discussion procedures were based on the experience gained in the project activity, where participants collaboratively develop lesson plans together with a teacher who offers a demonstration class several months later. This is partly because the program being Off-JT outside the schools where participants from different schools and did not share the same textbook. By chance, this forced them to start the discussion from the very fundamental premises of ‘what skill.’ All these features of the program offered participants opportunities to transform their practices at school, which exactly match what Lave and Wenger (1991) proposed in the theory of “situated learning” through “legitimate peripheral participation.”

The other example of Teacher G (expert) in study 4:

Teacher G: When I made a proposal, I was not accepted. When I gradually intended to expand my original class activities to other teachers in the team before attempting to introducing it to the whole grade, there was a time when it didn't work. At that time, I asked myself, “What should I do?” “will I be denied again?” At that time, I was greatly supported by the participant teachers I met in the project. If there is no such thing as project, I tend to end up thinking just by myself and give up collaboration, but thanks to the project, I had a chance to consult and listen to others out there. Even if it didn't work at school, it sometimes worked outside having consultation with other participants, and then came back to school with new ideas. This cycle continued for 1 or 2 years.

Here, what differentiates this project from other programs is that the project emphasizes the process of collaborative discussion in their endeavours, taking time to have participants gain insight from experience and not just giving answers promptly. This practice gave Teacher G a chance to gain meta-cognitive awareness in her discussion, which she later utilized in her school practice. Saeki and Yuasa (1998) states that human intellectual activities such as learning the meaning of, understanding, or creating something new are originally achieved through sharing this knowledge with others in collaboration. In short, most of the intellectual activities in schooling are focused on “individual” achievement, while outside, such as in business situation, they are more likely shared through collaborative work. For instance, in project activities outside of schooling assessment of speaking is discussed in teacher-teacher “conferencing.” (Hyland, 2003). This relates to “prioritizing students” in later discussion in Dynamics 2.

From the above discussion, we can see the different levels of reflectivity reported in TE research. Collier (1999) applies an analysis of three categories of teacher reflectivity in which the first level is descriptive, the second refers to context, and the third takes an “objective” perspective. This phase of teachers’ going out of school to Off-JT and having an objective perspective on themselves do trigger a perspective shift to “We”, and finally, to later transformations of practice.

This inside-out dynamics, in the end, gave them opportunities to experience a collaborative LS and reflective practice in the project.

4.2.2 Dynamics 2: Prioritizing Students

From here, the examination of dynamics moves on to the second type "Back-and-Forth Dynamics," in "Goal Sharing Prioritizing Students," where we focus on cases of prioritizing students in this series of studies.

- D2S1: Students' Change Triggering the Teacher's Goal Setting.

Study 1 captured the moment of teacher's decision making, when Teacher A set her next goal about her teaching technique, that led to later transformation. It should be noted that all such promising declarations were expressed right after her entries describing the positive evaluation of students. These findings are compatible with the previous literature on self-efficacy beliefs to trigger transformation in teaching (Woolfolk Hoy et al., 2006, p. 729), mentioned above. This implies how student responses impact teacher self-efficacy beliefs and future practices, creating a synergy cycle. The increase in student-centeredness was also evident in the quantitative analysis, with the total percentage of students going up by 15 % in four months. These higher numbers of students are especially outstanding in the subcategory of "positive evaluation of students," as the figured has doubled.

The novice Teacher A, first finding dissonance in her class, later believed in her self-efficacy and students' hidden ability. All these changes have resulted from the collaborative reflection in a "situated" environment, (Lave & Wenger, 1991) that the program offered. This factor is very important for developing the situation-specific competency, discussed below.

- D2S2: Experienced Teachers' Beliefs from Learners' Perspectives

Study 2 implied that from the analysis of the teachers' comments on error correction there were three perspective types; 1) from teachers' 2) from learners', and 3) from both teachers' and learners.' It also indicated an interesting tendency that the more experienced teacher participants were, the more likely they were to describe their beliefs and experiences from a learner's perspective.

This tendency is in line with the previous literature, offering much insight into how to conduct future TD programs: by focusing on, for example, organizing programs with mixed age groups or teachers with varied years of teaching experience.

- D2S3: The Project S Encouraging students' Reflection and Teachers' Collaboration

According to the study 3 result, project S especially featured a reflective model aspect and sets its ultimate goal of achieving students' and participant teachers smile. This turned out to be encouraging for both students' reflection and teachers' collaboration.

Study 3 implied that leader teachers in the project come to embody a teacher trainers' perspective as they made efforts to develop the professional skills of team members through their support. Both expert teachers (D and G) stated in their later interviews that it was the outside Off-JT program that allowed them to act out this teacher trainer role. The objective assessment indicated strongly that this opportunity gratified them as much as when they teach.

- D2S4: Drawing Students' Performance Image as a Shared Goal Enhance Team Unity

Study 4 revealed how expert teachers utilized their learning from the program. They attempted to draw students' clear dynamic performance image as a shared goal in their team by discussing evaluation plans and by designing curricula backwards from the students' performance image; a method that was learned from project activities. This act of goal sharing helped the team become united. When each member "recognizes the importance of goal sharing," the "dissonance" will disappear, and the collaborative atmosphere further enhanced in the team.

- D2S4: Drawing Fellow Teachers' Image as a Goal

Study 4 also revealed how other teachers in the expert teacher's team changed their beliefs and practices originating in the students' positive changes. She states in her interview:

> "A teacher does not change, after all, by other teacher's intended approach. (Omitted) One of the biggest factors that could change one's mind, from my own experience, that he sees "students' change" in his own class. It is only when he sees it that he feels like trying something new. (Omitted) It is only in that

moment when he talks about students' change happily that I start to make proposal to him about sharing goals or collaborating in the grade team."

Here, D never compels other teachers to change, but patiently waits for her colleague's optimum opportunity to change by accompanying his own learning pace.

Teacher G states in her later interview that this teachers' change was an important motivation for her as students reacted so positively to her fellow teacher's actions. This incident motivated her future practice as a "teacher trainer" as well as a teacher. This perspective as a teacher trainer derives from the meta-cognitive perspective that she gained from discussing her experiences in the project. This also shows that practitioners need some degree of "dissonance" to motivate her to change her future practice. This phase of teachers' objective goal setting prioritizing students (or fellow teachers) does trigger perspective shift, and finally, to later transformation of practice. This back-and-forth dynamics eventually lead to nurture students' autonomy.

4.2.3 Dynamics 3: Every Issue Finally Related to Collaboration

Now, the examination of each dynamics comes to the third and final "Upside-down Dynamics," in "Creating Collaborative Synergy," which appeared to be the core aim of the whole TD program, and will be revealed below in a series of four studies.

- D3S1: Teaching Journal Showing Pseudo-Social Function

Study 1 captured the moment a teaching journal showed pseudo-social function, when novice Teacher A, while writing on her own, felt as if she was with somebody else listening to her story, discussing her class, and this helped deepen her critical reflection. This result implies not only the positive aspect of journal writing in TD but also that there is certainly a "need for relatedness" for teachers to talk about their practices with others. This can also be defined as "Inside-out dynamics" where participant teachers need someone to talk about their practice with. This context is where journals can be utilized in future practice where one or more colleagues share their journals and meet regularly to discuss them. All this need for relatedness might be attributed to the program's situated

and collaborative feature that might have drawn her critical reflection, to think that Teacher A is just a novice teacher who has just started her carrier as a fulltime teacher in schooling.

- D3S2: Teachers' Belief Gap That Implies the Need to Share Beliefs in Teams

Study 2 revealed discrepancies in the language learning beliefs of teachers. As a result of the analysis of teachers' descriptive comments concerning their beliefs towards error correction, there seem to be two main ways that teachers changed their beliefs. One is based on their experiences observing students' improvements in classrooms. The other derives from experiences of teachers as learners in their own improvement or acquisition. Effective teaching is likely to occur when everyone comes to a mutual understanding. This also applies to the importance of sharing beliefs with colleagues for teacher collaboration in a team.

- D3S3: Both the Feature of and Obstacles after the Program was about "Collaboration"

According to the results of study 3, the most distinct feature about this program from other in-service education programs was the collaborative atmosphere where teachers learn "How to enhance collaboration among colleagues, and ability to connect with teachers outside the school, and an ability to cooperate in teams. However, as already discussed, the most participant teachers' concerns when trying to apply what they had learned in the program was also about collaboration with their colleagues, which occupied as much as 81.3 percent of all answers. The answer "Sense of equality," which evokes the expert teachers' discreet leadership, was seen only among those with more than ten years of experience. This result maybe because of the teachers' perception. More experienced teachers may have taken many different TD programs, which might have given such perspective, making them aware of the uniqueness of the program.

- D3S4: Collaborative Synergy Enhanced by Teachers' Interrelational Contextualization

In study 4, combining the qualitative research results of the current study with the existing literature, led to the development of a model of collaborative synergy created by participant teachers' "interrelational contextualization" at school. The results of the analysis, identified through the qualitative phase, were categorized into three categories and nine social processes: (1) Overcoming

Dissonance (Inside-out Dynamics), (2) Goal-sharing Prioritizing Students (Back-and-forth Dynamics), and (3) Exercising Fluid Leadership (Upside-down Dynamics). This classification was forced into a model of factors revealing three types of cross-bordering perspectives as a result of the interrelational contextualization between "I and We", "student and teacher", and "leader and follower". This perspective change is supported by Griffith and Ruan (2005), Mizuochi and Abe (2014), and Scott et al. (2018), integrating social, cognitive, and psychological effects, all of which contribute to team-building and the generation of collaborative synergy.

As seen above, every phase of the study somehow relates to team collaboration and co-creation. As expert teachers' Upside-down dynamics with non-hierarchical and discreet leadership, in which they prioritize consensus building with team members; they are playing active roles in their own way, does trigger other teachers' perspectives to shift from "I to We," "teacher to student," "follower to leader," finally leading to collaborative synergy.

4.3 Cycle for Ongoing Actualization of Teacher Collaboration

The previous section discussed the relationship of the three dynamics in all the studies 1 to 4 in this dissertation. This section now discusses the relationship of the three dynamics of the Teacher Transformation Model (Abe & Kato, 2019) proposed in Study 1 (see Figure 1). As already discussed, the Teacher Transformation Model integrates these three variables into a unified framework that shows how teacher' beliefs and practices are transformed on an individual basis. Through analysis of the data gained in this series of studies, I suggest an expansion and continuation of that model to better understand the teacher transformation process, the transitions to long-term engagement and the "actualization" of teacher collaboration. I also suggest changes in the names of dynamics in this section, with my GTA analysis focusing more on teacher actions and behaviors.

In overviewing all the study results above, I sought to understand the participant teachers' individual, internal journeys and their collaborative, co-creative behaviours of continued engagement with transformation of practice in the team. Through the process of reviewing, coding, and analyzing

the data, it became clear that their transformation cycle appears to have been occurring in every aspect of the three dynamics. The participant teacher in this limited initial study (1) into longitudinal impact, whose sequence shifts from a linear progression into the larger cycle is illustrated in Figure 14. I will now discuss those relationships under each of the dynamics and examine the cycle.

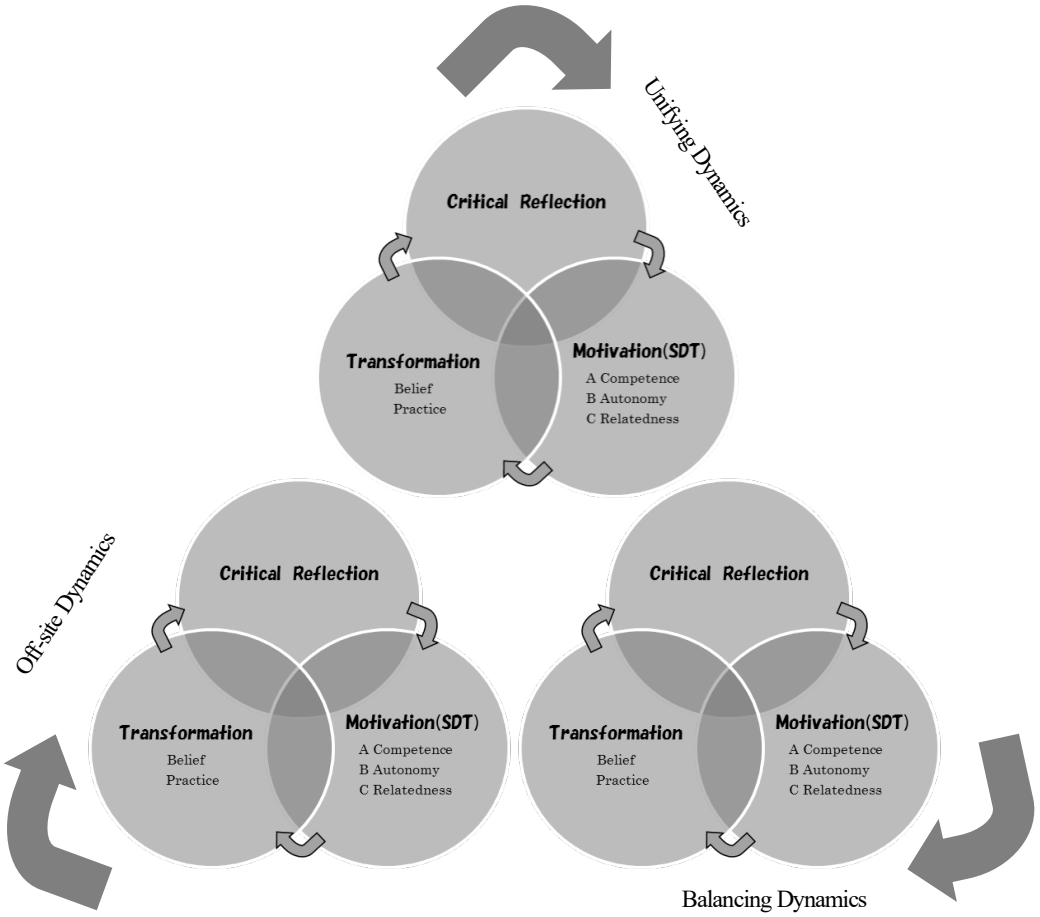

Figure 14. Progressive Cycle for Ongoing Actualization of Co-creative Transformation

4.3.1 Dynamics 1: Off-Site Dynamics

The first stage of actualization of co-creative transformation often continues as a long-term practice or state of mind for participants. The project participants, especially those who actively participated in collaborative discussion and co-creation in the program, faced difficulty at school and suffered from a gap of ideals as their awareness of the power of collaboration and co-creation from

the experiences in their collaborative activities. Teacher G, as already discussed in 4.2.1, was seen patiently waiting for her colleagues to change. Schieffer (2006, p. 616) refers to this state of dissonance as a "diverging perspective" stage. When viewed longitudinally, this stage generated the teacher's "need for relatedness (Deci & Ryan, 1985)," which functioned as motives of those future leaders to participate in the program caused by "Inside-out (hereafter, Off-site) Dynamics" (Abe, 2020c). This experience encourages the participants to critically reflect back on their practice in their own educational settings. While Teacher G consulted with teachers from other schools or was asked for advice from young teachers, she had an opportunity to reflect on her own way of collaborating with other teachers at school from a meta-cognitive perspective (Griffith & Ruan, 2005). For example, Teacher G gained other teachers' perspectives from meta-cognition, sometimes noticing what she sounded like to other (older) teachers in schools. After learning how to have collaborated discussion in the project and changed their beliefs and practices about team collaboration, expert teachers returned to school, having situated or contextualized their learning and metacognitive awarenesses in their own educational settings. Teachers' initial "isolated actions" (Schieffer, 2006, p. 616) transformed into "dialogue" (p. 617) in increased interest in collaboration, eventually realizing the success of the team. The above analysis confirms that all these processes of reflection, motivation, and transformation of belief and practice are actually occurring in the Off-site dynamics stage.

4.3.2 Dynamics 2: Unifying Dynamics

The secondary stage, Back-and-forth (hereafter, Unifying) Dynamics, emerges through teacher-student perspective shift, to a more goal-oriented perspective. Here is where the teachers reflect on their teaching practice and collaboratively draw students' dynamic performance image as a shared goal, discuss evaluation plans (such as performance tests and semester exams with team members), and to "design curricula backwards" by "prioritizing students." The integration of teaching and assessment has been emphasized in the Course of Study (MEXT, 2017) stating that each school should formulate a proper curriculum in compliance with the Basic Act on Education, the School Education Act, Reform item 5 (MEXT, 2014). Imai and Matsuzawa (2015) emphasize the importance

of “conferencing” the assessment criteria of writing tasks with students to enhance learner autonomy. Here, teachers in the study reflect on their practice and collaboratively “conference” performance goals with other teachers, which develops the co-creative atmosphere. As already discussed in the literature review in 2.4.2., the cognitive apprenticeship theory emphasizes making tacit processes “visible” (Collins et al., 1989), so that participating members can observe and practice them on their own. Here, the practice of “conferencing” the assessment criteria in the team can act as “scaffolding” (Brown et al., 1989) for each member to visualize their students’ language performance. If this goal image is clear for every member, the team can also change its plan reactively and flexibly according to, for example, the result of the achievement test on the way because the goal image gives each member a “multi-perspective” (Schieffer, 2006, p. 617). As the study findings revealed that this multi-perspective facilitates each teachers’ freedom of decision making in their classes and on their autonomy, as well as provide room for discussion on their teaching styles. When each member has this multi-perspective and “recognized the importance of goal sharing,” the collaborative atmosphere was also enhanced within the team. All these have been revealed in the findings in study 4.

When teachers built up concrete images of students’ performance as a goal, they started to conduct classes from the perspective of learners, and lessons changed to student-centred and student-driven, which further enhanced students’ autonomy and language proficiency. Expert teachers, being aware that the best reward for teachers is their students showing a dramatic transformation, waits for a chance when fellow teachers’ students making a dramatic transformation when their need for competence is fulfilled (Deci & Ryan, 1985).

4.3.3 Dynamics 3: Balancing Dynamics

The third stage, Upside-down (hereafter, Balancing) Dynamics, emerges through non-hierarchical and discreet leadership, in which participant teachers prioritize consensus building with team members; they’re playing active roles in their own way. Teacher D tries not to decide too much by herself, as she says in her interview that she prioritizes “the atmosphere of co-creation (Isshoni-tsukutteru-kan).” She also reflects “What I always keep in mind is not to decide too much by myself

and not to deny what other teachers say they want to do." She always reflects on her leadership role and prioritizes the atmosphere of collaborative creation within her team, the same idea of which is found in Co-creative Leadership (Schieffer, 2006) discussed in the literature. They also have the perspective of the teacher trainer who tries to professionally develop team members with support, and it seems to be their pleasure to do so, just as in the support of their students in charge. For example, Teacher G learned to accept other teachers' opinions through project activities, deepening their relationship by knowing others through everyday casual conversation, analyzing their personalities which can later be utilized for team collaboration. She sometimes interspersed topics about classes in such chats and also asked older teachers for advice so that those team members felt the joy of contribution and attachment to the team. This team collaboration with team efficiency and teacher' enthusiasm for change also contributes to students' improved performance in tests as well as better results in achievement tests such as 'Shinken' Mock Examinations. She also made proposals for team projects without missing good opportunities for goal setting. One example is when the students, whom the members are in charge of, have made dramatic progress (Abe & Kato, 2019), by guiding the team's collaboration and success.

We have looked at how the Teacher Transformation Model (Abe & Kato, 2019) proposed in Study 1 is functioning in the three dynamics phase. Participating expert teachers are found to be repeating the transformation cycle in each of the dynamics; reflection, motivation, and transformation of belief and practice. I would now like to look into participant teacher's perspective shift processes more deeply.

4.4 Teachers' Perspective Shift Processes

After having discussed the transformation processes in each of the dynamics above, I would like to now go further into more a central and profound part of the transformation cycle; focusing on teachers' reflection-transformation processes and paying particular attention to changes in their belief

systems. The participant teachers' perspective shifts are identified in the following three steps in each of the dynamics:

1. Meta-cognitive perspective shift (Off-site Dynamics)
2. Goal-oriented perspective shift (Unifying Dynamics)
3. Co-creative perspective shift (Balancing Dynamics)

All these perspective shifts can be demonstrated as conceptual diagrams in each dynamics stage (See Figures 15, 16 and 17 below), which show how participant teachers transformed their perspectives, their beliefs, and eventually led themselves to collaborative practices. I will now describe those perspective shifts in each stage.

4.4.1 Meta-Cognitive Perspective Shift (Off-Site Dynamics)

The first perspective shift occurs when a teacher goes out of school and learns from their experience. The act of actually "going out" plays an important role for teachers' gaining insight of a perspective shift in Off-JT, and for later transformation in OJT when they go back to their own educational settings. For example, two expert teachers in the study had no collaborative relationships with other teachers for the first several months after they moved into this school. They could not consult with anyone, share or develop their teaching ideas, even though they had developed new ideas about teaching. Expert teacher D, when she first moved into her school was told by one of her colleagues that her school was not the kind of school where communicative language teaching (CLT) is possible. This was quite alarming as this teacher's background was in CLT as she had been trained to follow the Education Ministry's CoS. Schieffer (2006, p. 616) refers to this as a state of "diverging perspective." This emotional and cognitive dissonance (Golombek & Johnson, 2004, p. 324) with other teachers later functions as a catalyst for transformation. What changed this situation was their participation in the project activities which acted as a kind of voluntary small-group practice-sharing circle that organized systematical meetups in the local areas of their workplaces. While Teacher G consulted with teachers from other schools or was asked for advice from young teachers, she had an opportunity to reconsider her own way of collaborating with other teachers at school from a meta-

cognitive perspective (Griffith & Ruan, 2005) (See figure 15). In another situation, when Teacher G consulted young teachers in the project where she gained a heightened meta-cognitive awareness (Flavell, 1976). Through her discussions, she saw how other older teachers see younger teachers as being in a process serving as a "mediational space[s]" (Golombek & Johnson, 2004, p. 311) where she could externalize her thoughts and feelings.

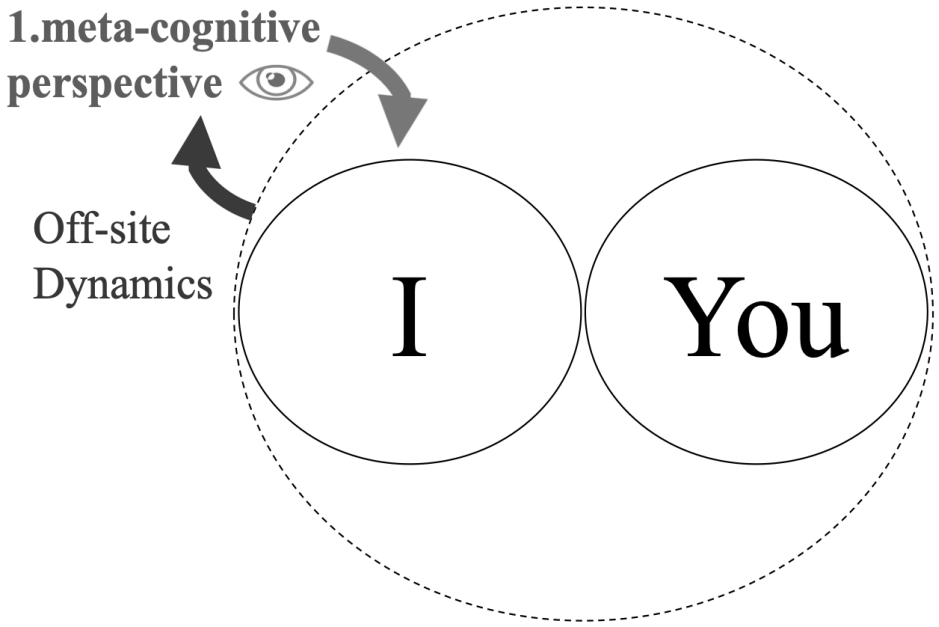

Figure 15. Teachers' first "meta-cognitive perspective" shift

4.4.2 Goal-Oriented Perspective Shift Through Goal-Sharing (Unifying Dynamics)

This "We" team just mentioned is strengthened and becomes a real team with purpose when the members share the same goal (Mizuochi and Abe, 2014, p. 147). Such examples found in study 4 where two expert teachers, after collaboratively elaborating a lesson with other participants, utilized this situated learning (Lave & Wenger, 1991) in the project activity to their educational settings and realized the success of the team. The act of goal-sharing seems to be playing a critical role in building a "We" team as comments from Teacher G (expert) in her interview indicate. She commented that, when the team convincingly shared a goal, the "dissonance" disappeared, and the collaborative atmosphere was enhanced in the team.

According to Teacher G's interview:

> "First, I talked to one of the teachers in my team about what kind of goal we could share. I proposed a performance test scheme and he agreed to do it together in the following school year. (Omitted) Students were found to be making so much effort, so I proposed putting the performance test results into evaluation. In order to do so, it is necessary that three of us follow the same scheme. (Omitted) So, we started to share our performance test procedure among three. I asked each member of the team to help elaborate the detailed plan. (Omitted) After all, it is important that everybody agrees upon the plan and work together in a convincing way. It's not good for students that the teachers do something simply because they were told to. So, I tried not to deny the members' opinion, and to create the plan together. (Omitted) It's not a compromise, but more like a positive and creative discussion. You can make something better through discussion than what you think by yourself. (Omitted) If teachers in charge of the grade can collaborate in the team, the whole grade students can step up at the same time when they go up to the next grade, and we can say to students, "We finished this last year and you all cleared this performance level, so let's try debating next." Everybody is doing the same activity in every class. (Omitted) The other day, I was talking with my fellow teacher that we were really looking forward to the students' outcome. It's great fun. We look forward to students' change very much as a team, and it's becoming greater fun for us to teach."

Mizuochi and Abe (2014, p. 164) emphasize the importance of sharing outcomes, goals and responsibilities to build a "We" team as discussed in the literature. Promoting this kind of collaboration also made it possible for Teacher G's team to set the goals of all the students in each grade for each year in the grand design, and to share it with students, too. Imai and Matsuzawa (2015)

emphasize the importance of “conferencing” the assessment criteria of writing tasks with students to enhance learner autonomy. Here, teachers collaboratively discuss performance goals developing the co-creative atmosphere. Those expert teachers were also “conferencing” the evaluation criteria of their performance tests with the team members, an act that will positively enhance their autonomy, increase job satisfaction and lower anxiety towards student’s performance. Matsuzawa (2002), in discussing the importance of integration and communication of the yearly teaching schemes with assessment criteria, also raises the issue of stagnating discussions due to the usual business and refrain from other teachers. But this “We” team of these expert teachers realized the atmosphere of cocreation when the team members target the same goal, in this case, of targeting students’ dynamic performance image backwards from a goal-oriented and backcasting perspective. As a result, the team members gained objective student-centred views and heartily enjoy students’ success as a team from a goal-oriented perspective. (See figure 16) This can be defined as a goal-oriented perspective shift through goal-sharing prioritizing students (Unifying Dynamics).

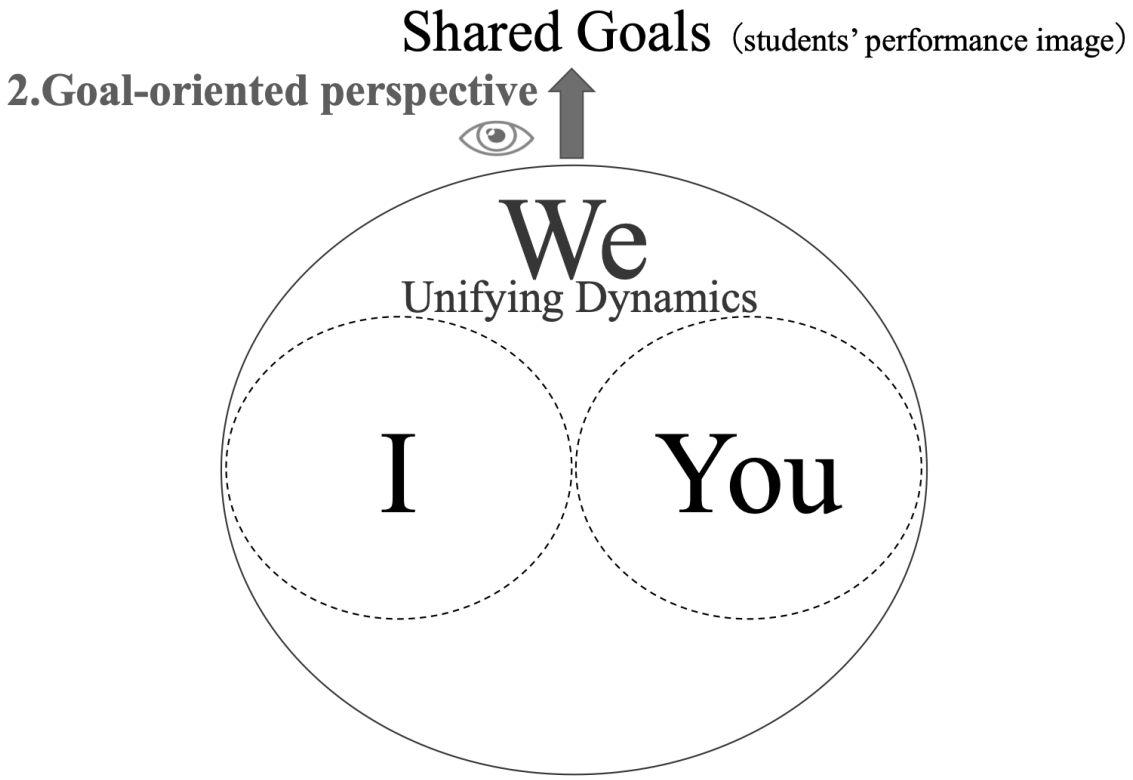

Figure 16. Teachers’ second “goal-oriented perspective” shift

4.4.3 Co-Creative Perspective Shift (Balancing Dynamics)

From the goal-oriented perspective shift above, the team becomes active gaining a clear image of the students' performance. However, team members are frequently found to be dependent on the leaders when they have too strong a leadership. The most striking characteristic commonly found in the expert teachers in the study was non-hierarchical and discreet leadership. Study 4 revealed that an ultimate state of collaboration was achieved in the balancing dynamics, where the official leader sometimes delegates her leadership role in a flat and balanced relationship, and everyone can exercise fluid and "Co-creative Leadership" (Schieffer, 2006, p. 616). For example, Teacher G's case (shown above), reveals how she prioritizes consensus building with team members; their playing active roles in their own way. Since classes came to be seamlessly organized and managed toward the shared goal, it is now possible for all the students in the grade to aim at the next level immediately when starting a new school year, the unnecessary competitive atmosphere among classes disappeared, and the results of the external tests can now be celebrated among all the team members with satisfaction. This is the result of a team united toward a single goal from "system perspective" (Schieffer, 2006, p. 616). If goals are shared in this way, autonomy from this perspective will be created among teachers, and they will grow into an ideal team while each member achieves individual success.

Teacher D was also found to have such co-creative leadership, trying not to organize everything by herself. While the expert teachers play mentor roles in the team, they sometimes expose their weaknesses, leading to a relationship of trust and co-mentorship (Clarke, 2004) by building an informal relationship within the team. Teacher D prioritized the atmosphere of co-creation within her team, the same idea found in "the creation of a space for possibilities" (Schieffer, 2006, p. 617) in Co-creative Leadership" discussed in the literature, and in "post-heroic leadership" (Fletcher, 2004), where leading and following are considered as two sides of the same set of relational skills and the distinction between their roles is blurring in such balanced mind, leadership rotates as the diagram shows (See figure 17). Teacher D says in her interview

that she trusts her students and colleagues because she is “now experiencing that students’ abilities improve if teachers’ expectations and outlooks are shared” Perhaps one of the reasons why they can collaborate now is this backward design (Wiggins & McTighe, 2005), which awakens the feeling of “heading toward the final goal.” It is similar and related to Novice teacher's “04 Recognizing the importance of goal sharing.” The question here is, on the other hand, what could be the difference. She sometimes relies on Teacher E, where she is developing his brain trust identity by increasing teams’ relations and motivation. Teacher E is now able to exercise his enhanced leadership skills full of self-efficacy beliefs, as he seems to be proud and confident that he can contribute to the team as a sub-leader, however, his comment in the interview reveals that it is the generosity and modest attitude of Teacher D that realizes flat relationships among members. This collaboration synergy is established based on Teacher D’s co-creative and fluid

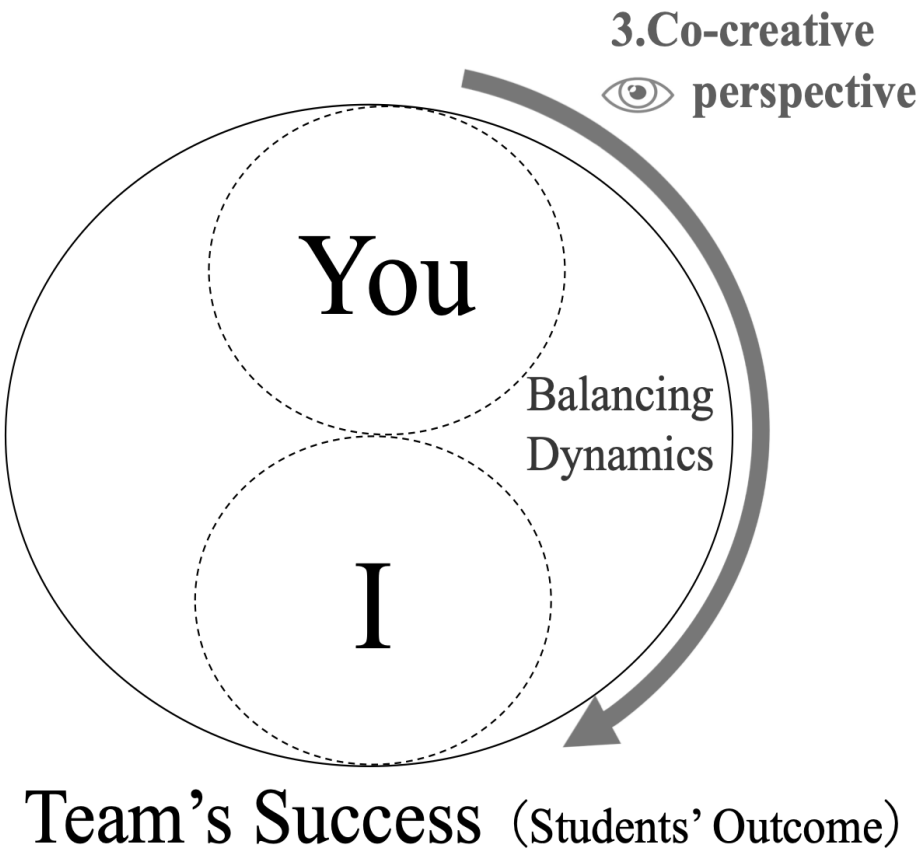

Figure 17. Teachers’ third “co-creative perspective” shift

leadership with the security and convincingness that are created from a leader's acceptance and self-disclosure, that encourages members to go out of their "comfort" to a "growth/ learning" zone (Panicucci, 2007), as discussed in the literature. Teacher G also succeeded in creating this co-creative atmosphere and system automaticity in her team with each member having a sense of self-determination (Deci & Ryan, 1985) and responsibility. It is important to note that Co-creative Leadership theory does not aim at creating "harmony or constant agreement," (Schieffer, 2006, p. 616) but "differences are recognized as being something positive." Teacher D also says in her interview that it is not a compromise but listening to and accepting other's opinions is a way to find something better. Teacher D, in this sense, is attempting to create "a room for possibility," (Schieffer, 2006, p. 617), which seemed to be playing a pivotal role in creating synergy and transformation in her team collaboration.

All these are characteristics of the current practices of expert teachers in their teams, and the fact that the level to which staff members feel free to make proposals depends largely on the breadth of those co-creative leaders. Skills of these leaders to encourage resourcefulness stems from their learning in the project activities, which was revealed in their interviews. The expert teachers were once on the side who were allowed to join the community, but now, they are starting to build new communities in their own educational settings. In order for this "We" team with shared goals of realizing the team's success to emerge, the team needs to overcome the leader-follower polarization and nurture a co-creative atmosphere. Those leaders were balancing their leadership influence on others with delegating to them and enhancing their members' autonomy by targeting the team's success with objective mind and co-creative perspective. This can be defined as a co-creative perspective shift through balancing leader-follower polarization and delegation prioritizing students, finally leading to a team's success (Balancing Dynamics).

Overviewing all the three perspective shifts above, with objective perspectives on oneself, students, and team's success, teachers' new perspectives are gained, and beliefs and practices are changing. An analysis of the GT data on Japanese secondary school English language teachers above led us to identify three perspective shifts in their leadership dynamics of contextualizing their learning interrelationally and co-creatively with team members at their schools. Meta-cognitive, goal-oriented and co-creative perspective shifts can now be incorporated in Figure 18 that shows how those perspective shifts in teachers initiate their motor actions in the three dynamics.

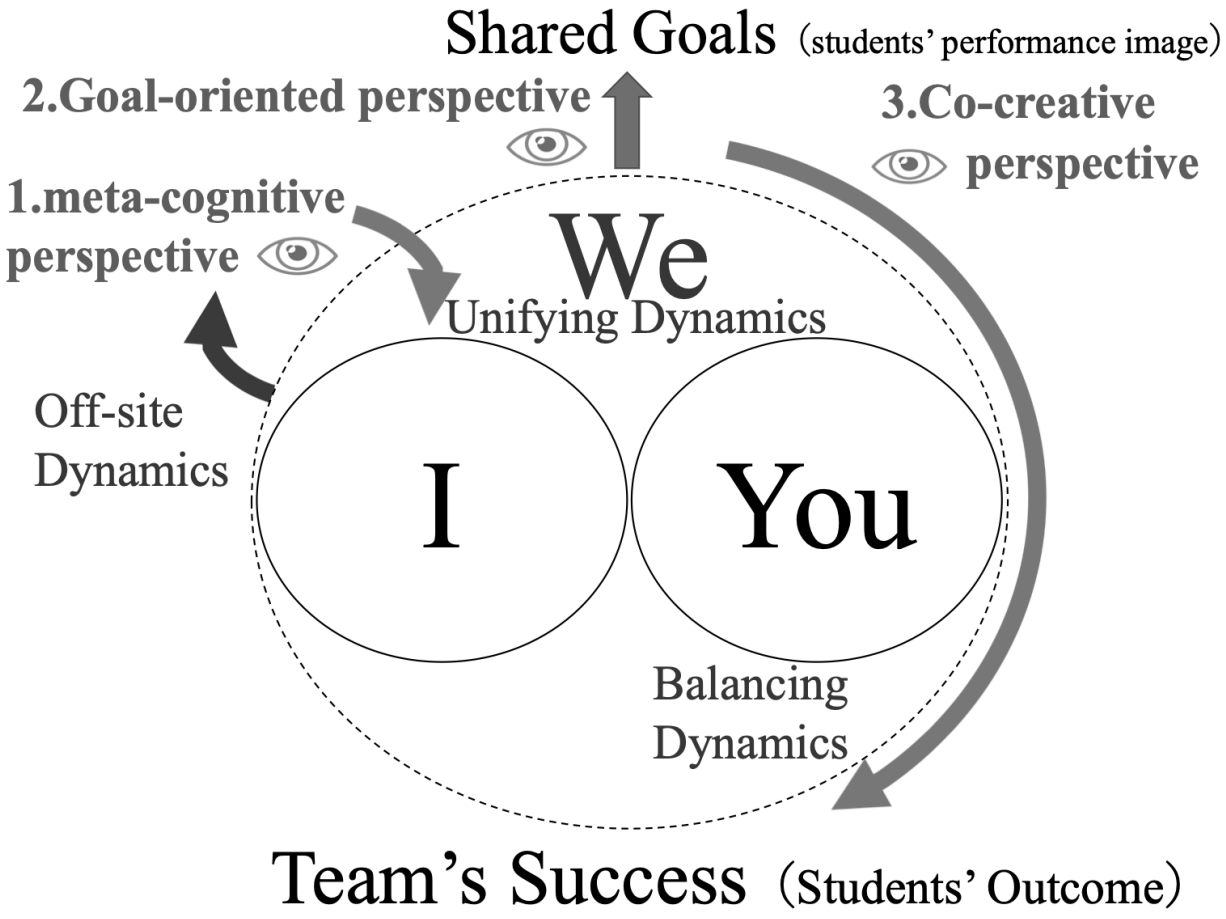

Figure 18. Teachers' three co-creative perspective shifts combined

4.5 Novice vs Expert Comparison

Before concluding the general discussion, I will confirm that the dynamics found in the expert teachers in the present study do not apply to novice or mid-level teachers, as one of the limitations of this dissertation is in its small sample size. I conducted an additional interview with another novice-middle female teacher (Teacher H) with eight years of teaching experience, who had been participating in the program for two years. She works in a different senior high school from the previous studies. The data was obtained from a consented recorded telephone interview and transcribed in full in Japanese. The data was then analyzed in the same manner as the previous study using the GTA from Hadley (2017). The table below shows the social processes at school comparing her actions with the expert teachers' dynamics proposed in this study (See Table 14).

Table 14

Novice-expert comparison of interrelational contextualization for co-creative transformation

Title	Category	Social Process (Novice-middle)
A Grounded Theory of of interrelational contextualization for co-creative transformation in Japanese Secondary School English Language Curricula (Novice-Expert Comparison)	Overcoming Dissonance	06: Suffering from heavy workload and busyness
		02: Being busy due to a limited number of staff
		03: Having difficulty in collaboration due to a poor environment
	Goal-sharing Prioritizing Students	10: Having difficulty in dealing with students acting from selfish motives
		09: Ideal collaboration meaning having a common teaching method
		04: Insufficient time to discuss with the team members
	Exercising Fluid Leadership	07: Being the youngest in school and hesitant to ask older staff
		08: Becoming sick due to heavy workload under the covid-19 situation
		05: Blessed with Members but insufficient time for discussion

I will now look into the social processes that the middle teacher showed in her interview in categories. First, as for "Overcoming Dissonance," lines 06, 02, and 03 show that Teacher H sounded

unhappy with the heavy workload and her poor educational environment. These factors prevented her from utilizing her learning from the project experience and trying something new for team collaboration, while expert teachers, comparison, showed signs of "*03 Applying Collaborative Learning Experiences to School OJT."

Moving on to the second category "Goal-sharing Prioritizing Students," No.10 showed that Teacher H had difficulty in dealing with students who act from their selfish motives. She seems unhappy with those time-wasting students. While expert teachers "*05 Prioritize students" and put emphasis on discussion with their colleagues about their performance test scheme starting from students' performance image, No.09 shows that she puts importance on having a common teaching method, and she thinks the goal of the collaboration is unifying how to teach. This is the opposite direction from expert teachers in this study and sounds similar to Teacher E's unsuccessful experience already discussed in the previous section in his former school where he just forced on other teachers his own way of how to teach.

In the last category "Exercising Fluid Leadership," teacher E maintains her fixed belief that she is the only person who can exercise leadership since No.07 shows that her age (also the years of her teaching experience) makes her hesitant to ask older staff. This is even after she participated in the project. No.08 shows that she didn't ask other members until she became sick, despite a heavy workload related to the covid-19 situation, while experts showed "Self-disclosure of Weakness and Entrustment to other members" in "*02 Team Building"

All these social processes show that although Teacher H had participated in the program for two years, she still does not show any signs of inter-relational contextualization. The follow-up interview with this teacher revealed that she had not experienced the LS in the project activity, where participants collaboratively elaborate on lessons starting from the background of the student's learning history, to having performance test "conferencing." This dissertation has discussed this kind of co-creative experience in lesson studies, in other words, "situated learning" (Lave & Wenger, 1991) through "legitimate peripheral participation" in Off-JT, which gives practitioners chances to

critically reflect on their own practice in OJT, transform their beliefs and practices, and finally realize collaboration and co-creation in their teams. So, I conclude that the dynamics proposed in the present study do not apply to many novice or middle teachers, and thus defined as typical in expert teachers who participated in such activities of situated learning.

4.6 Building a Desired TD Model: Co-Creative Transformation Model

The discussion in this chapter overviews all of my studies from 1 to 4. The focus is on confirming the integrity of the three dynamics proposed in this dissertation project and its relationship with the transformation model proposed in study 1 that every phase somehow relates to team collaboration. The three perspective shifts proposed in study 4, meta-cognitive, goal-oriented and co-creative caused by gaining objective perspectives on themselves, students, and the team's success, are also further explained in detail: how teachers' new perspectives are gained, and how beliefs and practices confirmed to be transforming. These three perspective shifts has come to be incorporated into the very centre of the "Progressive Cycle for Ongoing Actualization of Co-creative Transformation" (Figure 14), which now shows how the perspective shifts initiate teachers' motor actions in both the transformation cycle and in their leadership dynamics of contextualizing their learning interrelationally and co-creatively with team members at their schools.

"Co-creative Transformation Model Through Interrelational Contextualization"

Social constructivist perspectives focus on the interdependence of social and individual processes in the co-construction of knowledge. Expert teachers in the study, after experiencing some degree of "dissonance" at schools with colleagues or students, attempted to participate in the program (Off-JT), where they had a chance to elaborate lessons starting from discussing the students' goal images. Language TD is a process of articulating an inner world of conscious choices made in response to the outer world of the teaching context (Mann, 2005, p. 105). The study revealed how those teachers were experiencing perspective shifts (from I to We, teacher to student, and leader to follower perspectives) through situated experiential learning mainly in collaborative discussion and

reflection in the program. They are also found to be demonstrating “co-creative leadership” (promoting fluid and modest creativity) as a result of utilizing their learning in OJT. Those teachers, showing the signs of three dynamics (off-site, unifying, and balancing) participating in the collaborative training program (Off-JT) and the educational settings (OJT), are found to be repeating “the transformation cycle,” transforming their beliefs and practices by gaining objective perspectives on themselves, students as goals, and teams’ success. Meta-cognitive, goal-oriented and co-creative perspective shifts can now be incorporated in the very centre of the “Progressive Cycle for Ongoing Actualization of Co-creative Transformation (figure 14).” Figure 19 shows how perspective shifts in teachers initiate their motor actions in the transformation cycle around a progressive cycle. Hence, I hereby name this expert teachers’ typical dynamics in schooling, originating from their perspective shifts in unique Off-JT and its proposed cycle as “Co-creative Transformation Model Through

Interrelational Contextualization," where three triggers of collaboration (dissonance, prioritization of students, and co-creative initiatives) are closely involved with each other. (See figure 19)

Answering the research question, "what are the elements of TD program that promote transformation and collaboration of language teachers at schools?," it can be concluded that we need to facilitate teachers' learning "here and now" by providing the proper "social situation" (Lave & Wenger, 1991) so that experiential learning occurs in teachers that encourage their interrelational contexualization at schools and supports their lifelong transformation. Based on the above discussion and scholarly literature, such learning can occur in three dynamics, for example, someone who creates

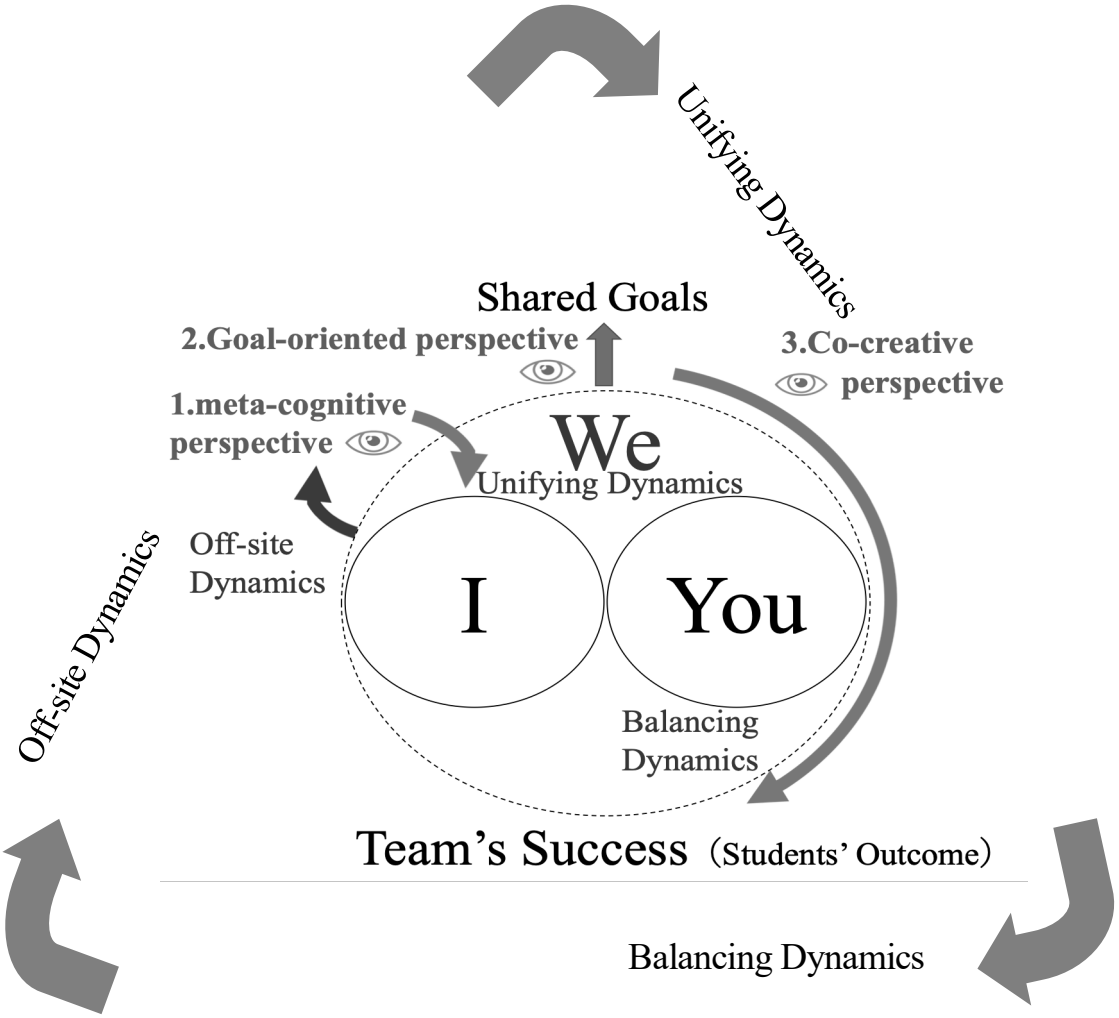

Figure 19. Co-creative transformation model through interrelational contextualization

"mediational space" with interest after emotional dissonance (Golombek & Johnson, 2004), situated

learning experience (Lave & Wenger, 1991) in Off-JT, such as experiencing elaborating lesson plan or conducting performance test “conferencing” (Imai & Matsuzawa 2015) in collaboration, which eventually leads to co-creation in real OJT contexts. Teaching is also situation-specific competency. Teachers need to experience the targeted professional skills in context by acquiring procedural knowledge (not propositional or declarative), since “learning to teach is a socially mediated activity” (Golombek & Johnson, 2004). Hence, TD programs should be situated in a context of a teachers’ learning community, as this model demonstrates, emphasizing the importance of contextualizing the knowledge to the real situation such as LS in school OJT, in order to fully utilize the knowledge or skills to practice in schooling, that encourage teachers’ social interaction and actual contextualization in school collaboration in the long run.

CHAPTER 5: CONCLUSION

This dissertation explored the transformative power of a TD program conducted with high school English teachers in Japan. The focus of the TD program was on how the collaborative atmosphere of the project promoted teachers' inner transformations of beliefs and purposeful changes to their teaching practices. Data from teacher participants measuring the effects of the program were collated and critiqued to examine personal belief transformations and outcomes to their work-based practices. Findings from the primary research goals of examining teachers' transformations and the effects of TD program may contribute to the field of TE research and future TD programs in the field of language education. This final chapter first summarizes this dissertation succinctly, then provides pedagogical implications under three subheadings before suggesting routes for future studies.

5.1 Answering The Research Question

The grand research question "what are the elements of TD program that promote transformation and collaboration of language teachers at schools?" was approached using a multimethodological design that especially made use of the GTA. The result of responding to the research question is a new model of collaborative TD that can be used with teachers in both ESL and EFL contexts. The primary conclusion was that the proper social situation in community (Lave & Wenger, 1991) needs to be provided in TD programs, in which experiential learning occurs when to facilitate teachers' learning "here and now."

The transformation model presented here revealed that expert teachers' actions displayed the three dynamics (Off-site, unifying, and balancing) in the collaborative training program (Off-JT), and the in-school practice (OJT). These teachers were found to be repeating the transformation cycle by transforming their beliefs and practices through objectivity and raising the goals of students and colleagues. As a result of their perspective shifts, the name applied to this model is the "Co-creative Transformation Model Through Interrelational Contextualization." A model where three triggers of collaboration (dissonance, prioritization of students, and collaborative initiatives) are closely linked.

These findings are positioned in the field of teacher education, especially in TESOL (Teaching English to Speakers of Other Languages), and contributes to literature relating to teacher transformation in 2.1, 2.2, and 2.3. The proposed model adds clarity to the mechanisms of how language teachers transform their beliefs and practices over time through participation in TD programs and how transformation research shapes TE and teaching. Attention was paid through research and experience to how this model can be applied to school management and leadership education/development in Japan.

5.2 Summary of the Dissertation

This paper discussed the elements of a TD program that promoted the personal transformation and interrelational collaboration of high school language teachers. This section provides a summary of the dissertation.

Chapter 1 explained the background of this research from my own experiences as a teaching consultant, a teacher trainer and an organizer of TD programs. I found two types of teachers through my experiences in these roles: teachers who enthusiastically adopt new teaching techniques and methods to improve their practices and teachers who showed no interest in change or adopting anything new. The reasons behind this gap in teacher-type were a primary foundational interest initiating my PhD study. A quote from Golombek and Johnson (2004), “Learning to teach is a socially mediated activity” (p. 309) gave me insight that a teacher’s development depends on experiential learning in specific social activities. From this realization, I started to change how I conduct teacher training programs based on similar-themed literature from both theoretical and empirical lenses and overviewed in Chapter 2.

Having read through research articles on TD programs, I found only a few studies investigating Off-JT collaborative TD programs and its utilization on schooling in Japan. This background formed the start of the third and fourth studies in Chapter 3. The first study followed the transformation process of an individual novice teacher and found her teaching beliefs and practices

transforming through journal writing. As study 1 made clear the importance of beliefs in teacher training, my interest was triggered to investigate the beliefs of teachers and students in the second study. Study 2 revealed that the biggest problem of the study group was in the belief gaps between teachers. This gap seemed to be causing problems in teachers utilizing their learning in the project at their school OJT. These findings in study 2 motivated the author to conduct further research in Study 3 on the utilization of the teacher learning, investigating the distinct features of this program and whether they changed teachers' practices and the degree to which they utilized their learning. Study 3 revealed that team collaboration was one of the biggest concerns of participant teachers, which motivated Study 4 to confirm how expert teachers are promoting collaboration in schooling. Based on those findings and implications of the four studies with previous literature, Chapter 4 confirmed how those teachers were experiencing perspective shifts (from I to We, teacher to student, and leader to follower perspective) through situated learning, collaborative discussion and reflection in the program. Teachers in this study were also found to be demonstrating "co-creative leadership" (promoting fluid and modest leadership by encouraging members' creativity, participation and leadership). This leadership style was as a result of utilizing their learning in the collaborative training program (Off-JT) and the schooling (OJT). Those teachers, showing the signs of three dynamics (off-site, unifying, and balancing), were found to be repeating "the transformation cycle," changing their beliefs and practices by gaining objective perspectives on themselves, students' goals, and teams' success.

Based on these four studies, the "Co-creative Transformation Model Through Interrelational Contextualization," including three closely linked triggers of collaboration (dissonance, prioritization of students, and co-creative initiatives by overcoming leader-follower polarization) were proposed. Chapter 5 examined how these described elements can be incorporated into future TD programs that initiate pedagogical outcomes. Although the findings are not generalizable to all potential participants in the program, this study represents an initial underpinning and has developed an understanding of how teachers participating in collaborative TD programs that utilize their learning

in school OJT. This paper has only opened the door to understanding how expert teachers participating in collaborative TD programs can utilize their Off-site learning to school OJT.

5.3 Pedagogical Implications

An analysis of expert participants' interview data suggested a conceptual model of how collaboration at school triggered teachers' interrelational contextualization of co-creation. This finding strongly supports the need to participate in collaborative TD programs that enhance English teachers' collaboration at schools. This subsection details how findings in this study lead to a proposed model that can be incorporated into future TD programs with measured pedagogical outcomes.

5.3.1 The Proposed Model

The proposed multi-dimensional model shows a tentative explanation of how the collaborative skills of teachers' was enhanced by those who participated in a TD program and theorized as a "Co-creative Transformation Model Through Interrelational Contextualization" (Figure 19). This model revealed three leadership dynamics; off-site, unifying, and balancing dynamics, all in relation with three perspective shifts; meta-cognitive (between I and We), goal-oriented (between student and teacher), and co-creative (between leader and follower) perspectives. As a result of these dynamics and perspective shifts, their leadership became more we-oriented, discreet, fluid and co-creative. An analysis of the expert participants' interview data also suggested how collaboration at school is triggered by interrelational contextualization. This finding implies that participating in collaborative TD programs enhances teachers' collaboration at schools and doing so works towards transforming their beliefs and practices at school.

There are several promising applications of this study for teacher educators, trainers and school managers to consider when developing their TD programs. They can emphasize social interaction by participant teachers in their workshop experiences, by introducing egalitarian team-building practices (i.e. we-oriented, discreet and co-creative leadership). The proposals from 5.3.2

take into account the consistent report that teachers in Japan have little time for training due to their workloads, and that budgets for training are limited. It is hoped too that the theory to enact real changes for organizations through teamwork expands internationally.

5.3.2 Proposals for Future Innovatory Practice of the Program

While the third study here revealed a good balance of Wallace's education models and relatively high levels of participant satisfaction the GT analysis implies possible changes that might benefit the program. This subsection provides possible changes that could eventually lead to the future innovatory practice of the program, and how such changes would be introduced effectively in schools, summarized here;

Proposal A: Project E should lean more towards the Wallace's "applied science model" field.

Proposal B: Project O should lean a little more on Wallace's "craft model" field. (To realize the change of focus, this project could target teachers with fewer teaching experiences.)

Proposal C*:* Project O should attempt to develop and spread a new in-school TD system.

Proposal A: The result of the applied science model question indicates that projects S and E gained the highest rates of "Strongly agree." However, in view of the targeted individual purpose, project E, which is meant to deal with topics such as evaluation and entrance examination, should be directed more on research findings and theories (received knowledge) than the other projects.

Proposal B: Similar implications can be explored about project O, with no gain in its rate of "Strongly agree" in the craft model question. Considering its purpose of being supportive to teachers' individual professional growth and developing their teaching skills, project O may well focus more on the craft model perspective with more experiential and situated knowledge (i.e., observing the examples of "master" practitioners and providing participants with a chance to learn from those mentors' demonstrations in their own classrooms). In light of this view, this project may well increase from young participants with less teaching experience, since 80% of the participants in this project were over 40 years old, as well as the fact that more middle-level teachers are needed to introduce middle-up-down management to schools.

Proposal C: The last proposal (concerning project O) attempts to develop an "on-school TD model of interrelational contextualization and co-creation" based on reflection and collaboration and introduce this TD system to schools (craft-model perspective). This proposal includes introducing to schools the reflective and collaborative atmosphere developed by project S (reflective-model perspective), and the evaluation method developed by project E (applied- science-model-perspective). Project O has an advantage of this pioneering endeavour of spreading the model, as it holds all-prefectural conferences with more than 100 participant teachers annually, as well as the fact that the grounded theory data revealed that some teachers learned how to elaborate lessons collaboratively in project O. This event should be utilized more effectively as TD program that provide all types of teachers with situated learning processes outside of school. It should also try holding on-school training programs at schools in addition to the present off-school meetings on weekends, to spread this "Co-creative Transformation Model Through Interrelational Contextualization" developed in this program.

5.3.3 Proposals for Utilization of the TD Model in Other Programs

This model can also be used as an intuitive and collaborative structure especially for teacher educators and school managers who wish to utilize interventions targeting egalitarian team-building practices to enhance the effectiveness of the Off-JT and OJT to achieve student outcomes. This subsection finally advances proposals of possible applications to other TD programs as well as the two reasons below;

Proposal D: Teacher educators can situate their TD programs in a real-school context such as in LS (OJT), or deal with real issues in co-creative LS outside school (Off-JT) that encourage teachers' social interaction and their actual contextualization in school co-creation.

Proposal E: Teacher educators can offer communication workshop including leadership and team-building experience in their TD programs for language teachers, so that each member understands from experience the effectiveness of co-creative leadership is for team collaboration as well as student management.

Proposal D: As frequently quoted in this dissertation, “Learning to teach is a socially mediated activity” (Golombek & Johnson, 2004, p. 309) and teacher learning occurs in “social interactions” that are situated in context, and only in context one can utilize knowledge. In this sense, no other form of teacher training exceeds OJT at schools. However, taking the workload of public high school teachers in Japan into consideration, this model can be used as an intuitive and collaborative structure especially for teacher educators and trainers, who can situate their TD programs in voluntary Off-JT on weekends. Real issues that encourage teachers’ social interaction and actual contextualization in school cocreation, for example, can be dealt with through evaluation conferencing and lesson studies as practiced in the project in this study. Based on the discussion and literature reviewed above, such situated learning can occur in three dynamics, for example, someone who creates “mediational space” with interest after emotional dissonance (Golombek & Johnson, 2004). The teachers in this study are seen to be promoting collaboration by discussing performance test schemes and evaluations, prioritizing students’ performance image. This may be one of the situated learning experiences (Lave & Wenger, 1991) available in Off-JT, showing how important an OJT is for teachers. We teacher educators should also keep in mind that it is also important that we attempt to make teachers learning as much situated in context as possible even when we are conducting Off-JT outside schools. One such example could be experiencing elaborating lesson plan or conducting performance test “conferencing” (Imai & Matsuzawa, 2015) in collaboration. This model can also contribute to school managers who wish to utilize interventions targeting egalitarian team-building practices to enhance the effectiveness and student outcome in OJT. Such conferencing will also lead to co-creation in the real context of OJT.

Proposal E: Teacher educators can offer communication workshops that include leadership and team-building experiences in their TD programs, either in OJT or Off-JT, for language teachers so that each member understands from experience the effectiveness of co-creative leadership is for team collaboration and student management. In doing this, they can apply the “Co-creative Transformation Model Through Interrelational Contextualization” with three leadership dynamics;

off-site, unifying, and balancing dynamics, in relation with three perspective shifts; meta-cognitive (between I and We), goal-oriented (between student and teacher), and co-creative (between leader and follower) perspectives. Teachers are essentially “learners of teaching" (Johnson, 2009) The result in this dissertation implied that the expert teachers have similar experiences to an individual novice teacher in the first study. This means even experts initially have dissonance with other teachers but can later overcome it through social interaction and contextualization of their learning in the project. As it is seen, teachers’ learning through sociocultural lenses, necessitates interaction, socialization, and a more experienced other to mediate this process for their development. Many of the teachers in this study are also found to be in “need for relatedness.” “Future improvement measures” (MEXT, 2015) necessitates schools to build a “school as a team.” Also, these days, schools have been expected to be more open to collaborating with the neighbouring regions under the leadership of the principal. In this context, it is hoped that this TD system based on collaborative experiential learning of teachers will be one of the catalysts for a commitment of teachers’ professional growth. As already discussed, I would like to propose introducing the idea of TD in a TE system, since transformation process appeared to be a more dynamic, ongoing process rather than linear progression. In this sense, TD programs can first start with voluntary Off-JT, even with little and sustainable achievement. The focus here will not be “should do” or “must-do” but rather more openly “can do” or “might be possible to do,” prioritizing students’ performance image and teams’ success. It is now time to rethink the concept of leaders and followers in school organizations and shift from a static, dyadic perspective towards a more fluid and realistic reflection of modern egalitarian leadership with clear shared goals. To achieve this, TD programs should be situated in a real context (OJT) that encourages teachers’ social interactions and actual contextualization in school collaboration. The act of teaching requires a high level of expertise, and TD programs should be placed in a context where participants can visually identify an outcome and utilize it to a real situation. I am fascinated by the idea of organizing this collaborative TD program among local teachers because of the personal and professional growth

I have witnessed. I would like to expand the pool of teachers experiencing this TD style beyond Niigata, and contribute to the development of a new TD system nationwide, even internationally.

5.4 Future Research

This study is a first attempt to reveal the dynamics of teachers' collaboration at schools, rooted in the theoretical foundation of English language education and TE, leadership and team-building research, as well as expertise and learning theories from business, educational, and psychological fields. As indicated in the last subsection, this paper only focused on how teachers participating in a collaborative TD program can utilize their learning to school OJT. The critical weakness was the sample size of the study. Since the number of participants in study 4 is relatively small, it is unclear whether the findings are generalizable and suitable in all other local contexts of Japan, any future research should consider a larger cohort for more applicable findings. The questionnaire presented in study 2 can be revised to reflect more accurate scholarly research of L2 learners/users in the EFL context. Through increased use of research results here and investigation on its effects, another aim is to shed light on the social processes of the team dynamics of collaboration. Future research should also focus on how novice participant teachers can utilize their learning to school OJT as well as factors from other TE programs are suggested.

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APPENDICES

Appendix A1 (Study 1) Sample of Dividing Journal Entries into Turns

	Turns	No.	S / T	Category #	Subcategory #	L2
201	レッスン2	13		6 Time and Section No.	6 Time and Section No.	6 Time and Section No.
202	(L2-1)	13		6 Time and Section No.	6 Time and Section No.	6 Time and Section No.
203	First ReadingとSecond Reading (Answer It)を板書した後、	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
204	それぞれ3分ずつ時間を取って解答（させる）。カッコ内は筆者	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
205	問題点…質問を写す作業にかかる時間に差!	9	Student	3 Evaluating teaching	3d S's problems	3d S's problems
206	→ハンドアウトにした方が一斉に取り組めて良いかも。	10	Teacher	3 Evaluating teaching	3e Solutions	3e Solutions
207	（First readingは特に写す時間が節約できる）	10	Teacher	3 Evaluating teaching	3e Solutions	3e Solutions
208	First Reading、Second Readingと分けたことで、	4	Teacher	2 Approaches and method	2c T's new approach to the teaching	2c T's new approach to the teaching
209	内容の理解度が見えやすくなった感じはあり。	6	Teacher	3 Evaluating teaching	3a Positive evaluations of Ts	3a Positive evaluations of Ts
210	(L2-2) 5/9	13		6 Time and Section No.	6 Time and Section No.	6 Time and Section No.
211	比較や最上級を使った楽しい活動や	8	Teacher	3 Evaluating teaching	3c T's problems	3c T's problems
212	small talkのテーマが思いつかず	8	Teacher	3 Evaluating teaching	3c T's problems	3c T's problems
213	（テスト明けの）課題　生徒にどうやってEng話させるか	12	Teacher	5 Questions about teaching	5 Questions about teaching	5 Questions about teaching
214	次の授業で☆音読（復習）Choral, pair, repeat after partners, new	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
215	(楽しそうにやっていた)	5	Student	2 Approaches and method	2d S's reaction to the approach	2d S's reaction to the approach
216	☆文法、Use itやった	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
217	First Reading、Second Readingからの音読、New words	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
218	できっかり47minで終わった^^	4	Teacher	2 Approaches and method	2c T's new approach to the teaching	2c T's new approach to the teaching
219	「今日授業あっという間だったなぁ」	5	Student	2 Approaches and method	2d S's reaction to the approach	2d S's reaction to the approach
220	「お前集中してたってことだよ！！」の声。	5	Student	2 Approaches and method	2d S's reaction to the approach	2d S's reaction to the approach
221	やっぱりテンポって大切なんだと思った。	1		1 Theories of teaching	1 Classroom exp changing Ts theories	1 Theories of teaching
222	(L2-3) 5/15	13		6 Time and Section No.	6 Time and Section No.	6 Time and Section No.
223	導入として英語で重さを答えさせる	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
224	(写真・イラスト等あるとよかった(>_<))	10	Teacher	3 Evaluating teaching	3e Solutions	3e Solutions
225	(思ったこと）・比較級を使ったコミュニケーション活動を充実させるためには？	12	Teacher	5 Questions about teaching	5 Questions about teaching	5 Questions about teaching
226	(教科書のはつまらない！)	2		2 Approaches and method	2aContent	2aContent
227	・導入のためにはどのような活動をすべきだったか…？	12	Teacher	5 Questions about teaching	5 Questions about teaching	5 Questions about teaching
228	・1-1がだらけ気味のため、	9	Student	3 Evaluating teaching	3d S's problems	3d S's problems
229	少し雰囲気が違う。	9	Student	3 Evaluating teaching	3d S's problems	3d S's problems
230	・1-3を盛り上げるためには？	12	Teacher	5 Questions about teaching	5 Questions about teaching	5 Questions about teaching
231	・ディクテーションやっていない↓	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
232	・テスト前には復習としてやる	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
233	（これまでより、音読の回数が少なかった。(>_<)	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
234	Naviで時間がかかってしまった。)	3		2 Approaches and method	2b Procedures used during the lesson	2b Procedures used during the lesson
235	(L2-4) 5/17	13		6 Time and Section No.	6 Time and Section No.	6 Time and Section No.
236	文法は助動詞	2		2 Approaches and method	2aContent	2aContent
237	全体でシェアした後の拍手もでてきた。	7	Student	3 Evaluating teaching	3b Positive evaluations of Ss	3b Positive evaluations of Ss
238	Very good!	6	Teacher	3 Evaluating teaching	3a Positive evaluations of Ts	3a Positive evaluations of Ts
239	1-1でもがんばろう!	11	Teacher	4 Setting goals	4 Setting goals	4 Setting goals
240	1-3では導入としてSmall Talkを久々に復活させてみた！！	4	Teacher	2 Approaches and method	2c T's new approach to the teaching	2c T's new approach to the teaching
241	Do you like to watch movies at the theaters?	2		2 Approaches and method	2aContent	2aContent

Appendix A2 (Study 1) Extract from the Questionnaire

Question: What did you do or devise in any way for keeping the habit of writing the journal?

Teacher A: 1. I consistently kept it in mind that I wrote my journal entirely for my own use, freely writing what comes to my mind, thinking that it has to be just good enough for my own future reference.

2. I used paper without ruled lines. When I studied for the university entrance examination, hearing that paper with no ruled lines was good for problem exercises, I made it a rule to use free-style notebooks without lines. This is why I chose such notebooks for journal writing. I think this was a good choice because it was easier to layout comments and graphics, as well as to write freely as I wished. In addition, when there is not much to write in your mind, you can fill in large letters.
3. I tried to make it easier to look back in future. Even though you take a lot of memos, it is often hard to reflect after a long period of time when there is no material attached. I always attached illustrations and worksheets so that a clear image of the lesson would come to my mind immediately.
4. I made it a rule to write journal part by part of a textbook lesson (about twice a week) not for every class or every lesson. Consequently, I write reflection in a few days after a class, not right after the class. I did not intend to, but as a result of this, I could reflect on myself objectively.

Appendix A3 (Study 1) Extract from the Semi-Structured Interview

R: Can you give specific example of "letting students play in the field like a shepherd"?

TA: My journal 3-1 says "I need to be accustomed to small talk!!!" At this stage, this small talk is not what is generally accepted as "small talk" whose topic is closely connected to the content of the textbook, but more like ready-made activities borrowed from an interview in the Practical English Proficiency Test. This ready-made activity goes on for a while

R: Okay.

TA: Going on to Lesson 5, I introduced a Janken game. Not caring about the connection with the textbook here and I myself started to play in earnest as a warmup, intending to emphasize the atmosphere and moving on to the main activities in a lively atmosphere.

R: Right.

TA: I then started to introduce games as a warmup. In Lesson 7, I tried a grammar activity of connecting clauses using relative pronoun, which I learned at a training in a junior high school.

R: Your journal says the whole class got so excited.

TA: Yes. Later in the open class, after conducting a color association game as a warmup, where students were excitedly "playing" in the activity related to the lesson, I felt I was more able to lead students smoothly to become interested in the content of the textbook.

Appendix B1 (Study 2) The Result of *t*-test Between Teacher/Student Responses

(Teachers: N=35)

(Students: N=496)

		Paired Differences				
		t	Sig. (2-tailed)	Difference in average	Standard Error of difference	
Q1	Supposing inverval level data	-4.745	0	-0.77951	0.16427	*
	Not supposing inverval level data	-5.452	0	-0.77951	0.14299	
Q2	Supposing inverval level data	-0.41	0.682	-0.06667	0.16268	
	Not supposing inverval level data	-0.611	0.544	-0.06667	0.1091	
Q3	Supposing inverval level data	-7.502	0	-0.93612	0.12478	*
	Not supposing inverval level data	-7.455	0	-0.93612	0.12557	
Q4	Supposing inverval level data	1.674	0.095	0.22431	0.13396	**
	Not supposing inverval level data	2.059	0.046	0.22431	0.10896	
Q5	Supposing inverval level data	-4.91	0	-0.73853	0.15041	*
	Not supposing inverval level data	-5.274	0	-0.73853	0.14004	
Q6	Supposing inverval level data	-0.876	0.382	-0.12673	0.14471	
	Not supposing inverval level data	-0.979	0.334	-0.12673	0.12949	
Q7	Supposing inverval level data	5.463	0	0.77177	0.14128	
	Not supposing inverval level data	9.89	0	0.77177	0.07803	*
Q8	Supposing inverval level data	1.35	0.178	0.14539	0.10774	
	Not supposing inverval level data	1.722	0.092	0.14539	0.08441	**
Q9	Supposing inverval level data	-0.272	0.786	-0.04061	0.14951	
	Not supposing inverval level data	-0.24	0.811	-0.04061	0.16904	
Q10	Supposing inverval level data	1.519	0.129	0.17056	0.11225	
	Not supposing inverval level data	1.742	0.089	0.17056	0.0979	
Q11	Supposing inverval level data	2.316	0.021	0.22078	0.09532	
	Not supposing inverval level data	3.396	0.001	0.22078	0.065	*
Q12	Supposing inverval level data	-0.548	0.584	-0.06061	0.11067	
	Not supposing inverval level data	-0.533	0.597	-0.06061	0.11361	
Q13	Supposing inverval level data	-1.409	0.159	-0.1727	0.12254	
	Not supposing inverval level data	-1.241	0.222	-0.1727	0.13914	

*p < .05. **p < .10.

Appendix C1 (Study 3) Sample Data from the Questionnaire Results

1	2	3	4	5					6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23		24		25	26	27	28	2	3		29	30
性別	満4	教職	職4	先生が	昨年度ま				研修	研修	自ら	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修	研修で	研修	研修で	研修	研修で	研修	研修	研修	研修	満4	経年数	こ	研修で学んだことを学校	
Re	Re	Re	Re	PJ	PJ	PJ	PJ	上記	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	Re	授業	Re	授業	Re	授業	Re	Re	Re	Re	Re	Respo	Op	Open-Ended Response	
2	1	1	1	1	2				4	5	5	5	5	4	5	5	4	5	2	4	4	5	2	4	4	研修	4	内容	2		4	4	4	4	1	1	Col	カ	一番大きいことは、自分な
2	1	1	1	1	2				5	5	5	5	4	4	5	4	4	5	4	4	4	4	3	3	4		3		3		3	3	4	3	1	1			
1	1	1	1	1	2	3			5	5	4	5	5	5	4	4	5	5	3	4	5	4	3	5	3		3		3		3	5	5	4	1	1	refl	振り	同僚と情報共有しやすい職
1	2	1	1	1					4	4	4	2	3	4	4	4	5	4	3	4	4	4	2	4	3		2		2		1	2	2	2	2	1	rela	さま	同僚との授業スタイルがあ
1	2	2	1		2				5	4	5	5	4	4	5	5	4	4	5	5	5	5	4	5	3		4		4		4	4	4	4	2	2	refl	ーブ	理論を重んじる保守的な英
1	4	2	1	1	2				5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	4	生徒	4	自ら	4	頂い	4	4	5	4	4	2	Col	先生	自分ではないですが、やは
1	3	3	5					5																											3	3	Col	自主	学校のシステムとして、教科
1	2	3	1	1	2				4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	3		3		3			3	3	4	2	3	Col	同僚	同僚と実践を共有する時間
1	2	3	1	1	2				5	5	5	5	5	5	5	5	4	5	5	5	5	5	4	4	5	生徒	5	講師	3		4	5	5	3	2	3	Ser	この	同じ学年を担当している英
1	3	4	1				4		5	5	5	5	5	4	5	5	5	5	4	4	4	4	4	4	4	生徒	4	具体	3		4	4	4	4	3	4	Col	継続	同じ学校で共有できる仲間
1	3	4	1			3			3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		3		3		3	3	3	3	3	4			
2	2	4	1	1	2		4		5	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	単元	5	和田	5	科目	5	5	5	5	2	4	syn	共通	校内の成績評価の内規は
1	3	4	1					5																											3	4	Col	他者	校内で足並みを揃えた指導
2	4	4	2	1	2				4	4	4	4	4	4	4	3	4	5	3	4	4	4	3	4	4	アセ	3		3		3	4	4	3	4	4	Tip	身近	そもそも自分に語学力があ
2	3	4	2	1	2		4		4	4	5	4	4	4	4	5	5	5	4	5	5	5	4	5	4	授業	4	生徒	4	評価	4	4	4	4	3	4	syn	普段	各学校特有の昔ながらの
1	3	5	1	1	2	3			4	4	4	4	5	5	4	4	3	4	3	4	4	4	4	4	4		4	生徒	4	生徒	4	3	4	4	3	5	Col	校内	試すこと、成功例や失敗例
1	3	5	1		2	3			4	4	5	5	5	5	5	4	4	4	4	4	5	5	4	3	4	どの	4	生徒	2		2	3	4	3	3	5	Col	他者	学校全体の世論作りのため
2	3	5	1			3			4	5	4	4	5	4	4	3	3	4	4	4	4	4	4	4	4	指導	3		3		5	4	4	4	3	5	Col	同僚	固定観念や向上心の欠如
2	3	5	1	1	2		4		4	4	5	3	4	2	2	5	3	5	3	2	4	5	5	3	0		5	英語	5	授業	5	2	3	5	3	5	Ser	この	自分の実践は工夫次第で
1	3	6	1	1	2	3	4		4	4	5	3	5	4	4	5	4	4	3	4	4	5	3	3	2		4	ほか	4	教科	4	3	4	4	3	6	refl	振り	同僚の先生と考え方が異な
1	3	6	1	1	2		4		5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	4	英語	5	リテ	5	生徒	5	5	5	5	3	6	syn	同じ	同僚の協力体制
2	4	6	1		2		4		4	4	4	4	4	4	4	4	4	4	3	4	4	4													4	6			
2	4	6	2					5																											4	6	rela	生徒	同僚の理解、意識の差
1	5	8	1	1	2				5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	書く	5	英語	5	生徒	5	5	5	5	5	8	syn	自ら	普段から、抱える問題をざ

Appendix D1 (Study 4) Sample Data from the Theoretical Notes

Category		Goal-sharing Prioritizing Students（生徒を中心に据えたゴールの共有）
Social process	Teacher E/F	04 Recognizing the importance of goal sharing （04 ゴール共有の重要性認識）
Definition	Teacher E/F	Every member of the team recognizing the importance of goal sharing （ゴール共有の重要性を学年チームメンバー全員が認識している）
Concrete examples supporting the social process	E01_8/9	E:（うまく協働できなかった経験があるので）それがやっぱり比較ができるんですね、今。そのタイプといえばやはり年上 50 代 60 代男性。文法教えるのが好きな…その方とはその高校で 3 年間一緒にやってましたね。…最初に始めたのは 1 年生の時、これはある程度きっちりゴール決めて手順を決めてやらないと難しいだろなと思ったので、私がこの学年だけの CAN-DO を作ったりだとか、ゴールを示す図だとか、そういったものを作って細かく共有しましたね。3 月 4 月の段階で。
	E09_4/9	ディベートが目的なんじゃなくて、生徒に考えさせて、それを表現する、その力を養いたいという共通の目標があり、それに到達するためにディベートという手段があるんです。
	F08_3/9	F:D 先生チームに入って、目標を先に決めてそれのために活動して、と言う「逆向きに」というか。D 先生がいつも「これをやる目的はこれなんだよね」と最初に言ってから教材を導入、教材を買ってみようとか、こういう活動を入れてみないとか言ってくれるので、なんか活動、この活動をやるためにということが出発ではなくて、こうなって欲しいからこれをやろうとかどんな活動がいいかという風に提案してくれるので、なんていうんでしょうかね先にゴールを決めてそれに向かってというのが去年より意識できてるかな、と思います。
Theoretical Notes		・F 先生もゴール共有を意識できている。養成期（坂本, 2007, P. 588）の段階の先生だがここまで目標共有の重要性を認識できているのは、D 先生の言う「一緒

		に作ってる感」(atmosphere of co-creation).”をチーム内での協働で普段から意識できているからか？これはCo-creative Leadership (Schieffer, 2006, p. 617)の “the creation of a space for possibilities”と共通性が見られる。 ・E 先生は現在リーダーシップを発揮できているが、前任校での協働の失敗からの気づきは、「ゴールを示す図だとか…を作って細かく共有し」「きっちりゴールを決めて手順を決めてやらないと難しい」という意識にみられるように、現在のチームで「一緒に作ってる感」を重視して一緒に決めるというプロセスを経ずにリーダーが自分で方針を全てきっちりと決めてしまっている所にあるか。このプロセスやリーダーシップのあり方が今回の Expert の実践とは異なる。