Language Teacher Cognition and Environmental Factors:
Primary School Teachers in Different Working Contexts

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Abstract

The aim of this study is to investigate the characteristics of Japanese primary school teachers in their roles as language teachers and in relation to their workplace environments. Both quantitative and qualitative data were collected and analyzed to answer the research questions posed. To determine workplace environmental factors, we extracted data collected from teachers at two different primary schools. In order to capture an overview of primary school teachers in their roles as language teachers, we focused on their affective, cognitive and behavioral dimensions. A questionnaire was distributed to the teachers at these schools and group discussions were held. The results showed that the characteristics of the three dimensions of the teachers differed slightly between two schools. In addition, integrating the quantitative and qualitative data showed that: (a) the experience of teaching English may intrinsically motivate teachers, while extrinsic motivation may depend on how much they rely on various forms of teaching support; (b) co-operative activities among teachers might build common, strong teacher beliefs and a lack of such activities may cause greater diversity in beliefs; and (c) the circumstances under which teachers independently teach English may increase teaching practice diversity, while a set curricula, teacher support and other factors may lead to relatively similar teaching practices.

1. Introduction

SLA researchers are currently becoming more interested in the interaction between individuals and their environments due to increased interest in Dynamic Systems Theory (Dörnyei, 2014; Verspoor, de Bot & Lowie, 2011). For example, Hiromori (2014) states that recent research on language learning motivation has been shifting focus from abstracted learners to individuals embodied in their contexts. We also see such an escalation in interest in the area of language teacher cognition research (e.g. Sasajima, 2012).
More than 15 years have passed since English was first taught in Japanese primary schools. At present, English education is mandatory for fifth and sixth graders once a week and is basically conducted by class teachers who are not trained as English teachers. So far, several surveys have reported that this English education has achieved some positive results (e.g. MEXT, 2014; STEP, 2015). However, the way the initiative was implemented was overly complex as it was originally designed to encourage international understanding, and was conducted at the discretion of individual schools. This resulted in great differences in experience and knowledge on the part of the teachers involved. This is why English education in primary schools is currently conducted in a diverse array of contexts. Some schools already have more than ten years of experience teaching English. Some offer a unique English education with governmental support. We believe that understanding teachers in relation to their environmental contexts may contribute to research into both SLA and language teacher cognition. The information gained from this study could potentially contribute to provide better support for primary teachers in their roles as language teachers.

2. Previous Studies

There have been many teacher cognition studies regarding prior language learning and teaching experiences. For example, Warford and Reeves (2003) conducted a qualitative study using long interviews with six native English speakers (NS) and three non-native speakers (NNS) in order to understand the preconceptions of novice teachers about English learning, and they revealed that learning experiences in schooling had a powerful influence on teachers. They also revealed that NNS appeared more likely to have access to their own language learning experiences than NS. Richards, Gallo and Renandya (2001) administered a questionnaire to 112 second language teachers in Asian countries in order to investigate changes in teacher beliefs and the sources of those changes. They showed that the notion of teacher change is multidimensional and is triggered by the professional contexts in which teachers work as well as by personal factors.

Another focus in language teacher cognition research is on the contextual factors surrounding teachers. Allen (2002) conducted a questionnaire survey with 613 foreign language teachers in the Midwestern US to understand their pedagogical beliefs about standards for foreign language learning, and identified the factors that had an impact on their beliefs. These factors included location (urban versus rural), membership in professional organizations, and school type (private versus public) and so on. Nishimuro and Borg (2013) conducted qualitative research using class observations and interviews with three experienced Japanese teachers of English and revealed that their teaching approach was influenced by contextual factors that included students and colleagues.

Nakamura and Shimura (2014) developed a questionnaire to explore the characteristics of language teachers in Japanese primary schools, and suggested that teacher cognition might be
affected by professional contexts such as the quality of teacher co-operation as well as relationships between teachers and students. Some of the question items in this 2014 study were employed in this current study. Nakamura and Shimura (2015) also examined the characteristics of primary school teachers in their roles as language learners, looking at items such as differences in language learning motivation and language learner beliefs dependent on age and social contexts. The results suggested that personal contexts might have some impact on affective dimensions and social level contexts might have some influence on cognitive dimension. These results underline the necessity of more careful investigation into teacher environments.

3. Research Questions

The aim of this study is to investigate the characteristics of Japanese primary school teachers as language teachers in relation to workplace environments. The following are the research questions (RQ) used in this study.

RQ1: Are there any differences due to working conditions in affective, cognitive and behavioral dimensions of primary school teachers in their roles as language teachers?

RQ2: What are the underlying causes of the differences in affective, cognitive and behavioral dimensions of primary school teachers in their roles as language teachers?

4. Method

4.1. Research Methods

This study employed a mixed method approach. A questionnaire survey and group discussions were conducted. The mixed method approach has become one of the recommended approaches in the SLA research field (Dörnyei, 2003; Brown, 2014), and has also drawn attention in the teacher cognition research field (Borg, 2012; Hung, 2012). Borg (2012) analyzed recent studies on teacher cognition and identified that eight out of 25 used mixed method design and 15 used qualitative design. Hung (2012) employed mixed method research using a questionnaire survey conducted on 200 teachers, in addition to interviews and class observations with 20 teachers in Vietnam. He discussed the advantages of mixed method research in his study, and emphasized the usability of this method in teacher cognition research.

The purpose of a mixed method is to obtain different but complementary data on the same topic to better understand a research problem (Creswell & Plano Clark, 2007). A mixed method approach has several design sequences to choose from, and this study employs explanatory sequential design (Creswell, 2014), which begins with quantitative research and then utilizes qualitative research to explain the quantitative results. This study aims to clarify the characteristics
of primary school teachers in regards to different workplace environments (RQ 1), and to uncover the underlying factors that lead to those differences (RQ 2). The quantitative analysis approach was utilized for the first research question and the qualitative analysis approach was utilized for the second.

One weakness of the mixed method approach is that, because it involves both quantitative and qualitative research, more text is required to present and explain the results. To solve this problem, Creswell (2014) suggested “a joint display” as one way to represent the integration of the results of both research types. A joint display is a table that presents the results from both sets of data. Creswell made a few suggestions regarding how to array the results, and this study employed what he called a “follow-up results joint display.” This display presents the quantitative results in one column, the qualitative follow-up results in a second column, and information about how the qualitative findings help to explain the quantitative results in a final column, enabling a reader to easily understand how the results are integrated.

4.2. Quantitative Research

To capture an overview of primary school teachers as language teachers, we focused on the affective dimension, the cognitive dimension, and the behavioral dimension in individual teachers based on the framework of Cheng, Tam and Tsui (2002). These dimensions correspond to language learning motivation, teacher beliefs about teaching, and English teaching practice, respectively. For workplace environmental factors, we extracted data from the teachers of two different primary schools, one offering English education taught independently by class teachers, and the other providing it through a team consisting of a class teacher, support teachers (Japanese teachers of English) and an ALT. The schools also differ in terms of the length of time each has offered English. A questionnaire was distributed to all of the teachers who are teaching English at these two schools, and 279 primary school teachers in other regions were asked to fill in online and mail-in surveys. These questionnaire surveys were filled out between May 9, 2014 and Mar. 11, 2015.

This study employed the questionnaire presented in Nakamura and Shimura (2014). The scales to assess language learning motivation were created using Hiromori (2006). Based on Deci and Ryan’s self-determination theory, this scale consisted of 15 question items: the lowest level of self-determination (unmotivated), three levels of extrinsic motivation from less autonomous to more autonomous (external regulated, introjected regulation and identified regulation), and intrinsic motivation (through which actions are performed out of interest and enjoyment). All of these items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The remaining two scales were developed based on OECD (2009). The goal of OECD is to investigate the relationship between effective teaching and school environments, and so it was thought that question items employed in that study would also be beneficial to this study. OECD
(2009:92) explains two kinds of teacher beliefs, the Direct Transmission view and the Constructivist view. The Direct Transmission view implies that a teachers’ role is to communicate knowledge in a clear and structured way, to explain correct solutions, to give students clear and resolvable problems, and to ensure calm and concentration in the classroom. In contrast, a Constructivist view regards students not as passive recipients but as active participants in the process of acquiring knowledge. Teachers holding this view emphasize facilitating student inquiry, prefer to give students the chance to develop solutions to problems on their own, and allow students to play an active role in instructional activities. The Constructivist view is the recommended view in the curriculum guidelines in Japan (MEXT, 2008). The teacher beliefs scale consisted of 10 question items related to these two views of teacher beliefs. All of these items were rated on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Concerning teaching practices, OECD (2009) indicated three indices: (1) structured practices where the learning goals are stated and student understanding is checked by asking questions and so on, (2) student-oriented practices where students work in small groups and student self-evaluation and student participation in classroom planning are included, and (3) enhanced activities including projects, essay writing, debating and so on. The teaching practice scale consisted of 10 question items related to these three indices. All of these items were rated on a five-point Likert scale ranging from 1 (never) to 5 (very often).

4.2.1. Participants of Quantitative Research

Online and mail-in surveys were conducted, and the data from the 279 respondents from various regions in Japan with fully answered surveys was collected. The response rate was about 66%. These 279 data sets were used to see the overall trend among primary school teachers. The respondents consisted of 178 male (63.80%) and 101 female (36.20%) teachers, and their average age was 43.68 years old. The same questionnaire was administered to all of the teachers who teach English at the two primary schools. The data was collected from 11 respondents from School 1 and eight respondents from School 2. The response rate was 100%. The characteristics of these two schools are shown in Table 1. Both schools offer English education beginning in the first grade.

Table 1.
The characteristics of two schools

<table>
<thead>
<tr>
<th></th>
<th>School 1</th>
<th>School 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils</td>
<td>367 pupils (12 classes including one special-needs class)</td>
<td>146 pupils (nine classes including three special-needs classes)</td>
</tr>
</tbody>
</table>

133
Table 1. (continued)

The characteristics of two schools

<table>
<thead>
<tr>
<th></th>
<th>School 1</th>
<th>School 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>11 class teachers (male: 8, female: 3)</td>
<td>Six class teachers and two support teachers (male: 7, female: 1)</td>
</tr>
<tr>
<td></td>
<td>Average age is 37.36.</td>
<td>Average age is 44.17.</td>
</tr>
<tr>
<td>Regional environment</td>
<td>Urban area with a comparatively large number of foreign residents.</td>
<td>Rural area with few foreign residents.</td>
</tr>
<tr>
<td>Educational environment</td>
<td>A leading educational district with high educational expectations</td>
<td>Special Educational Zone of English Education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City offers English educational support.</td>
</tr>
<tr>
<td>Cooperation</td>
<td>A lot of lesson studies among teachers</td>
<td>Few lesson studies among teachers</td>
</tr>
<tr>
<td>English education</td>
<td>- Has offered English for more than 15 years</td>
<td>- Has offered English for three years</td>
</tr>
<tr>
<td></td>
<td>- Class teachers teach English independently</td>
<td>- All English classes conducted by team</td>
</tr>
<tr>
<td></td>
<td>- Has international exchange opportunities</td>
<td>teaching using regional English curriculum</td>
</tr>
</tbody>
</table>

4.2.2. Methods of Analysis of Quantitative Research

A factor analysis was conducted on each scale and factor scores were calculated and examined. Murakami (2002) explains that as factor scores are compounded of multiple scores of question items, commonalities among the question items are highlighted and the scores show more essential meaning. Because of the deviation of the amount of the data, scatter diagrams of each dimension were used to compare the characteristics of teachers at each school with overall trends among primary school teachers.

4.3. Qualitative Research

Free discussions among the teachers selected from each school were conducted in order to explore the factors behind the results of the questionnaire. One issue with qualitative research is the difficulty of retrieving unconscious beliefs or affection through interviews. In this study, teachers discussed freely and reflected upon their own teaching experiences and teacher beliefs in order to avoid any bias on the part of the researcher. One teacher from each group served as a facilitator. The discussions were recorded on video and transcribed with the permission of the participants. Each group discussion was approximately 60 minutes long. The discussion at School 1 was conducted on Mar. 12, 2015, and the one at School 2 was conducted on Dec. 11, 2014.

4.3.1. Qualitative research participants

Three teachers from each school (Teacher A, B and C from School 1 and Teacher D, E and F from School 2) were sampled with consideration for age and position (i.e. class teacher or not). Teacher A was a male class teacher in his 30s. Teacher B was a male teacher in his 40s and was
head teacher at the school. Teacher C was a newly graduated female class teacher in her 20s. Teacher D at School 2 was a male class teacher in his 30s. Teacher E was a male in his 40s and was working as a support teacher as he obtained his English teaching license. Teacher F originally taught English in junior high school, but at the time of the survey was in his 40s and serving as an education coordinator in the city. The demographic data about teachers (a survey about age and gender composition of primary school teachers) presented by the government (MEXT, 2012) shows female teachers outnumber male teachers. However, most of the participants in these group discussions were male teachers, because there happen to be more male teachers in these two schools (see Table 1). Because of space limitations, this study only analyzed data corresponding to class teachers who teach English (Teachers A and D). Although Teacher C was also a class teacher, her data was excluded because of her lack of teaching experience.

### 4.3.2. Methods of qualitative analysis

The data were analyzed using the Steps for Coding and Theorization (SCAT) method (Otani, 2008). We employed this method because of the significance in its explicit, smooth analysis process, its enhanced analytical reliability, and its suitability for analyzing small data. The specific steps are as follows: (1) extract key words from original sentences; (2) rephrase them by using professional terms; (3) add concepts from out of the text that account for step (2); and (4) create the themes or constructs in consideration of the contexts. In the next procedure, a story-line was developed from the emerging key themes. Table 2 shows an example of SCAT Analysis of statements made by Teacher B from School 1.

#### Table 2.

**Example of SCAT Analysis**

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Text</th>
<th>(1) Extract key words from original sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher B</td>
<td>As you know, we set up the lesson study with all English teaching staff. For example, every April (at the beginning of the academic year), we show new teachers our school’s model English classes. That gives them an idea about how to organize their English classes. That’s a good point, I guess. New teachers come to our school with various ideas about English classes. So it’s good to show them our own model class.</td>
<td>set up the lesson study with all English teaching staff / in April, show new teachers our school’s model English classes / good point / New teachers come to our school with various ideas about English classes / it’s good to show them our models</td>
</tr>
</tbody>
</table>

**Example of SCAT Analysis**

<table>
<thead>
<tr>
<th>opportunity for lesson study with all English teaching staff / conducted in the beginning of a new academic year / presentation of a teaching model to the teachers / recognize the merit of obtaining common teaching ideas</th>
<th>(2) Rephrase the key words</th>
<th>(3) Concepts out of the text</th>
<th>(4) Create themes and label each case</th>
</tr>
</thead>
<tbody>
<tr>
<td>consideration paid to practicing teachers who teach English / all teachers teach independently</td>
<td></td>
<td></td>
<td>implementation of lesson study for all teachers / sharing the model English class with all English teachers</td>
</tr>
</tbody>
</table>
The analysis was interpreted comprehensively by the three researchers and the story-lines developed by the analysis were discussed. As the group discussions covered a wide variety of topics, SCAT analysis constructed story-lines in large numbers. In this study, only the story-lines tied to research questions are discussed.

5. Results and Discussion

5.1. Language learning motivation

A factor analysis using maximum-likelihood method with promax solution was conducted on 15 items of the language learning motivation scale. The results identified three factors (cumulative contribution = 66.84%). The first factor (contribution ratio = 42.91%) consisted of seven items closely related with external demand, such as “I study English because that’s the rule” and “I study English because I want to get praise.” The second factor (contribution ratio = 12.43%) consisted of five items closely related with their internal desire, such as “I study English because studying English is fun” and “I study English because I get a satisfied feeling when I find out new things.” The third factor (Contribution ratio = 11.50%) consisted of three items showing a state of no motivation, such as “I feel like I’m wasting my time by studying English” and “I cannot understand why I am studying English.” These three factors were respectively named “extrinsic motivation”, “intrinsic motivation” and “amotivation.” In this study extrinsic and intrinsic motivations were discussed. Intrinsic motivation involves engaging in behavior because it is personally rewarding; in language learning, learners learn for the sake of learning rather than out of a desire for some external reward. On the other hand, extrinsic motivation arises from outside of the individual; learners learn for a reward to avoid punishment. (Deci & Ryan, 1985) Figure 1 shows the scatter diagrams which show the characteristics of language learning motivations for teachers in School 1 and 2 compared to teachers in general.

![Figure 1](image_url)

*Figure 1. Comparative scatter diagrams showing language learning motivation for teachers in School 1 and 2*
Table 3 shows quantitative statistical results and the story-lines constructed from qualitative data, in addition to explanations of both results.

### Table 3.

<table>
<thead>
<tr>
<th>School</th>
<th>Quantitative Results</th>
<th>Qualitative Results (story-lines)</th>
<th>Explanation of the Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intrinsic</td>
<td>Teacher A had positive feelings toward language learning due to enjoyable learning with an affable teacher (intrinsic motivation) and praise for learning achievements (extrinsic motivation) when he was a student. In addition, he remains interested in English culture. Due to his experience of teaching English independently, his consciousness of his lower English ability encourages him to participate in an English teaching study group.</td>
<td>Teachers at both schools showed comparatively higher scores of intrinsic motivation. Teacher A originally had a highly intrinsic and extrinsic motivation. On the other hand, in spite of the fact that Teacher D had little interest in English when he was a student, the experience of teaching English changed his negative image about the language and motivated him to learn and teach it. Regarding extrinsic motivation, the results suggested that teaching English independently, and recognizing their lack of English knowledge gave both teachers an extrinsic reason for studying English. By contrast, while Teacher D is gaining confidence in teaching English and tries to improve his teaching abilities in cooperation with support teachers, it is possible that not all of the teachers in School 2 may teach English positively and autonomously.</td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Confused by the difference between the letters and the sounds of English, Teacher D felt that English was difficult when he was a student. He had no interest in English and thought that English learning was just for examinations. However, as he gained more experienced in teaching English, he gradually noticed an increased interest in the English language. As he gains confidence in teaching English with support teachers, he has gradually begun to regard English teaching as one of his strongest points, and now he feels the necessity to overcome his lack of English ability.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Intrinsic</td>
<td>Teacher B had positive feelings toward language learning due to enjoyable learning with an affable teacher (intrinsic motivation) and praise for learning achievements (extrinsic motivation) when he was a student. In addition, he remains interested in English culture. Due to his experience of teaching English independently, his consciousness of his lower English ability encourages him to participate in an English teaching study group.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extrinsic</td>
<td>Confused by the difference between the letters and the sounds of English, Teacher D felt that English was difficult when he was a student. He had no interest in English and thought that English learning was just for examinations. However, as he gained more experienced in teaching English, he gradually noticed an increased interest in the English language. As he gains confidence in teaching English with support teachers, he has gradually begun to regard English teaching as one of his strongest points, and now he feels the necessity to overcome his lack of English ability.</td>
<td></td>
</tr>
</tbody>
</table>

Teachers at both schools show higher scores of intrinsic motivation. Qualitative analysis suggested that English teaching experience could raise teacher language learning motivation. This study found no teachers at either school who showed high amotivation scores regarding learning English ($M = -0.62, SD = 0.51$). Hence, some workplace environmental characteristic at these two schools might have had some impact on each teacher’s affective dimension. Likewise, it is also...
suggested that anxiety regarding inadequate English ability may also motivate teachers to learn English.

Here we consider the reason why the teachers in School 1 have higher extrinsic language learning motivation, while the extrinsic motivation scores in School 2 varies widely. One of the possible reasons may be because while all of class teachers in School 1 teach English independently, some of the teachers in School 2 might not have a need to study English because of their personnel support. That is, it is suggested that the extent to which they depend on the supports for their practices might have some effect upon teacher motivation to learn English.

5.2. Teacher beliefs

A factor analysis using the maximum-likelihood method with promax solution was conducted on six items from the teacher beliefs scale. The results identified two factors (cumulative contribution = 61.95%). The first factor (contribution ratio = 43.57%) consisted of three items closely related with the Constructivist view, e.g. “My role as a teacher is to facilitate students’ own inquiry.” and “Students learn best by finding solutions to problems on their own.” The second factor (contribution ratio = 27.38%) consisted of three items closely related with the Direct Transmission view, e.g. “Effective/good teachers demonstrate the correct way to solve a problem.” and “Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly.” These factors were respectively assigned to the Constructivist and Direct Transmission views. Figure 2 are scatter diagrams which show the characteristics of teacher beliefs among teachers at Schools 1 and 2 compared to teachers in general.

![Figure 2. Comparative scatter diagrams showing features of teacher beliefs at Schools 1 and 2](image)

The results of quantitative and qualitative analysis on teacher beliefs and the explanation of the results are shown in Table 4.
Table 4.

Joint display regarding teacher beliefs

<table>
<thead>
<tr>
<th>School</th>
<th>Quantitative Results</th>
<th>Qualitative Results (story-line)</th>
<th>Explanation of the Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Direct Transmission</td>
<td>Originally, Teacher A emphasized having a favorable balance between teaching language and developing communication abilities.</td>
<td>It is suggested one of the reasons why teachers in School 1 have a high Constructivist view is because they have shared educational goals – how to involve the pupils in learning with their classmates. Also, Teacher A strengthened his Constructivist view through his real experience of improving relationships among the pupils in English classes.</td>
</tr>
<tr>
<td></td>
<td>(M = -0.96; SD = 0.50)</td>
<td>and transferring to School 1, his concerns changed from “how to teach” to “how to involve his pupils in their learning”, which is the shared educational goal at School 1.</td>
<td>Teacher D mentioned that as he gains more experience of teaching English, his focus has shifted from his role as a teacher to his pupils as active learners. That means his view has changed from Direct Transmission to Constructivist. Also his experience of improving pupil feedback makes his teaching view Constructivist.</td>
</tr>
<tr>
<td></td>
<td>Constructivist</td>
<td>His real experience of changes seen in the pupils through English education made him realize that English education can improve relationships among pupils and that they can create more student-centered and face-to-face activities in English classes than any other subjects.</td>
<td>It is also suggested that lack of interaction among class teachers might have caused the diversity of teacher beliefs in School 2.</td>
</tr>
<tr>
<td></td>
<td>(M = 0.96; SD = 0.86)</td>
<td>The scores of teachers in School 1 are grouped in areas with a relatively low Direct Transmission and a high Constructivist view. From the dispersion in the scatter diagram, we can see that teachers in School 1 have relatively similar teacher beliefs regarding teaching.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Direct Transmission</td>
<td>At first, Teacher D thought he must not make mistakes in his English class and made an effort to teach English without using Japanese. As he gained experience of teaching English, he began to think that using Japanese in English class was an effective way of teaching, because the pupils can understand what to do and enjoy the activities better that way. In addition, he claimed that lack of interaction among class teachers causes differences in teaching abilities and principles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M = -0.91; SD = 1.00)</td>
<td>From the dispersion in the scatter diagram, we can see teacher beliefs in School 2 are quite varied, so teachers in School 2 have a wide variety of views on teaching.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constructivist</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M = -0.33; SD = 1.77)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the SCAT analysis of Teacher B in Table 2, we can see School 1 shares teaching models for English classes with all the teachers. School 1 has a long history of teaching English and they try to build a common understanding of English education by presenting teaching models in order to sustain future English education. From the statements made by Teacher A, we can presume that these efforts may lead to teacher having similar educational philosophy. On the other hand, Teacher D at School 2 offered “lack of interaction between teachers” as one of the obstructive factors in English education in his school. This illustrates that teachers at School 2 have fewer opportunities for exchange or discussion regarding teaching materials, and fewer opportunities to observe other teachers’ classes. This may be an unintended consequence of the teaching support...
offered to teachers in School 2, in so far as some teachers may feel little need to share their own practices. Thus, it is presumed that such a situation might be one reason behind the diversity of teacher beliefs in School 2. Another reason why teachers in School 2 have more diverse beliefs might be because School 2 has greater diversity of teachers, including six class teachers and two English language support teachers. For these reasons, it is suggested that teacher cooperation and teacher position might somewhat affect their cognitive dimension.

5.3. English teaching practice

A factor analysis using the maximum-likelihood method with promax solution was conducted on ten items from the teaching practice scale. The results identified two factors (cumulative contribution = 64.73%). The first factor (contribution ratio = 37.35%) consisted of six items closely related with student-oriented practices, e.g. “Students work in small groups to come up with a joint solution to a problem or task.” and “I give different work to the students that have difficulties learning and/or to those who can advance faster.” The second factor (contribution ratio = 27.38%) consisted of four items closely related with the structured practices, e.g. “I explicitly state learning goals.” and “I review with the students the homework they have prepared.” These factors were respectively named student-oriented practice and structured practice. The scatter diagrams in Figure 3 show the characteristics of teaching practices in English classes in the two schools compared to teachers in general.

![Figure 3. Comparative scatter diagrams of features of teaching practices at Schools 1 and 2](image)

Table 5 shows the results of quantitative and qualitative analysis on English teaching practice, and explanations of the results.
Teaching practices might be shaped not only by teacher beliefs or educational philosophy but also by actual conditions of students, class and school background, and so on. For that reason, OECD (2009) reported that teaching practices are different from teacher to teacher even among teachers teaching at the same school. In School 1, as class teachers teach English separately, it is supposed they can easily arrange their teaching in harmony with their pupils’ reality. That might be one reason why teachers in School 1 have relatively variable practices, even though they share their lessons with each other and have shared teacher beliefs. On the other hand, we can presume teachers in School 2 provide relatively similar and structured English teaching practices owing to other factors like content of teaching, based on the set curriculum and the presence of support teachers who are trained English teachers.

Table 5. Joint display regarding teaching practice

<table>
<thead>
<tr>
<th>School</th>
<th>Quantitative Results</th>
<th>Qualitative Results (story-lines)</th>
<th>Explanation of the Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Structural practice</td>
<td>Teacher A values building desirable relationships among pupils as well as teaching the content of the subject. Noticing the changes seen among pupils, he recognized English education directly changes relationships among pupils. Also due to School 1’s experiences in International exchange learning, he began to want to create a learning setting featuring real communication with unknown people, in order to increase pupils’ willingness to communicate with others, in addition to face-to-face communication among pupils.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Student-oriented practice</td>
<td>School 1’s teaching plans, he modifies them to meet the real needs of his pupils through discussion with support teachers and an ALT.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( M = -0.08, SD = 0.87 )</td>
<td>(M = -0.65; SD = 0.84) Teachers in School 1 carry out student-oriented practices relatively frequently, while they report variable frequency of structured practices. Overall, the scores show relatively variable practices.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Structural practice</td>
<td>Both teachers approach their English classes from the perspective of a class teacher. In the case of School 1, while teachers have shared teacher teaching views, they utilize various teaching practices upon consideration of student needs. This is presumed to arise from the fact that teachers in School 1 teach English independently. Teacher D modifies the region-based English educational curriculum to suit the conditions of his own class in consultation with support teachers, so we can presume that his English educational practices might be affected by other factors, such as the set curriculum and other teachers who support his teaching. In addition, it is suggested these factors might make his teaching practices more structured.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M = 0.92; SD = 0.66)</td>
<td>(M = -0.36; SD = 0.56) Scores of almost all of the teachers in School 2 are plotted in the area with frequent structured and relatively infrequent student-oriented practices.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Structural practice</td>
<td>While Teacher D emphasized a wide variety of activities in accordance with the actual situation of the pupils, he is planning his English classes on the basis of the curriculum used commonly in his town. When he makes his teaching plans, he modifies them to meet the real needs of his pupils through discussion with support teachers and an ALT.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(M = 0.92; SD = 0.66)</td>
<td>Student-oriented practice</td>
<td>(M = -0.36; SD = 0.56) Scores of almost all of the teachers in School 2 are plotted in the area with frequent structured and relatively infrequent student-oriented practices.</td>
</tr>
</tbody>
</table>

Teaching practices might be shaped not only by teacher beliefs or educational philosophy but also by actual conditions of students, class and school background, and so on. For that reason, OECD (2009) reported that teaching practices are different from teacher to teacher even among teachers teaching at the same school. In School 1, as class teachers teach English separately, it is supposed they can easily arrange their teaching in harmony with their pupils’ reality. That might be one reason why teachers in School 1 have relatively variable practices, even though they share their lessons with each other and have shared teacher beliefs. On the other hand, we can presume teachers in School 2 provide relatively similar and structured English teaching practices owing to other factors like content of teaching, based on the set curriculum and the presence of support teachers who are trained English teachers.
6. Conclusion

Thus far, this study investigated the features of Japanese primary school teachers in their roles as language learners in relation to their workplace environments. Findings regarding each research question are shown below.

RQ1: Are there any differences due to working conditions in primary school teacher affective, cognitive and behavioral dimensions in their roles as language teachers?

The results showed some differences in all of the three dimensions (language learning motivation, teaching beliefs and teaching practices) between the two schools. While teachers of both schools show comparatively higher intrinsic motivation, the schools have different tendencies in terms of extrinsic motivation. In addition, the schools show opposite trends of scores in variability of teacher beliefs and teaching practices.

RQ2: What are the underlying causes of the differences in primary school teacher affective, cognitive and behavioral dimensions in their roles as language teachers?

The quantitative study revealed that all of the teachers at the two schools have high intrinsic motivation. The qualitative study suggested that one of the reasons for this was that the experience of teaching English might be intrinsically motivating teachers to learn English. In comparison, the data suggested that extrinsic motivations might depend on the extent to which the teachers rely on support from others. Regarding the cognitive dimension, co-operative activities among teachers might build common and strong teacher beliefs and a lack of interaction between teachers might cause greater diversity in beliefs. Lastly, regarding the behavioral dimension, we can presume that having a set curriculum, support teachers and other such support may lead to relatively similar teaching practices in English classes.

These results provide some suggestions for future primary school English education. First, to assist class teachers who teach English, we ought to create a support system to increase teacher autonomy and help improve cooperation among teachers. As they are not trained English teachers, sometimes they need assistance from support teachers and concrete teaching plans. However, this study revealed that primary school teachers who approach English classes from the perspective of class teacher, and who see pupils change, may experience increased motivation in teaching English. What such teachers need is independent teaching support and flexible curricula that teachers can modify to meet the needs of their pupils. The results of this study also suggest that the experience of teaching English, through which teachers can create more student-centered and face-to-face activities than any other subjects, may strengthen the Constructivist view among teachers. The above would suggest that the introduction of English education in primary schools may change the views of teachers and could eventually transform primary school education in general, in line with the new education policy.
Finally, the limitations in scope of this study are recognized. First, the amount of data collected was insufficient, and it lacks in its representativeness. More qualitative data must be collected to allow for greater reliability in future analyses. Second, due to space limitations, this study examined only three factors: motivation, beliefs and teaching practices. We need to examine other factors such as efficacy and identity in the affective dimension. We also need to study other schools with different specific environmental characteristics, as well as general primary schools. However, despite these limitations, we think the present study has provided new information for studies on language teacher cognition in Japanese primary school English education. The key people must be class teachers, as they understand their pupils the best. We believe the information obtained from this study will be beneficial in improving teacher working contexts and supporting professional development.

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References