

Japanese elementary teachers' professional development regarding parental
involvement of immigrants in physical education

Dissertation

Doctoral Program in Physical Education, Health and Sport Sciences

Graduate School of Comprehensive Human Sciences

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To my son, Itsuki, and wife, Sayaka. Thank you for your love, support, and encouragement. This is dedicated to you.

ABSTRACT

In the past decade, Japanese public schools have become increasingly ethnically, culturally, religiously, and linguistically diverse (Furuta et al., 2022). More specifically, the number of Japanese language learners (JLLs; i.e., children who live in Japan but their native language is one other than Japanese) in Japanese public elementary schools has increased by approximately 74% from 22,321 in 2010 to 38,739 in 2021 (Ministry of Education, Culture, Sports, Science and Technology, 2022). Despite this substantial increase, there are Japanese elementary school teachers who have been facing various challenges and struggling to handle difficulties and barriers to promote parental involvement of immigrant parents. In physical education (PE), all Japanese teachers must secure a safe academic environment for all children physically, psychologically, and socially by collaborating with the parents. However, they may struggle to deal with language and cultural differences to explain immigrant parents about the concept of safety to immigrant parents, such as common injuries, disease prevention, or other illnesses which may lead to life-threatening or emergency situations in PE class. Moreover, Japanese teachers must be responsible for responding to and solving cultural and social conflicts with immigrant parents to facilitate collaboration with them in PE (McDavid et al., 2012). Therefore, it is critical that Japanese elementary teachers receive professional development (PD) training in order to gain knowledge and skills to overcome the multiple challenges with parental involvement of immigrant parents in relation to PE. To the researcher's knowledge, this study is novel insight to investigate Japanese teachers' experiences of dealing with challenges or problems with immigrant parents regarding PE, and to develop a problem-solving-based online PD program focusing on parental involvement based on teachers' professional lives and needs.

This study explored two main components as the purposes of the study. This study (a) investigated Japanese elementary teachers' experiences of parental involvement of immigrant parents regarding PE in order to identify challenges or problems they need to solve, and (b) constructed a problem-solving-based PD program based on Japanese elementary teachers' experiences and feedback regarding parental involvement of immigrant parents by using online PD methods. To accomplish the purposes, the researcher implemented two series of studies: (study one) *Japanese elementary classroom teachers' experiences with parental involvement of immigrants regarding physical education*, (study two) *Japanese elementary teachers' experiences during online professional development regarding involvement of immigrant parents in physical education*.

Study one was framed using the theory of teacher development (Katz, 1972). This study used a descriptive-qualitative methodology and an explanatory case study design. The participants were six elementary classroom teachers at urban schools in Japan. Data sources were a demographic questionnaire, semi-structured online interviews, and follow-up e-mail communication. Three themes emerged from the data: (a) lack of teamwork with the parents in relation to PE, (b) minimizing assumptions toward immigrant parents, (c) transdisciplinary collaboration among the school personnel.

Study two used an explanatory case study research design within the theoretical framework using andragogy theory (Knowles et al., 2020). Nine Japanese elementary teachers participated in the study. All participants were asked to participate in the problem-solving-based online PD program regarding parental involvement of immigrant parents in relation to PE, which the researcher originally constructed. More specifically, the researcher designed four types of learning content within the online PD platform: (a) digital portfolio, (b) video lecture, (c) self-reflective journal log, and (d)

peer evaluation. Data were collected from digital portfolios about immigrant parental involvement in PE, self-reflective journal logs, and semi-structured online interviews. Three major interrelated and complex themes were constructed from the data analysis: (a) digital portfolios as a problem-based learning tool, (b) transformative learning experience regarding communication with immigrant parents, and (c) the need for *Kenshu* (teacher training) for all elementary school teachers.

This study does not intend to suggest that the online PD program designed in the study is the best approach for preparing teachers to build professionalism in parental involvement. Rather, the researcher aimed to identify the critical PD principles to construct the problem-solving-based PD program that meets Japanese elementary teachers' professional lives, personal interests, and individual learning needs. I hope that the findings of this study will contribute to PD providers (e.g., teachers, school administrators, teacher educators, researchers, Prefectural Boards of Education) to develop new insights and motivation to integrate the concept of immigrant parental involvement regarding PE into the PD systems of public elementary schools in order to enhance teachers' problem-solving knowledge and skills.

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PUBLICATIONS

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PREFACE

Communication with parents was a problematic task when I was a physical education (PE) teacher at the kindergarten. Many schools are facing various challenges of dealing with parents based on academic achievement, behavioral management, study habits, and/or athletic activities. Unfortunately, in Japan, there are limited professional development (PD) opportunities for in-service teachers, that help them to develop professionalism regarding parental involvement. Because of this, I did not have sufficient professional knowledge, skills, and readiness to deal with challenges or problems with parents of children in my class. Therefore, I decided to focus on Japanese teachers' PD regarding parental involvement in this dissertation research and sharpened critical insights and perspectives to cultivate future teachers ready to collaborate with parents to support their children's learning in PE. To my knowledge, this is novel research in the world shedding light on three key concepts, including 'teacher PD,' 'parental involvement of immigrant parents', and 'PE.'

I have started to make a plan for this dissertation in April 2021. Then, I decided to engage in proceeding two major studies in this dissertation. The first study focused on current issues and concerns in-service teachers face using the teacher development theory. This study helped me understand Japanese teachers' challenges, concerns, efforts, beliefs, and passions regarding parental involvement of immigrant parents in relation to PE. Simultaneously, I could develop a knowledge base of research methods and English writing skills. This path was not easy to do, but I learned the importance of endurance to express the truth of what I found from data analysis.

Based on the findings from the first study, I designed my second study and constructed an online PD program that meets Japanese teachers' professional interests,

needs, and environment. In this process, I read a number of research studies regarding teacher PD focusing on parental involvement around the world. I selected the appropriate PD content and methods in daily basis. This experience helped me refine my perspectives and select beneficial learning content that assist Japanese teachers to solve their problems with immigrant parents regarding PE.

The second study focused on andragogy theory (adult learning theory) and explored Japanese teachers' PD experiences through the online PD program. I tried to do my best to support them to gain comfortable learning experiences. The findings of this study helped me learn which PD content had a significant impact on Japanese teachers to transform their behaviors and perceptions regarding parental involvement of immigrant parents in relation to PE. While writing the second study research paper, I truly felt enriching PD opportunities regarding parental involvement in Japan was essential.

I believe that many Japanese teachers sought PD opportunities to improve their professionalism regarding the parental involvement of immigrant parents. For those teachers, the findings from this dissertation research contribute to future PD systems to integrate the concept of parental involvement. In this research, I only focused on the case of immigrant parents. I will apply my research knowledge, insights, and skills from this study in future research targeting diverse social issues of parents in Japan, such as disabilities, poverty, neglect, and overprotection. This dissertation was the beginning of my professional journey as being a scholar in the field of PE teacher education.

I want to thank my supervisor, Dr. Takahiro Sato, for the excellent guidance and support in completing this dissertation. Further, I want to thank my son, Itsuki, and wife, Sayaka. They are my motivation in this life. Finally, thank you, my reader. I hope you enjoy reading.

Takafumi Tomura
University of Tsukuba, December 26th, 2023

CHAPTER 1: INTRODUCTION

Background

In the past decade, Japanese public schools have become increasingly ethnically, culturally, religiously, and linguistically diverse (Furuta et al., 2022). More specifically, the number of Japanese language learners (JLLs; i.e., children who live in Japan but their native language is one other than Japanese) in Japanese public elementary schools has increased by approximately 74% from 22,321 in 2010 to 38,739 in 2021 (Ministry of Education, Culture, Sports, Science and Technology, 2022). These children often come to Japan because of their parents' immigration for work purposes. This results in many Japanese teachers feeling the necessity to develop professionalism to deal with diversity, social justice, and sociocultural issues to establish an inclusive learning environment for all children (Sato et al., 2019).

Many Japanese elementary teachers are forced and required to modify, adjust, and fit their educational activities, teaching styles, and classroom management in all academic subjects based on their children's diverse academic, social, and cultural backgrounds, including race, ethnicity, religion, and language (Furuta et al., 2022). For example, Japanese teachers often adopt a pull-out teaching (children leave the regular classroom to work with other children of similar situations or abilities) in some core subjects, such as mathematics and Japanese, according to the level of JLLs' Japanese proficiency or understanding of learning contents (Kobayashi & Tsuboya, 2021). However, in other subjects using group-based activities such as physical education (PE), teachers are required to teach all children simultaneously, including Japanese and immigrant children. In those subjects, it seems that JLLs may fail to achieve expected

learning outcomes, such as acquiring psychomotor, cognitive, and affective competencies, if teachers ignore their individual educational needs (e.g., Sato et al., 2019). Therefore, Japanese teachers must involve immigrant parents who are the best experts in their children to gain insights to determine and execute physically, culturally, and socially equitable teaching to ensure quality education in important subjects, such as PE.

Japanese elementary school teachers face the great challenge of involving immigrant parents in their children's learning. Many immigrant parents live permanently, build communities and raise children in Japan (Tsuneyoshi et al., 2011). Another population is immigrant workers (called *dekasegi* in Japanese, meaning those working away from home) who temporarily reside in Japan and gain knowledge and skills in relation to Japanese business practices and technology (Tokunaga, 2018). More specifically, countries of these immigrant workers are mainly from Vietnam (26.2%), China (23.0%), Philippine (11.1%), Brazil (7.8%), Nepal (5.7%), Korea (3.9%), Indonesia (3.1%), Peru (1.8%), and so on (Ministry of Health, Labour and Welfare, 2022). These workers, in particular, are often in a difficult socioeconomic situation, as they work long hours for lower than the minimum wages for their industries (Gordon, 2006). In the context of schools, this can lead immigrant parents to have a decreased level of engagement in their children's schooling (Penner-Williams et al., 2021).

To promote immigrant parental involvement in their children's learning at school, Japanese elementary teachers must collaborate with them by exchanging critical information about their children, such as academic achievement, educational needs, and problematic behaviors. However, in Japanese public elementary schools, many Japanese teachers have been facing various challenges and struggling to handle difficulties and

barriers in communicating with immigrant parents related to language and cultural differences (Furukawa, 2017).

Problem Statement

Educational research has been interested in teachers' efforts and challenges in promoting parental involvement. More specifically, many teachers see themselves as culturally blind toward immigrant parents because they may see cultural differences but dismiss them, and so may be unable to meet parents' unique needs (Brion, 2019). For example, teachers who interact with immigrant parents recognize the unique challenges or obstacles that create physical, emotional, and social barriers between teachers and parents who hold low socioeconomic status (Watt, 2016), low level of parental education (Kim, 2009), family dissolution (Berkowitz et al., 2021) and different child-rearing practices (Humphrey-Taylor, 2015). Treating all parents equally places them at either an advantage or disadvantage (Hodge et al., 2012). Zulauf-McCurdy and Zinsser (2020) argued that these parents often result in educational disadvantages for children in some academic subjects, including PE. For example, several studies focusing on specific subjects, such as Japanese, mathematics, and science, reported many teachers struggle to address language barriers with JLLs due to a lack of support from their parents (e.g., inactive to help children's homework) (e.g., Fujii & Miwa, 2017).

On the other hand, PE can be more problematic for JLLs than other subjects because learning contents in PE are strongly associated with children's lives, such as religious beliefs, health status, lifestyles, and physical activity habits (de Munck, 2000). More specifically, teachers must consider PE as an important subject and promote immigrant parents' engagements to deal with their children's academic disadvantages due to language barriers, cultural conflicts (e.g., collectivism vs. individualism), and

different values of health and safety in Japan (Furuta et al., 2022). While empirical literature insisted on the necessity of constructing professional development (PD) to cultivate teachers who can solve cultural and social conflicts with immigrant parents, less research was conducted in Japanese PE contexts. Therefore, the researcher determined to focus on immigrant parental involvement in PE in this dissertation research.

Need of PD to Promote Parental Involvement in PE

All teachers must secure a safe academic environment for all children during PE class and PE related to school events and activities (Casa et al., 2013). However, teachers may struggle to explain the concept of child safety to immigrant parents regarding common injuries, disease prevention, or other illnesses, which may lead to life-threatening or emergency situations in PE class. MEXT (2012) reported that about 60% of incidents of death (e.g., heart attack, drowning, heatstroke) or severe injury at Japanese public elementary schools occurred during a PE class period. This is particularly relevant for teachers of children of immigrant parents because immigrant parents have been found to be more likely to delay or forgo needed medical care for their children, including for conditions that could pose an increased concern in PE class, such as asthma (Javier et al., 2007; Perreira & Ornelas, 2011). Therefore, teachers must gain professional knowledge and skills to overcome language and communication barriers to minimize and reduce health risks due to serious accidents or incidents in PE by sharing and exchanging medical information with parents about their children, such as daily health checks, medical history, and results of heart examinations (National Agency for the Advancement of Sports and Health, 2012).

Japanese elementary teachers must be responsible for responding to and solving cultural and social conflicts with immigrant parents to facilitate collaboration with them in PE (McDavid et al., 2012). More specifically, teachers need to communicate with immigrant parents to develop a mutual understanding about the ultimate objective of PE in Japan, which is to develop children's positive disposition and motivation to develop habitual practices which possibly engage in cheerful life by integrating physical activity and gaining knowledge of the value of health and safety (Nakai & Metzler, 2005). In order to achieve these goals when working with immigrant parents, Japanese elementary teachers must recognize differences based on cultural norms and upbringing. Without training, teachers might inappropriately interpret and respond to behaviors and statements by immigrant parents from different cultural and ethnic backgrounds (Hodge et al., 2012). As a result of this, Japanese teachers may treat immigrant parents as cultural outsiders that leading to their children being marginalized, discriminated, or excluded in PE class. Therefore, it is critical that Japanese elementary teachers receive PD training in order to gain knowledge and skills to overcome the multiple challenges with parental involvement with immigrant parents in PE. However, there is limited research that has examined teachers' experiences with PD focusing on parental involvement of immigrant parents in Japan.

Study Procedure and Purpose

This study focuses on a problem-solving-based online PD program addressing the problems and challenges that Japanese elementary teachers encounter regarding parental involvement of immigrant parents in relation to PE. This study does not intend to suggest that this online PD program is the best approach for preparing teachers to build professionalism regarding parental involvement. Rather, researcher in this study

developed the online PD program based on teachers' professional lives, personal interests, and individual learning needs. As one example of successful PD for PE in Japan, elementary teachers have been able to shift their instruction in PE from "teaching as telling" to "teaching for understanding" through experience and learning in PD (Lewis, 2013). Japanese teachers typically emphasize *Hansei*, or self-critical reflection, more than external evaluations in order to explain a sense of safety to analyze their weaknesses in PD. In contrast, in other countries (e.g., the USA and UK), several studies found that PD opportunities helped teachers promote their readiness to use new knowledge, such as behavioral management, educational models, social justice, and diversity, for improving their teaching in PE (e.g., Sato et al., 2017). More specifically, teachers seek practical ideas, skills, and strategies in relation to pedagogy (e.g., motivational techniques and assessment strategies) that meet their professional needs. Therefore, it is crucial to design PD which meets teachers' individual needs and provides multiple learning materials that can be applied into their professional settings.

There is less research study that investigates PD of parental involvement of immigrant parents in the field of PE. This study explored two main components as the purposes of the study. This study

1. investigated Japanese elementary teachers' experiences of parental involvement of immigrant parents regarding PE in order to identify challenges or problems they need to solve.
2. constructed a problem-solving-based PD program based on Japanese elementary teachers' experiences and feedback regarding parental involvement of immigrant parents by using online PD methods.

This dissertation clearly addressed various problems, challenges, or issues of parental involvement of immigrant parents Japanese elementary teachers were facing while teaching PE. To accomplish the purposes, the researcher implemented two series of studies below (see Figure 1).

Study one: *Japanese elementary classroom teachers' experiences with parental involvement of immigrants regarding physical education*

Study two: *Japanese elementary teachers' experiences during online professional development regarding involvement of immigrant parents in physical education*

In Study one, the researcher investigated Japanese elementary teachers' professional experiences regarding parental involvement of immigrant parents in relation to PE to identify problems, challenges, and issues that they need to solve. This study used the Theory of Teacher Development (Katz, 1972) as a theoretical framework, which helped the researcher analyze complex teacher development phenomena (e.g., knowledge construction and skill development) by using four developmental processes (survival, consolidation, renewal, and maturity). Therefore, the intent of Study one was problem-identification to enhance the researcher's understandings in order to design the problem-solving-based PD meeting Japanese elementary teacher's learning needs.

In Study two, the researcher examined Japanese elementary teachers' learning experiences during the problem-solving-based online PD program that the researcher originally designed. As a theoretical framework, the researcher decided to use Andragogy Theory (Knowles et al., 2020) which focuses on specific learning characteristics of adult learners direct for problem-solving learning in their professional

and personal lives. To design the online PD program, the researcher constructed several learning contents and learning methods based on the findings from Study one within the concept of andragogy theory. Andragogy theory also helped the researcher analyze teachers' learning experiences through the theoretical lens during the online PD program in order to gain critical cues to reorganize and reconstruct the online PD program to meet teachers' individual learning needs. Then the researcher explored their willingness to apply their new learning on solving their individual real-life problems regarding parental involvement of immigrant parents in relation to PE.

Purpose

1. To investigate Japanese elementary teachers' experiences of parental involvement of immigrant parents regarding PE in order to identify challenges or problems they need to solve.
2. To construct a problem-solving-based PD program based on Japanese elementary teachers' experiences and feedback regarding parental involvement of immigrant parents by using online PD methods.

Study one

Japanese elementary classroom teachers' experiences with parental involvement of immigrants regarding PE

Theoretical Framework: Theory of Teacher Development (Katz, 1972)

Research Design: Descriptive-qualitative methodology using an explanatory case study design (Yin, 2017)

Study two

Japanese elementary teachers' experiences during online PD regarding parental involvement of immigrant parents in PE

Theoretical Framework: Andragogy Theory (Knowles et al., 2020)

Research Design: Descriptive-qualitative methodology using an explanatory case study design (Yin, 2017)

Final Discussion

Reconsideration to design the problem-solving-based online PD program focusing on parental involvement of immigrant parents regarding PE

Figure 1. Demographic Abstract of the Present Study

Definition of Terms

The following key terms were used throughout this study. The researcher ensures clarity of meaning and definition of each term below.

Parental involvement. Parental involvement is defined as parents' behaviors to support their children's education (El Nokali et al., 2010), including two types of involvement: home-based involvement and school-based involvement.

Immigrant parent. Immigrant parent is defined as parents who immigrate to Japan for work purposes and live permanently or temporarily to build communities, raise their children, or acquire knowledge and skills regarding Japanese business practices and technology (Tsuneyoshi et al., 2011; Tokunaga, 2018).

Professional development. Professional development is defined as teachers' learning: how they learn to learn and how they apply their knowledge in practice to accomplish their professional responsibilities, such as teaching pupils and interacting with parents (Avalos, 2011).

Problem-solving. Problem-solving is one of the important learning components performed by adult learners with 'the act of finding ways of dealing with problems' (Oxford University Press, n.d.) in the process of critical thinking to identify the solutions.

Assumption. Assumption is teachers' implicit beliefs about parents' responsibilities (e.g., Japanese teachers believe the parents behave as they expect) that they take for granted or without proof.

Stereotype. Stereotype is the typical image or picture when thinking about a specific social group (e.g., race and ethnicity) (Dovidio et al., 2010). This includes the process of characterizing the traits of a specific social group (e.g., expectations toward someone's behavior based on the situation).

Prejudice. Prejudice is defined as an attitude and beliefs toward a target group that affects people's behavioral predisposition to behave negatively toward the target group (e.g., discrimination) (Dovidio et al., 2010).

CHAPTER 2: LITERATURE REVIEW

What is the “Parental Involvement”?

This study defined the term regarding “parental involvement”, which explains “parents’ behaviors in home and school settings meant to support their children’s educational progress” (El Nokali et al., 2010, pp 989). Empirical research has claimed the importance of teachers’ efforts to promote parental involvement that positively influences their children’s academic performance and personal development (Stacer & Perrucci, 2013). These studies suggest that teachers need to understand that the concept of parental involvement holds two different key contexts: (a) home-based involvement and (b) school-based involvement. Home-based involvement refers to parents’ actions at home, such as parent-child discussions, helping with children’s homework, and maintaining study routines (McCormick et al., 2013). School-based involvement is based on parent-teacher contact, which involves attending parent-teacher conferences, participating in school events, and volunteering in schools. Kim (2009) insisted that while home-based and school-based involvement share the same goals and results in positive impact on children’ developmental achievements, they are often regarded as distinct entities.

Additionally, Epstein et al. (2002) raised six types of involvement, which is widely used in many research focusing on parental involvement (e.g., Griffin & Steen, 2010; Ihmeideh et al., 2020), that assesses and evaluates specific behaviors, roles, and actions demonstrated by teachers and promotes parents’ engagement in home and school involvement. First, *parenting* means that teachers help parents develop their understanding of their children’s growth and development and establish a home environment to enhance their children’s learning while providing resources, such as parent education, that enable them to learn the concepts of health, safety, nutrition, and

other topics. Second, *communicating* indicates effective, appropriate, and relevant two-way communication between parents and teachers, such as parent-teacher conferences, newsletters, and phone calls, to exchange their children's information about academic and personal development and/or parents' concerns or challenges within the home involvement. Third, *volunteering* means teachers request parents to share their time and talents to support activities initiated by teachers or schools, such as cultural activities, sports events, and celebrations. Fourth, *learning at home* is when teachers provide information and ideas to parents on how to support their children's learning at home, such as homework and other curriculum-related activities. Fifth, *decision-making* means teachers invite parents from all backgrounds to participate as parent representatives, including PTA, in decisions about school educational policies or programs. Sixth, *collaborating with the community* refers to the teacher's responsibility to provide parents with available educational resources in the community that meet their children's educational and personal needs. Therefore, these six types of involvement help teachers consider and organize initiatives to gain parents' support in their children's education at home and school.

Teacher's Challenges of Parental Involvement of Immigrant Parents

Several studies conducted in Western countries (e.g., USA, Canada, New Zealand, and Cyprus) found that many elementary teachers struggle to overcome pragmatic, psychological, and cultural barriers regarding parental involvement (Antony-Newman, 2020; Hajisoteriou & Angelides, 2016; Koyama & Bakuza, 2017; Lin & Averill, 2022). When teachers face challenges or barriers regarding parental involvement, they often assume immigrant parents lack the interest, time, competence, language skills, or knowledge to participate in their children's education (De Gaetano, 2007).

Many scholars argue that teachers should understand that parents' socioeconomic status influences the level of involvement in their children's education. For example, Sibley and Brabeck (2017) found that it seems that teachers view low socioeconomic status positioned immigrant parents into challenging situations regarding parental involvement because of poverty, multiple inflexible jobs, low level of language literacy, less education, and a lack of understanding of host country's educational system. To work with these immigrant parents, teachers must understand the individual backgrounds of the parents rather than develop assumptions, stereotypes, or prejudice against their socioeconomic status. Thus, teachers need to develop knowledge and skills to collaborate with immigrant parents to consider and determine problem-solving strategies to maximize their children's learning outcomes even if they live in low socioeconomic status.

Many teachers believe that a lack of parental involvement due to the low socioeconomic status of immigrant parents places their children at risk for educational failure in core academic subjects highly depend on their language proficiency, such as reading, mathematics, science, language, and history (e.g., Johnson, 2016; Antony-Newman, 2019). Regarding this, teachers may view immigrant parents' low socioeconomic status as negatively influencing their children's literacy skill development (Volodina et al., 2021) because these children are forced to use more than two languages at home and school (Qin, 2006). This is because many immigrant parents are afraid of making the issues of native language loss in their children and a loss of parent-child connection. More specifically, teachers identify the miscommunications between immigrant parents and children when they talk about complicated experiences, thoughts, and emotions regarding children's academic learning (Qin, 2006). On the other hand, many teachers consider immigrant parents' low socioeconomic status an

urgent issue for their children's learning success in practical subjects (*Jitsugi Kamoku*), such as music, arts, and PE. This means that socioeconomic obstacles limit immigrant parents' choices to support their children's education at school (Qin & Han, 2014). For example, parents with socioeconomic challenges cannot afford to purchase necessary school supplies, including musical instruments, paints, and PE clothes, for their children to gain educational experiences like native children in the host country. Another example is teachers' struggle to reach immigrant parents with inflexible jobs when they need urgent cooperation from the parents in their children's medical emergencies or life-threatening situations (Council on School Health, 2008). Moreover, teachers believe that inflexible job schedules limit immigrant parents' options to participate in school events related to practical subjects, such as musical events, dance, and sporting events, to confirm their children's development (Atwood & Caudle, 2022).

In addition, teachers believe that immigrant parents' unfamiliarity with the host country's educational system forces them to face cultural and social conflicts when involved in practical subjects. This is because practical learning activities often include racial, ethnic, religious, and traditional heritages of the host country (Sato et al., 2021). In order to bridge the cultural and social differences between teachers and immigrant parents, teachers must provide the parents with appropriate information related to the educational system (e.g., what their children learn) and parents' responsibilities (e.g., how they can support their children to learn) based on their level of understandings and familiarity. For example, in music, Creech (2010) indicated six types of parent actions that teachers need to promote to increase parents' involvement in their children's learning. These are (a) eliciting children's views concerning proper parental involvement, (b) working with children to solve practicing issues that their teachers set, (c) providing a structured learning environment at home for practice, (d) gaining an

interest in promoting better teacher-children rapport, (e) communicating with teachers regarding their children's progress, and (f) being a supremely interested audience at children's musical performances. These parental actions are critical knowledge for teachers to help parents play an active role because parents provide behavioral and cognitive/intellectual support to their children when they perceive teacher leadership. This is not only about music but also other practical subjects, such as PE. Therefore, teachers need to develop knowledge and skills to overcome multiple obstacles associated with the low socioeconomic status of immigrant parents to promote collaboration between teachers and parents to secure their children's rights and choices to participate in quality learning activities.

Ethnolinguistic Challenges in Teaching JLLs

Many Japanese teachers face ethnolinguistic challenges when they teach JLLs because Japanese teachers and JLLs are involved in the relationships between language and non-linguistic cultural behavior, including communication, habits, and prior experiences. More specifically, Japanese teachers respect JLLs' ethnolinguistic identity, which treats JLLs as insiders and outsiders (i.e., us and them) (Eriksen, 2010). This means that language is a fundamental symbol in negotiating teachers' and JLLs' collective and personal identity as well as their group, cultural, or national identity (Baker & Wright, 2017). Therefore, Japanese teachers must simultaneously deal with language and cultural barriers to allow JLLs' to receive quality educational opportunities at schools.

Several studies investigated Japanese elementary teachers' challenges and struggles in addressing language and communication barriers in the context of school education. For example, Usui (2011) argued that Japanese teachers must gain new knowledge and skills, such as Japanese language instruction skills, cross-cultural knowledge and

competence, and foreign language ability, when they became classroom teachers of JLLs. This is because Japanese teachers face difficulty communicating with JLLs in terms of speaking, listening, reading, writing, and using honorific expressions (Li & Umemoto, 2010). More specifically, a lack of Japanese literacy can be great problem for JLLs and their parents, especially in written communication with teachers, because it uses multiple scripts, including Kanji, Hiragana, Katakana, Roman alphabet, and Arabic Numerals (Furuta et al., 2022). Different from many other academic subjects, in PE, miscommunications between teachers and children due to linguistic obstacles can result in safety concerns during physical activities in the class (Sato et al., 2019). Therefore, teachers must support JLLs' language acquisitions by using both languages (Japanese and native language) when they speak or write discipline-specific academic language, such as rolling, skipping, and dribbling (Samalot-Rivera et al., 2018). In this process, teachers need to determine the level of their linguistic supports for JLLs based on their parents' Japanese proficiency in relation to PE.

In addition, many Japanese teachers are unprepared to address cultural diversity and social justice when they teach JLLs (Furuta et al., 2022). Regarding this, MEXT (2019) emphasized that Japanese teachers must understand PE can be problematic for JLLs if teachers lack an understanding of their cultural and social backgrounds. More specifically, teachers should decide their children's participation in PE based on their cultural backgrounds, such as religious practices and beliefs, including Ramadan, dress codes, and mixed-gender classes (MEXT, 2019). In this process, Japanese teachers need to engage in reflective action that includes first identifying and then critically assessing their assumptions regarding teaching JLLs (e.g., stereotypes regarding racial popular physical activities and level of physical performance) (Sato et al., 2022). To do so, teachers should collect crucial information about their children's cultural and social

backgrounds in relation to PE from immigrant parents in order to adjust or modify their teaching styles, contents, and environment. Therefore, it is crucial to construct the PD that allows Japanese teachers to gain comprehensive problem-solving knowledge and skills to deal with linguistic, cultural, and social issues in their real PE class by collaborating with immigrant parents.

Significant Role of Parental Involvement in PE

In PE, teachers must develop professionalism and collaborate with parents to provide their children with a physically, mentally, and socially safe learning environment. To do so, Virgilio (1990) described five teachers' goals of parental involvement regarding PE. First, teachers should help parents be aware of their responsibilities for their children's health and physical strength. Second, teachers should educate parents about the positive influence of physical activity and PE. Third, teachers should assist parents in improving their motor skills to promote their children's physical activity through home-based activities. Fourth, teachers should improve their teaching in PE by redesigning the learning activities with parents. Fifth, teachers should enable parents to connect with their children to support healthy lifestyle changes. Therefore, to accomplish these goals of parental involvement, teachers must develop a mutual understanding of the curriculum, learning objectives, and the concept of safety and health regarding PE with parents.

The teachers are responsible for minimizing communication and cultural barriers with immigrant parents and convey important information regarding PE, such as curriculum, physical activities, and school events. Lee et al. (2019) found that unless PE teachers at elementary schools share information with the parents about their children's achievements or behaviors, the parents see PE as a low-priority subject due to a lack of understanding of the significance and benefits of PE. Moreover, they argued PE

teachers should understand that immigrant parents face cultural and language challenges to support their children's learning in PE. More specifically, immigrant parents do not know how to respond to PE teachers appropriately and are hesitant when they express their concerns to PE teachers since they are afraid of mistreating their children in PE class. In order to solve these problems, Lee et al. (2019) emphasized that PE teachers should apply effective communication with immigrant parents to share critical skill-related and health-related information that help the parents (a) improve their understanding of PE, (b) promote home-based physical activity, and (c) increase their value for their children in PE. These findings can be applied on the case of parental involvement of immigrant parents regarding PE in Japanese public schools.

In Japan, parental involvement is translated as "*Oya no Kanyo*". Japanese teachers believe they need to develop parent-teacher relationship that is based on trust, deference, partnership, and cooperation (Moorehead, 2007). In order to build this relationship, Japanese elementary teachers often conduct home visits called *katei houmon*, where classroom teachers visit students' homes and have conversations with parents about school concerns, their children's talents and abilities (physical and social skills), and the safety of their children at school, including PE (Jabar, 2010a). During *katei houmon*, teachers inform parents about important information regarding child development and/or actions, such as manners of interacting with their child or structuring the educational environment. Therefore, Japanese teachers view parental involvement play a significance role to enhance their children's educational achievement in PE both at school and home.

There are common requests Japanese teachers at public elementary schools nationwide make to parents in order to promote their involvement in their children's PE. First, for example, Japanese teachers invite all families to attend and participate in

Undokai (sports festival), which is considered an important educational opportunity through participating in physical activities (Nakai & Metzler, 2005). Parents observe and cheer for their children and sometimes participate in the events and activities with their children (Akiyama, 2020). Second, the teachers request parents to prepare necessary PE supplies such as *Taisoufuku* (designated PE clothes), *Akashirobou* (a red and white cap traditionally worn in PE class), a water bottle, towels, and swim wear. Third, the classroom teachers send school letters (*Otegami* in Japanese) to parents, which are written by classroom teachers and school principals and are a vital communication channel with parents to convey information about school events and children's academic and behavioural challenges and progress at school (Jabar, 2010a). Moreover, parent-teacher conferences (*Kondankai* in Japanese) are a valuable chance to build a relationship with parents (Jabar, 2010b). Fourth, teachers request parents to submit documents such as children's medical history and an agreement form to participate in PE activities, such as swimming and long-distance running. Overall, Japanese teachers use a family-centered model of communication with parents involving multiple communication channels, such as face-to-face meetings, telephone communication, school letters, to give parents requests regarding PE (Lassila et al., 2021). However, teachers may feel that traditional communication styles or approaches should be improved according to the diverse linguistic and cultural backgrounds of immigrant parents (Chan, 2011).

Research on PD regarding Parental Involvement

Many researchers have documented that PD training enhances teacher's professionalism regarding parental involvement (e.g., Gartmeier et al., 2015; Hardin et al., 2010; Yulianti et al., 2022). They often discussed that continuing PD regarding effective parental involvement could positively transform teachers' attitudes about the

parents, develop knowledge about parents' roles in their children's academic achievement, and increase parental involvement practices (Smith & Sheridan, 2019). Many of these studies regarding PD focusing on parental involvement were conducted in North America or Australasia, while little knowledge exists from European and Asian countries (Willemse et al., 2018). Therefore, many teachers, school leaders, researchers, and governmental mandates have called for the necessity to increase PD training for in-service teachers in European and Asian countries, including Japan (e.g., Willemse et al., 2016; Yulianti et al., 2022; Furuta et al., 2022).

Smith and Sheridan (2019) conducted meta-analysis of 39 studies systematically to analyze the effect of teacher training programs on teachers' parental involvement practices, attitudes, and knowledge. They identified eight components that the PD trainings should increase to help teacher develop knowledge and skills regarding parental involvement. First, *communication strategies* aim to help teachers improve and exchange information between teachers and parents, including one-way communication and two-way communication. Second, *collaborative planning and problem solving* help teachers learn practical ideas and approaches to work with the parents to solve their children's problems (e.g., troubleshooting, joint decision making, and goal development). Third, *cultural awareness/working with diverse populations* assists teachers to work with parents who have diverse backgrounds, including immigrants, and/or have specialized children. Fourth, *home-based involvement* increases teachers' support for the parents to increase involvement in their children learning at home while establishing literacy environment and practices (e.g., reading together), discussing with their children (e.g., school life), and tutoring (e.g., parents use specific skills to provide their children with task-based learning). Fifth, *family engagement attitudes/beliefs* aim to transform teachers' beliefs about parents (e.g., parents' responsibilities in their

children' education) and beliefs about parental involvement practices (e.g., efficacy for engaging parents). Sixth, *parent-teacher relationship* aims at developing parent-teacher relationship through involvement behaviors such as trust building, building common perspectives, showing respect and resolving troubles together. Seventh, *school-based involvement* increases teachers' support for the parents to be involved in their children's education at the schools (e.g., volunteering at school events, attending parent-teacher conference, becoming PTA members). Eighth, *school environment* promotes teachers' efforts to develop environment that allows parents to feel welcome at children' schools (e.g., providing childcare services during meetings). Overall, these critical PD components regarding parental involvement become useful tools to prepare teachers for dealing with challenges or problems to work with diverse parents, and improve teachers' parental involvement attitudes, knowledge, and practices.

Additionally, Hoover-Dempsey et al. (2002) reported their initiations that they implemented the PD training to enhance elementary school teachers' beliefs and behaviors regarding parental involvement. In this study, 13 elementary teachers and support staff in U.S. who teach 412 students (75% of whom were African American, 21% white, 2% Asian, 2% Hispanic) participated 8-weeks period program with six types of modules at their schools. Each module used several instructional methods to promote teachers' engagement, such as facilitator presentations, small or large size of group discussions, and individual written responses to questions. Based on the findings of the study, Hoover-Dempsey et al. (2002) indicated that the PD training should provide well-supported opportunities for teachers to discuss and interact with their colleagues to exchange their opinions regarding parental involvement and solutions to educational problems. Moreover, they argued that the researchers or organizers who design the PD regarding parental involvement must respect teachers' knowledge,

professionalism, creativity, commitment, and skills to collaborate with other teachers to create solutions to their real-life problems.

In another study, Symeou et al. (2012) analyzed the impact of an in-service teacher training program regarding parent-teacher communication on elementary school teachers in Cyprus. They conducted the PD training that included five training sessions (each three hours long) using interactive teaching methodologies, such as discussion, role play, reflection, and feedback. The training sessions in their PD training included several theoretical knowledge: (a) the theoretical framework of parental involvement (e.g., theoretical approaches to parent-teacher relationship), (b) the definition and effect of communication with the parents, (c) how the teacher could prepare for the parent-teacher conference, and (d) active/attentive listening and counseling skills (e.g., communication cues). They found that the PD training helped the teachers transform their beliefs about the usefulness of communication skills and increase the use of some skills after the training in their daily conversation with parents, such as reflection on feelings, paraphrasing the meaning of verbal discussion, and applying verbal and non-verbal cues.

Overall, many studies reported that PD training regarding parental involvement had a significant positive impact on teachers' professional knowledge and skills development that allowed them to overcome multiple barriers that occurred in collaboration with parents regarding their children's general schooling. More specifically, the theoretical knowledge teachers learn in the PD training becomes their applicable strategies in their real work-life settings. However, there are limited studies that focus on teachers' experience and perceptual transformation in PD training regarding parental involvement of immigrant parents in PE.

Summary

This chapter provided an overview of research related to the significance of parental involvement in children's education. In the field of education, elementary school teachers need to understand that parental involvement is a crucial component to enhancing children's academic achievement, personal development, social and interactional competence and minimizing problematic behaviors at the schools. To enhance the influence of parental involvement, the teachers need to obtain professional knowledge and skills to resolve problems due to linguistic, cultural, and social conflicts with immigrant parents in order to assist them in being involved in their children's learning. For example, Furuta et al. (2022) studied Japanese elementary school teachers' teaching experiences with JLLs in PE. They found that Japanese teachers should use problem-solving approaches to overcome language and cultural barriers in communication-related to PE with immigrant parents, such as their children's physical characteristics, injuries, and illnesses that occurred in class, safe physical activity practices, and healthy lifestyle habits. Therefore, it is crucial to construct problem-solving-based PD programs to help Japanese elementary school teachers who are well-prepared to be involved in their complicated duty regarding parental involvement of immigrant parents regarding PE.

There is a limited study on teachers' PD regarding parental involvement of immigrant parents at Japanese public schools. Most of the literature regarding PD of parental involvement in general children's schooling were conducted in Western countries (mainly in the US) but did not focus on PE. Thus, it is unknown what challenges or problems Japanese teachers face through interacting with immigrant parents in the context of Japanese PE situations and what knowledge and skills they need to improve in order to promote parents' engagement in their children's learning.

The number of JLLs at Japanese public elementary schools has been expected to keep growing because of dramatic globalization in Japanese society. Therefore, it is clear that research is needed to explore critical PD insights that meet Japanese elementary teachers' professional and individual needs in order to cultivate sophisticated teachers with professionalism regarding the parental involvement of immigrant parents in relation to PE.

CHAPTER 3: STUDY ONE

Japanese elementary classroom teachers' experiences with parental involvement of immigrants regarding physical education

This chapter explains the study one's theoretical framework, purpose, research questions, research method (including research design, research site and participants, data collection, procedures, data analysis, trustworthiness), results, and discussion.

Theoretical Framework and Purpose

Theory of Teacher Development

The study one used Katz's (1972) theory of teacher development, which explains features of developmental process of teacher's professional knowledge and skills. This theoretical framework allows the researcher to use critical lens to interpret complicated teacher development process, such as difference perspectives, professional experiences, and ideas regarding parental involvement of immigrant parents (Katz, 1972). The theory of teacher development has been applied by researchers to investigate teachers' PD, focusing on their pedagogical instructions in relation to PE. For example, Sato et al. (2020d) used this theory with the aim of interpreting Japanese elementary teachers' developmental nature in the context of teaching PE. Their findings captured Japanese teachers' struggles and concerns in creating PE lessons and curricula to meet their children's educational needs, as well as the role of a professional learning community (e.g., lesson study) in improving their teaching practices in PE. On the other example, Sato et al. (2023) used the theory of teacher development to examine Japanese health and PE teachers' experiences in the context of teaching sexuality education. Their study found the constructional process of Japanese teachers' insights and perspectives regarding teaching sexuality education based on the developmental stages. Therefore, the current study provides novel insights by using Katz's theory of teacher development to explore teachers' growth in relation to the parental involvement of immigrant parents.

According to Katz (1972), there are four stages of teacher development: survival, consolidation, renewal, and maturity (see Figure 2). In each stage, Katz (1972) suggested essential tasks and training needs based on the nature of the teachers' developmental characteristics. In the survival stage, teachers have less experience enough to accomplish their daily responsibilities at school (e.g., teaching, classroom management, student guidance) and high level of concerns regarding their personal and professional competence to be successful as a classroom teacher. In the context of parental involvement, teachers at this stage may, for example, believe that communication with an immigrant parent is not a simple task and they may have various concerns (e.g., lack of trust relationships) (Hobson et al., 2009). To help those teachers in the survival stage gain knowledge and skills to address their daily concerns and problems, survival teachers must be provided with support, understanding, encouragement, reassurance, comfort, and guidance from someone who knows them and their teaching context (e.g., trainer/mentor).

In the consolidation stage, teachers begin to integrate knowledge and skills gained in former professional experiences to deal with their daily tasks. More specifically, teachers in the consolidation stage focus on their children's individual needs through considering for answers to questions, such as "how can I help a particular child who does not seem to be learning?" (Katz, 1972, p 51). In relation to parental involvement, the teachers may identify the individual behavioral patterns of immigrant parents and utilize useful interactional methods that meet the unique needs of parents. To help teachers reduce their sense of inadequacy and frustration, on-site training through exchanging ideas and learning with other teachers is beneficial, because they may be able to strengthen their knowledge and skills to achieve their professional goals and objectives (Katz, 1972). Therefore, teachers in this stage may utilize other teachers and

immigrant parents' feedback to improve their behaviors and perceptions in order to facilitate parental involvement of immigrant parents (Sato et al., 2023).

In the renewal stage, teachers begin to exhaust of doing same initiatives and activities in former stages and seek new materials, techniques, approaches, and ideas in order to reform and reconstruct their professional practices (Katz, 1972). To do so, the PD opportunities facilitated by school districts and local organizations become important for teachers to access valuable resources to improve their knowledge and skills (Katz, 1972). In the context of parental involvement, teachers at this stage are prepared to seek the diverse practices of other teachers inside and outside of their schools regarding parental involvement when they renew and refresh their understanding and skills (Ladky & Peterson, 2008). Finally, in the maturity stage, teachers become more competent and mature enough to apply their knowledge and skills that they gained in former developmental stages (survival, consolidate, and renewal) to solve various problems in different settings (Katz, 1972). Additionally, in the context of parental involvement, teachers at this stage successfully establish and maintain a strong and positive relationship with immigrant parents in order to enhance their children's academic achievement (Epstein et al., 2002). To do so, the teachers may ask more profound and abstract questions to gain a more meaningful insight, perspective, and realism about promoting parental involvement and its impact on the relationship with immigrant parents.

According to Lam and Yan (2011), teacher development is often influenced by multiple complex factors, such as teachers' past experiences, support from school, and PD experiences. Therefore, this study used the theory of teacher development as the theoretical lens and examined teachers' experiences with parental involvement and how their perceptions are constructed and reformed through interactional experience with

immigrant parents in relation to their children’s learning in PE. In this developmental process, teachers develop their beliefs, ideas, and parental involvement practices (Gonzalez-DeHass & Willems 2003).

Developmental stages	Nature	Training needs
Stage 4 Maturity	Teachers have enough experience to apply their knowledge and skills to solve their problems in different settings	Conferences, seminars, graduate courses, books, journals, or mentoring novice teachers
Stage 3 Renewal	Teachers seek new materials, techniques, approaches, and ideas to improve their practices	Official professional development programs organized by school districts and local organization (e.g., teachers' center)
Stage 2 Consolidation	Teachers focus on the individual needs of their children based on their professional experiences in the survival stage	On-site training through exchanging ideas, learnings, strategies with colleagues, counselors, or specialists
Stage 1 Survival	Teachers have less professional knowledge and skills to address their daily concerns and challenges to accomplish their duties	On-site support, advice, and encouragement from other teachers in same school (trainer/mentor) who know a teacher (trainee) and their teaching context

Figure 2. Developmental Stages in Katz’ Theory of Teacher Development

Purpose

The purpose of this study was to describe and explain in-service Japanese elementary classroom teachers’ experiences with parental involvement of immigrant parents regarding PE.

Research Questions

The following research questions guided the study.

1. What were Japanese elementary classroom teachers’ experiences in parental involvement of immigrant parents in relation to PE?
2. How did the experiences of parental involvement of immigrant parents influence Japanese elementary teachers’ perceptions of engaging with immigrant parents in relation to PE?

Method

Research Design

The study adopted a descriptive-qualitative methodology using an explanatory case study design (Yin, 2017). Qualitative research was the most appropriate method of inquiry to demonstrate teachers' perceptions regarding parental involvement of immigrant parents in relation to PE. The main principle of case study design is to interpret and understand complex educational and/or social phenomena while maintaining the meaningful uniqueness of real-life circumstances (Yin, 2017). Case studies aim to “develop conceptual categories or to illustrate, support, or challenge theoretical assumptions held prior to data gathering” (Merriam, 1998, p. 38). To do so, the researcher can use multiple strategies to collect data sources to capture dynamic phenomena. In this study, the intent was to describe and explain Japanese elementary school teachers' real experiences and perceptions regarding parental involvement of immigrant parents in relation to PE by using gathered data, including a demographic questionnaire, online semi-structured interview, and follow-up email correspondence.

An exploratory case study design is used commonly when the researcher seeks to investigate an area that has been under-researched (Sato & Haegele, 2017). There are studies that focus on teachers' professionalism regarding parental involvement in several countries, including Japan. However, to the researcher's knowledge, there is no study shedding light on all critical terms, including a Japanese elementary school teacher, parental involvement of immigrant parents, and PE. Thus, this is the unique study that should be investigated by using an explanatory case study design. In the study, an explanatory case study design allows the researcher to seek in-depth answers to *how*, *why*, or *what* questions for exploring Japanese elementary teachers' experiences and perceptions in relation to parental involvement of immigrant parents regarding PE

(Schwandt, 2015). Yin (2003) asserted that a researcher must draw on a wider array of documentary descriptions (e.g., demographic data) while implementing interviews using case study design when a study intent to seek answer for “why” or “how” research questions. Therefore, the researcher determined the explanatory case study design which is appropriate research method for examining Japanese elementary school teachers’ development experiences regarding parental involvement of immigrant parents in relation to PE.

Participants and Setting

The researcher selected several public elementary schools located in Aichi prefecture in the Tokai region of Japan as research sites, in an urban area that is considered a low-income immigrant neighbourhood. The snowball sampling technique (Naderifar et al., 2017) was used to recruit six Japanese elementary school teachers (male $n = 1$; female $n = 5$) from six different public elementary schools. Snowball sampling is one of the most popular techniques that is used in qualitative research (Parker et al., 2019). This sampling technique requires the researcher to use his or her social networks for recruiting prospective research participants when she or he seek access to hard-to-reach populations. In Japan, some elementary school teachers teach non-native Japanese speaker children while other teachers teach only Japanese native children in their class even in same schools or school districts. Therefore, the researcher used the snowball sampling technique to establish an initial link with the research participant who was contacted by the researcher’s social network and asked him or her to increase the chain of participants who meet the study’s criteria. More specifically, the criteria of sampling for this study were:

1. The teachers who work at public elementary schools in Japan
2. The teachers who have professional working experiences fewer than six years

3. The teachers who are currently serving as classroom teachers of JLLs of immigrant parents
4. The teachers who feel difficulties in communication with immigrant parents in relation to PE

As the process of snowball sampling technique in the study, the researcher contacted one prospective participant and asked him or her to recruit other potential participant(s) who meet the sampling criteria. Teachers with fewer than six years of teaching experience at public elementary schools were recruited because the study is grounded by Katz's (1972) theory of teacher development, and different stages of development would be more observable in teachers with relatively less experience. All participants served as in-service classroom teachers (Mr. Kitami, Ms. Shiraishi, Ms. Chihira, Ms. Miyachi, Ms. Kaitani and Ms. Imashita; all names are pseudonyms) who had communication experiences with immigrant parents in relation to PE. Before recruiting the research participants, the researcher received approval from the university's institutional review board and secured consent forms from all participants (approval number: 021-7). As part of the ethical process of the study, the researcher sent an informed consent form and documents explaining research procedure to all participants, and all participants sent back the informed consent form with their signatures to indicate their agreement to become a research participant in the study.

Data Collection

As the data source for the present study, the researcher collected and used (a) demographic questionnaire, (b) semi-structured online interviews, and (c) follow-up email communication (Patton, 2002).

Demographic Questionnaire. The demographic questionnaire used in this study consisted of two sections: participant demographic questions and survey. The researcher

used a brief demographic question (e.g., gender, years of teaching experience, years of interaction with immigrant parents) to understand the participants' professional experiences and lives and to provide a detail description of them.

In the survey, the researcher used *Measure of School, Family, and Community Partnerships* with slight modifications to collect quantifiable demographic data from the participants. This questionnaire was originally developed by Salinas et al. (2019) to help researchers assess whether schools are involving parents, community members, and students in meaningful ways. Moreover, the evaluation in the questionnaire is framed by six types of involvement focusing on how schools provide activities for all families in their children' education. More specifically, there are 54 questions in total in the survey that are categorized into parenting (n = 7), communicating (n = 15), volunteering (n = 8), learning at home (n = 7), decision making (n = 11), collaborating with the community (n = 6). The instrument was modified to establish the purpose of the current study.

Specifically, in this study, the researcher focused on teachers' initiatives to facilitate parental involvement of immigrant parents in relation to PE. Thus, first, the researcher eliminated questions regarding two categories that specifically asked questions regarding child learning at home (focusing on the parent-children relationship at home) and collaboration with the community (focusing on school and community relationships) because the intent of the study was to investigate teachers' experiences while interacting with immigrant parents regarding their children's learning in PE classes. Second, the study modified the questionnaire contents based on the Japanese public school educational context by referring to the course of study (*Gakushu shidoyoryo* in Japanes) released by the MEXT (2009) (e.g., deleted some words that are not officially used at Japanese elementary school, such as state tests).

Third, the researcher deleted multiple questions that do not meet the PE context in Japan (e.g., involving parents in reviewing school and district curricula). Fourth, some similar questions that were identified when the questions were translated into Japanese were combined to avoid asking duplicate questions (e.g., reporting student results and producing information about students' success). Fifth, the subject of each question was changed from school to you (teacher). Finally, the researcher determined 15 items of question (Figure 3) and used a Likert scale (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always). All participants completed the demographic questionnaire before participating in the interviews.

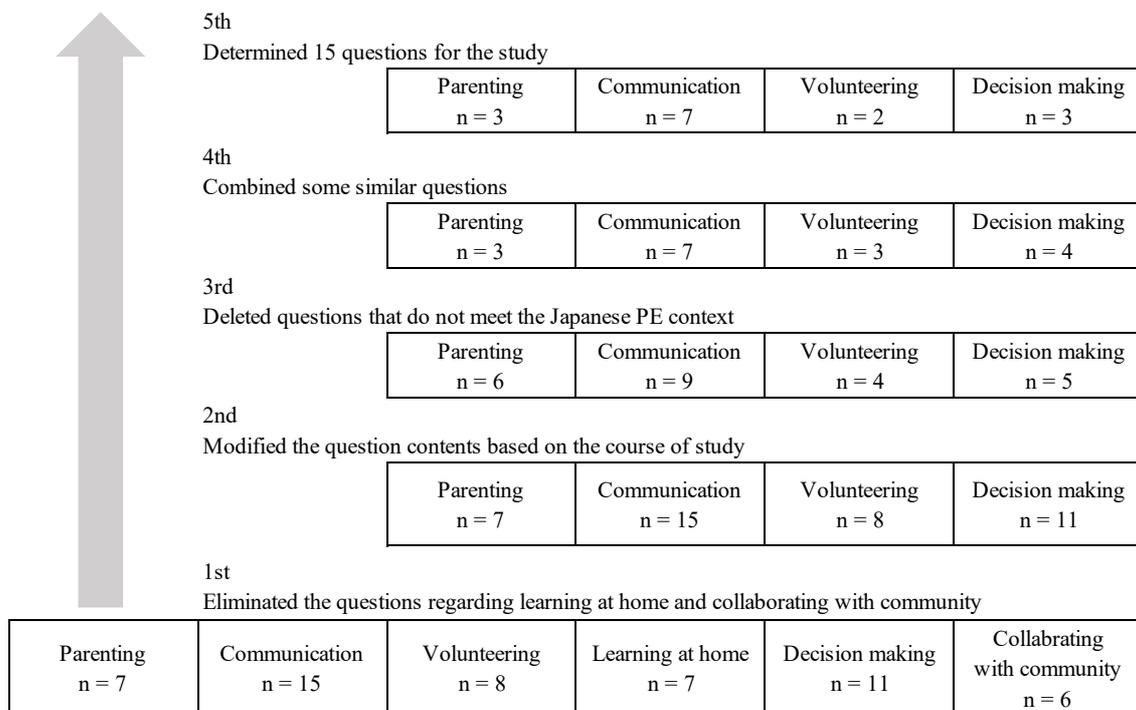


Figure 3. Procedure of Creating Participant's Demographic Questionnaire

Online Semi-structured Interviews. The researcher used online semi-structure interviews as the primary data source. Initially, the study intended to conduct face-to-face, in-person interviews; however, the researcher decided to use online interviews for

completing the data collection while providing a safer environment because of the COVID-19 pandemic. All participants were asked to answer 19 interview questions that were developed by the researcher based on Katz's (1972) theory of teacher development. Moreover, they were asked to answer follow-up questions (response to each participant answer) in order to gain in-depth understanding about their practices and perceptions regarding parental involvement of immigrant parents regarding PE. After each participant completed to answer the demographic questionnaire, the researcher contacted them to make each interview appointment. The interviews lasted between 60 and 90 minutes. Example questions are: (a) what challenges did you have in collaborating with immigrant parents involving their child's PE experiences? (b) what kinds of techniques did you use to communicate with immigrant parents in relation to PE? and (c) have you ever received any advice, feedback or comments from your colleagues or school administrators about how to deal with and interact with immigrant parents?

As the interview questions, the first five questions focused on teachers' experiences at the survival stage. These questions helped the researcher understand teachers' feeling of difficulty in interaction with immigrant parents regarding PE, perceptual conflict with the parents about the concept of PE or health education in Japan, and communication with the parents when their children suffer from unexpected accident or incidents due to illness or injuries. Question 6 to 8 intended to understand teachers' perception at the consolidation stage. These questions directed teachers' behavior to modify their practices based on individual needs of immigrant parents, such as verbal and written communication strategies and developing welcome atmosphere to invite the parents to be involved in their children' learning in PE. Question 9 to 12 focused on teachers' experiences at the renewal stage. These questions seek effective approaches,

ideas, or methods to reform their practices regarding parental involvement in relation to PE, such as promoting immigrant parents' interest in PE, accepting parents' opinions in PE instructions, and teachers' perceptual change regarding parental involvement of immigrant parents. Question 13 and 14 aimed to explore teachers' experiences at the maturity stages. These questions helped the researcher look for successful story regarding parental involvement of immigrant parents and developing trust relationship with them. Question 15 and 16 focused on teachers' PD experiences to identify training needs that help them improve their practices of parental involvement of immigrant parents regarding PE, such as feedback or advice from colleagues and skills that teachers need to develop. Lastly, question 17 to 19 included teachers' awareness about home-based parental involvement practices, such as lifestyle habits, nutrition education, and PE-related learning support.

Pilot Study. A pilot study was conducted with two graduate students who have official teaching licenses in PE in Japan using interview questions. Yin (2003) asserted pilot study helps “you to refine your data collection plans with respect to both the content of the data and the procedures to be followed.” This pilot study intended to confirm each interview question clearly and explicitly for research participants who speak Japanese as a first language. The procedures of this pilot study were that the researcher recruited two graduate students using his social network. Each interview lasted 60 to 75 minutes. After the interview, the researcher had a face-to-face discussion with those graduate students to receive feedback on any unclear interview questions and their opinions on modifying terms or phrases that are more familiar to Japanese elementary school teachers. This process helped the researcher realize grammatical errors in Japanese interview questions. Moreover, it was beneficial for the researcher to

develop relevant lines of questions and consider some conceptual clarification for the research design in this study.

Follow-up Communication. Follow-up communication via phone or email was used in this study as warranted when the researcher identified needs of clarifications, illustrations, explanations or elaborations (Meho, 2006). In the follow-up communication, the researcher provided same or different questions to the participants based on descriptive data from online semi-structure interviews. As interviewing method, the researcher determined to use phone or email according to the request from each participant. Moreover, follow-up communication helped the researcher confirm the verification from the participants about the summary of participants' responses during online semi-structured interviews.

Procedures

On May 27th, 2021, the researcher received approval from the university's institutional review board to implement the current study. In June, as the selection of participants using the snowball sampling technique (Naderifar et al., 2017), the researcher contacted an in-service classroom teacher who works at a Japanese public elementary school in Aich prefecture and requested to recruit the research participants for this study. A total of 6 Japanese elementary school teachers ($n = 1$ male and $n = 5$ female) were identified. Then, the researcher sent a copy of documents, including a research explanation and a consent form, via email to all nominated teachers and conducted online video meetings. In the ample time between receiving a copy of research documents and an online video meeting, all six teachers could read the consent form and ask any additional questions to the researcher. During the online meeting, the researcher explained the study's purpose, procedures (e.g., data collection and analysis), how collected data would be used, and how participants' private information would be

treated and protected, and confirmed their agreement or disagreement regarding the participation in this study. All six teachers agreed to participate in this study as research participants. Although the participants were willing to participate in this study based on a consent form, the researcher explained to them that they were allowed to withdraw their agreement before and after all data collection procedures were completed. Consequently, no participant contacted the researcher to withdraw their agreement.

After the researcher received the consent form with the participants' signatures, the participants were asked to answer the participant demographic questionnaire by using Google form within their flexible time. Because of the increased use of the online platform, an online survey is becoming popular among researchers (Mondal et al., 2018). This study used Google form, which is an online survey platform that allows the researcher to develop survey forms. The researcher sent a Google form link to this study's participant demographic questionnaire to all participants. After each participant completed to answer the survey, the researcher sent an e-mail to them to decide the interview date according to the participant's professional and personal schedule. All participants sent an e-mail back to the researcher to inform available potential days to conduct online interviews.

To conduct an online semi-structured interview, the researcher used Microsoft Teams, which is a communication platform integrated with Microsoft Office 365. This online platform allows researcher to hold meetings, video conferencing, file storage, and so on. The study used the feature of online video meetings with automatic transcripts to make a descriptive interview record. The researcher scheduled all interview dates with Microsoft Teams and sent each participant's link to the online meeting via e-mail. During the online interview, all interview responses from the participants were audiotaped. Moreover, follow-up communication (Maho, 2006) was

implemented by telephone and e-mail contacts based on the participants' requests. Once completed, the researcher transcribed the questions and the participants' answers and comments to create transcribed data. The transcribed data were returned to all participants for member checking purpose (Schwandt, 2015) via e-mail. This process was vital to verify the accuracy of transcribed data while removing any errors or researcher's bias regarding the participants' experiences and perceptions with parental involvement of immigrant parents in relation to PE. All procedures of data collection completed during November 2021.

Translation Process

This study used the cross-cultural translation technique to translate the transcribed data from Japanese to English in order to prepare, analyze, and report the data. This translation technique is an effort to take into consideration the uniqueness of two cultures in the collected data, developed by Banville et al. (2000) and Hodge et al. (2013). In this study, the researcher collaborated with three translators who could speak and write fluently in both Japanese and English to implement the descriptive data translation. As the translation process, first, three translators (A [researcher], B and C) individually translated the original Japanese version of the interview transcript data into English. Later, they hold a meeting to gather their translated versions to compare and identify differences and to continue this discussion until arriving at an agreement. Revised translated data were sent to a bilingual faculty member (translator D) in the United States who have expertise in linguistics to review and evaluate the translated data to ensure the translation was accurate (the meaning of the English and the original items was same). Finally, all four translators reached an agreement on all descriptive data in the interview.

Data Analysis

Tabular Materials. The database using a case study consists of tabular materials collected that should be organized and stored to allow the researcher to describe, analyze, and present various phenomena in the descriptive data (Yin, 2003). In this study, the tabular materials included the demographic questionnaire to display the participants' demographic information and their answers to the modified version of *Measure of School, Family, and Community Partnerships* (Salinas et al., 2019). Although these data were not the primary data source for the current study, the researcher organized, analyzed, and presented the tabular materials to support and assist his understanding of each descriptive case and across cases (Yin, 2003).

Constant Comparative Method. The researcher used a constant comparative method, which was developed by Glaser (1965), to analyse the translated interview transcripts. This analytic method includes the systematic process that allows a researcher code each data sources inductively and then uses each segment of the data to (a) compare with one or more categories to identify its relevance and (b) compare with other, similarly categorized segments of data (Schwandt, 2015). A researcher's important task in constant compression is to develop theoretical foundation by using the collected data (Boeije, 2010). Moreover, Tesch (1990) asserted the main intellectual activity in the analysis is comparison:

The method of comparing and contrasting is used for practically all intellectual tasks during analysis: forming categories, establishing the boundaries of the categories, assigning the segments to categories, summarizing the content of each category, finding negative evidence, etc. The goal is to discern conceptual similarities, to refine the discriminative power of categories, and to discover patterns (Tesch, 1990, p 96).

In this study, the researcher used the interview data and follow-up communication to compare these data with other content in the same segments of data or in another set. Therefore, the intent of this study's analysis was to reflect on experiences and

perceptions regarding parental involvement of immigrant parents in relation to PE by analysing, describing, and displaying the structural or thematic aspects of real-life experiences of the teachers.

Constructing and Naming Categories. In the analytical process using the constant comparative method, a researcher constructed categories and subcategories that are essential factors to delimit the theory. As this process in the current study, the researcher had the challenge that is described as “the challenge is to construct categories or themes that capture some recurring pattern that cuts across the preponderance” when he conducted the analytical phase to move beyond basic descriptions to data interpretations (Taylor & Bogdan, 1984, p. 139). According to Lincoln and Guba (1985), the researcher needs to follow two criteria that a unit of analysis should meet. First, the researcher was particularly aware of a unit of analysis should be heuristic, which means each unit should indicate information relevant to the study and help the reader consider beyond the particular information. Second, the researcher dedicated to using a unit of analysis as “the smallest piece of information about something that can stand by itself” (Lincoln & Guba, 1985, p. 345). Therefore, the researcher intended to construct and name each category and subcategory that must be interpretable without any additional information from the collected descriptive data in which the study was carried out.

According to Merriam (1998), thematic categories constructed through constant comparative analysis can be named from at least three sources, including the researcher, the participants, or outside sources of the study, including the literature-related to a particular area of inquiry. This explanatory case study used several important guidelines (Merriam, 1998) that helped the researcher determine terms, concepts, and names of categories derived from the constant comparative analysis. These guidelines are:

1. Categories should be relevant to the purpose of the research to interpret the answers to the research questions.
2. Categories should be comprehensive, which means the researcher should be able to use all data that he identified as important or relevant to the study in a category or subcategory.
3. Categories should be sensitizing, which means the researcher carefully decides the name of the category as sensitively as possible to help the reader understand the meaning of each category.
4. Categories should be conceptually coinciding, which means the researcher should characterize all categories in the same level of abstraction.

Analytical Procedures. As the analysis procedure, first, the researcher used a holistic approach, reading all of the transcripts of the interview and follow-up communication to be familiar with the participants' experiences and real life. When reading the transcripts, the researcher kept in mind the question, "How can these transcripts be interpreted to understand their professional experiences and perceptions regarding parental involvement of immigrant parents in relation to PE?" while writing down some memos, comments, or potential code name on the side of the transcripts. Second, the researcher conducted initial open coding individually of each interview and follow-up communication. In this process of open coding, every passage that was determined as important or relevant to the study was labeled with a proper code (Boeije, 2010). Third, the researcher conducted a second round of coding key terms (e.g., social justice, assumptions, and collaboration) based on four developmental stages of Katz's (1972) theory of teacher development in all the data sources listed in Table 1. In this process, some codes were combined (similar terms such as cooperation and teamwork) and then integrated into thematic categories as well as subcategories. Fourth, once the

analysis of each case (each participant’s descript data of interview and follow-up communication) was completed, the researcher used cross-case analysis (Yin, 2003) to identify similarities and differences among thematic categories and subcategories in all analyzed transcript data of the participants. This process aimed to seek contradictions and commonalities that occurred across several cases in each participant regarding parental involvement of immigrant parents in relation to PE in order to develop detailed descriptions and explanations of the complex phenomena under study. Fifth, the researcher grouped the thematic categories of each participant into themes. Sixth, the researcher received cooperation from three peer debriefers (two professors and one graduate student) to avoid potential researcher bias. Finally, the researcher refined the themes to which all peer debriefers reached an agreement. An outline of the data analysis procedures using the constant comparative method is summarized in Table 1.

Table 1. Summary of Analytical Procedures Using Constant Comparison Method

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| <ol style="list-style-type: none"> 1. The researcher read all the transcripts of the interview and follow-up communication to gain a broad understanding of the findings. 2. While reading the text, the researcher jotted down notes, comments, and potential codes on the side of the text. 3. After reading all of the transcripts, the researcher conducted an initial open coding one by one of each participant’s case. 4. The researcher conducted a second round of coding key terms based on the four fundamental stages of Katz’s theory of teacher development. 5. While doing a second round of coding, some similar codes were combined. 6. Then, all codes were categorized into thematic categories and subcategories, and the researcher named each category with clear and explicit concepts. 7. Once the analysis of each case was completed, the researcher conducted a cross-case analysis across several cases to identify similarities and differences. 8. The researcher grouped the thematic categories of each participant into themes. 9. Three peer debriefers reviewed occurred themes to avoid researcher bias. 10. The researcher redefined the themes until all peer debriefers reached an agreement. |
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Trustworthiness

Schwandt (2015) defined trustworthiness as “that quality of an investigation that made it noteworthy to audience” (Schwandt, 2015, p 308). In an explanatory case study, developing trustworthiness is essential researcher’s duty for enhancing credibility, reliability, and dependability of the findings and interpretations, and analyzed data (e.g., themes, and thematic category) of the inquiry. According to Lincoln and Guba (1985), there are four criteria commonly used to assess the trustworthiness of an explanatory case study. First, *credibility* (parallel to external validity) can be achieved by researchers’ efforts addressing the issue of providing assurance of the fit between participants’ view of their real-life ways and researchers’ reconstruction and representation of it (Schwandt, 2015). To do so, the researcher used multiple data sources (participant demographic questionnaire, semi-structure interview, follow-up communication) to enhance the credibility in this case study. Second, *transferability* (parallel to external validity) should be addressed as researcher’s duty for providing readers with ample information on the case studies in order to help them establish similarity between the presented case studies and other case studies including different contexts of setting which findings might be transferred. Third, *dependability* (parallel to reliability) can be achieved by researchers’ responsibility for displaying the research process (e.g., data collection method and analytical method) which is logical, traceable, and documented (Schwandt, 2015). Fourth, *confirmability* (parallel to objectivity) refers to the neutrality of researchers to ensure findings and interpretations of an explanatory case study were not figments of the researcher’s imagination (e.g., reducing researcher’s bias in the process of data collection and analysis). In the present study, trustworthiness was established through triangulation, member checking, and peer debriefing.

Triangulation. Triangulation is a popular strategy in qualitative research, which uses multiple methods or multiple data sources in order to assess validity through the convergence of information from different data sources (Carter et al., 2014). According to Carter et al. (2014), there are four types of triangulations: method triangulation, investigator triangulation, theory triangulation, and data source triangulation. This study used the method of triangulation, which involves using multiple methods to collect data to gain an in-depth understanding of the same phenomenon (Polit & Beck, 2012). More specifically, the present study used the participant demographic questionnaire, online semi-structured interview, and follow-up communication to gain multiple perspectives and validation of individual data.

Member Checking. The researcher used member checking, which is useful to establish the relative accuracy of the data as opposed to seeking universal truth (Merriam, 1998). For example, member checking enabled the researcher to reduce the impact of subjective bias by assuring agreement between participants and him (Patton, 2002). As the procedures of member checking, the researcher sent copies of the descriptive data (interview transcripts and follow-up communication) and analysed data to the respective participants. Trustworthiness in the transcripts and researcher's interpretations was established when the researcher received confirmation from the participants that they acknowledged their accuracy (Merriam, 1998). This process helped the researcher enhance credibility of this case study through minimizing a gap between participants' true perceptions and the researcher's interpretations regarding parental involvement of immigrant parents in relation to PE.

Peer Debriefing. Peer debriefing allows a qualified peer researcher to review and evaluate the transcribed data, emergent codes and categories, and final themes in a given explanatory case study to assure credibility (Janesick, 2015). In the process of

peer debriefing, a researcher should ask other researchers working on a different research topic to help him/her clarify his/her interpretations of the data, and identify the researcher's bias (Hadi & José Closs, 2016). For this study, one graduate student and one professor who had expertise in qualitative research and Japanese PE system participated as peer debriefers. These debriefers reviewed the established themes and reached an agreement with the findings of the researcher by assessing the accuracy of the interpretations of the data analysis.

Results

The purpose of this study was to describe and explain in-service Japanese elementary classroom teachers' experiences with parental involvement of immigrant parents regarding PE. To accomplish this purpose, the researcher collected and analysed data by using a modified demographic questionnaire "*Measure of School, Family, and Community Partnerships*" (Salinas et al., 2019), online semi-structure interview, and follow-up communication. The researcher developed two major research questions to guide this study:

1. What were Japanese elementary classroom teachers' experiences in parental involvement of immigrant parents in relation to PE?
2. How did the experiences of parental involvement of immigrant parents influence Japanese elementary teachers' perceptions of engaging with immigrant parents in relation to PE?

This chapter intends to display: (a) a description of research sites; (b) general overview of demographic information; (c) responses to the demographic questionnaire using a modified "*Measure of School, Family, and Community Partnerships*"; (d) findings from each individual case analysed by online semi-structured interviews and follow-up communications; (e) findings from cross-case analysis of all six cases

(Japanese elementary teachers) including the overall findings across cases specific to each research question. The emerged themes were analysed using multiple data sources (demographic questionnaire, online semi-structured interview, follow-up communication). Those themes are presented as they correspond to the research questions.

Description of Research Sites

All six Japanese public elementary school teachers ($n = 1$; Male, $n = 5$; Female) had served as a classroom teacher to interact with immigrant parents in relation to PE. They were working at different schools in Tokai region, specifically in Aichi prefecture. In Japan, public school teachers must follow a course of study released by MEXT (2017) to create curriculum and teaching plan in PE. Therefore, all teachers had the common standard to teach their children in PE class as well as promoting parental involvement of immigrant parents.

General Overview of Demographic Information

All six participants were classroom teachers at Japanese public elementary schools in Tokai region, specifically in Aich prefecture. All six teachers' pseudonyms and demographic backgrounds are indicated in Table 2. All six participants had a first-class elementary school teaching certificate, and three of them (Mr. Kitami, Ms. Miyaichi, Ms. Shiraishi) additionally had a first-class junior high school teaching certificate (PE). The years of teaching experience as a public elementary school teacher of the participants were from first to six years ($n = 1$; first year, $n = 1$; second year, $n = 1$; third year, $n = 2$; fourth year, $n = 1$; six year). This means that they were responsible for teaching all academic subjects, including PE between Monday to Friday for one academic year.

Table 2. Participants' Demographic Information and Professional Experiences

Pseudonym	Gender	Position	Years of Teaching Experience	Affiliation Prefecture
Ms. Shiraishi	F	Classroom Teacher	1	Aichi
Ms. Chihira	F	Classroom Teacher	4	Aichi
Mr. Kitami	M	Classroom Teacher	2	Aichi
Ms. Miyaichi	F	Classroom Teacher	3	Aichi
Ms. Kaitani	F	Classroom Teacher	4	Aichi
Ms. Imashita	F	Classroom Teacher	6	Aichi

Note. M = Male; F = Female; Position= The position when the participants interact with immigrant parents, Years of teaching experiences= Total years of teaching experiences as a classroom teacher at the public elementary schools, Affiliation Prefecture= location and affiliation prefecture where the public elementary school which the participants are working

General Overview of Teachers' Experiences with parental involvement of Immigrant Parents

The nationality and first language of immigrant parents who the participants had experiences to interact with in the study were diverse (Table 3). The years of experience interacting with immigrant parents as a classroom teacher of the participants were from first to six years ($n = 3$; one year, $n = 1$; three years, $n = 1$; four years, $n = 1$; six years). The nationality of immigrant parents who the participants had interacted with as a classroom teacher were Brazil ($n = 6$), Philippines ($n = 3$), Chinese ($n = 2$), Vietnam ($n = 1$), and British ($n = 1$). All participants acknowledged communication difficulties with those immigrant parents in relation to PE when the researcher implemented the first contact in the recruiting process. More specifically, the participants used multiple language when they communicated with immigrant parents, such as Japanese (mainly

used), English (if the parent can speak English), and parents' first language (if the parents do not understand Japanese or English).

Table 3. Participants' Information of Experiences with Parental Involvement of Immigrant parents

Pseudonym	Years of experience interacting with immigrant parents	Nationality of immigrant parents	First language of immigrant parents	Experience to participate in PD program of immigrant parental involvement
Ms. Shiraishi	1	Brazil, Philippines, Chinese	Portuguese, Tagalog, Chinese	No experience
Ms. Chihira	1	Brazil	Portuguese	No experience
Mr. Kitami	1	Brazil	Portuguese	No experience
Ms. Miyaichi	3	Brazil, Philippines	Portuguese, Tagalog	No experience
Ms. Kaitani	4	Brazil, Chinese, British	Portuguese, Chinese, English	No experience
Ms. Imashita	6	Brazil, Vietnam, Philippines	Portuguese, Vietnamese, Tagalog	No experience

Note. Years of experience interacting with immigrant parents= Total years of professional experience to interact with immigrant parents as a classroom teacher at the public elementary schools; Nationality of immigrant parents= Nationality of immigrant parents who the participants had interacted as a classroom teacher; First language of immigrant parents= First language of immigrant parents who the participants had interacted as a classroom teacher

Responses to the Demographic Questionnaire Using a Modified “*Measure of School, Family, and Community Partnerships*”

All participants were asked and completed a modified version of the demographic questionnaire using “*Measure of School, Family, and Community Partnerships*” (Salinas et al., 2019). This survey required the participants with 20 minutes to complete. The questions focused on teacher's experiences with parental involvement of immigrant parents in relation to PE. In the next section, the researcher indicates the row data for the survey (Table 4).

Responses to the Survey Questions about Teacher's Experiences with Parental Involvement of Immigrant Parents regarding PE

The survey investigated the participants' professional experiences with parental involvement of immigrant parents regarding PE. This survey used a Likert scale (1 = never; 2 = rarely; 3 = sometimes; 4 = often; 5 = always). The participants were asked to select one number on a Likert scale that is the most appropriate for their experiences with parental involvement of immigrant parents in relation to PE.

One participant (Ms. Miyaichi) responded that she rarely experienced the statement that she provided immigrant parents with clear information about children's academic achievement in PE. The other five participants (Ms. Imashita, Ms. Chihira, Mr. Kitami, Ms. Kaitani, and Ms. Shiraishi) responded that they had never experienced that statement.

Two participants responded that they sometimes (Ms. Chihira) or rarely (Ms. Imashita) experienced the statement that they asked immigrant parents about their children's goals, strengths, or talents regarding PE. The other four participants (Ms. Imashita, Mr. Kitami, Ms. Kaitani, and Ms. Shiraishi) responded that they had never experienced that statement.

One participant (Ms. Miyaichi) responded that she rarely experienced the statement that she conducted two-way communication with immigrant parents regarding PE. The other five participants (Ms. Imashita, Ms. Chihira, Mr. Kitami, Ms. Kaitani, and Ms. Shiraishi) responded that they had never experienced that statement.

All participants responded that they had never experienced the statement that they invited immigrant parents to participate in observing PE class.

One participant (Ms. Chihira) responded that she rarely experienced the statement that she conducted a survey (parent-teacher conference, home visiting, phone call, email) for immigrant parents to ask about their concerns or needs regarding PE (e.g., clothes, curriculum, school event). The other five participants (Ms. Imashita, Mr.

Kitami, Ms. Miyaichi, Ms. Kaitani, and Ms. Shiraishi) responded that they had never experienced that statement.

All participants responded that they had never experienced the statement that they conducted a survey of immigrant parents to share their interests, understandings, or satisfactions with PE (e.g., parent-teacher conference, home visiting, phone call, or email).

One participant (Ms. Miyaichi) responded that she rarely experienced the statement that she conducted special guidance for immigrant parents who have never experienced Japanese PE activities. The other five participants (Ms. Imashita, Ms. Chihira, Mr. Kitami, Ms. Kaitani, and Ms. Shiraishi) responded that they had never experienced that statement.

Three participants responded that they often (Ms. Miyaichi), sometimes (Ms. Chihira), or rarely (Ms. Kaitani) experienced the statement that they provided immigrant parents with clear information about PE curriculum or events (e.g., sports festival). The other three participants (Ms. Imashita, Mr. Kitami, and Ms. Shiraishi) responded that they had never experienced that statement.

Four participants responded that they always (Ms. Imashita, Ms. Chihira, and Ms. Miyaichi) or rarely (Ms. Ms. Kaitani) experienced the statement that they contacted immigrant parents when their children have problems in PE activities (e.g., religious backgrounds or clothes). The other two participants (Mr. Kitami and Ms. Shiraishi) responded that they had never experienced that statement.

Four participants responded that they always (Mr. Kitami), sometimes (Ms. Miyaichi), or rarely (Ms. Chihira and Ms. Kaitani) experienced the statement that they encouraged immigrant parents to participate in PE related school activities (e.g., sports

festival or PE-related events). The other two participants (Ms. Imashita and Ms. Shiraishi) responded that they had never experienced that statement.

All participants responded that they had never experienced the statement that they discussed with immigrant parents how to support their children to grow their knowledge and ability regarding PE.

All participants responded that they had never experienced the statement that they held a meeting with immigrant parents to counsel them about their children's learning in PE.

Four participants responded that they always (Ms. Imashita), sometimes (Ms. Kaitani), or rarely (Ms. Chihira and Ms. Miyaichi) experienced the statement that they addressed immigrant parent's questions, concerns, and values regarding PE openly and respectfully. The other two participants (Mr. Kitami and Ms. Shiraishi) responded that they had never experienced that statement.

All participants responded that they had never experienced the statement that they accepted immigrant parents' opinions when creating PE teaching plans.

Two participants (Ms. Miyaichi and Ms. Kaitani) responded that they rarely experienced the statement that they faced difficulties interacting with immigrant parents regarding PE due to cultural and religious differences. The other four participants (Ms. Imashita, Ms. Chihira, Mr. Kitami, and Ms. Shiraishi) responded that they had never experienced that statement.

Table 4. Survey Questionnaire focusing on Teacher's Experiences with Parental Involvement of Immigrant Parents in PE

	Ms. Imashita	Ms. Chihira	Mr. Kitami	Ms. Miyaichi	Ms. Kaitani	Ms. Shiraishi
I provide immigrant parents with clear information about children's academic achievement in PE	1	1	1	2	1	1
I ask immigrant parents about their children's goals, strengths, or talents regarding PE	1	3	1	2	1	1
I conduct two-way communication with immigrant parents regarding PE	1	1	1	2	1	1
I invite immigrant parents to participate in observing PE class	1	1	1	1	1	1
I conduct a survey (parent-teacher conference, home visiting, phone call, email) for immigrant parents to ask their concerns or needs regarding PE (e.g., clothes, curriculum, school event)	1	2	1	1	1	1
I conduct a survey for immigrant parents to share their interests, understandings, or satisfactions with PE (e.g., parent-teacher conference, home visiting, phone call, or email)	1	1	1	1	1	1
I conduct a special guidance for immigrant parents who have never experienced Japanese PE activities	1	1	1	2	1	1
I provide immigrant parents with clear information about PE curriculum or events (e.g., sports festival)	1	3	1	4	2	1

Table 4. Continued

I contact with immigrant parents when their children have problems in PE activities (e.g., religious backgrounds or clothes)	5	5	1	5	2	1
I encourage immigrant parents to be participate in PE-related school activities (e.g., sports festival or PE-related events)	1	2	5	3	2	1
I discuss with immigrant parents how to support their children to grow their knowledge and ability regarding PE	1	1	1	1	1	1
I hold a meeting with immigrant parents to counsel about their children's learning in PE	1	1	1	1	1	1
I address immigrant parent's questions, concerns, and values regarding PE openly and respectfully	5	2	1	2	3	1
I accept immigrant parents' opinions when I create teaching plans regarding PE	1	1	1	1	1	1
I face difficulties in interactions with immigrant parents regarding PE due to cultural and religious differences	1	1	1	2	2	1

Note. Scoring Scale: 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Often; 5 = Always

Summary

The survey helped the researcher find that the participants interacted with immigrant parents when they needed to provide immigrant parents with clear information about the PE curriculum, inform immigrant parents about their children's problematic behaviors in PE class, or encourage the parents to participate in PE-related school activities or events. On the other hand, the survey found that the participants did not intentionally ask and identify immigrant parents' interests, concerns, or satisfactions

regarding PE or communicate with the parents to develop teaching plans that help their children develop knowledge and skills in relation to PE. Therefore, the participants decided to interact with immigrant parents when any problems happened without support from the parents.

Findings from each Individual Case Analysed by Online Semi-structured Interviews and Follow-up Communications

This section describes the findings in the present explanatory case study. The purpose of this study was to explain and describe Japanese elementary school teachers' experiences with parental involvement of immigrant parents in relation to PE.

Case I: Ms. Shiraishi

Ms. Shiraishi's Personal Demographic Information

Ms. Shiraishi was a female first-year teacher at a public elementary school in Aichi prefecture. She held a first-class elementary school teaching certificate and a first-class junior high school teaching certificate (PE). She served as a classroom teacher to interact with immigrant parents from Brazil, the Philippines, and China. Before she became a classroom teacher at a public elementary school, she had never experienced any teacher training focusing on the parental involvement of immigrant parents, including PE. Several themes and subthemes emerged from the analysis of her transcribed interview data (Table 5). These themes were: (*Theme one*) communication challenges regarding PE, (*Theme two*) lack of parental support at home, (*Theme three*) accepted diverse backgrounds of immigrant parents, (*Theme four*) provided immigrant parents with translated school letters in their first language, (*Theme five*) idea to renew effective communication approach using school letters regarding PE, (*Theme six*) collaboration with school personnel to deal with an emergency, (*Theme seven*) needs of

model teachers to learn effective communication to overcome language barriers with immigrant parents, and (*Theme eight*) needs of PD training.

Table 5. List of Themes and Subthemes from Ms. Shiraishi's Case Study

Theoretical Category Examples	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Communication challenges regarding PE</i>		
	Subtheme:		
	(a) Language barrier	• Lack of Japanese proficiency	6
		• Difficult PE-related terminologies	4
	(b) Contact issues in an emergency	• Hard to reach parent	5
		• Parent's hesitation	4
	<i>Theme two: Lack of parental support at home</i>		
	Subtheme:		
(a) Difficulty in preparing PE supplies due to low socioeconomic status	• Low socioeconomic status	7	
	• Lack of PE supplies	4	
(b) Being late to submit important documents regarding PE	• Important documents regarding PE	4	
Consolidated knowledge and skill	<i>Theme three: Accepted diverse backgrounds of immigrant parents</i>	• Diversity	5
		• Modifying PE rules	5
	<i>Theme four: Provided immigrant parents with translated school letters in their first language</i>	• Using a school translator	4
Renewal idea	<i>Theme five: Idea to renew effective communication approach using school letters regarding PE</i>	• Informing parents about their children's learning in PE	4
		• School letters	4
Matured services	<i>Theme six: Collaboration with school personnel to deal with an emergency</i>	• Collaboration with school personnel	4
Training needs	<i>Theme seven: Needs of model teachers to learn effective communication to overcome language barriers with immigrant parents</i>	• Model teachers	7
		• Communication strategies and approaches	4
		• Minimizing anxiety	4
	<i>Theme eight: Needs of PD training</i>	• Desire to learn immigrant parents' expectation toward PE	4

Survival Stage

Based on the teacher's characteristics at the survival stage of the theory of teacher development (Katz, 1972), themes one and two focused and explained Ms. Shiraishi's survival challenges regarding parental involvement of immigrant parents in relation to PE.

Theme one: Communication challenges regarding PE

This theme explains Ms. Shiraishi's experiences facing various communication challenges regarding PE with immigrant parents. For example, she struggled to overcome language barriers and dealt with contact issues in an emergency when she needed to communicate with immigrant parents when their children had any problems in relation to PE (e.g., suffering from injuries or illness, not bringing PE supplies). Subthemes emerged from the analysis of interview transcripts, which are the language barrier and contact issues in an emergency.

Subtheme: Language barrier

This subtheme describes that Ms. Shiraishi struggled to overcome the language barrier when communicating with immigrant parents regarding PE. Two codes comprise this subtheme: "lack of Japanese proficiency" and "difficult PE-related terminologies." More specifically, she believed that the language barrier became a great problem because both mother and father had inadequate Japanese proficiency when she attempted to communicate face-to-face or by phone. For example, she believed that specific terminologies in the PE context (e.g., body structures and PE clothes) were difficult to explain because the immigrant parents had less Japanese proficiency and educational experiences in Japan.

Subtheme: Contact issues in an emergency

This subtheme explains that Ms. Shiraishi struggled to deal with contact issues with immigrant parents in an emergency due to unexpected accidents during PE class, such as serious injuries or illness. Two codes comprise this subtheme: "hard to reach parent" and "parents' hesitation." More specifically, she said that immigrant parents often did not respond to her phone calls at the time when she needed their cooperation. Although she had never identified why immigrant parents often denied her phone contact, she

predicted immigrant parents might face a demanding work schedule and less self-efficacy or hesitation to interact with her school. In an emergency, she was concerned with this issue because she was afraid of miscommunication with immigrant parents about important children's health information (e.g., first aid treatment).

Theme two: Lack of parental support at home

This theme illustrates that Ms. Shiraishi experienced a survival challenge when immigrant parents were less supportive or cooperative at home. She believed that parental support at home was vital to secure her children's learning environment in PE. Two subthemes emerged from the analysis of interview data, which explains her opinions on why immigrant parents implement a lack of support at home. These subthemes are (a) difficulty in preparing PE supplies due to low socioeconomic status and (b) being late to submit important documents regarding PE.

Subtheme: Difficulty in preparing PE supplies due to low socioeconomic status

This subtheme explains that Ms. Shiraishi believed many immigrant parents suffered from low socio-economic status, so they could not afford to purchase appropriate PE supplies (e.g., PE uniforms) for their children. Two codes comprise this subtheme: "low socioeconomic status" and "lack of PE supplies." In her school, many immigrant parents received financial support from Japanese governance. Therefore, she struggled to request immigrant parents to prepare enough PE supplies for their children.

Subtheme: Being late to submit important documents regarding PE

This subtheme describes that Ms. Shiraishi was concerned because immigrant parents often did not submit essential documents in relation to PE (e.g., an agreement to participate in specific physical activity) until the due day. One code comprises this subtheme, including "important documents regarding PE." Therefore, she often repeatedly requested immigrant parents to submit those documents. Moreover, she

taught immigrant parents how to write on those documents appropriately in person at school.

Consolidation Stage

Based on the teacher's characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), themes three and four describe Ms. Shiraishi's consolidated knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Theme three: Accepted diverse backgrounds of immigrant parents

This theme demonstrates that Ms. Shiraishi assured that teachers need to develop knowledge and skills to respond to the individual needs of immigrant parents in relation to PE, which is the teacher's characteristic at the consolidation stage. Two codes comprise this theme, including "diversity" and "modifying PE rules." More specifically, she believed that she needed to accept the diverse backgrounds of immigrant parents (e.g., low socio-economic status, religious practices) to modify PE rules in order to establish an appropriate learning environment for their children. For example, she decided to allow immigrant parents to prepare alternative PE clothes (not using designated PE clothes by her school) if they were suffering from poverty. Moreover, she believed teachers should avoid changing their attitudes based on parents' nationality. Instead, teachers need to understand that each immigrant parent has individual needs when they promote parental involvement of immigrant parents in relation to PE.

Theme four: Provided immigrant parents with translated school letters in their first language

This theme explains that Ms. Shiraishi believed providing immigrant parents with communication chances in their first language was an important responsibility for her in order to meet parents' individual linguistic needs. One code comprises this subtheme,

including “using a school translator.” To do so, she said that a school translator played a vital role in helping teachers conduct both oral and written communication with immigrant parents in their first language. For example, she explained that a school translator in her school conducted language translation services for modifying school letters to help immigrant parents understand PE-related information.

Renewal Stage

Based on the teacher’s characteristics at the renewal stage of the theory of teacher development (Katz, 1972), theme five describes Ms. Shiraishi’s idea to renew her approaches regarding parental involvement of immigrant parents in relation to PE.

Theme five: Idea to renew effective communication strategies using school letters regarding PE

This theme illustrates that Ms. Shiraishi sought effective communication strategies to inform immigrant parents about the Japanese PE system and their responsibilities as a parent. Two codes comprise this theme, including “informing parents about their children’s learning in PE” and “school letters.” The teachers at the renewal stage seek new ideas, approaches, and materials to renew and refine their practices to promote parental involvement of immigrant parents (Katz, 1972). In this study, Ms. Shiraishi believed she needed to learn an effective method of using school letters to allow immigrant parents to understand their children’s learning experiences in PE and health-related information.

Maturity Stage

Based on the teacher’s characteristics at the maturity stage of the theory of teacher development (Katz, 1972), theme six describes Ms. Shiraishi’s perceptions regarding maturity teachers who have knowledge and skills to solve problems with immigrant parents regarding PE.

Theme six: Collaboration with school personnel to deal with an emergency

This theme explains that Ms. Shiraishi believed collaboration with school personnel is essential for teachers dealing with an emergency due to unexpected accidents (e.g., sudden injuries or illness) with immigrant parents. One code comprises this theme, including “collaboration with school personnel.” More specifically, she shared her collaboration experiences with a school nurse, senior teachers, and vice principal to communicate with immigrant parents (e.g., bringing them to a hospital explaining the surgery and after-care services) when her child got serious injuries at her school. She emphasized that school personnel need to work together to avoid miscommunication with immigrant parents regarding their children’s background and confidential information in relation to PE.

Training Needs

According to the theory of teacher development (Katz, 1972), themes seven and eight describe training needs that Ms. Shiraishi sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme seven: Needs of model teachers to learn effective communication to overcome language barriers with immigrant parents

This theme explains that Ms. Shiraishi sought to find model teachers in her school to learn effective communication practices to overcome language barriers with immigrant parents in relation to PE. Three codes comprise this theme, including “model teachers,” “communication strategies and approaches,” and “minimizing anxiety.” She explained that classroom teachers need to have individual communication with immigrant parents without help or support from a school translator, even if immigrant parents cannot speak Japanese. The first time she became a classroom teacher, she had anxiety because she lacked the knowledge and skill to overcome language barriers with

immigrant parents during verbal communication (e.g., face-to-face or phone communication). In order to minimize her anxiety toward verbal communication with immigrant parents, various examples of effective communication practices (e.g., using easy Japanese phrases, using English or her parent's first language) demonstrated by her colleagues helped her gain ideas for problem-solving. Therefore, she believed model teachers must play an important role in teaching teachers with less experience and expertise in communicating with immigrant parents regarding PE.

Theme eight: Needs of PD training

This theme revealed that Ms. Shiraishi sought PD training opportunities regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including “desire to learn immigrant parents’ expectations toward PE.” More specifically, she believed she needed to learn immigrant parents’ expectations toward Japanese PE and their PE-related cultural backgrounds in order to modify her practices to meet the individual needs of immigrant parents. However, she explained that there was no PD training in her school districts focusing on the parental involvement of immigrant parents regarding PE.

Case II: Ms. Chihira

Ms. Chihira’s Personal Demographic Information

Ms. Chihira was a female fourth-year teacher at a public elementary school in Aichi prefecture. She had a first-class elementary school teaching certificate. In her fourth year of teaching experience at a Japanese public elementary school, it was the first time she taught a class including a Brazilian child and interacted with his/her parent, who speak Portuguese as a first language. She had never experienced any PD training that focused on the parental involvement of immigrant parents, including PE. Several themes and subthemes (Table 6) emerged from her transcribed interview data analysis.

These themes were: (*Theme one*) felt discrepancy of social norms with immigrant parents from different cultures, (*Theme two*) lack of participation in school events, (*Theme three*) communication with immigrant parents regarding PE, (*Theme four*) focused on individual needs of immigrant parents, (*Theme five*) collaboration with a school nurse to convey immigrant parents about their children’s result of medical check-up, and (*Theme six*) shared practical ideas regarding parental involvement of immigrant parents with colleagues.

Table 6. List of Themes and Subthemes from Ms. Chihira’s Case Study

Theoretical Category	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Felt discrepancy of social norms with immigrant parents from different cultures</i>		
	Subthemes		6
	(a) Different perception toward following PE rules	• Expected parents to follow the Japanese PE system	4
		• Rules of wearing PE clothes	8
		• Culture and customs	7
	(b) Different perception of time	• Believed immigrant parents do not care about being on time	4
Consolidated knowledge and skill	<i>Theme two: Lack of participation in school events</i>	• Poverty and demanding job schedule	4
		• Language barrier	
	<i>Theme three: Communication with immigrant parents regarding PE</i>		
	Subthemes		
	(a) Necessity to provide extra communication with immigrant parents	• Special guidance regarding PE	9
		• Increased burdens	4
Matured services	(b) Skill to use various communication methods	• Translation apps	4
		• Visual materials	4
		• Easy Japanese and Hiragana	5
	<i>Theme four: Focused on individual needs of immigrant parents</i>	• Reflected and minimized prejudice against immigrant parents	4
		• Understood cultural and religious backgrounds	5
Training needs	<i>Theme five: Collaboration with a school nurse to convey immigrant parents about their children’s result of medical check-up</i>	• Working with a school nurse	4
		• Provided detailed information about medical check-ups	4
	<i>Theme six: Shared practical ideas regarding parental involvement of immigrant parents with colleagues</i>	• Shared practical ideas with colleagues	4

Survival Stage

Based on the teacher's characteristics at the survival stage of the theory of teacher development (Katz, 1972), themes one and two focus to explain Ms. Chihira's survival challenges regarding parental involvement of immigrant parents in relation to PE.

Theme one: Felt discrepancy of social norms with immigrant parents from different cultures

This theme captures that Ms. Chihira felt a discrepancy in social norms with immigrant parents with different cultural backgrounds concerning PE. Because of this, she struggled to overcome cultural and social barriers with immigrant parents when she needed support from them in their children's learning in PE. Subthemes emerged from the analysis of her interview transcripts, which are (a) different perceptions toward following PE rules and (b) different perceptions of time.

Subtheme: Different perceptions toward following PE rules

This subtheme explains that Ms. Chihira believed there was a gap with immigrant parents in perception toward following Japanese PE rules. Three codes comprise this subtheme, including "expected parents to follow the Japanese PE system," "rules of wearing PE clothes," and "culture and customs." More specifically, she expected immigrant parents to understand Japanese school culture and norms in order to follow Japanese PE rules as same as other parents (e.g., Japanese parents). For example, she struggled to help immigrant parents understand their responsibility to teach their children appropriate ways of wearing PE clothes. She assumed that immigrant parents had less understanding of the significance and necessity of following the rules of wearing PE clothes in her school. She had concerns about this situation because she did not allow their children to participate in PE class if they did not follow her school's PE clothes. Therefore, she believed teachers need to build mutual understanding with

immigrant parents about Japanese PE rules in order to secure a learning environment for their children.

Subtheme: Different perceptions of time

This subtheme describes that Ms. Chihira believed that immigrant parents had different perceptions of time. One code comprises this subtheme, including “believed immigrant parents do not care about being on time.” More specifically, she assumed immigrant parents did not care about being on time to accomplish their responsibilities as a parent to support their children’s learning in PE. For example, she was frustrated when immigrant parents were late submitting important PE documents (e.g., an agreement form to participate in specific physical activity). Moreover, she struggled to solve trouble because a Brazilian mother did not come to school until promised time to pick up her child to bring to the hospital to see a doctor. Therefore, she believed she needed to improve her knowledge and skills to deal with habitual differences with immigrant parents.

Theme two: Lack of participation in school events

This theme captures that Ms. Chihira experienced a problematic situation in parental involvement of immigrant parents when they did not participate in school events (e.g., entrance ceremony, class observation day). Two codes comprise this theme: “poverty and demanding job schedule” and “language barrier.” She said a few potential reasons immigrant parents did not participate in those school events, such as parents’ demanding work schedules and language barriers. For example, she explained that many immigrant parents in her school suffered from poverty. They needed a job and worked long hours for lower than the minimum wages for their industries (Gordon, 2006). Moreover, she assumed that immigrant parents could not understand written notifications from school (e.g., school letters) about school events due to language

issues. Because of these reasons, she struggled to invite immigrant parents to participate in her school events.

Consolidation Stage

Based on the teacher's characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), themes three and four describe Ms. Chihira's consolidated knowledge and skills to promote parental involvement of immigrant parents regarding PE.

Theme three: Communication with immigrant parents regarding PE

This theme captures that Ms. Chihira believed professional experience regarding parental involvement of immigrant parents in relation to PE helped her develop her knowledge and skills to facilitate communication with them. More specifically, subthemes were analyzed from her interview transcripts, which are (a) provided extra communication with immigrant parents and (b) skill to use various communication methods.

Subtheme: Necessity to provide extra communication with immigrant parents

This subtheme describes that Ms. Chihira believed that immigrant parents needed extra communication (e.g., special guidance) from her to understand their responsibility to support their children's learning in PE while meeting their individual needs. Two codes comprise this subtheme: "special guidance regarding PE" and "increased burdens." For example, she conducted face-to-face meetings for immigrant parents at the school and taught them how to fill in important documents (e.g., daily health checks, medical history, and results of heart examinations), regarding their children's qualifications in relation to participation in PE classes. She believed immigrant parents became cooperative when she provided special guidance. However, although extra

communication with immigrant parents was essential, that support for parents increased her burdens as a classroom teacher.

Subtheme: Skill to use various communication methods

This subtheme explains that Ms. Chihira gained the skill to use various communication methods to facilitate the understanding of immigrant parents about PE-related information from the school. Three codes comprise this subtheme: “translation apps,” “visual materials,” and “easy Japanese and Hiragana.” During the interview, she introduced some communication methods that she felt were useful in her communication experiences with immigrant parents:

1. She used translation apps to translate both verbal and written communication into the first language of immigrant parents.
2. She used visual materials, such as gestures and drawing pictures.
3. She attempted to use easy-to-understand Japanese phrases and Hiragana (one of the Japanese characters).

Therefore, she believed teachers at the consolidation stage must gain communication skills to apply the above methods to meet immigrant parents’ linguistic needs.

Theme four: Focused on individual needs of immigrant parents

This theme captures that Ms. Chihira believed teachers need to reflect and minimize their prejudice toward immigrant parents in order to focus on the individual needs of immigrant parents to promote their engagement in their children’s learning in PE. Two codes comprise this theme: “reflected and minimized prejudice against immigrant parents” and “understood cultural and religious backgrounds.” During the interview, she reflected on her past experiences and acknowledged that she had prejudice against immigrant parents. For example, she assumed immigrant parents were loose and less interested in their children’s education. Moreover, she assumed Japanese

parents were more cooperative than immigrant parents. However, her prejudgement about immigrant parents was reduced based on taking professional experiences of interaction with them because she realized they needed different interaction and communication styles to enhance their engagement in their children's education in PE. Therefore, she believed that teachers need to focus on the individual needs of immigrant parents rather than sustaining their prejudice, stereotypes, or assumptions against them.

Maturity Stage

Based on the teacher's characteristics at the maturity stage of the theory of teacher development (Katz, 1972), theme five describes Ms. Chihira's perceptions regarding maturity teachers who have knowledge and skills to solve problems with immigrant parents regarding PE.

Theme five: Collaboration with a school nurse to convey immigrant parents about their children's result of medical examinations

This theme describes that Ms. Chihira believed that teachers at the maturity stage should have the knowledge and skills to collaborate with a school nurse and provide immigrant parents with appropriate information about their children's results of school medical examinations. Two codes comprise this theme: "working with a school nurse" and "provided detailed information about medical check-ups." For example, she shared her experience working with her school nurse to create a translation guidance sheet (e.g., including results of heart examination and hospital information for additional examinations) that helped her avoid miscommunication with immigrant parents about their children's medical information.

Training Needs

According to the theory of teacher development (Katz, 1972), theme six describes training needs that Ms. Chihira sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme six: Shared practical ideas regarding parental involvement of immigrant parents with colleagues

This theme explains that Ms. Chihira believed that sharing practical ideas regarding parental involvement of immigrant parents with her colleagues helped her address problems working with the parents regarding PE. One code comprises this theme: “shared practical ideas with colleagues.” More specifically, she received advice from her colleagues about effective communication styles toward immigrant parents in her class, which helped her reduce concerns about interacting with the parents.

Case III: Mr. Kitami

Mr. Kitami’s Personal Demographic Information

Mr. Kitami was a male second-year teacher at a public elementary school in Aichi prefecture. He had a first-class elementary school teaching certificate, a first-class junior high school teaching certificate (PE), and a first-class high school teaching certificate (PE). In his second year of teaching experience at a Japanese public elementary school, it was the first time he taught a class including a Brazilian child and interacted with his/her parent, who speak Portuguese as a first language. He had never experienced teacher training focusing on the parental involvement of immigrant parents, including PE. Several themes and subthemes emerged from the analysis of his transcribed interview data (Table 7). These themes were: (*Theme one*) immaturity for social justice, (*Theme two*) began to focus on the individual needs of immigrant parents, (*Theme three*) sought tools to facilitate communication with immigrant parents about their

children, (*Theme four*) sophistication of translation services, and (*Theme five*) felt lonely because there is no teacher leadership.

Table 7. List of Themes and Subthemes from Mr. Kitami’s Case Study

Theoretical Category Examples	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Immaturity for social justice</i>		
	Subtheme:		
	(a) Difficulty in dealing with backgrounds of immigrant parents	<ul style="list-style-type: none"> • Low-socioeconomic status • Culture and Ethnicity • Language barrier 	7 4 8
	(b) Difficulty in building mutual understanding with immigrant parents about Japanese PE	<ul style="list-style-type: none"> • Lack of opportunity to explain Japanese PE • Role of parent-teacher conference 	5 4
Consolidated knowledge and skill	<i>Theme two: Began to focus on the individual needs of immigrant parents</i>	• Identifying the needs of parents	8
		• Teaching the concept of safety	4
		• Reflecting own professional experience	4
Renewal idea	<i>Theme three: Sought tools to facilitate communication with immigrant parents about their children</i>	• Needs of communication tools	4
		• Discuss children’s future educational plan	6
Matured services	<i>Theme four: Sophistication of translation services</i>	• Collaboration with a school translator	9
		• Digital translation tools	4
Training needs	<i>Theme five: Felt lonely because there is no teacher leadership</i>	• Needs of the teacher leadership	4

Survival Stage

Based on the teacher’s characteristics at the survival stage of the theory of teacher development (Katz, 1972), theme one captures Mr. Kitami’s survival challenges regarding parental involvement of immigrant parents in relation to PE.

Theme one: Immaturity for social justice

This theme captures that Mr. Kitami recognized his immature knowledge and skills to address social justice regarding immigrant parents regarding PE. More specifically, two subthemes emerged from the data analysis of his interview transcript, which are (a) difficulty in dealing with the backgrounds of immigrant parents and (b) difficulty in building mutual understanding with immigrant parents about Japanese PE.

Subtheme: Difficulty in dealing with backgrounds of immigrant parents

This subtheme revealed that Mr. Kitami experienced difficulty dealing with the diverse backgrounds of immigrant parents when he attempted to promote parental involvement of those parents in relation to PE. Three codes comprise this subtheme: “low socio-economic status,” “culture and ethnicity,” and “language barrier.” More specifically, Mr. Kitami believed that he had the knowledge and skill to solve problems with immigrant parents in relation to PE. For example, he found various factors (e.g., poverty, cultural and ethnic differences, and language challenges) that prevented immigrant parents’ cooperation to support their children’s learning in PE when they denied his several requests regarding PE (e.g., purchasing PE clothes and shoes).

Subtheme: Difficulty in building mutual understanding with immigrant parents about Japanese PE

This subtheme describes that Mr. Kitami experienced difficulty building mutual understanding with immigrant parents about Japanese PE in order to promote their involvement. Two codes comprise this subtheme: “lack of opportunity to explain Japanese PE” and “role of parent-teacher conference.” More specifically, he emphasized that there was less chance of daily conversations with immigrant parents to teach them about unique purposes, values, the curriculum of Japanese PE, PE-related school events (e.g., marathon events), and the significance of PE supplies (e.g., PE clothes). Therefore, he believed the parent-teacher conference was a critical chance to develop a mutual understanding of Japanese PE.

Consolidation Stage

Based on the teacher’s characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), theme two describes Mr. Kitami’s consolidated

knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Theme two: Began to focus on the individual needs of immigrant parents

This theme demonstrates that Mr. Kitami began to focus on immigrant parents' individual needs to promote their involvement in PE. Three codes comprise this theme: "identifying the needs of parents," "teaching the concept of safety," and "reflecting own professional experience." Based on professional experiences through the survival stage, Mr. Kitami identified the individual needs of immigrant parents (e.g., lack of understanding the PE system) and decided to modify his practices to promote their involvement. For example, he emphasized that he needed to teach immigrant parents about the concept of safety in PE to promote their cooperation, such as preparing to prevent potential illness (e.g., heat stroke).

Renewal Stage

Based on the teacher's characteristics at the renewal stage of the theory of teacher development (Katz, 1972), theme three explains Mr. Kitami's idea to renew her approaches regarding parental involvement of immigrant parents in relation to PE.

Theme three: Sought tools to facilitate communication with immigrant parents about their children

This theme illustrates that Mr. Kitami sought tools to renew his approaches or methods to facilitate communication with immigrant parents about their children. Two codes comprise this theme: "needs of communication tools" and "discuss children's future educational plan." Mr. Kitami believed he needed to exchange important information about their children with immigrant parents, such as parents' expectations or plans for their children's future education. He believed teachers should distinguish their teaching styles (e.g., help their children become accustomed to the Japanese

educational and social system) based on parents' desire to stay in Japan temporarily or permanently.

Maturity Stage

Based on the teacher's characteristics at the maturity stage of the theory of teacher development (Katz, 1972), theme four describes Mr. Kitami's perceptions regarding maturity teachers who have knowledge and skills to solve problems with immigrant parents regarding PE.

Theme four: Sophistication of translation services

This theme explains Mr. Kitami's experiences in sophisticated translation services for immigrant parents to promote their involvement in PE. Two codes comprise this theme: "collaboration with a school translator" and "digital translation tools." Mr. Kitami collaborated with a school translator when he needed to solve his children's problems regarding PE (e.g., children do not submit PE documents or bring PE supplies) with immigrant parents. Moreover, he used digital translation tools (e.g., Google Translate) to communicate with immigrant parents without the school translator. He believed teachers should have the knowledge and skills to provide immigrant parents with translation services because he emphasized that language issues were the most significant challenge for immigrant parents.

Training Needs

According to the theory of teacher development (Katz, 1972), theme five describes training needs that Mr. Kitami sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme five: Felt lonely because there is no teacher leadership

This theme explains that Mr. Kitami felt lonely when he initiated his responsibilities for interacting with immigrant parents in relation to PE because there

was no guideline that he could solve various problems with immigrant parents regarding PE. One code comprises this theme: “Needs of the teacher leadership.” Mr. Kitami struggled to develop his professionalism regarding parental involvement of immigrant parents because he had to consider problem-solving ideas, approaches, or materials by himself because his colleagues also had less experience working with immigrant parents regarding PE. Therefore, he asserted the necessity to cultivate teachers with mature knowledge and skills to promote parental involvement of immigrant parents in his school.

Case IV: Ms. Miyaichi

Ms. Miyaichi’s Personal Demographic Information

Ms. Miyaichi was a female third-year teacher at a public elementary school in Aichi prefecture. She had a first-class elementary school teaching certificate. Since she became a classroom teacher in her first year of teaching experience at a Japanese public elementary school, she has interacted with immigrant parents from Brazil and the Philippines. She had never experienced teacher training focusing on parental involvement of immigrant parents, including PE. Several themes and subthemes emerged from the analysis of her transcribed interview data (Table 8). These themes were: (*Theme one*) children suffered from disadvantaged situations in PE due to lack of parents’ support, (*Theme two*) continued to teach immigrant parents about their responsibilities regarding PE, (*Theme three*) respecting cultural and religious backgrounds of immigrant parents, (*Theme four*) sought materials for explaining Japanese PE, (*Theme five*) sophistication of written communication, (*Theme six*) used transdisciplinary approach when teachers deal with problems with immigrant parents, and (*Theme seven*) motivation to learn backgrounds of immigrant parents to minimize own assumptions.

Table 8. List of Themes and Subthemes from Ms. Miyaichi's Case Study

Theoretical Category Examples	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Children suffered from disadvantaged situations in PE due to lack of parents' support</i>		
	Subtheme: (a) Immaturity for social justice	<ul style="list-style-type: none"> • Demanding job schedule • Low socio-economic status • Language barrier 	8 5 8
	(b) Discrepancy of cultural and social norms	<ul style="list-style-type: none"> • Lifestyle habits • Cultural and social norms 	4 7
Consolidated knowledge and skill	<i>Theme two: Continued to teach immigrant parents about their responsibilities regarding PE</i>	<ul style="list-style-type: none"> • Taught health risk prevention • Reminded parents about their responsibility 	4 5
	<i>Theme three: Respecting cultural and religious backgrounds of immigrant parents</i>	<ul style="list-style-type: none"> • Accepting cultural and religious practices 	4
Renewal idea	<i>Theme four: Sought materials for explaining Japanese PE</i>	<ul style="list-style-type: none"> • Needs of guidebook regarding PE 	4
Matured services	<i>Theme five: Sophistication of written communication</i>	<ul style="list-style-type: none"> • Translation • Visual aids • Simple Japanese phrases and Hiragana 	5 4 4
	<i>Theme six: Used transdisciplinary approach when teachers deal with problems with immigrant parents</i>	<ul style="list-style-type: none"> • School administrator, other teachers, and school nurse 	4
Training needs	<i>Theme seven: Motivation to learn backgrounds of immigrant parents to minimize own assumptions</i>	<ul style="list-style-type: none"> • Needs of PD training to learn differences with immigrant parents 	5
		<ul style="list-style-type: none"> • Minimized assumptions 	4

Survival Stage

Based on the teacher's characteristics at the survival stage of the theory of teacher development (Katz, 1972), theme one captures Ms. Miyaichi's survival challenges regarding parental involvement of immigrant parents in relation to PE

Theme one: Children suffered from disadvantage situation in PE due to lack of parents' support

This theme captures that Ms. Miyaichi had difficulty when her children suffered from disadvantaged situations in PE (e.g., not allowed to participate in PE, sudden injuries, or illness) due to a lack of support from immigrant parents. More specifically,

two subthemes emerged from the data analysis of his interview transcript, which are (a) immaturity for social justice and (b) discrepancy of cultural and social norms.

Subtheme: Immaturity for social justice

This subtheme revealed that Ms. Miyaichi recognized her immature experiences to address social justice regarding parental involvement of immigrant parents regarding PE in order to meet unique needs due to parents' backgrounds (e.g., demanding job schedule, language, and low socio-economic status). Three codes comprise this subtheme: "demanding job schedule," "low socio-economic status," and "language barrier." For example, Ms. Miyaichi believed that the demanding work schedule of immigrant parents became a significant problem when she needed urgent cooperation from them to deal with the life-threatening situations of their children (e.g., serious injuries or illness, the decision to go to the hospital) because they could not respond to her phone call. Moreover, she was frustrated when her children did not have enough PE supplies (e.g., PE clothes, red and white caps) due to immigrant parents' low socio-economic status. She felt it was inappropriate to force them to purchase those PE items.

Subtheme: Discrepancy of cultural and social norms

This subtheme describes that Ms. Miyaichi experienced discrepancies in cultural and social norms with immigrant parents. Two codes comprise this subtheme: "lifestyle habits" and "cultural and social norms." For example, she struggled to persuade immigrant parents to improve their lifestyle habits to help their children gain ample physical and mental health to participate in PE class. More specifically, she believed Brazilian children in her class often went to bed around 1 a.m., so some children sometimes got sick during PE class due to lack of sleep and recovery time. Therefore, she struggled to overcome challenges regarding the parental involvement of immigrant parents by minimizing the discrepancy due to cultural and social norms differences.

Consolidation Stage

Based on the teacher's characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), themes two and three explain Ms. Miyaichi's consolidated knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Theme two: Continued to teach immigrant parents about their responsibilities regarding PE

This theme captures Ms. Miyaichi's experiences in that she repeatedly taught immigrant parents about their responsibilities regarding PE until they understood them. Two codes comprise this theme: "taught health risk prevention" and "reminded parents about their responsibility." For example, she taught immigrant parents about the importance of health risk prevention (e.g., heat stroke) because it seemed that she found that they did not understand the necessity for their children to bring essential PE supplies (e.g., water bottles) as prevention items. She believed that teachers must continue to persuade immigrant parents to accomplish the responsibilities associated with their children's lives.

Theme three: Respecting cultural and religious backgrounds of immigrant parents

This theme explains that Ms. Miyaichi believed that she had to respect immigrant parents' cultural and religious backgrounds to modify her instructions in PE to meet their children's individual needs. One code comprises this theme: "accepting cultural and religious practices." She also mentioned that she had only one choice to accept immigrant parents' cultural and religious backgrounds as much as possible as a classroom teacher because she was unwilling to face ethical issues.

Renewal Stage

Based on the teacher's characteristics at the renewal stage of the theory of teacher development (Katz, 1972), theme four describes Ms. Miyaichi's idea to renew her approaches regarding parental involvement of immigrant parents in relation to PE.

Theme four: Sought materials for explaining Japanese PE

This theme captures that Ms. Miyaichi sought valuable materials to explain Japanese PE to immigrant parents. One code comprises this theme: "needs of guidebook regarding PE." For example, Ms. Miyaichi mentioned that she wanted to use a guidebook that includes illustrations and pictures to help immigrant parents understand PE-related information (e.g., PE supplies, events, and curriculum) to refine her communication skills. However, she had never found those guidebooks or any materials that support her communication with immigrant parents in relation to PE.

Maturity Stage

Based on the teacher's characteristics at the maturity stage of the theory of teacher development (Katz, 1972), themes five and six describe Ms. Miyachita's perceptions regarding mature level of experiences in order to solve problems with immigrant parents regarding PE.

Theme five: Sophistication of written communication

This theme captures Ms. Miyaichi's mature level of knowledge and skills to use various communication methods (e.g., translation, visual aids, simple Japanese phrases and Hiragana) to sophisticate her written communication with immigrant parents regarding PE. Three codes comprise this theme: "translation," "visual aids," and "simple Japanese phrase and Hiragana." Ms. Miyaichi mentioned that immigrant parents struggled to understand PE-related information, especially in written communication, because they had never experienced Japanese PE. Therefore, she

emphasized the importance of applying various communication methods to solve misinterpretations of immigrant parents.

Theme six: Used transdisciplinary approach when teachers deal with problems with immigrant parents

This theme describes that Ms. Miyaichi believed collaboration with school personnel (transdisciplinary approach) was essential for classroom teachers to solve their children's problems with immigrant parents. One code comprises this theme: "school administrator, other teachers, and school nurse." For example, she shared her experience of joint work with the school nurse (e.g., caring for the children in the school health room and explaining to immigrant parents their children's health status) to deal with her children's illness during PE class.

Training Needs

According to the theory of teacher development (Katz, 1972), theme seven explains training needs that Ms. Miyaichi sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme seven: Motivation to learn backgrounds of immigrant parents to minimize own assumptions

This theme explains that Ms. Miyaichi desired to participate in PD training in order to develop her knowledge base on the diverse backgrounds of immigrant parents regarding PE. Two codes comprise this theme: "needs of PD training to learn differences with immigrant parents" and "minimized assumptions." She believed that teachers must minimize assumptions against immigrant parents in order to avoid cultural and social conflict between teachers and parents. To do so, she wanted to participate in PD training to learn immigrant parents' different cultural and social norms and reflect on her own stereotypes. She added that she could minimize their negative

views (e.g., frustration) toward immigrant parents when she felt the parents became less cooperative regarding PE if they understood those differences.

Case V: Ms. Kaitani

Ms. Kaitani's Personal Demographic Information

Ms. Kaitani was a female fourth-year teacher at a public elementary school in Aichi prefecture. She had a first-class elementary school teaching certificate. Since she became a classroom teacher in her first year of teaching experience at a Japanese public elementary school, she communicated with immigrant parents from Brazil, Chinese, and UK. She had never experienced teacher training focusing on the parental involvement of immigrant parents, including PE. Several themes and subthemes emerged from the analysis of her transcribed interview data (Table 9). These themes were: (*Theme one*) lack of cooperation from immigrant parents, (*Theme two*) difficulty in dealing with unexpected parents' behaviors, (*Theme three*) importance to develop multicultural understanding to decide appropriate responses to cultural and religious backgrounds, (*Theme four*) collaborated with school personnel to develop translation skill, (*Theme five*) collaboration with teachers of international classroom to provide special guidance, and (*Theme six*) needs of PD training to learn cultural backgrounds of immigrant parents.

Table 9. List of Themes and Subthemes from Ms. Kaitani’s Case Study

Theoretical Category Examples	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Lack of cooperation from immigrant parents</i>		
	Subtheme:		
	(a) Different understanding regarding parental responsibility at home	• Duty to submit PE documents and prepare PE supplies	6
	(b) Immaturity for social justice	• Language barrier • Low-socioeconomic status	4 4
	<i>Theme two: Difficulty in dealing with unexpected parents’ behaviors</i>	• Unexpected parents’ behaviors	5
Consolidated knowledge and skill	<i>Theme three: Importance to develop multicultural understanding to decide appropriate responses to cultural and religious backgrounds</i>	• Importance to develop multicultural understanding	6
		• Knowledge to decide appropriate responses	5
Matured services	<i>Theme four: Collaborated with school personnel to develop translation skill</i>	• Collaboration with a school translator	6
		• Used digital translation tools	7
	<i>Theme five: Collaboration with teachers of international classroom to provide special guidance</i>	• Special guidance • Collaboration with teachers of international classroom	4 4
Training needs	<i>Theme six: Needs of PD training to learn cultural backgrounds of immigrant parents</i>	• Needs for PD training	4

Survival Stage

Based on the teacher’s characteristics at the survival stage of the theory of teacher development (Katz, 1972), themes one and two capture Ms. Kaitani’s survival challenges regarding parental involvement of immigrant parents in relation to PE.

Theme one: Lack of cooperation from immigrant parents

This theme captures Ms. Kaitani’s belief that a lack of cooperation from immigrant parents was challenging to secure an appropriate learning environment for their children in PE. More specifically, two subthemes emerged from the data analysis of his interview transcript, which are (a) different understanding regarding parental responsibility at home and (b) immaturity for social justice.

Subtheme: Different understanding regarding parental responsibility at home

This subtheme revealed that Ms. Kaitani recognized different understandings with immigrant parents regarding parental responsibility at home when she found that the parents often delayed submitting PE documents (e.g., agreement form to participate in specific physical activity) and ignored to support their children in preparing PE supplies (e.g., PE uniforms) at home. One code comprises this subtheme: “duty to submit PE documents and prepare PE supplies.” She expected immigrant parents to behave like Japanese parents to accomplish their responsibilities. Therefore, she struggled to find effective methods to minimize different understandings regarding parental responsibilities with immigrant parents in relation to PE.

Subtheme: Immaturity for social justice

This subtheme describes that Ms. Kaitani had difficulty addressing social justice regarding parental involvement of immigrant parents concerning PE. Two codes comprise this subtheme: “language barrier” and “low-socioeconomic status.” For example, she believed many immigrant parents in her school suffered from poverty because they received financial support from Japanese governance. She emphasized that immigrant parents must pay their children’s educational fees (e.g., school lunches, school trips) even if they hold low socioeconomic status. This may become a significant issue, and concerns that their children may be excluded from some learning activities or events at school. However, it seems that immigrant parents did not understand the potential issues and concerns for their children and often delayed paying those fees. Therefore, she struggled to gather necessary payments from immigrant parents.

Theme two: Felt difficulty to deal with unexpected parents’ behaviors

This theme captures Ms. Kaitani’s frustration that she had difficulty dealing with unexpected parents’ behaviors regarding PE. One code comprises this theme: “unexpected parents’ behavior.” During the interview, she shared her experience of

panicking during the sports festival because immigrant parents brought their children back to their homes without any explanation to her. During the sports festival, she suddenly realized she could not find the child in her class. When she finally contacted the immigrant parents by phone, they explained why they brought their child back home because of sickness during a sports festival. When she reflected on this experience during the interview, she expressed her frustration because she believed immigrant parents must inform a classroom teacher about their children's health status before they leave school.

Consolidation Stage

Based on the teacher's characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), theme three describes Ms. Kaitani's consolidated knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Theme three: Importance to develop multicultural understanding to decide appropriate responses to cultural and religious backgrounds

This theme demonstrates that Ms. Kaitani emphasized the importance of developing mutual understanding with immigrant parents to decide on appropriate responses to her children's cultural and religious backgrounds in PE class. Two codes comprise this theme: "importance of developing multicultural understanding" and "knowledge to decide appropriate responses." She believed that teachers must accept immigrant parents' cultural and religious backgrounds to avoid ethical problems concerning PE. However, she also believed immigrant parents should understand the Japanese PE system and school norms to help their children feel socially welcomed in PE class. Therefore, she emphasized she needed to decide on appropriate responses to cultural and religious backgrounds in PE with immigrant parents.

Maturity Stage

Based on the teacher's characteristics at the maturity stage of the theory of teacher development (Katz, 1972), themes four and five explain Ms. Kaitani's perceptions regarding mature level of teachers' knowledge and skills to of problem-solving techniques when she deal with immigrant parents regarding PE.

Theme four: Collaborated with school personnel to develop translation skill

This theme explains that Ms. Kaitani believed that teachers should gain translation skills to provide written communication in relation to PE to immigrant parents in their first language. Two codes comprise this theme: "collaboration with a school translator" and "used digital translation tools." More specifically, she mentioned that teachers must work with a school translator to prepare PE-related documents in immigrant parents' first language. Moreover, she insisted that teachers should develop skills to use digital translation tools to translate PE-related documents without school translators.

Theme five: Collaboration with teachers of international classroom to provide special guidance

This theme captures Ms. Kaitani's belief that teachers must collaborate with teachers in international classrooms to provide special guidance to immigrant parents in relation to PE. Two codes comprise this theme: "special guidance" and "collaboration with teachers of the international classroom." In her school, the teachers of international classrooms were responsible for organizing special guidance for immigrant parents who had less understanding of the Japanese educational system, including the PE system, to help them understand their responsibilities to support their children's learning as parents. Therefore, Ms. Kaitani believed that special guidance helped promote immigrant parents' involvement regarding PE in her class.

Training Needs

According to the theory of teacher development (Katz, 1972), theme six describes training needs that Ms. Kaitani sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme six: Needs of PD training to learn cultural backgrounds of immigrant parents

This theme describes that Ms. Kaitani sought PD opportunities to learn critical knowledge of the cultural backgrounds of immigrant parents in relation to PE. One code comprises this theme: “need for PD training.” She mentioned that she had never experienced PD regarding the parental involvement of immigrant parents. Therefore, she believed that PD opportunities should help her gain ideas and insights in order to improve her practices of parental involvement with immigrant parents.

Case VI: Ms. Imashita

Ms. Imashita’s Personal Demographic Information

Ms. Imashita was a female sixth-year teacher at a public elementary school in Aichi prefecture. She had a first-class elementary school teaching certificate. Since she became a classroom teacher in her first year of teaching experience at a Japanese public elementary school, she has interacted with immigrant parents from Brazil, Vietnam, and the Philippines. She had never experienced teacher training focusing on the parental involvement of immigrant parents, including PE. Several themes and subthemes emerged from the analysis of her transcribed interview data (Table 10). These themes were: (*Theme one*) lack of cooperation from immigrant parents, (*Theme two*) difficulty in teaching the concept of safety due to different values, (*Theme three*) modified communication styles based on immigrant parents’ understanding, (*Theme four*) accepted religious needs of immigrant parents, (*Theme five*) collaborated with a school

translator to provide immigrant parents with translation services, and (*Theme six*) exchanged parent's information with colleagues.

Table 10. List of Themes and Subthemes from Ms. Imashita's Case Study

Theoretical Category Examples	Individual Theme and Subtheme	Code Examples	Number of narrative phrases
Survival challenge	<i>Theme one: Lack of cooperation from immigrant parents</i>		
	Subtheme:		
	(a) Different habits with immigrant parents	• Different habits	5
	(b) Immaturity for social justice	• Language barrier • Low-socioeconomic status	4 5
	<i>Theme two: Difficulty in teaching the concept of safety due to different values</i>	• Different values regarding safety	4
Consolidated knowledge and skill	<i>Theme three: Modified communication styles based on immigrant parents' understanding</i>	• Simple Japanese • Translation • Extra communication	4 4 5
	<i>Theme four: Accepted religious needs of immigrant parents</i>	• Religious needs • Advice from school principal	7 4
Matured services	<i>Theme five: Collaborated with a school translator to provide immigrant parents with translation services</i>	• Collaboration with a school translator	4
Training needs	<i>Theme six: Exchanged parent's information with colleagues</i>	• Exchanged parents' information	4

Survival Stage

Based on the teacher's characteristics at the survival stage of the theory of teacher development (Katz, 1972), themes one and two capture Ms. Imashita's survival challenges regarding parental involvement of immigrant parents in relation to PE.

Theme one: Lack of cooperation from immigrant parents

This theme captures Ms. Imashita's experiences that she had difficulties overcoming challenges due to a lack of cooperation from immigrant parents in relation to PE. More specifically, two subthemes emerged from the data analysis of his interview transcript, which are (a) different habits with immigrant parents and (b) immaturity for social justice.

Subtheme: Different habits with immigrant parents

This subtheme revealed that Ms. Imashita struggled to minimize the gap due to different habits with immigrant parents when she requested parental support in relation to PE. Two codes comprise this subtheme: “PE rules” and “different habits.” She believed immigrant parents in her class had different customs to support their children’s physical activities. Because of this, she was frustrated when immigrant parents behaved in inappropriate support for their children regarding PE (e.g., teaching children to wear PE uniforms inappropriately). Therefore, she struggled to find a practical approach to minimize gaps with immigrant parents in relation to PE.

Subtheme: Immaturity for social justice

This subtheme describes that Ms. Imashita experienced difficulty addressing social justice regarding parental involvement of immigrant parents concerning PE. Two codes comprise this subtheme: “language barrier” and “low-socioeconomic status.” For example, she explained that most immigrant parents in her school suffered from poverty because they often did not pay educational fees (e.g., school lunches). Although she encouraged immigrant parents to apply for financial support from Japanese governance to support their children’s education, some parents denied her requests. Therefore, she lacked the knowledge and skills to persuade immigrant parents to follow her requests in order to support their children's learning in PE.

Theme 2: Difficulty in teaching the concept of safety due to different values

This theme explains that Ms. Imashita felt difficulty teaching the concept of safety to immigrant parents due to the different values between teachers and parents. One code comprises this theme: “different values regarding safety.” For example, she requested an immigrant parent to bring their child to the hospital and find a doctor when the child was injured at school. At that time, she was frustrated that there was a

miscommunication with the immigrant parents regarding their child's injury. It seemed that their parents least cared about the injury. Then, she suggested that the immigrant parent take their children to the hospital. Then, she felt immigrant parents had different values regarding safety. Therefore, she emphasized that teachers need to be able to persuade immigrant parents to follow the requests from the school when their children face life-threatening situations.

Consolidation Stage

Based on the teacher's characteristics at the consolidation stage of the theory of teacher development (Katz, 1972), theme three and four describe Ms. Imashita's consolidated knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Theme three: Modified communication styles based on immigrant parents' understanding

This theme demonstrates that Ms. Kaitani attempted to modify her communication styles based on immigrant parents' understanding in relation to PE. Three codes comprise this theme: "simple Japanese", "translation", and "extra communication." For example, she explained that teachers must provide immigrant parents with important information (e.g., the cancelation of sports festivals) to avoid miscommunication. She believed that immigrant parents struggled to overcome language barriers when receiving school PE-related information. Therefore, she emphasized that teachers should identify immigrant parents' individual communication needs to modify their communication styles.

Theme four: Accepted religious needs of immigrant parents

This theme explains that Ms. Imashita believed teachers must accept the religious needs of immigrant parents in relation to PE. Two codes comprise this theme: "religious

needs” and “advice from the school principal.” She explained that she hesitated to reject the requests from immigrant parents in relation to PE. To accept religious needs and adapt her teaching in PE, she frequently discussed with the school principal for decision-making. She emphasized that although teachers need to accept the religious needs of immigrant parents in PE, they also need to consider safety evaluation (e.g., observing children’s health status during PE class) in order to protect their children suffering from unexpected incidents (e.g., injury or illness).

Maturity Stage

Based on the teacher’s characteristics at the maturity stage of the theory of teacher development (Katz, 1972), themes five and six describe Ms. Imashita’s perceptions regarding maturity teachers who have knowledge and skills to solve problems with immigrant parents regarding PE.

Theme five: Collaborated with a school translator to provide immigrant parents with translation services

This theme explains that Ms. Imashita believed teachers must collaborate with a school translator to provide immigrant parents with translated school letters in their first language. One code comprises this theme: “collaboration with a school translator.” She believed a school translator played a significant role in facilitating communication with immigrant parents concerning PE. However, she said it was a challenge to use the school translator because she hesitated to request them to translate all school letters.

Training Needs

According to the theory of teacher development (Katz, 1972), theme 7 describes training needs that Ms. Imashita sought to improve her professionalism regarding parental involvement of immigrant parents in relation to PE.

Theme seven: Exchanged parent's information with colleagues

This theme describes that Ms. Imashita believed exchanging immigrant parents' information with her colleagues was an important chance for her to develop an appropriate understanding of immigrant parents' diverse backgrounds. One code comprises this theme: "exchanged parents' information." For example, she mentioned that the teacher's record, including immigrant parents' Japanese proficiency, was useful in identifying their linguistic needs and preparing for communication with them concerning PE (e.g., requesting immigrant parents to bring their friends who can speak both languages).

Multiple Case Findings Based on Cross Case Analysis of All Six Japanese Elementary School Teachers

This section addresses the overall description of all six Japanese elementary school teachers. Descriptive data in this study composed of online semi-structured interviews and follow-up email communication for each participant were constantly compared (categorized and recategorized, labelled, and relabelled) to recurring themes that emerged from across cases associated with the research questions. The researcher analyzed three main themes with seven subthemes that are indicated in Table 11. These themes were (a) lack of collaboration with the parents in relation to PE, (b) minimizing the assumptions toward immigrant parents, and (c) transdisciplinary collaboration among the school personnel.

Table 11. Themes and Subthemes from Cross Case Analysis

Theme	Subthemes	Number of participants:
1 Lack of collaboration with the parents in relation to PE	Assumed that immigrant parents suffer from low socioeconomic status	5
	Felt immature collaboration with immigrant parents who had a demanding job schedule	5
	Perceived inadequacy to deal with cultural conflict with immigrant parents	6
2 Minimizing the assumptions toward immigrant parents	Understood the individual needs of immigrant parents	6
	Assisted immigrant parents in understanding the concept of safety or health	6
3 Transdisciplinary collaboration among the school personnel	Promoted collaboration among school personnel to deal with an emergency	6
	Enhanced translation services for immigrant parents by collaborating with a school translator or Japanese language teacher	5

Theme One: Lack of Collaboration with the Parents in relation to PE

This theme captures Japanese elementary teachers' belief that immigrant parents may not understand the concept of collaboration between parent and teacher in the same way that the teachers did. Parents want their child to not be left behind or feel embarrassed by other (Japanese) children in PE; however, the participants shared that they had concerns that Japanese children viewed immigrant children differently (e.g., as marginalised children). This could be seen as a type of survival experience in Katz's (1972) framework because the teachers struggled to complete their daily responsibility of working with immigrant parents.

Subtheme: Assumed that immigrant parents suffered from low socioeconomic status

This subtheme explains that five participants had assumptions that immigrant parents suffered from low socioeconomic status. For example, the teachers told parents repeatedly that parents are required to purchase school supplies (e.g., PE uniforms, a

red-and-white cap, PE shoes, swimming wear, and skipping rope) for their child's PE class, but many immigrant parents declined the requests. Although immigrant parents behave appropriately based on their cultural norms and values, a teacher with a different culture and ethnic background might interpret and respond to the parent's behavior as inappropriate (Sato & Hodge, 2017). In the study, the teachers did not ask the parents the reason for this, but the teachers explained their assumptions that the immigrant parents may face financial challenges related to their lower socioeconomic status. These teachers rarely considered socioeconomic issues and concerns of other (i.e., Japanese) children (even though some of them may also be at a similarly low socioeconomic status), because they felt that collaboration between teachers and parents is an important value of what is known as *wa*, or harmony, for children's academic success in PE classes in Japan. For example, Mr. Kitami explained:

One Brazilian child was transferred and began to attend my class last semester, but he didn't have any school supplies, such as Japanese calligraphy items, pencils and pens, or PE clothes [e.g., T-shirts, indoor shoes]. I was afraid that the child was marginalized by Japanese children in PE class due to not wearing PE clothes. So, I continued to request his parents to purchase those items, but they denied my request. Then, I felt that they suffer from poverty. [...] I believe that immigrant parents should purchase necessary items in PE even if they are suffering from poverty. However, I need to say that the teachers should accept the socioeconomic background of immigrant parents. (Mr. Kitami, Interview).

Mr. Kitami emphasized that the teachers need to understand and accept socioeconomic challenges that immigrant parents may have; however, his true feeling was that immigrant parents should cooperate with teachers' requests even though they may experience poverty. He did not express his true feelings to the immigrant parents in order to maintain harmonious collaboration, which was influenced by the Japanese concepts of *honne* (true feeling) and *tatemae* (opinions shown in public), a unique part of Japanese interactional culture (Ishii et al., 2011). Although differences in expectations between teachers and parents could be reconciled by teachers or schools adapting rather than parents, teachers in Japanese schools often have little leeway in

negotiating parental expectations due to rigid cultural and social norms (Lassila et al., 2021).

Subtheme: Felt immature collaboration with immigrant parents who had a demanding job schedule

This subtheme explains that five participants struggled to deal with immature collaboration with immigrant parents who had a demanding job schedule. For example, Ms. Miyaichi assumed that immigrant parents who have a demanding job schedule might struggle to secure time to help their child, develop morning routines (e.g., putting PE supplies in the school bag), or visit school events related to PE (e.g., sports festival).

She said:

I assumed that immigrant parents prioritized their work more than supporting the learning of their children in PE at home and school. For example, they didn't teach their children to develop morning routines [e.g., putting PE supplies in the school bag] since they had to leave home earlier than the children. [...] Plus, some immigrant parents disregarded visiting school events such as *Undokai* [sports festival]. I was concerned that the immigrant child felt isolated due to less support from their parents. [...] I know that immigrant parents have a demanding job schedule. But I believe that immigrant parents should focus on supporting the learning of their children more than their work, because Japanese parents are cooperative even if they suffer from heavy work. (Ms. Miyaichi, Interview)

Ms. Miyaichi expected that immigrant parents should cooperate similarly to Japanese parents because she valued the collectivist culture in Japan (e.g., group harmony) (Davies & Ikeno, 2002). The participants in this study had the survival-stage challenge of accepting cultural and communication differences with immigrant parents, because of the lack of collaboration.

Subtheme: Perceived inadequacy to deal with cultural conflict with immigrant parents

All participants struggled to solve cultural conflicts with immigrant parents because they were unprepared to deal with unexpected immigrant parents' behaviors based on their cultural backgrounds (e.g., norms). For example, Ms. Imashita believed that she lacked some knowledge of the ethnicity and culture of the immigrant parents in order to modify the communication methods appropriately. She said:

I believe that the cultural and ethnic backgrounds of immigrant parents are related to their cooperation level. For example, I felt that the parents from Brazil and the Philippines had lower academic expectations for their child than the parents from Vietnam and Japan. I say this because they didn't read my written messages and memos through the weekly school hand-outs or parent-teacher notebooks, and forgot to prepare their PE equipment, such as a skipping rope. Then, I realized that common communication methods toward Japanese parents might not be suitable for those parents. [...] I believe that the teachers need to find appropriate interaction strategies based on the backgrounds of immigrant parents in order to promote their cooperation. However, in reality, few teachers have professional knowledge and skills to deal with uncooperative immigrant parents. (Ms. Imashita, Interview)

Ms. Imashita expected the immigrant parents to follow Japanese cultural, social, and parental norms and responsibilities at Japanese elementary schools. For example, there are many dedicated parents in Japan who provide faithful service for their children to assist help them engage in academic learning (e.g., word of encouragement), including PE (Holloway et al., 2010). Therefore, she hoped to see Japanese teachers develop their professional knowledge and skills to find solutions to overcome the lack of teamwork with immigrant parents.

Theme Two: Minimizing the Assumptions toward Immigrant Parents

This theme captured the participants' belief that they should minimize their assumptions toward immigrant parents when they encountered uncommon parental behavior compared to Japanese parents in relation to PE (e.g., lack of support for children's homework). They were also afraid of having communication barriers with immigrant parents if their children were to have life-threatening incidents in PE class (e.g., suffering from heatstroke).

In Japan, teachers highly value children's sense of belonging because of the collectivist culture, and they value physical and psychological security and safety inside of their classes. There is a cultural norm of *uchi* (inside of the group) relationship in Japanese classrooms (Davies & Ikeno 2002). Due to this collectivist culture, Japanese teachers may easily face cultural conflict and treat immigrant parents as outsiders (*soto* or *yosomono*) (Davies & Ikeno 2002).

Subtheme: Understood the individual needs of immigrant parents

This subtheme explains that all participants noted differences in interaction and communication styles between Japanese parents and immigrant parents. Therefore, they decided to work to meet parents' individual needs influenced by their culture, habits, customs, and educational expectations. This could be seen as a type of consolidation stage because the participants began to focus on the specific needs of immigrant parents. For example, Ms. Chihira found a gap between her assumptions (e.g., implicit bias against immigrant parents) and the actual supportive actions of immigrant parents in relation to PE. She said that:

It seems that I have my own assumption that immigrant parents should follow what the teachers say, because I believe that immigrant parents should accept and follow cultural norms in Japanese schools. For example, the school requested that all parents submit documents [e.g., daily health checkup, medical history] before the due dates, but actually many parents did not. I also found that their children did not complete their PE homework at home [e.g., rope jump drill]. [...] I think many teachers have stereotypes against immigrant parents and view them as different from Japanese parents. But I believe that the teachers should focus on identifying the individual needs of immigrant parents in the daily communication and distinguishing the interaction styles between Japanese parents and immigrant parents. (Ms. Chihira, follow-up e-mail)

Ms. Chihira had consolidation-stage through minimizing her assumptions against immigrant parents in order to identify their individual needs. To do so, she also implemented “face-to-face interactions for immigrant parents” to promote mutual understanding with parents in order to offer effective learning experiences and maintain a safe learning environment for their child in PE class.

Subtheme: Assisted immigrant parents in understanding the concept of safety or health

This subtheme explains that all participants believed that teachers need to assist immigrant parents in understanding the concept of safety or health in relation to PE. For example, Ms. Miyaichi, found differences in understanding of the concept of physical and psychological safety between her ideas and those of immigrant parents. She said that:

It seems that I assume that all parents must understand about the risk of injury or illness during PE class, such as heatstroke. I felt that all immigrant parents must care and allow their child to bring a red-and-white cap and water bottle for heatstroke prevention. It was unfortunate that their children didn't bring them. Also, immigrant parents are required to read the school letters [e.g., event invitation] carefully, but they didn't check them. [...] From such experiences, I realized that I should minimize my own assumptions and pay attention to identify what immigrant parents understand or not. To do so, sharing information with my colleagues is helpful to reinforce my learning about what is common and uncommon for immigrant parents. (Ms. Miyaichi, follow-up e-mail)

Ms. Miyaichi found that her assumptions distracted her from looking into immigrant parents' actual sense of safety in relation to PE. Therefore, she emphasized the importance of collaboration with other classroom teachers (one of the teacher development resources in the consolidation stage) to reflect their assumptions. She added, "I believe that the teachers should learn how to minimize their assumption by finding the differences between Japanese and immigrant parents."

Theme Three: Transdisciplinary Collaboration among the School Personnel

This theme captured the participants' belief that school personnel, including the classroom teachers, school principals, school nurses, and school interpreters, should collaborate beyond their disciplines to improve communication with immigrant parents in relation to PE.

Subtheme: Promoted collaboration among school personnel to deal with an emergency

This subtheme explains that the participants were anxious about communicating with immigrant parents when dealing with unexpected accidents and incidents during PE classes (e.g., sudden injury or illness). Therefore, they decided to use a transdisciplinary collaboration approach with their school personnel (e.g., school nurses and principals), involving different academic disciplines working together to solve real problems in a school setting (Gillis et al., 2017). In Japan, collective decision-making is valued by teachers because they are motivated to maintain group harmony, group solidarity, and unanimity in order to overcome challenges collaboratively (Marshall, 1984). Ms. Shiraishi believed that she should collaborate with the school nurse and

school administrators in order to find solutions for the problems (e.g., sudden injury) in PE with immigrant parents. She said:

I believe that providing collaborative services is vital to promote mutual understanding among school personnel to communicate with immigrant parents. One day, a boy in my class from the Philippines had an injury (broke his elbow) during recess when he fell off from the horizontal gymnastic bar. Then I was in a panic because I did not have much professional experience dealing with such a situation. However, the school nurse, senior teachers, and school administrators collaboratively guided and helped me to bring the child to the hospital and explain the surgery to the parent. I felt comfortable and learned how to communicate with immigrant parents in an emergency [...] Later, the parent of the child from the Philippines reported to me that she was satisfied with the support for her child from the school. Then, I felt that there was a trust relationship between the parent and the school. Therefore, I believe that solidarity among school personnel is essential. (Ms. Shiraishi, e-mail follow-up correspondence)

Ms. Shiraishi was anxious to make appropriate decisions independently because of potential miscommunication with immigrant parents. Therefore, through informal discussions (e.g., brief meetings and information exchange), she realized the transdisciplinary approach allowed her to gain meaningful knowledge from the other experts, including the principal and senior teachers. This type of experience can be seen in the mature-stage of teacher development because the teacher was ready to apply her knowledge and skills to solve the problems collaboratively with her school personnel.

Subtheme: Enhanced translation services for immigrant parents by collaborating with a school translator or Japanese language teacher

This subtheme describes that the participants believed collaboration with a school translator or Japanese language teacher is important to enhance translation services for immigrant parents. For example, Ms. Kaitani believed that collaborative professional services with the school interpreter and Japanese language teacher (JLT) are essential to improve communication quality with immigrant parents in relation to PE and overcome language barriers. She said:

I believe that collaboration with a school interpreter and Japanese language teacher (JLT) is essential to overcome the language barriers in communicating with immigrant parents concerning PE. When I taught the 1st-grade PE class, the immigrant parents were unfamiliar with the PE system in Japan such as purchasing PE clothes. So, the school interpreter, JLT, and I collaboratively provided special guidance for immigrant parents to

explain about the Japanese PE system. [...] Also, I could develop my knowledge and skills to translate the written letters [e.g., classroom news] because the JLT taught me about subject terms in parents' native language [e.g., Portuguese]. I believe that the immigrant parents feel a welcoming atmosphere when we provide translated oral and written information about PE. (Ms. Kaitani, interview)

Ms. Kaitani believed that there were communication barriers (e.g., language and cultural differences) with immigrant parents. For example, oral and written communication with immigrant parents in Japanese can be challenging because the parents should be capable of using a large amount of vocabulary (e.g., words with Japanese origin, Sino-Japanese words, loanwords) and multiple scripts (e.g., Hiragana, Katakana, Kanji, Roman alphabet) (Hatta et al., 1998). Therefore, she decided to use collaborative professional services with her colleagues in order to develop her professional knowledge and skills (e.g., translation). It was important for her to engage in a collaborative learning community to learn cross-cultural communication to promote cooperation from immigrant parents.

Discussion

The purpose of this study was to describe and explain how in-service Japanese elementary classroom teachers have experienced parental involvement of immigrant parents in relation to PE. Applying Katz's (1972) theory of teacher development, Japanese teachers are expected to develop their professionalism regarding parental involvement toward immigrant parents from survival to mature level through acquiring different perspectives, experiences, and ideas in their real-life work. More specifically, teachers with less experience are more likely to struggle with multiple challenges (e.g., language barriers, unexpected parental behaviour) than those with more experience in order to offer an effective and safe learning environment in PE for their children through promoting parental involvement of immigrant parents.

Lack of Collaboration with the Parents in relation to PE

The elementary teachers believed that it was important that both teachers and parents develop collaboration strategies in order to prevent their children from encountering situations where they are left behind and/or marginalized. Takeuchi et al. (2019) emphasized the significance of collaboration between teachers and parents in order to promote planning and implementing educational services to meet children's diverse needs because of culture, language, race, religion, gender, socioeconomic status, gifts and talents, and disabilities.

Conger et al. (2010) explain that teachers struggle to develop high quality social relationships with parents when the parents face material hardship and have associated stressors and challenges that come with family poverty. Teachers in the survival stage feel a sense of inadequacy or unpreparedness when they face the gap between anticipated success and real cooperation from the immigrant parents (Katz, 1972). More specifically, the teachers in this study had feelings of *honne* and *tatemae* when they communicated with the parents of immigrants. In Japanese, the term *honne* means the true feeling of a person and is interpreted as the utterance that the teacher wants to convey (Ishii et al., 2011). The term *tatemae* is when the conversation or communication has been adjusted so that the actual conversation is different from what the teacher wants to convey (Melansyah & Haristiani, 2020). For example, the teachers believed that they should modify the rules of bringing PE clothes or preparing documents, but they had peer or institutional pressures that made them feel they needed to hide their true feeling (*honne*) when they communicated with the parents regarding the policies regarding PE class.

During the survival stage in Katz's (1972) theory of teacher development, teachers are likely to need support, understanding, encouragement, reassurance, comfort, and

guidance. Therefore, in order to enhance the quality of collaboration between teachers and parents, principals and senior staff members must invite local parenting counsellor(s) (who are experts on poverty and immigrants) and run on-site training on how to develop positive relationships with parents from diverse backgrounds (Willemse et al., 2018). Exchanging information and ideas with counsellors, principals, and senior staff may help teachers to master the developmental tasks in collaboration with parents from diverse backgrounds and reduce their sense of personal inadequacy and frustration (Knight-McKenna et al., 2017).

Minimizing the Assumptions toward Immigrant Parents

The teachers in the study believed that teachers should minimize their assumptions toward the immigrant parents in order to develop mutual understanding with the parents about the concepts of safety and security in Japanese PE class. According to Chafota (2020), assumptions are pervasive among teachers and not restricted to cultural stereotypes, socioeconomic status, or any other background of immigrant parents. Moreover, teachers' assumptions impact their decision-making, affecting the communication and cooperative behaviour toward the immigrant parents (Howell 2018). More specifically, in Japan, the teachers unconsciously and psychologically distinguish Japanese parents and immigrant parents as *uchi* (in-group) and *soto/yosomono* (out-group), which potentially leads to exclusion, segregation, and cultural conflict with immigrant parents (Davies & Ikeno, 2002). The term *soto/yosomono* is defined as the distance of relationships between teachers and immigrant parents due to the differences of language, cultural norms, customs, habits, and educational expectations in relation to PE (Tsunematsu, 2016). For example, the teachers were concerned that immigrant parents often had a lack of knowledge about concepts of safety in PE (e.g., risk of heatstroke in Japan). In this study, the teachers

recognized that they had assumptions toward immigrant parents (e.g., they expected immigrant parents act like Japanese parents) and realized that they should focus on identifying parents' individual needs by minimizing their assumptions. The teachers experienced three types of professional learning as 1) stereotype replacement, 2) individuation, 3) perspective-taking, when they increased opportunities for contact through daily communication (Devine et al., 2012), and sharing and exchanging ideas and feedback with their colleagues (Knight-McKenna et al., 2017).

During the consolidation stage in the theory of teacher development, the teachers begin to focus on individual immigrant parents and problem situations (Katz, 1972). In this stage, teachers make procedural and productive changes based on immigrant parents' unexpected and unpredicted actions and behaviours. Therefore, they need to minimize their assumptions. It is better that the teachers share feelings, resources, and demographic and background information of immigrant parents with other teachers in the same developmental stage, which may help them reflect on their assumptions and master the critical lens to look into the individual needs of immigrant parents (Stroot et al., 1998).

Transdisciplinary Collaboration among the School Personnel

The elementary teachers believed that transdisciplinary collaboration among the school personnel effectively enhances the quality of communication with immigrant parents because they were afraid that they might miscommunicate with immigrant parents about the child's physical, psychological, or physiological information in relation to PE due to the language barrier. According to McGregor (2017), the transdisciplinary approach is defined as the cooperation and collaboration of diverse school personnel beyond their disciplines for problem-solving in their school settings. In this study, the teachers felt that transdisciplinary collaboration allowed the school personnel to contribute their own

knowledge and expertise in order to determine the best ideas or approaches for improving communications with immigrant parents (Kokemuller, 2021). More specifically, according to Jong et al. (2019), the process of transdisciplinary collaboration among the school personnel can be achieved through 1) storytelling and scanning for ideas, 2) aid and assistance, 3) sharing methods and materials, and 4) joint work. For example, the classroom teachers, other teachers, principals, and school nurses engaged in joint work to deal with the medical emergency of an immigrant child in PE class (e.g., bringing a child to the hospital and counseling immigrant parents). Therefore, the teachers believed that transdisciplinary collaboration among the school personnel is vital to solving the children's health issues, such as injury and illness caused in PE classes.

In relation to the theory of teacher development, the teachers in the maturity stage find it rewarding to work collaboratively with school personnel on both formal and informal occasions in order to relearn skills, techniques, and methods for facilitating communication with immigrant parents (Katz, 1972). Therefore, in order for the teachers to develop into the maturity stage, they need to accept leadership positions (e.g., new teacher mentor, health director, research headteacher) in their school to mentor novice teachers to help them move through the developmental stages (Stroot et al., 1998).

Answers to Research Questions

Research Question I. What were Japanese elementary classroom teachers' experiences in parental involvement of immigrant parents in relation to PE?

This study found that Japanese elementary teachers had various experiences of interaction, communication, or collaboration with immigrant parents in relation to PE. More specifically, they struggled to overcome multiple complex problems or challenges

of immigrant parental involvement regarding PE caused by language barriers, cultural conflicts, parents' low socioeconomic status, and demanding work schedules. Because of these backgrounds of immigrant parents, the teachers were afraid of making their children excluded from PE class (e.g., not allowed to participate in some physical activities). Especially, they had the anxiety of dealing with life-threatening situations of their children with immigrant parents in order to ensure a safer learning environment in PE. They recognized they lacked the knowledge and skills to solve those problems because they never or rarely gained PD experiences in their school or district. Thus, they had to find ideas, strategies, or methods to solve multiple problems with immigrant parents by themselves, even if the problem-solving process took a large of time. Therefore, the researcher suggests that it is essential to construct and provide PD opportunities for Japanese elementary teachers to allow them to gain problem-solving knowledge and skills to promote collaboration with immigrant parents. To do so, the PD program must be designed to help teachers understand culturally and socially responsive practices to facilitate parental involvement of immigrant parents to address diversity, social justice, and sociocultural issues in relation to PE.

Research Question II. How did the experiences of parental involvement of immigrant parents influence Japanese elementary teachers' perceptions of engaging with immigrant parents in relation to PE?

This study found that Japanese elementary teachers believed that their experiences of parental involvement of immigrant parents helped them realize the importance of understanding the parents' individual needs. According to the theory of teacher development (Katz, 1972), the developmental stages of teachers are influenced by various factors (e.g., interaction with immigrant parents). Initially, Japanese teachers consciously or unconsciously expected immigrant parents to behave like other parents

(e.g., Japanese parents) to support their children's learning in PE. For example, they assumed all parents understand the concept of safety in PE and support their children to receive necessary health risk prevention (e.g., preparing appropriate PE supplies). However, they realized immigrant parents might lack knowledge about their responsibilities as a parent when they found parents' uncommon behaviors or lack of cooperation. Thus, they believed teachers must understand what immigrant parents understand and do not understand to adjust or modify their interactional practices and methods. To do so, teachers must minimize their assumptions, stereotypes, or prejudice against immigrant parents to predict their cultural and social behaviors and beliefs in relation to PE. To help teachers reflect on their assumptions, the PD program should include learning materials or contents that stimulate their critical thinking skills to help them question their perceptions or perspectives regarding parental involvement of immigrant parents in relation to PE.

In addition, Japanese teachers began to believe that transdisciplinary collaboration with their school personnel (e.g., colleagues, school nurses, and school translators) is essential to address their problems and challenges with immigrant parents. More specifically, they believed they needed to exchange practical ideas, strategies, or approaches with other teachers to gain problem-solving knowledge and skills to deal with various issues with immigrant parents. Therefore, the researcher suggests that there is necessity to construct a PD program that allow teachers to develop a social network with other teachers to establish a collaborative learning community to enhance their PD outcomes regarding parental involvement of immigrant parents.

Summary of the Chapter

The purpose of this study was to describe and explain in-service Japanese elementary classroom teachers' experiences with parental involvement of immigrant

parents as it pertains to PE. The study was framed using the theory of teacher development. This study used a descriptive-qualitative methodology and an explanatory case study design. The participants were six elementary classroom teachers at urban schools in Japan. Data sources were a demographic questionnaire, semi-structured online interviews, and follow-up e-mail communication. Three themes emerged from the data: (a) *Lack of teamwork with the parents in relation to PE*, (b) *Minimizing assumptions toward immigrant parents*, and (c) *Transdisciplinary collaboration among the school personnel*. In order to accelerate the professional growth of teachers, it is necessary to enrich the PD resources for meeting teachers' individual needs in the field and promote school solidarity to develop a harmonious relationship with immigrant parents. Due to the lack of research in this area, the researcher must construct a PD program based on the results of problem identification in this study.

CHAPTER 4: STUDY TWO

Japanese elementary teachers' experiences during online professional development regarding involvement of immigrant parents in physical education

This chapter focuses on Japanese elementary teachers' experiences during online PD regarding involvement of immigrant parents in relation to PE, which the researcher originally designed based on the findings from Study one. This chapter consists of five sections: (a) theoretical framework, (b) rationale for designing the PD program, (c) methods, (d) results, and (e) discussion.

Theoretical Framework and Purpose

Andragogy Theory

This study used andragogy theory (Knowles et al., 2020), which has been used in some previous studies investigating elementary teachers' PD experiences including lesson studies in PE (Sato et al., 2020a), context specific PE in depopulated school districts (Tsuda et al., 2019), reflective learning through PE portfolios (Sato et al., 2020c), and traditional Japanese dance in secondary schools (Sato et al., 2021) in Japan. From these studies, establishing PD communities is a key factor that facilitates Japanese teachers' self-directed learning in various professional environments. The originality of this study was to use andragogy theory as a framework to explore teachers' authentic learning experiences through the online PD program regarding parental involvement of immigrant parents in relation to PE.

The instructors (e.g., teachers, professors, and PD providers) who design the PD contents (e.g., learning contents, teaching methods, materials, assignments, assessments) must understand the characteristics of their learners (e.g., students, adults, or professionals) to allow them to receive appropriate educational opportunities (Sato et

al., 2017). For example, when teachers are responsible for educating pupils, adolescents, or college-aged learners, they should understand and apply the concept of pedagogy in order to design lesson plans. More specifically, the teachers who focus on pedagogical concepts to organize their class use a teacher-centered model in order to obtain the authority to determine “what will be learned,” “how it will be learned,” and “when it will be learned” (Ozuah, 2005, p. 83). Therefore, the teachers in pedagogy-based classroom expects their children value learning as an instructor-designed and instructor-led endeavour, and behave as same as other children (e.g., sit and learn through interacting with the lesson content) (Tweedell, 2000).

On the other hand, the instructors (e.g., professors or PD providers) who are responsible for organizing a PD program targeting adult learners (e.g., in-service teachers) must understand that the pedagogical approach is inappropriate (Davenport & Davenport, 1985). Rather they need to utilize the concept of andragogy to design an effective lesson plan meeting the specific learning needs of adult learners (Knowles et al., 2020). Knowles et al. (2020) explained as:

We see the strength of andragogy as a set of core adult learning principles that apply to all adult learning situations. The goals and purposes for which the learning is offered are a separate issue. Adult education professionals should develop and debate models of adult learning separately from models of the goals and purposes of their respective fields that foster adult learning. (Knowles et al., 2020, p. 4)

Andragogy focuses on addressing the needs of adult learners and is theoretically different from children’s learning (i.e., pedagogy) (Knowles et al., 2020). The term andragogy is derived from two terms: *andro*, meaning “man”, and *agourgos*, meaning “to lead”. Based on andragogy theory, teachers need to understand how to become independent, self-directed learners who are responsible for their own personal growth in order to solve real-world professional problems (Knowles et al., 2020). Thus, the PD

should focus on problem-centred learning that meets teachers' individual professional needs, abilities, and experiences. Therefore, using andragogy theory, the online PD in this study included information about problem-solving regarding cultural differences and misconceptions.

Cochran and Brown (2016) suggest that researchers need to understand and apply principles of andragogy theory in order to provide an appropriate learning environment, particularly in an online format. First, the learners need to know why they need to learn something; that is, the teachers must understand the purpose of new learning before they undertake it (Cochran & Brown, 2016). Second, the learners have a self-concept of being responsible, which means that the teachers take responsibility for their decisions in their learning. Teachers must be self-directed learners in order to take control of the methods and goals of learning (Knowles et al., 2020). Third, the learners have valuable prior experiences, which influence their professional learning when they connect their learning to prior experiences to develop a better understanding of the learning materials (Cochran & Brown, 2016). Fourth, the learners are ready to learn, which means that teachers perceive the relevance of the knowledge. They want to know how learning helps them better their professional lives, and they learn best when they know that the knowledge has immediate value for them (Taylor & Hamdy, 2013). Fifth, the learners are motivated to learn when they are given authentic learning activities, which means that teachers prefer to learn for real-life problem-solving purposes. For example, case studies assist teachers in gaining a sense of how to apply ideas, practices, and strategies to their work. Finally, the learners are intrinsically motivated, which means that the teachers have a strong desire to learn so that they can solve important problems in their life.

Additionally, during PD, teachers can experience transformative learning (one of the critical components of andragogy) involving critical self-reflection to describe their assumptions, beliefs, and expectations about professionalism in PD (Ellison & Sato, 2023). According to Briese et al. (2020), PD can produce a significant impact or paradigm shift which affects teachers' subsequent experiences. More specifically, Rachal (2002) explained "the learner is perceived to be a mature, motivated, volunteer, and an equal participant in a learning relationship with a facilitator whose role is to aid the learner in the achievement of his or her self-determined learning objectives" (p. 219). Therefore, transformative learning is occurred when teachers understand the role of self-direction and self-determination in the learning process (Ellison & Sato, 2023). In the present study, transformative learning experiences during PD may change teachers' fundamental practices and perceptions regarding parental involvement of immigrant parents in relation to PE.

Purpose

The purpose of this study was to analyse Japanese elementary school teachers' learning experiences during PD regarding immigrant parental involvement in PE at public schools in Japan.

Research Questions

The following two research questions guided this study:

1. What were Japanese elementary school teachers' experiences of online PD in relation to interacting with immigrant parents regarding PE?
2. How did online PD learning experiences mediate Japanese elementary school teachers' perspectives of communicating, collaborating, and working with immigrant parents in relation to PE?

Rationale for Designing the PD Program

Based on the andragogy theory, the researcher designed the problem-solving-based online PD program that included the PD contents focusing on teachers' challenges and problems regarding parental involvement of immigrant parents in relation to PE, which were found in Study one. Through the andragogy-based PD program, teachers enhance their readiness to learn when they recognize new learning is helpful to solve their unique problems in their professional life (Knowles et al., 2020). Moreover, teachers need to have intrinsic motivation to decide own learning methods, styles, and materials as self-directed learners. To meet the above teacher's specific learning needs, the researcher developed the PD program included a practical criterion (e.g., a revised version of Bloom's taxonomy; Krathwohl, 2002) and multiple PD instructional methods (e.g., online learning platform, digital portfolio, video lecture, and peer evaluation). To the researcher's knowledge, this is the first study to utilize the framework of andragogy theory to develop a problem-solving-based online PD program regarding parental involvement of immigrant parents in relation to PE.

Learning Goals

Based on the findings indicated in Study one, the researcher established the PD contents with three learning goals for participants: (a) reflection on prior experiences regarding parental involvement of immigrant parents, (b) theory-based learning regarding parental involvement of immigrant parents regarding PE, and (c) collaborative learning with other participants. In order to assist participants to accomplish above learning goals, the researcher followed the criteria in the revised version of Bloom's taxonomy (Krathwohl, 2002) to construct the PD contents, which is widely used in andragogy-based PD for in-service teachers. The taxonomy was

originally developed to allow teacher educators to form a basis for assessment as well as teaching through a series of hierarchical steps (Newton et al., 2020). More specifically, the revised Bloom's taxonomy included six levels of cognitive learning (remembering, understanding, applying, analysing, evaluating, and creating), which are helpful in assessing teachers' learning outcomes through PD.

First, '*Remembering*' was defined as learners recognizing or recalling relevant knowledge from their long-term (e.g., describing professional experiences of parental involvement of immigrant parents) (Krathwohl, 2002). In this step, the teachers defined, duplicated, listed, memorized, repeated, or stated their previous learning information (e.g., describing professional experiences of parental involvement of immigrant parents). Second, '*Understanding*' was defined as learners constructing meaning from different types of instructional functions provided by oral, written, or graphic messages or activities (Krathwohl, 2002). In this step, the teachers interpreted, summarized, explained, identified, reported, or paraphrased their learning through the online PD program (e.g., summarizing learning experiences by using self-reflective journal logs). Third, '*Applying*' was defined as learners using their new knowledge or skills in a new situation (Krathwohl, 2002). In this step, teachers applied, used, demonstrated, carried out, executed, or illustrated the information they learned through the PD program (e.g., applying learning through a PD program to solve real-life problems in parental involvement of immigrant parents). Fourth, '*Analyze*' was defined as learners breaking materials or concepts into parts or determining how each part relates to one another to explain patterns or connections (Krathwohl, 2002). In this step, teachers analyzed, classified, compared, distinguished, or questioned to draw connections among ideas (e.g., analyzing the association between teachers' problem-solving practices and

immigrant parents' behaviour transformation). Fifth, '*Evaluate*' was defined as learners making judgments based on criteria and standards (Krathwohl, 2002). In this step, teachers appraised, judged, valued, or critiqued their actions to solve problems regarding parental involvement of immigrant parents in relation to PE (e.g., evaluating their practices produced positive or negative effects). Finally, '*Create*' was defined as learners putting elements together to form a new coherent or functional whole, reorganizing element into a new pattern or structure (Krathwohl, 2002). In this step, teachers generated, modified, constructed, or developed new or original work (e.g., producing a portfolio to list the practical ideas, strategies, and methods to promote parental involvement of immigrant parents).

The researcher believed that the revised version of Bloom's taxonomy was one of the instructional strategies to promote teachers' engagement in this PD program. Based on the andragogy theory, researchers must understand that teachers' engagement is associated with their problem-solving-based learning outcomes (Sato et al., 2017). Thus, it was crucial to design PD content and instructional methods to meet the individual learning needs of participants as well as create effective assignments and assessments.

Engagement

Engagement is a critical component of andragogy theory because adult learners have the ability to control the level of their learning outcomes as self-directed learners (Knowles et al., 2020). In this study, teachers' engagement was stimulated when they interacted with learning materials and collaborative learning members (Chametzky, 2014). For example, the researcher helped teachers understand what they would learn, how they would learn, why they needed to learn, and why new learning was

meaningful. To do so, the researcher constructed learning materials in the online PD program to enhance the relevance to the teachers' personal and professional lives. More specifically, it was intended to help teachers be able to interpret new information efficiently (Kazempour, 2009). Through the PD experiences, the teachers gained motivation and engagement during the online PD program when they recognized that their new learning was beneficial to solving unique problems in their personal or professional lives.

Another way to enhance teachers' engagement in this PD program was to promote learner-centered learning, which facilitated collaborative learning among teachers (Chametzky, 2014). More specifically, the researcher provided teachers with engagement activities that helped them connect with other teachers as learning community members (Sato et al., 2017). For example, teachers were able to exchange their practices, ideas, and perceptions regarding parental involvement of immigrant parents in relation to PE with other teachers to gain a deep understanding of their own manners and experiences. Based on the andragogy theory, teachers' prior experiences were rich learning resources for themselves and other teachers to accomplish problem-solving learning outcomes (Knowles et al., 2020).

There are several instructional methods and tips that were investigated by numerous studies to promote teachers' engagement in the PD training (e.g., Sato et al., 2017). In this study, the researcher determined to use multiple PD instructional methods (e.g., digital portfolio, video lecture, self-reflective journal log, and peer evaluation) within an online learning platform to meet the specific learning needs of Japanese elementary teachers.

Online PD Platform

This study used an online learning platform as a web-based virtual educational frame. After the pandemic due to COVID-19, online technology such as online learning systems, social networks, and multimedia technologies has been used in various educational mainstream, including education for pupils, adolescents, university students, and in-service teacher PD (e.g., Lander et al., 2020). According to Sato et al. (2017), online PD platforms help teachers achieve learning outcomes similar to or greater than traditional face-to-face instructions. The researchers must understand that properly conducted online PD programs effectively enhance teachers' learning outcomes while poorly conducted programs likely may not. In this study, the researcher referred to the seven features of effective online PD that Lander et al. (2020) indicated: (a) evidence-based content; (b) pedagogical content knowledge, not just content knowledge; (c) translatable into practice (i.e., improves teaching); (d) facilitate a community of practice (i.e., collaboration, access to expert); (e) interactive; (f) simple to navigate; and (g) highly visual. Therefore, the researcher used an online PD platform to increase the teachers' autonomy to allow them to become self-directed learners in order to accomplish individual learning objectives based on their unique professional situations.

There were two main reasons that the researcher decided to use an online PD platform to design a problem-solving-based PD program regarding parental involvement of immigrant parents in relation to PE. First, the online PD platform was suitable technology, especially for Japanese teachers with busy schedules, offering convenience and flexibility. In Japan, elementary school teachers often face long working hours due to many professional responsibilities, including teaching academic

subjects, classroom management, student guidance, organizing school events, and so on (Sato et al., 2020a). Therefore, they struggle to find time or place within their working hours even if they seek PD opportunities where they have interests. In this study, online PD allowed Japanese teachers to access the learning platform (e.g., to view videos and post on the bulletin board) whenever they had free time and from wherever they were (see also Dille & Røkenes, 2021).

Another reason to use the online PD platform was to allow teachers to develop positive connections and interactions with other teachers who had similar or different experiences regarding the parental involvement of immigrant parents. In Study one, the researcher identified that teachers struggled to find colleagues in their school to exchange valuable ideas, advice, or suggestions in order to solve their problems in collaboration with immigrant parents regarding PE. This was because some teachers interact with immigrant parents while others had never interacted with the parents, even in the same school or school districts. Therefore, the researcher determined the online PD platform was a vital technology for teachers to develop networks with other teachers beyond their schools and school districts to experience collaborative learning through exchanging their ideas, insights, strategies, and concerns regarding parental involvement of immigrant parents in relation to PE.

The study used several online educational platforms, such as Microsoft PowerPoint, Microsoft Teams, YouTube, Google Classroom, and Microsoft Forms as delivery methods based on each PD content's purposes. The researcher did not intend to emphasize that these online platforms were the best tools for designing the online PD program. Instead, the researcher used these online platforms to promote teachers' engagement through the andragogy-based PD program. More specifically, the online

PD program in this study was designed to assist teachers (a) to become self-directed learners with the ability to control learning methods, schedule, and materials, (b) to experience problem-solving-based learning according to their unique learning needs, and (c) to connect with the collaborative learning community.

Digital Portfolio

This study used a digital portfolio, which is a computer-based, purposeful collection of reflections on teachers' professional experiences (Espinoza & Medina, 2021). Xerri and Campbell (2015) found that many teachers felt that a digital portfolio helped them gain knowledge of analytical and interpretative records of reflection on their practices, values, and strategies and enhanced their critical thinking skills to identify their professional growth. The digital portfolio has been used by numerous research focusing on developing teachers' pedagogical knowledge, teaching practice, and self-reflection of teachers (e.g., Sung et al., 2009). However, there is less research using digital portfolios to promote teachers' PD regarding parental involvement of immigrant parents in relation to PE. Therefore, to the researcher's knowledge, this study is novel insight using a digital portfolio as a part of the andragogy-based PD program to record and store teachers' authentic problem-solving ideas, strategies, and practices for collaborating with immigrant parents regarding PE.

According to Berrill and Whalen (2007), digital portfolios in this study allowed teachers "to make their beliefs visible, to demonstrate how their practice reflected those beliefs, and to demonstrate how they could teach in ways that had integrity for them and still satisfy external expectations" (p. 882). In short, self-reflected learning through constructing a digital portfolio was considered an important component of enhancing teachers' PD, efficacy, and parental involvement practices. Moreover, the teachers

experienced three learning areas in developing a portfolio: (a) the process of constructing a portfolio, (b) the mentoring and collaboration during the process of portfolio construction, and (c) the feedback given on the constructed portfolio. Therefore, the researcher decided to implement mentorship activity (e.g., online meeting between the researcher and the teachers) to assist teachers in enhancing their reflective learning through developing their digital portfolios regarding parental involvement of immigrant parents in relation to PE.

Procedure of Developing a Digital Portfolios

The researcher designed the procedure of developing a digital portfolio regarding the parental involvement of immigrant parents in relation to PE. There were four processes to develop the digital portfolio as:

1. The researcher scheduled online meetings (e.g., using Microsoft Teams) with the participants in the PD program individually in order to interact and reflect on their professional experiences regarding parental involvement of immigrant parents in relation to PE (e.g., including problems-solving stories).
2. After the online meeting finished, the researcher summarized each participant's problem-solving cases with detailed information following the list in Table 12 and constructed the digital portfolio for each case.
3. The researcher returned the constructed digital portfolios to each participant through e-mail communication to asked them to review and revise errors or misinterpretations.
4. The researcher and the participants continued an e-mail communication until both of them reached an agreement with the content in the digital portfolio.

Table 12. List of the Content Written in a Digital Portfolio

The portfolio included seven elements below:

(i) A problem that the teacher experienced

Describe a problem, challenge, or issue that the teacher experienced when he/she attempted to involve immigrant parents in relation to PE. This section should include the teacher's perceptions toward the problems (e.g., anxiety, concern, frustration)

(ii) Strategies for solving the problem

Describe strategies, ideas, or practices that the teacher had implemented to solve the problems with parental involvement of immigrant parents regarding PE.

(iii) Reasons for selecting the solutions

Describe why the teacher selected the solutions to address the problems with immigrant parents regarding PE. This section should include something that influences the teacher to gain motivation to implement the solutions (e.g., receiving advice from colleagues).

(iv) The reaction of parents

Describe the reaction of immigrant parents when the teacher implements the solutions to address the problems with immigrant parents regarding PE. This section should include information on parents' behavior (e.g., following the request from the teacher regarding PE).

(v) Points a teacher should be careful about

Describe the points the teacher believes other teachers should be careful about if they implement the solutions (indicated in section 'ii'). This section should include the teacher's beliefs and practices to avoid other problems with immigrant parents due to implementing the solutions (e.g., miscommunication, discrimination, or ethical problems).

(vi) How to improve practices

Describe ideas, insights, or strategies to improve his/her practices to solve his/her problems with immigrant parents regarding PE. This section may include the teacher's reflective learning through online meetings with the researcher (e.g., the researcher's questions help them critically reflect on their beliefs, values, and experiences)

(vii) A relevant story or idea

Describe any relevant story or idea to provide additional information regarding problem-solving experiences (e.g., unique episode of parental involvement of immigrant parents).

Video Lecture

This study adopted a video lecture to provide the participants with theoretical-based learning regarding the parental involvement of immigrant parents in relation to PE. To create video lectures, the researcher used visual aids (e.g., PowerPoint, video clips, charts and graphs, and illustrations) to enhance teachers' understanding and learning outcomes during the PD program. According to Shabiralyani et al. (2015), there were

several benefits of visual aids for elementary teachers, such as increasing motivation to learn, promoting creativity, and reinforcing the text. More specifically, the researcher created four original YouTube video clips that teachers could select according to their individual needs (see also Riley, 2017). Hodges et al. (2017) found that YouTube video clips supplemented PE teachers' learning in PD and changed their practices and perceptions. Therefore, video lectures in the online PD program played an important role in allowing the participants to access learning materials, including knowledge of both theory and practice regarding the concept of parental involvement of immigrant parents in relation to PE.

The researcher used several studies (e.g., Hoover-Dempsey et al., 2002; Smith & Sheridan, 2019; Symeou et al., 2012) as samples of learning PD contents to determine the instructional topics for each video lecture that helped the participants learn knowledge and skills to solve the problems discovered by Study one. For example, the researcher referred to the eight types of instructional components categorized by Smith and Sheridan (2019), which were used in numerous PD programs regarding parental involvement in other countries (mainly in the USA). These were (a) communication strategies, (b) collaborative planning and problem-solving, (c) cultural awareness/working with diverse populations, (d) home-based involvement, (e) family engagement attitudes/beliefs, (f) parent-teacher relationship, (g) school-based involvement, and (h) school environment. Based on these sample studies, the result of Study one, and the concept of andragogy, the researcher created four types of video lectures with the following concepts (see Table 13):

1. Teacher's attitude toward parental involvement of immigrant parents.
2. Working with immigrant parents with diverse backgrounds in relation to PE.

3. Communication strategies with immigrant parents regarding PE.

4. Developing a trusting relationship with immigrant parents.

These lecture videos presented theoretical knowledge about diverse cultural values, beliefs, and habits of immigrant parents in relation to PE (e.g., language, tradition, religion, social norms, morals, ethics, body image, and health), which the participants worked, as self-directed learners, to apply to solve their problems in their real work environment.

Table 13. Video Lectures in the Online PD Program regarding Parental Involvement of Immigrant Parents in relation to PE

Lecture Title	Description	Contents
Teacher's attitude toward parental involvement of immigrant parents	This lecture was designed to improve teachers' beliefs about immigrant parents (e.g., the role of the parents in their children's learning regarding PE) and attitudes about involving immigrant parents (e.g., problem-solving practices with immigrant parents)	<ul style="list-style-type: none"> • Perspective-taking to understand immigrant parent's feelings • The concept of parental involvement • Home- and school-based involvement • Reflection on own prejudice or stereotypes against immigrant parents • Individualism vs. collectivism • Six steps for problem-solving with immigrant parents
Working with immigrant parents with diverse backgrounds in relation to PE	This lecture was designed to improve teachers' preparation to work with immigrant parents with diverse backgrounds in relation to PE (e.g., cultural, traditional, or religious backgrounds)	<ul style="list-style-type: none"> • Consider the individual needs of immigrant parents • Acculturation vs. multiculturalism • Nationality and PE • Race and PE • Culture and PE • Religion and PE • Immigration and PE
Communication strategies with immigrant parents regarding PE	This lecture was designed to improve teachers' knowledge and skills to facilitate communication with immigrant parents regarding PE. This includes both one-way (e.g., sending home school letters) and two-way communication (e.g., bidirectional communication between teachers and parents to share information about their children)	<ul style="list-style-type: none"> • Use of visual aids • Use of digital tools • Use of the audience, behavior, condition, and degree (ABCD) model • Increase communication methods • Efforts to facilitate communication
Developing a trusting relationship with immigrant parents	This lecture was designed to enhance a relationship between teachers and immigrant parents on behalf of children by conducting practices, such as trust building (e.g., praise, providing invitation, showing respect)	<ul style="list-style-type: none"> • What a trust relationship is • Tips to develop a trusting relationship with immigrant parents (e.g., welcome atmosphere, open questions, active listening, finding parent's strengths, developing mutual goals for children's academic achievements) • Develop long-term goals to develop a trusting relationship with immigrant parents

Self-reflective Journal Log

In the andragogy theory, the researchers should consider and provide learning opportunities to help teachers learn how to apply their new learning through the PD program to transform their future actions for problem-solving (Knowles et al., 2020). In this study, the researcher decided to use a self-reflective journal log as an assignment to allow teachers to summarize, report, or describe how their new learning benefits them to improve their practices regarding parental involvement of immigrant parents in relation to PE. Reflective journaling is a common strategy in teacher education, allowing teachers to reflect on their learning experiences, including their thoughts, ideas, and feelings (Göker, 2016). It was intended to use self-reflective journal logs to provide teachers with experiential learning opportunities to develop their knowledge and skills outside of the PD program when they utilized their new learning in real professional settings.

The researcher created several questions of self-reflective journal logs to assist teachers to identify and understand the relevance between learning materials and their personal or professional lives (Knowles et al., 2020). These questions were used to promote teachers' problem-solving learning activities responding to the instructional topics included in video lectures. Example questions are listed in Table 14.

Table 14. Example Questions Included in Self-reflective Journal Logs

Lecture Titles	Example Questions
Teacher’s attitude toward parental involvement of immigrant parents	<ul style="list-style-type: none"> • What did you learn from the lecture video ‘Teacher’s attitude toward parental involvement of immigrant parents’? • What do you think you need to transform or improve your attitude to promote parental involvement of immigrant parents regarding PE?
Working with immigrant parents with diverse backgrounds in relation to PE	<ul style="list-style-type: none"> • What did you learn from the lecture video ‘Working with immigrant parents with diverse backgrounds in relation to PE’? • What knowledge and skills do you need to improve to respond to the diverse cultural backgrounds of immigrant parents in order to promote their involvement in relation to PE?
Communication strategies with immigrant parents regarding PE	<ul style="list-style-type: none"> • What did you learn from the lecture video, ‘Communication strategies with immigrant parents regarding PE’? • What ideas or strategies would you like to apply in order to promote communication with immigrant parents in relation to PE? • Please describe how ICT communication strategies are helpful if you have already applied them in your communication experiences with immigrant parents.
Developing a trusting relationship with immigrant parents	<ul style="list-style-type: none"> • What did you learn from the lecture video, ‘Developing a trusting relationship with immigrant parents’? • What ideas, methods, or beliefs would you like to apply in order to develop a trusting relationship with immigrant parents? • Why do you think a trusting relationship or mutual understanding with immigrant parents is important to secure a safer learning environment for children in PE class?

Peer Evaluation

This study used an instructional technique using peer evaluation to allow teachers to learn other teachers’ practices and beliefs. The researcher intended to use peer evaluation to stimulate teachers’ self-critical thinking to transform their perceptions of working with immigrant parents by identifying similarities or differences with other teacher’s experiences. According to Sato et al. (2017), peer evaluation contributed to participants’ behavioral and professional engagements because all participants were

responsible for deeply understanding their peer's work in order to consider effective feedback. As a technique to help teachers engage in peer evaluation in this study, all participants' digital portfolios were shared through Google Classroom in order to allow teachers to evaluate peers' performance. Based on the andragogy theory, peer evaluation helped the teachers become self-directed learners by selecting their peer's digital portfolios according to their professional interests or needs for problem-solving learning activities (Knowles et al., 2020).

Methods

A descriptive-qualitative methodology using an explanatory case study design, which is also referred to as an interpretative case study (Merriam, 1998), was judged a suitable method and adopted in this study (Yin, 2017) because this research method helps the researcher understand complex educational and/or social phenomena while maintaining the meaningful particularities of real-life situations (Yin, 2017). An explanatory case study was selected because the exploratory nature of this design was deemed appropriate for evaluating elementary teachers' reflective learning in online PE PD. Such a case study was used to develop conceptual categories or to illustrate, support, or challenge theoretical assumptions held prior to data gathering (Merriam, 1998).

Yin (2003) explained that "a major strength of case study data collection is the opportunity to use many different sources of evidence" (p. 97). In this study, data were gathered from each selected teacher using digital portfolios, self-reflective journal logs, and online semi-structured interviews. The researcher decided to use triangulation as a data collection technique because the use of multiple data sources in explanatory case studies allows the researcher to interpret a wide range of historical, attitudinal, and

behavioral issues (Yin, 2003). Moreover, the researcher could construct validity and accuracy of the evidence because multiple data sources aim to display complex educational/social phenomena. In this study, the intent was to explain and describe Japanese elementary teachers' learning experiences through the online PD program regarding parental involvement of immigrant parents in relation to PE with the theoretical lens using andragogy theory.

Participants

This study used purposeful sampling (Patton, 2002) to recruit nine Japanese elementary teachers (male = four; female = five) from eight public elementary schools. The inclusion criteria were:

1. The teachers who worked in a Japanese public elementary school
2. The teachers who had experience teaching JLLs in PE classes
3. The teachers had oral and/or written communication challenges with immigrant parents.

The exclusion criterion was that teachers who were teaching at private elementary schools were not included, because the PE curriculum and educational goals may be different from public elementary schools. The researcher confirmed all participants (Mr. Satime, Ms. Nogi, Mr. Kitta, Ms. Aze, Ms. Morita, Mr. Kujo, Mr. Shin. Ms. Tobaru, and Ms. Nishi) met the purposeful sampling criteria through online personal conversations before the online PD program began. Moreover, after the online personal conversations, the researcher asked all participants to answer demographic questionnaire to confirm whether they had similar experiences of problems and challenges discovered in Study one. Finally, the researcher determined all participants were qualified to participate in the online PD program as research participants based on

their responses to the demographic questionnaire. This study was approved by the institutional review board of the researcher's university. As part of the ethical process of the study, the researcher sent an informed consent form and documents explaining research procedure to all participants, and all participants sent back the informed consent form with their signatures to indicate their agreement to become a research participant in the study.

Online PD Module Contents

All participants were assigned to access the online PD materials and modules in the specific duration, which was two months (eight weeks); the activity contents, schedule, and delivery methods are listed in Table 15. There were four parts of the online PD module: (a) creating digital portfolios, (b) lectures, (c) self-reflection logs, and (d) evaluations of peers' digital portfolios. First, all participants learned how to create their own digital portfolio from the researcher through synchronous online meetings (60 minutes each) and e-mail communication. All participants created at least two digital portfolios, which focused on different themes (e.g., challenges, strategies, and problem-solving). Second, all participants watched four original lecture videos (YouTube video clips) to learn the following concepts: 1) *teacher's attitude toward parental involvement of immigrant parents*, 2) *working with immigrant parents with diverse backgrounds in relation to PE*, 3) *communication strategies with immigrant parents regarding PE*, and 4) *developing a trusting relationship with immigrant parents* (see Table 13). Third, all participants were asked to create self-reflective journal logs after watching each video lecture by answering specific questions provided by the researcher (see the description of the *self-reflective journal logs* below). Fourth, all participants evaluated other teachers' digital portfolios at their own pace in their own time.

Table 15. Online Module Contents and Learning Schedule

Period	Content	Descriptions	Delivery method
Digital Portfolio			
Week 1 to Week 4	Creating digital portfolio regarding parental involvement of immigrant parents in PE	The purpose of this session is to develop digital portfolios with the researcher through reflecting their professional experience regarding parental involvement of immigrant parents in PE (e.g., practices, thoughts, strategies)	Microsoft PowerPoint, Microsoft Teams
Lecture			
Week 5 to Week 8	Watching YouTube video clips (about 20 minutes for each)	The purpose of this session is to watch four video lectures to learn the concept of parental involvement of immigrant parents in relation to PE	YouTube, Google Classroom
Self-reflection logs			
	Creating self-reflective journal logs (Four times)	The purpose of this session is to reflect on their learning from the YouTube videos through creating self-reflective journal logs	Microsoft Forms
Evaluations of peers' digital portfolios			
	Evaluating another teacher's digital portfolio	The purpose of this session is to read and evaluate another teacher's portfolio to gain knowledge about diverse situations of parental involvement and find ideas or strategies to solve one's own challenges with immigrant parents in relation to PE	Google Classroom

Data Collection

The data for the present study came from the digital portfolios, self-reflective journal logs, and online semi-structured interviews.

Digital Portfolio. The study used digital portfolios that were collaboratively developed by the participants and the researcher. Through developing their own digital portfolio focusing on parental involvement, the participants could reflect on and develop a deeper understanding of their practices, perceptions, and points for improvement (Black & Plowright, 2010). The portfolio included seven elements: 1) a problem that the teacher experienced, 2) strategies for solving the problem, 3) reasons for selecting the solutions, 4) the reaction of parents, 5) points a teacher should be

careful about, 6) how to improve practices, 7) a relevant story or idea. To develop the digital portfolios, the researcher and the participants first held individual online meetings to decide on two or three portfolio topics based on their problem-solving experiences with parental involvement of immigrant parents in relation to PE. Second, the researcher constructed the digital portfolios based on information that was shared by the participants in the online meeting. Third, the researcher sent the constructed data file of the portfolios to each participant and asked them to review and revise the portfolios to eliminate any errors or misinterpretations. Finally, the researcher and the participants continued email communication until they agreed on the written content of their digital portfolios.

Self-reflective Journal Logs. To explore the elementary teachers' learning from the online modules, the study used a self-reflective journal log developed by Hodge et al. (2003). All participants were asked to answer one or two questions after watching each video lecture.

Online Semi-structured Interviews. Online semi-structured interviews were the primary data source. All interviews were conducted individually after participants completed all online modules. The researcher asked all participants to answer 12 interview questions, which were developed by the researcher based on andragogy theory, and additional unstructured follow-up interview questions. Each interview lasted about 60 minutes. Example questions are the following: (a) what knowledge and skills do you need to improve to respond to the diverse cultural backgrounds of immigrant parents in order to promote their involvement in relation to PE? and (b) what ideas or strategies would you like to apply in order to promote communication with immigrant parents in relation to PE?

Procedures

On May 25th, 2022, the researcher received approval from his university's institutional review board to conduct the study two. In June, the researcher used the purposeful sampling method to recruit Japanese elementary teachers at public schools who had experienced interaction with immigrant parents as classroom teachers. In this process, the researcher contacted a professor (in Tokyo prefecture), a professor (in Aichi prefecture), a lecturer (in Hyogo prefecture), a doctoral student (in Tokyo prefecture), and a public elementary teacher (in Aichi prefecture) in order to request collaboration to recruit the research participants who want to participate in the PD program. A total of ten Japanese elementary school teachers ($n = 5$ male and $n = 5$ female) were introduced. The researcher sent a copy of documents, including a research explanation and a consent form, via email to all nominated teachers and conducted online video meetings. In the ample time between receiving a copy of research documents and an online video meeting, all ten teachers could read the consent form and ask any additional questions to the researcher. During the online meeting, the researcher explained the current study's purpose, procedures (e.g., data collection and analysis), how collected data would be used, and how participants' private information would be treated and protected, and confirmed their agreement on whether to participate the study or not. All ten teachers agreed to participate in this study and become research participants. Although the participants showed their agreement to participate in this study using a consent form, the researcher mentioned to them that they were allowed to withdraw their agreement until all data collection procedures were completed. During the PD program, one participant requested the researcher to withdraw his agreement because he decided not to continue to cooperate with this study when he was not able to

participate in the online PD program due to COVID-19 infection. Therefore, in total, the researcher determined that nine participants (n=4 male and n=5 female) were qualified for the study.

After the researcher received the consent form with the participants' signatures, he scheduled online meetings with the participants individually in order to decide the topic of each participant's digital portfolios. He used Microsoft Teams to conduct online meetings with the participants. One day before each online meeting, the participants received the online meeting link using Microsoft Teams from the researcher. After the online meeting with each participant finished, the researcher constructed each participant's digital portfolios and sent them to each participant to ask them to review and revised any errors or misinterpretation. The researcher and the participants continued e-mail communication until they reached the agreement with the contents in their digital portfolios.

To provide video lectures to the participants, the researcher used a private YouTube setting. The researcher sent the participants the four different YouTube video clips' links via Google Classroom. To do so, all participants were asked to create a personal account in Google Classroom and join a class developed for this study's online PD program. The researcher asked the participants to watch the video lectures whenever they wanted. Moreover, he asked the participants to answer the self-reflective journal logs questions via Microsoft forms included in the same Google Classroom page in each video lecture.

To conduct an online semi-structured interview, the researcher used Microsoft Teams, which is a communication platform integrated with Microsoft Office 365. He scheduled all interview dates with Microsoft Teams and sent each participant's link to

the online meeting via e-mail. During the online interview, all interview responses from the participants were audiotaped. Once completed, the researcher transcribed the questions and the participants' answers and comments to create transcribed data. The transcribed data were returned to all participants for member checking (Schwandt, 2015) via e-mail. This process was vital to verify the accuracy of transcribed data while removing any errors or researcher's bias regarding the participants' learning experiences during the online PD program regarding parental involvement of immigrant parents in relation to PE. All procedures of data collection completed in November 2022.

Translation Process

All original data were collected in Japanese, and the researchers used the cross-cultural translation technique developed by Banville et al. (2000) and Hodge et al. (2013). This technique aims to maintain the uniqueness of two cultures in the collected data (from Japanese to English). In this study, all translators were fluent in both English and Japanese. In the translation process, three translators (the researcher and two scholars) individually translated the original Japanese data (professional portfolios, self-reflective journal logs, and interview transcripts) into English. Later, they gathered the translations to discuss any differences until all translators reached an agreement. Revised translated data were sent to a bilingual faculty member in the United States to evaluate the translated data to make sure that the meaning of the translated and original data were the same. Finally, all four translators reached an agreement on all translated data.

Data Analysis

The researcher used a constant comparative method (Boeije, 2010) to analyse the translated data. In this analytic method, researchers code each piece of descriptive data (e.g., an interview) inductively and then use each segment of the data to (a) compare with one or more categories to identify its relevance and (b) compare with other segments of data similarly categorized (Schwandt, 2015). The basic strategy of this analytical process is to do what its name implies and constantly compare pieces of data.

Analytical Procedures. The researcher and a scholar conducted an initial coding from the transcripts (including interviews, self-reflective journals, and digital portfolios) independently to identify each potentially meaningful piece of data, and any differences were discussed until agreement was reached. The researcher asked the other two debriefers (scholars) to review the coded data to reduce the effect of researcher bias. After the peer debriefing process, the second round of coding key terms (e.g., problem-solving, transformative learning, motivation) was conducted by the researcher based on the concept of andragogy theory (Knowles et al., 2020). In this process, some analysed codes were combined (similar terms such as *challenge* and *problem*). Moreover, all coded data from each participant were compared to discuss similarities and differences in order to group these codes into thematic categories, which were then refined into recurring themes (see Boeije, 2010). Finally, all researcher and scholars reached an agreement on the themes that had been constructed.

Trustworthiness

Trustworthiness was established using three strategies: triangulation, member checking, and peer debriefing.

Triangulation. Triangulation is a strategy which uses multiple data sources in qualitative research method to assess accuracy through the convergence of information from the different data sources (Carter et al., 2014). In this study, the researcher used the digital portfolios, self-reflective journal logs, and interview transcripts to establish triangulation.

Member Checking. Member checking is a strategy that allows researcher to reduce the influence of subjective bias by developing mutual agreement between participants and the researcher (Birt et al., 2016). The researcher sent copies of all original and analysed data to each participant for confirmation of data accuracy.

Peer Debriefing. Peer debriefing is a strategy to promote the credibility of analysed data by collaboratively reviewing and assessing the transcribed data, emergent codes and thematic categories, and final themes between qualified peer researchers (Janesick, 2015). In this study, one graduate student and one professor who have expertise in Japanese PE and qualitative research served as peer debriefers.

Results

The purpose of this study was to analyse Japanese elementary school teachers' learning experiences during PD regarding immigrant parental involvement in PE at public schools in Japan. To accomplish this purpose, the researcher collected and analysed data by using participants' digital portfolios regarding parental involvement of immigrant parents in relation to PE, self-reflective journal logs, and semi-structure online meeting. Two research questions were:

1. What were Japanese elementary school teachers' experiences of online PD in relation to interacting with immigrant parents regarding PE?

2. How did online PD learning experiences mediate Japanese elementary school teachers' perspectives of communicating, collaborating, and working with immigrant parents in relation to PE?

This chapter displays: (a) description of research sites; (b) general overview of demographic information; (c) teachers' experiences to develop the digital portfolios regarding parental involvement of immigrant parents in relation to PE; (d) findings from each individual case analysed by self-reflective journal logs and semi-structured online interview; (e) findings from cross-case analysis of all nine cases (Japanese elementary teachers) including the overall findings across cases specific to each research question. The emerged themes were analysed using the multiple data sources (digital portfolio, self-reflective journal log, online semi-structured interview). Those themes are presented as they correspond to the research questions.

Description of Research Sites

All nine participants were teachers at Japanese public elementary schools in different prefectures. More specifically, five participants (Mr. Satime, Ms. Nogi, Mr. Kitta, Ms. Aze, and Ms. Morita) worked in Aichi prefecture, three participants (Mr. Shin, Ms. Tobaru, and Ms. Nishi) worked in Saitama prefecture, and one participant (Mr. Kujo) worked in Osaka prefecture. Each prefecture consists of a unique demographic of immigrant parents (e.g., there is a Brazilian community in Aichi prefecture). Therefore, they had similar and different experiences regarding parental involvement of immigrant parents in relation to PE based on the diverse backgrounds of the parents. All participants worked in public elementary schools, so they followed a course of study released by MEXT (2017) to create a curriculum and teaching plan for

PE. Therefore, all teachers had a common standard to teach their children in PE class and promote immigrant parents' parental involvement.

General Overview of Demographic Information

All nine participants were Japanese public elementary school teachers (n = 4; Male, n = 5; Female) who had professional experiences of interaction with immigrant parents regarding PE as a classroom teacher. All six teachers' pseudonyms and demographic backgrounds are indicated in Table 16. They had experiences of interaction with immigrant parents from various countries (including Brazil, Vietnam, Philippines, Peru, Nepal, Korea, China, USA, India, Spain, Romania, Indonesia, Pakistan, and Bolivia). The years of teaching experience as a public elementary school teacher the participants were from third to twelfth years (n = 2; third year, n = 1; fourth year, n = 1; fifth year, n = 1; seventh year, n = 1; eighth year, n = 1; ninth year, n = 1; tenth year, n = 1; twelfth year). Eight participants (Mr. Satime, Ms. Nogi, Mr. Kitta, Ms. Aze, Ms. Morita, Mr. Kujo, Mr. Shin, and Ms. Tobaru) had no overseas experience studying or working in other countries. Only one participant (Ms. Nishi) had overseas experience when she was a high school student to conduct one month of study abroad in the USA.

Table 16. Participants' Demographic Information in Study Two

Pseudonym	Gender	Years of teaching experience	Nationality of immigrant parents	First language of immigrant parents	Overseas experience (Study or work)
Mr. Satime	M	9	Brazil, Philippines, Peru, Nepal, Korea	Portuguese, Tagalog, English, Spanish, Nepali, Korean	No experience
Ms. Nogi	F	8	Brazil, Philippines	Portuguese, Tagalog	No experience
Mr. Kitta	M	3	Philippines, Spain, United States, China, Romania, Nepal	Tagalog, Spanish, English, Chinese, Romanian, Nepali	No experience
Ms. Aze	F	5	Brazil, Peru, China	Portuguese, Spanish, Chinese	No experience
Ms. Morita	F	3	China, Philippines, Nepal, Indonesia	Chinese, Tagalog, Nepali, Indonesian	No experience
Mr. Kujo	M	12	China	Chinese	No experience
Mr. Shin	M	10	Philippines	Tagalog	No experience
Ms. Tobaru	F	4	Vietnam, Pakistan, India	Vietnamese, Urdu, Hindi	No experience
Ms. Nishi	F	7	Spain, Peru, Bolivia, Brazil	Spanish, Portuguese	One month study abroad in the US (High school)

Note. M = Male; F = Female; Years of teaching experiences= Total years of teaching experiences as a classroom teacher at the public elementary schools; Nationality of immigrant parents who the participants had interacted as a classroom teacher; First language of immigrant parents= First language of immigrant parents who the participants had interacted as a classroom teacher

Teachers' Experiences to Develop the Digital Portfolios regarding Parental Involvement of Immigrant Parents in relation to PE

All participants constructed their own digital portfolios regarding parental involvement of immigrant parents in relation to PE with the researcher. To construct the portfolios, the participants reflected on their problem-solving experiences and described their perceptions toward their practices, parents' reactions, and improvement. In the next section, the researcher indicates the summary of each participant's digital portfolio. Although this study used results of other academic contents, the participants needed to integrate pedagogical practices in classroom setting into the PE classes, because they were required to teach all academic subjects in elementary schools. Therefore, they remembered their parental involvement practices and experiences that they struggled to discreet from other academic contents.

Digital Portfolios regarding Parental Involvement of Immigrant Parents in relation to PE

Mr. Satime developed two different types of digital portfolios, including his problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios are (a) communicating with immigrant parents who are worried about their child being bullied (Case one) and (b) teaching immigrant parents about the necessity to prepare PE supplies (Case two). A summary of the descriptive contents in each digital portfolio is indicated in Tables 17 and 18.

Table 17. Summary of Mr. Satime’s Digital Portfolio: Communicating with Immigrant Parents Who Are Worried about Their Child Being Bullied (Case One)

(i) A problem that the teacher experienced

- An immigrant parent told me that their child was bullied by other children. But I had never seen such bullying situation in my class.
- The parent was angry when they talked to me about the bullying.

(ii) Strategies for solving the problem

- To provide a clear explanation about the fact-check with someone who can speak both languages (e.g., a school translator) to avoid miscommunication.
- To minimize my assumptions and listen to the parent’s feelings or requests in order to solve the problems with the parents.

(iii) Reasons for selecting the solutions

- To avoid providing the parents with ambiguous answers.
- To reach both teachers and parents agree with the solutions.

(iv) The reaction of parents

- When I explained to the parents about the result of the fact-check, they agreed with it.

(v) Points a teacher should be careful about

- Teacher should minimize their assumptions to identify the facts.
- Teacher should conduct the fact-check to understand what happened in their classroom.

(vi) How to improve practices

- It is necessary to find an available translation resource (e.g., a school translator or teacher with language proficiency) to provide translated communication as much as possible to avoid miscommunication with the parents when addressing serious issues, such as bullying.

(vii) A relevant story or idea

- Problems between Japanese children and immigrant parents due to physical contact during the physical activities in PE.

Table 18. Summary of Mr. Satime’s Digital Portfolio: Teaching Immigrant Parents about the Necessity to Prepare PE Supplies (Case Two)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • Some immigrant parents did not purchase the PE supplies even if I requested them repeatedly. • Some immigrant children were prohibited from participating in physical activities due to illness prevention (heat stroke) without a red-and-white cap. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To explain to immigrant parents the necessity of preparing PE supplies by using school letters or phone calls. • To teach immigrant parents about their children’s participation status in PE class to help them realize their cooperation is important. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • It is possible that some immigrant parents did not understand the significance of each PE supply. So, I needed to teach immigrant parents about the necessity to prepare PE supplies. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • When I explained to the parents that their children were not allowed to participate in PE class without necessary PE supplies, they asked me where they could purchase them. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers should not force immigrant parents to follow Japanese PE rules or systems because they may have complex reasons why they can’t prepare PE supplies for their children. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • It is also necessary to teach immigrant parents about the significance of each PE supply to help them talk with their parents about it. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Problems caused by miscommunication with immigrant children regarding PE supplies.
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Ms. Nogi developed three types of digital portfolios, including her problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios are (a) explain about the concept of *Undokai* and Marathon events to immigrant parents (Case three), (b) ask immigrant parents to submit an agreement form for swimming class (Case four), and (c) help immigrant parents purchase PE supplies (Case five). A summary of the descriptive contents in each digital portfolio is indicated in Tables 19, 20, and 21.

Table 19. Summary of Ms. Nogi's Digital Portfolio: Explain about the Concept of *Undokai* and Marathon Events to Immigrant Parents (Case Three)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• It is challenging to explain to immigrant parents about PE-related school events (e.g., <i>Undokai</i>, a sports festival in English) that are unfamiliar to them.• There is a language barrier in phone communication with immigrant parents.• It is impossible to explain PE-related school events only in Japanese. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To explain the PE-related school events to immigrant parents in their first language using a school translator or translation device (e.g., Poketalk).• To use visual aids (e.g., pictures of previous sports festivals) to help immigrant parents imagine the events. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• Immigrant parents need linguistic support because they do not understand the Japanese PE system.• Translation is not an easy task for teachers. However, it helps teachers promote collaboration with immigrant parents in order to support their children in relation to PE. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• Immigrant parents are satisfied when they receive the translated school documents (e.g., event information).• Teachers' efforts for translation help them develop a trusting relationship with immigrant parents. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers must ask a school translator to translate their verbal and written communication with immigrant parents as much as possible to avoid mistranslation. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• It is important to use digital devices to use more visual aids, such as movies of previous PE-related school events. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• An immigrant parent suddenly started BBQ during a sports festival because they did not know BBQ was prohibited at the school.

Table 20. Summary of Ms. Nogi’s Digital Portfolio: Ask Immigrant Parents to Submit an Agreement form for Swimming Class (Case Four)

(i) A problem that the teacher experienced

- Immigrant parents did not confirm the important school letters, such as the information regarding the agreement form to participate in swimming class.
- Immigrant parents did not submit the agreement form until the due date.
- Without the agreement form, children were not allowed to participate in swimming classes.

(ii) Strategies for solving the problem

- To use a sticky note or a special envelope to emphasize the important documents to help immigrant parents recognize them.
- To conduct a home visit to explain to immigrant parents about the important documents and assist them in filling in them.

(iii) Reasons for selecting the solutions

- Home visiting was a helpful way to identify what immigrant parents understand or did not understand and their concerns.

(iv) The reaction of parents

- Immigrant parents confirmed the school letters with a sticky note rather than without one.
- Immigrant parents often welcomed teachers when they conduct a home visit.

(v) Points a teacher should be careful about

- To conduct a home visit, teachers may need to visit immigrant parents’ houses outside of working hours. Thus, it is important to report to the school principal if teachers conduct home visits outside their working hours.

(vi) How to improve practices

- Teachers cannot translate all school documents in immigrant parents’ first language. So, a school and a community must collaborate to translate essential documents as much as possible.

(vii) A relevant story or idea

- To use a stamp that a school created to display, which the school documents are important for immigrant parents.

Table 21. Summary of Ms. Nogi's Digital Portfolio: Help Immigrant Parents Purchase PE Supplies (Case Five)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • It was difficult to explain which type of jumping rope immigrant parents need to purchase. • Immigrant parents did not know where they can purchase PE supplies. • There was no appropriate size of swimming suit for immigrant parents at the store. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To explain to immigrant parents about the PE supplies and where they could purchase them by showing the name of the store, a map, and a memo they can show at the store. • To collaborate with school personnel to order a specific size of swimming suit for their children. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • Immigrant parents had burdens when they go to a store to purchase PE supplies because they do not know what, how, and where they need to buy them. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • When immigrant parents understood how to purchase PE supplies and the significance of each supply, they were buying them. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • In the situation that teachers purchase PE supplies instead of immigrant parents, they need to explain the process to them beforehand to gain permission. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers need to understand each immigrant parent has individual needs. So, it is important to adjust interactional methods based on their needs. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Difficulty using a school translator employed by a prefectural educational board due to their working schedules.
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Mr. Kitta developed two types of digital portfolios, including his problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios each are (a) communicating with immigrant parents who are worried about their child's friendships (Case six) and (b) consulting with immigrant parents about their child's earrings (Case seven). A summary of the descriptive contents in each digital portfolio is indicated in Tables 22 and 23.

Table 22. Summary of Mr. Kitta’s Digital Portfolio: Communicating with Immigrant Parents Who Are Worried about Their Child’s Friendships (Case Six)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• It was difficult to interact with immigrant parents worried about their children’s behaviour and friendships at the school. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To report immigrant parents about their children's learning experiences by using children’s portfolios, including pictures and descriptions translated into their first language (e.g., by using Google Translate).• To inform immigrant parents about their children's positive achievements in relation to PE. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• Immigrant parents did not know what their children experience at the school. So, informing them about their children's behaviours was important to minimize their concerns. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• When immigrant parents understood their children’s positive experiences at the school, they were satisfied. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Before communicating with immigrant parents, teachers need to translate what they would convey to them by using translation apps. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• Communication with immigrant parents about their children's positive learning experiences at the school is vital to developing a trusting relationship between teachers and parents. To do so, teachers need to know various approaches and methods to promote communication with immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• There are several useful translation apps, such as Google Translation, Deep L, and Microsoft Translator.

Table 23. Summary of Mr. Kitta’s Digital Portfolio: Consulting with Immigrant Parents about Their Child’s Earrings (Case Seven)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • It was difficult to consult with immigrant parents about the health risks of their children who wear earrings during PE class. • I felt hesitation to talk about religion with immigrant parents. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To ask immigrant parents why their children wear earrings during PE class. • To teach immigrant parents about the health risks of wearing earrings during PE class. • To consult with immigrant parents to find solutions. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • I needed to understand why their children wear earrings to consider appropriate adjustments in their teaching in PE class. • I needed to develop knowledge based on immigrant parents’ backgrounds, such as religion. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents understood the health risks of wearing earrings during PE class when the I provided a clear explanation. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Some immigrant parents may not want to talk about their religious backgrounds. So, it is better to focus on their children's health risks than on their religions. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers may need to secure a safer learning environment in PE class. To do so, it is important to promote communication with immigrant parents to consider their children's cultural and religious needs in PE class. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Cultural and religious reasons why immigrant children wear earrings.
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Ms. Aze developed two types of digital portfolios, including her problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios each are (a) dealing with unexpected accidents and emergencies in PE class (Case eight) and (b) understanding the differences in child-rearing styles between countries (Case nine). A summary of the descriptive contents in each digital portfolio is indicated in Tables 24 and 25.

Table 24. Summary of Ms. Aze's Digital Portfolio: Dealing with Unexpected Accidents and Emergencies in PE Class (Case Eight)

(i) A problem that the teacher experienced

- It was difficult to explain to immigrant parents regarding how their children got injuries due to physical contact with other children.
- It was difficult to interact with immigrant parents who were sensitive to their children's injuries.

(ii) Strategies for solving the problem

- To contact immigrant parents to explain the unexpected problems of their children in PE class (e.g., level of injuries, first-aid treatment) as soon as possible.
- To share the unexpected accidents with school personnel to allow them to be ready to explain them to immigrant parents.

(iii) Reasons for selecting the solutions

- It was important to report to immigrant parents as soon as possible because immigrant parents may be angry if the teacher's report is delayed.

(iv) The reaction of parents

- When I reported to immigrant parents about the unexpected accidents of their children, immigrant parents could communicate with me calmly even if they felt dissatisfied.

(v) Points a teacher should be careful about

- Teachers must avoid miscommunication with immigrant parents about important information regarding their children's health status.

(vi) How to improve practices

- It is important to develop mutual understanding with school personnel to address unexpected accidents through collaboration between the school and parents.

(vii) A relevant story or idea

- Communication with immigrant parents of children with developmental disabilities.

Table 25. Summary of Mr. Kitta’s Digital Portfolio: Understanding the Differences in Child-Rearing Styles between Countries (Case Nine)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • It was challenging to communicate with immigrant parents who conduct physical violence to their children as a way of child-rearing. • I lacked knowledge about child-rearing styles in other countries. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To communication with immigrant parents what happened at home when their children seemed like they got physical violence from them. • To develop a trusting relationship with immigrant parents to listen to their feelings. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • I needed to understand that immigrant parents have different values regarding child-rearing styles. So, it was essential to identify why they conducted physical violence against their children at home to find solutions to protect them. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents informed me when they did physical violence to their children because they want teachers to care about their children at school. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers must observe the relationship between immigrant parents and children in order to identify a problematic situation. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers need to increase opportunities to communicate with immigrant parents in order to develop a trusting relationship to help the parents feel at ease to consult with immigrant parents when they do physical violations against their children. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Transitional ways of physical violations.

Ms. Morita developed two types of digital portfolios, including her problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios each are (a) promoting communication with immigrant parents using ICT (Case 10) and (b) immigrant children who are not able to participate in PE class due to religious reasons (Case 11). A summary of the descriptive contents in each digital portfolio is indicated in Tables 26 and 27.

Table 26. Summary of Ms. Morita’s Digital Portfolio: Promoting Communication with Immigrant Parents Using ICT (Case 10)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• Immigrant parents do not confirm the school letters.• Immigrant parents do not contact teachers when their children are absent.• Immigrant parents often delay submitting a swimming card. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To communicate with immigrant parents (e.g., distributing school letters and health check reports) by using communication apps using digital devices (e.g., iPhone or smartphone).• To use an e-mail to distribute school letters translated into immigrant parents’ first language. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• It was possible that children forget to pass school letters to their parents at home. So, digital online tools helped me communicate with immigrant parents directly. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• The response from immigrant parents became faster after teachers use communication apps.• By using an e-mail, immigrant parents could understand the descriptions written in Japanese because they could use automatic translation service. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers must get permission from the school principal when they start to utilize online communication tools. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• Teachers need to consider effective methods to utilize online communication tools in order to facilitate communication with immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• Information about the useful online communication tools (e.g., apps, and Gmail).

Table 27. Summary of Ms. Morita’s Digital Portfolio: Immigrant Children Who Are Not Able to Participate in PE Class due to Religious Reasons (Case 11)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • Immigrant children had dress codes due to religious backgrounds (e.g., not wearing short t-shirts and swimming suits). • Immigrant children were not allowed to participate in swimming classes and school events (e.g., school trips) due to their religious backgrounds. • Immigrant children faced health risks (e.g., heat stroke) during physical activities in hot summer. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To discuss with immigrant parents learning activities in PE class that their children were allowed to participate in or not allowed to participate in due to their religious backgrounds. • To inform immigrant parents about their children’s behaviour in PE class when they faced health risks during physical activities due to their religious backgrounds. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • If I did not communicate with immigrant parents about their children’s individual needs regarding their religion, children might be disadvantaged in PE class. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents were surprised when I informed them of the health risks due to religious practices in PE class. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers must show respect toward immigrant parents’ religious backgrounds. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • It is important to develop mutual understanding between teachers and parents of their children’s religious needs and practices in PE class. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Religious practices of Muslim girls.
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Mr. Kujo developed two different types of digital portfolios, including his problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios were (a) informing immigrant parents about the result of their child’s health check (Case 12) and (b) understanding the taboo of PE in other countries (Case 13). A summary of the descriptive contents in each digital portfolio is indicated in Tables 28 and 29.

Table 28. Summary of Mr. Kujo’s Digital Portfolio: Informing Immigrant Parents about the Result of Their Child’s Health Check (Case 12)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• Immigrant parents had difficulty reading the documents regarding their children’s medical examination.• Immigrant parents did not visit the hospital to see a doctor based on their children’s medical examination results. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To provide immigrant parents with special guidance to understand the results of their children’s medical examination (e.g., providing a translated document, home visiting).• To work with a school nurse to explain to immigrant parents about the hospitals where they needed to bring their children based on their children’s medical examination results. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• I thought immigrant children might not be allowed to participate in PE class if their parents helped them receive necessary medical treatments at the hospitals. So, it was important to provide explicit explanations to help immigrant parents understand their responsibilities. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• Immigrant parents followed my guidance (e.g., when bringing their children to the hospital). <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers must check whether immigrant parents confirmed their children’s medical examination results at home. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• It is important to provide immigrant parents with special guidance in person. To do so, teachers must consider using online communication tools like Google Meet to promote interaction with immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• Methods to exchange children’s health information with immigrant parents.

Table 29. Summary of Mr. Kujo’s Digital Portfolio: Understanding the Taboo of PE in Other Countries (Case 13)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • It was challenging to deal with taboos in relation to PE of immigrant parents due to a lack of knowledge and experiences. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To use social media to search taboos regarding PE that immigrant parents might have. • To discuss with colleagues cultural and religious taboos. • To ask immigrant parents about their perceptions of taboos regarding PE. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • It was challenging to understand various taboos regarding PE of their children. So, it was essential to identify accurate information from social media, colleagues, and immigrant parents. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • I needed to communicate with immigrant parents about their taboos regarding PE before any problems occurred at school. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers must understand that a lot of information indicated by social media is inaccurate. So, it is crucial to access the network with high credibility. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers need to continue expanding their perspectives regarding taboos regarding PE of their children in order to allow them to show respect toward those taboos. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Examples of taboos in other countries.

Mr. Shin developed two different types of digital portfolios, including his problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios were (a) contacting immigrant parents via their child’s older sibling (Case 14) and (b) confirming immigrant parents’ understanding of a school trip (Case 15). A summary of the descriptive contents in each digital portfolio is indicated in Tables 30 and 31.

Table 30. Summary of Mr. Shin's Digital Portfolio: Contacting Immigrant Parents via Their Child's Older Sibling (Case 14)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• Immigrant parents could not speak Japanese at all.• Limitation to translate Japanese unique PE system.• Difficulty to explain about Japanese unique learning contents and events in PE. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• Ask children's siblings with educational experiences in Japan to join in the conversation between teachers and immigrant parents as a translator. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• I had to ask their children's siblings because they can speak Japanese well and have enough knowledge and understanding of the Japanese educational system, including PE. So, siblings are essential as translators between teachers and immigrant parents. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• Immigrant parents became cooperative when their children (who graduated from Japanese elementary schools) helped them understand verbal and written communication with teachers. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers should understand that it is challenging to ask siblings of their children to help them in an emergency because they have busy schedules (e.g., junior high or high school, working). <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• Teachers need to gain ideas and insights on how to involve the community to promote parental involvement of immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• Ideas to collaborate with siblings of immigrant children.
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Table 31. Summary of Mr. Shin’s Digital Portfolio: Confirming Immigrant Parents’ Understanding of a School Trip (Case 15)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • Immigrant children were prohibited from participating in a school trip due to their religion. • I had difficulty working with immigrant parents of low socio-economic status. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To communicate with immigrant parents to confirm their children’s participation in a school trip, such as visiting religious buildings and hotel meals. • To remind immigrant parents to submit monthly payments to prepare for a school trip. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • I needed to understand their children’s religious needs to decide whether they could participate in a school trip. I had to exchange critical information about their children with immigrant parents to do so. • Immigrant parents of low socio-economic status faced difficulty paying full money for a school trip. So, it was vital for them to make monthly payments. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents became cooperative when I tried to communicate about their children’s school trips. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers must gain important children’s information (e.g., dietary rules) because they need to send that information to the facilities (e.g., hotel) to modify activities and meals during a school trip. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers need to help immigrant parents feel teachers support their children during a school trip. To do so, a home visit is one of the methods to promote communication with immigrant parents about a school trip. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Tips to promote a welcoming atmosphere for immigrant parents.

Ms. Tobaru developed three different types of digital portfolios, including her problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios were (a) informing immigrant parents about a sudden school closing due to weather (Case 16), (b) asking immigrant parents why their children don’t want to participate in PE class (Case 17), and (c) working with parents to determining the consideration for children who conduct fasting (Case 18). A summary of the descriptive contents in each digital portfolio is indicated in Tables 32, 33, and 34.

Table 32. Summary of Ms. Tobaru's Digital Portfolio: Informing Immigrant Parents about a Sudden School Closing due to Weather (Case 16)

(i) A problem that the teacher experienced

- I struggled to contact immigrant parents to inform them about a sudden school closing due to weather.
- I had difficulty overcoming language barriers.

(ii) Strategies for solving the problem

- To use Google Classroom to send all parents information about school closing (PDF file).

(iii) Reasons for selecting the solutions

- The school principal started using Google Classroom to facilitate emergent communication with all parents, including immigrant parents.

(iv) The reaction of parents

- Immigrant parents confirmed the message via Google Classroom.

(v) Points a teacher should be careful about

- Teachers must develop their knowledge and skills to use online communication tools effectively.

(vi) How to improve practices

- Teachers need to be able to use different online communication tools based on immigrant parents' individual needs.

(vii) A relevant story or idea

- Ideas to use Google Classroom as a communication method with immigrant parents.

Table 33. Summary of Ms. Tobaru’s Digital Portfolio: Asking Immigrant Parents Why Their Children Don’t Want to Participate in PE Class (Case 17)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• I had difficulty communicating with immigrant parents to ask why their children did not want to participate in PE class.• I had difficulty overcoming language barriers. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To collaborate with other immigrant parents who could speak Japanese well and understand the Japanese educational system. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• Immigrant parents often belong to the international community to help each other. So, I could work with the immigrant parent’s community to gain support for exchanging important information with each parent. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• Through the parent’s community, immigrant parents shared information with me about their children, such as why they did not want to participate in PE class. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers must understand that developing a trusting relationship with the parent’s community is essential. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• A school must promote collaboration between school and community to support teachers to increase the chance to communicate with immigrant parents in their first language. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• Public services that immigrant parents can utilize to foster their children in their community.
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Table 34. Summary of Ms. Tobaru’s Digital Portfolio: Working with Parents to Determining the Consideration for Children Who Conduct Fasting (Case 18)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • Lack of guidelines to address the requests from immigrant parents about religious practices in PE class, such as fasting. • I had less knowledge about what physical activities immigrant children can participate in during fasting. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To involve immigrant parents as decision-makers to determine what physical activities their children could participate in in PE class. • To develop an in-depth mutual understanding of immigrant parents’ religious practices (e.g., fasting period, times). <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • I had to collaborate with immigrant parents to decide their children’s participation in PE class when they conducted fasting because there were health risks for their children. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents hesitated to decide their children’s participation in PE class when they felt a language barrier with me. So, it was important to provide immigrant parents with translated communication in their first language. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Immigrant parents may have difficulty imagining PE learning activities in Japan. So, teachers must help immigrant parents improve their understanding of the Japanese PE system using visual aids. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • Teachers must understand that each immigrant parent has different beliefs and values, even if they have the same religion. So, teachers must communicate with immigrant parents to identify their individual needs. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Muslim fasting schedule (Ramadan).

Ms. Nishi developed two different types of digital portfolios, including her problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The titles of the digital portfolios were (a) unexpected situations during parent-teacher conferences (Case 19) and (b) contacting immigrant parents when their child is ill (Case 20). A summary of the descriptive contents in each digital portfolio is indicated in Tables 35 and 36.

Table 35. Summary of Ms. Nishi's Digital Portfolio: Unexpected Situations during Parent-Teacher Conferences (Case 19)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none">• Immigrant parents were often late for parent-teacher conferences.• I had difficulty interacting with immigrant parents who were angry during a parent-teacher conference. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none">• To provide extra communication (e.g., phone calls) to remind immigrant parents to attend a parent-teacher conference on time.• To apologize to immigrant parents when they were angry at teachers or schools. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none">• Parent-teacher conferences were essential to communicate with immigrant parents about important information about their children regarding PE. So, it was important to help immigrant parents come to the school on time. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none">• Immigrant parents controlled their emotions when I apologized to them. I learned I needed to talk with immigrant parents when they were calm to enhance communication quality. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none">• Teachers must teach their children to inform their parents about the parent-teacher conference one day before if they cannot contact immigrant parents by phone. <p>(vi) How to improve practices</p> <ul style="list-style-type: none">• Teachers must develop a trusting relationship with immigrant parents to help them become more cooperative. To do so, teachers need to deal with the individual needs of immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none">• Tips to develop a trusting relationship with immigrant parents.
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Table 36. Summary of Ms. Nishi's Digital Portfolio: Contacting Immigrant Parents When Their Child Is Ill (Case 20)

<p>(i) A problem that the teacher experienced</p> <ul style="list-style-type: none"> • I had difficulty reaching immigrant parents in the daytime. • I had difficulty explaining their children's illnesses to immigrant parents. <p>(ii) Strategies for solving the problem</p> <ul style="list-style-type: none"> • To use simple Japanese, immigrant parents' first language, and their children as a translator. • To ask immigrant parents when they could respond to the phone call from the school in the daytime beforehand. <p>(iii) Reasons for selecting the solutions</p> <ul style="list-style-type: none"> • Immigrant parents had difficulty understanding polite Japanese sentences because they were complicated. So, it was better to use simple Japanese to communicate with immigrant parents even if the sentences were not polite. <p>(iv) The reaction of parents</p> <ul style="list-style-type: none"> • Immigrant parents told me their available time because they trusted me. <p>(v) Points a teacher should be careful about</p> <ul style="list-style-type: none"> • Teachers must understand that phone calls are useful in emergencies to contact immigrant parents. But this is only when immigrant parents respond to the phone call. <p>(vi) How to improve practices</p> <ul style="list-style-type: none"> • If immigrant parents do not understand the explanations from teachers with simple Japanese, teachers need to find someone (e.g., a school translator, children, or other parents) who assists in communication with immigrant parents. <p>(vii) A relevant story or idea</p> <ul style="list-style-type: none"> • Ideas to overcome the language barrier with simple Japanese sentences.
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Summary

This section displayed the digital portfolios developed through the online PD program by collaboration between the participants and the researcher. In total, 20 types of digital portfolios were constructed with the participants' problem-solving experiences regarding parental involvement of immigrant parents in relation to PE. The researcher found that all participants had similar and different experiences and perceptions to implement ideas, strategies, and approaches to solve their problems with immigrant parents in relation to PE. Moreover, these digital portfolios allowed all participants to select learning materials based on their personal and professional interest or needs because all digital portfolios were shared with all participants via Google Classroom.

Findings from each Individual Case Analysed by Self-Reflective Journal Logs and Semi-structured Online Interviews

This section describes the individual findings of each participant in the present explanatory case study. The purpose of this study was to analyze Japanese elementary school teachers' learning experiences during PD regarding immigrant parental involvement in PE at public schools in Japan.

Case I: Mr. Satime

Mr. Satime's Personal Demographic Information

Mr. Satime was a male ninth-year teacher at a public elementary school in Aichi prefecture. He had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from Brazil, the Philippines, Peru, Nepal, and Korea. Several themes were constructed from the analysis of her transcribed interview data (Table 37). These themes were: (*Theme one*) significance of self-evaluation to realize own learning needs, (*Theme two*) transformation of the attitude toward collaboration with immigrant parents, (*Theme three*) motivation to teach colleagues to promote collaboration among school personnel, (*Theme four*) needs of digital portfolio as PD tools, (*Theme five*) experience to become a self-directed learner in the online learning platform, (*Theme six*) comparisons between own experience and new learning to find how to improve practices, and (*Theme seven*) the increase of motivation for collaborative learning with colleagues.

Table 37. List of Themes from Mr. Satime’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Self-directed learning	<i>Theme one: Significance of self-evaluation to realize own learning needs</i>	<ul style="list-style-type: none"> • Reflective learning • Uncovered hidden problem 	7 4
Transformative learning	<i>Theme two: Transformation of the attitude toward collaboration with immigrant parents</i>	<ul style="list-style-type: none"> • Transformative learning 	6
Motivation	<i>Theme three: Motivation to teach colleagues to promote collaboration among school personnel</i>	<ul style="list-style-type: none"> • Motivation to collaborate with colleagues 	4
Semi-structured online interview			
Problem-centered Learning	<i>Theme four: Needs of digital portfolio as PD tools</i>	<ul style="list-style-type: none"> • Comments about digital portfolio learning 	6
Self-directed learning	<i>Theme five: Experience to become a self-directed learner in the online learning platform</i>	<ul style="list-style-type: none"> • Theory-based and practical-based learning • Advantages of online learning platform • Learning objectives 	5 8 6
Transformative learning	<i>Theme six: Comparisons between own experience and new learning to find how to improve practices</i>	<ul style="list-style-type: none"> • Cultural awareness • Perceptual change • Self-reflection 	8 21 16
Intrinsic motivation	<i>Theme seven: The increase of motivation for collaborative learning with colleagues</i>	<ul style="list-style-type: none"> • Collaborative learning with colleagues 	11

Findings from Analysis by Self-reflective Journal Logs

Theme one: Significance of self-evaluation to realize own learning needs

This theme describes that Mr. Sachime believed self-evaluation is an important learning process through watching video lectures in order to realize his own learning needs to improve his practices regarding parental involvement of immigrant parents in relation to PE. Two codes comprise this theme: "reflective learning" and "uncovered hidden problem."

Theme two: Transformation of the attitude toward collaboration with immigrant parents

This theme describes that Mr. Sachime experienced transformative learning to improve his attitude toward collaboration with immigrant parents regarding PE. One code comprises this theme, including “transformative learning.”

Theme three: Motivation to teach colleagues to promote collaboration among school personnel

This theme describes that Mr. Sachime gained motivation to teach his learning experiences through the PD program to his colleagues to promote collaboration among school personnel at his school. One code comprises this theme, including “motivation to collaborate with colleagues.”

Findings from Analysis by Semi-structured Online Interview

Theme four: Needs of digital portfolio as PD tools

This theme describes that Mr. Sachime insisted on the need for digital portfolios as PD tools to allow teachers to reflect on and improve their practices regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including “comments about digital portfolio learning.”

Theme five: Experience to become a self-directed learner in the online learning platform

This theme describes that Mr. Sachime believed the online learning platform allowed him to become a self-directed learner to accomplish his learning objectives by learning theory-based and practical-based learning regarding parental involvement of immigrant parents in relation to PE. Three codes comprise this theme, including

“theory-based and practical-based learning,” “advantages of online learning platform,” and “learning objectives.”

Theme six: Comparison between own experience and new learning to find how to improve practices

This theme captures Mr. Sachime’s experiences to compare his prior experiences of working with immigrant parents with his new learning through the PD program in order to identify how to improve practices regarding parental involvement of immigrant parents in relation to PE. Three codes comprise this theme, including “cultural awareness,” “perceptual change,” and “self-reflection.”

Theme seven: The increase of motivation for collaborative learning with colleagues

This theme describes that Mr. Sachime believed that the PD program helped him increase his motivation to conduct collaborative learning with his colleagues regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including “collaborative learning with colleagues.”

Case II: Ms. Nogi

Ms. Nogi’s Personal Demographic Information

Ms. Nogi was a female eighth-year teacher at a public elementary school in Aichi prefecture. She had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from Brazil and the Philippines. Several themes were constructed from the analysis of her transcribed interview data (Table 38). These themes were: (*Theme one*) reflection of communication experience with immigrant parents, (*Theme two*) PD experience to enhance preparedness for parental involvement of immigrant parents in PE, (*Theme three*) transformative learning experience regarding communication with immigrant parents in PE, (*Theme four*)

motivation to learn about the diverse background of immigrant parents in relation to PE, and (*Theme five*) needs of PD for in-service teachers in the school district.

Table 38. List of Themes from Ms. Nogi’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Reflective learning	<i>Theme one: Reflection on communication experience with immigrant parents</i>	• Reflection on professional experience	4
Semi-structured online interview			
Problem-centered learning	<i>Theme two: PD experience to enhance preparedness for parental involvement of immigrant parents in PE</i>	• Preparedness	5
		• Finding a strategy	5
Transformative learning	<i>Theme three: Transformative learning experience regarding communication with immigrant parents in PE</i>	• Practical-based learning	4
		• Self-reflection	14
Self-directed learning	<i>Theme four: Motivation to learn about the diverse background of immigrant parents in relation to PE</i>	• Attitude change	8
		• Learning needs	7
Orientation to learn	<i>Theme five: Needs of PD for in-service teachers in the school district</i>	• Learning objectives	4
		• Needs of PD for in-service teachers	4
		• PD in the school district	6

Findings from Analysis by Self-reflective Journal Logs

Theme one: Reflection on communication experience with immigrant parents

This theme captured that Ms. Nogi reflected on her experiences of communication with immigrant parents regarding PE while she learned through video lectures. One code comprises this theme, including “reflection on professional experience.”

Findings from Analysis by Semi-structured Online Interview

Theme two: PD experience to enhance preparedness for parental involvement of immigrant parents in PE

This theme describes that Ms. Nogi believed that her learning experiences through the PD program helped her enhance her own preparedness for parental involvement of immigrant parents regarding PE by finding a strategy for problem-solving through practical-based learning. Three codes comprise this theme, including “preparedness,” “finding a strategy,” and “practical-based learning.”

Theme three: Transformative learning experience regarding communication with immigrant parents in PE

This theme captured Ms. Nogi’s transformative learning experiences regarding communication with immigrant parents regarding PE by conducting self-reflection on her professional experiences and deciding to improve her attitude. Two codes comprise this theme, including “self-reflection” and “attitude change.”

Theme four: Motivation to learn about the diverse background of immigrant parents in relation to PE

This theme describes that Ms. Nogi believed that the PD program helped her enhance her own motivation to learn about the diverse backgrounds of immigrant parents in relation to PE because she found her learning needs and objectives to develop professionalism. Two codes comprise this theme, including “learning needs” and “learning objectives.”

Theme five: Needs of PD for in-service teachers in the school district

This theme describes that Ms. Nogi emphasized that the school district must provide a PD program for in-service Japanese elementary school teachers to develop

knowledge and skills to promote parental involvement of immigrant parents in relation to PE. Two codes comprise this theme, including “needs of PD for in-service teachers” and “PD in the school district.”

Case III: Mr. Kitta

Mr. Kitta’s Personal Demographic Information

Mr. Kitta was a male third-year teacher at a public elementary school in Aichi prefecture. He had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from the Philippines, Spain, the USA, China, Romania, and Nepal. Several themes were constructed from the analysis of his transcribed interview data (Table 39). These themes were: (*Theme one*) strategy using ICT to improve communication with immigrant parents in PE, (*Theme two*) significance of perspective-taking to minimize stereotypes toward immigrant parents, (*Theme three*) authentic stories regarding parental involvement of immigrant parents in PE to find problem-solving strategies, (*Theme four*) transformative learning experience for improving communication with immigrant parents, and (*Theme five*) motivation to share the learning materials with colleagues when they need help.

Table 39. List of Themes from Mr. Kitta’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Problem-centered learning	<i>Theme one: Strategy using ICT to improve communication with immigrant parents in PE</i>	• Significance of communication using ICT	4
Transformative learning	<i>Theme two: Significance of perspective-taking to minimize stereotypes toward immigrant parents</i>	• Perspective-taking	5
Semi-structured online interview			
Problem-centered learning	<i>Theme three: Authentic stories regarding parental involvement of immigrant parents in PE to find problem-solving strategies</i>	• Comments about digital portfolio learning	11
Transformative learning	<i>Theme four: Transformative learning experience for improving communication with immigrant parents</i>	• Perspective-taking • Self-reflection • Change • Impression	5 7 11 6
Intrinsic motivation	<i>Theme five: Motivation to share the learning materials with colleagues when they need help</i>	• Continue to use learning materials in the school	4

Findings from Analysis by Self-reflective Journal Logs

Theme one: Strategy using ICT to improve communication with immigrant parents in PE

This theme captured Mr. Kitta’s learning experiences about a strategy to use ICT to improve his communication with immigrant parents in relation to PE. One code comprises this theme, including “significance of communication using ICT.”

Theme two: Significance of perspective-taking to minimize stereotypes toward immigrant parents

This theme describes that Mr. Kitta learned that he needed to focus on implementing perspective-taking to understand the individual backgrounds of

immigrant parents while minimizing stereotypes toward them. One code comprises this theme, including “perspective-taking.”

Findings from Analysis by Semi-structured Online Interview

Theme three: Authentic stories regarding parental involvement of immigrant parents in PE to find problem-solving strategies

This theme explains that Mr. Kitta searched for authentic stories of other teachers regarding the parental involvement of immigrant parents in relation to PE to find strategies to solve his problems with immigrant parents. One code comprises this theme, including “comments about digital portfolio learning.”

Theme four: Transformative learning experience for improving communication with immigrant parents

This theme captures Mr. Kitta’s transformative learning experience for improving communication with immigrant parents in relation to PE. Four codes comprise this theme, including “perspective-taking,” “self-reflection,” “change,” and “impression.”

Theme five: Motivation to share the learning materials with colleagues when they need help

This theme describes that Mr. Kitta emphasized that he wanted to share the learning materials in the PD program with his colleagues when they need help and support to solve their problems with immigrant parents in relation to PE. One code comprises this theme, including “continue to use learning materials in the school.”

Case IV: Ms. Aze

Ms. Aze’s Personal Demographic Information

Ms. Nogi was a female fifth-year teacher at a public elementary school in Aichi prefecture. She had professional experiences of interaction with immigrant parents as a

classroom teacher. These immigrant parents are from Brazil, Peru, and China. Several themes were constructed from the analysis of her transcribed interview data (Table 40). These themes were: (*Theme one*) acceptance of family’s backgrounds to adjust instructions in PE, (*Theme two*) the learning of the communication strategy using ICT, (*Theme three*) preparedness for future parental involvement of immigrant parents in relation to PE through digital portfolio learning, (*Theme four*) transformative learning experience regarding the use of ICT in communication with immigrant parents regarding PE, (*Theme five*) experience to become a self-directed learner in the flexible online learning environment, and (*Theme six*) needs of PD for Japanese elementary teachers.

Table 40. List of Themes from Ms. Aze’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Self-directed learning	<i>Theme one: Acceptance of family’s backgrounds to adjust instructions in PE</i>	• Accepting family’s backgrounds	5
Problem-centered learning	<i>Theme two: The learning of the communication strategy using ICT</i>	• Significance of ICT	4
Semi-structured online interview			
Problem-centered learning	<i>Theme three: Preparedness for future parental involvement of immigrant parents in relation to PE through digital portfolio learning</i>	• Portfolio learning	6
		• Preparedness	7
		• Connect with prior experience	11
Transformative learning	<i>Theme four: Transformative learning experience regarding the use of ICT in communication with immigrant parents regarding PE</i>	• Cultural awareness	4
		• Using ICT	6
Self-directed learning	<i>Theme five: Experience to become a self-directed learner in the flexible online learning environment</i>	• Advantages of online learning platform	5
		• Learning community	5
Orientation to learn	<i>Theme six: Needs of PD for Japanese elementary teachers</i>	• Sharing PD tools with colleagues	4

Findings from Analysis by Self-reflective Journal Logs

Theme one: Acceptance family's backgrounds to adjust instructions in PE

This theme describes that Ms. Aze learned that she needed to accept immigrant families' diverse backgrounds in order to adjust instructions in PE class. One code comprises this theme, including "accepting family's backgrounds."

Theme two: The learning of the communication strategy using ICT

This theme describes that Ms. Aze learned the communication strategies using ICT to improve her interaction with immigrant parents in relation to PE by overcoming language barriers with the parents. One code comprises this theme, including "significance of ICT."

Findings from Analysis by Semi-structured Online Interview

Theme three: Preparedness for future parental involvement of immigrant parents in relation to PE through digital portfolio learning

This theme describes that Ms. Aze emphasized that learning using a digital portfolio was helpful to improve her preparedness for future parental involvement of immigrant parents in relation to PE. Three codes comprise this theme, including "portfolio learning," "preparedness," and "connect with prior experience."

Theme four: Transformative learning experience regarding the use of ICT in communication with immigrant parents regarding PE

This theme captures Ms. Aze's transformative learning experience regarding the use of ICT in her communication with immigrant parents in relation to PE in order to minimize cultural conflict with the parents. Two codes comprise this theme, including "cultural awareness" and "using ICT."

Theme five: Experience to become a self-directed learner in the flexible online learning environment

This theme describes that Ms. Aze believed that the online platform was an effective tool that allowed her to access a flexible learning environment in order to become a self-directed learner. She emphasized that the school district must provide a PD program for in-service Japanese elementary school teachers to develop knowledge and skills to promote parental involvement of immigrant parents in relation to PE. Two codes comprise this theme, including “advantages of online learning platform” and “learning community.”

Theme six: Needs of PD for Japanese elementary teachers

This theme describes that Ms. Aze gained motivation to share her new learning through the online PD program with her colleagues because she realized the need for PD regarding parental involvement of immigrant parents for Japanese elementary teachers. One code comprises this theme, including “sharing PD with colleagues.”

Case V: Ms. Morita

Ms. Morita’s Personal Demographic Information

Ms. Morita was a female third-year teacher at a public elementary school in Aichi prefecture. She had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from China, the Philippines, Nepal, and Indonesia. Several themes were constructed from the analysis of her transcribed interview data (Table 41). These themes were: (*Theme one*) reflection on professional experience to develop self-awareness of the problem, (*Theme two*) motivation to transform the way of collaboration with immigrant parents based on their background, (*Theme three*) digital portfolio learning for finding strategies to promote parental

involvement of immigrant parents in PE, (*Theme four*) transformative learning experience regarding communication with immigrant parents in relation to PE, and (*Theme five*) motivation to share learning experience in PD with colleagues.

Table 41. List of Themes from Ms. Morita’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Reflective learning	<i>Theme one: Reflection on professional experience to develop self-awareness of the problem</i>	• Awareness of the problem	5
Transformative learning	<i>Theme two: Motivation to transform the way of collaboration with immigrant parents based on their background</i>	• Transformation of attitude • Motivation • Considering parents’ background	6 5 4
Semi-structured online interview			
Problem-centered learning	<i>Theme three: Digital portfolio learning for finding strategies to promote parental involvement of immigrant parents in PE</i>	• Comments about portfolio learning • Finding a strategy	12 5
Transformative learning	<i>Theme four: Transformative learning experience regarding communication with immigrant parents in relation to PE</i>	• Cultural awareness • Self-reflection • Change	8 10 10
Intrinsic motivation	<i>Theme five: Motivation to share learning experience in PD with colleagues</i>	• Collaborative learning with colleagues	5

Findings from Analysis by Self-reflective Journal Logs

Theme one: Reflection on professional experience to develop self-awareness of the problem

This theme explained that Ms. Morita reflected her professional experience to develop self-awareness of the problems when she attempted to facilitate immigrant parents' parental involvement in PE. One code comprises this theme, including “awareness of the problem.”

Theme two: Motivation to transform the way of collaboration with immigrant parents based on their background

This theme describes that Ms. Nogi believed that the online PD program helped her enhance her own motivation to transform the way of collaboration with immigrant parents based on their diverse backgrounds. Three codes comprise this theme, including “transformation of attitude,” “motivation,” and “considering parents’ backgrounds.”

Findings from Analysis by Semi-structured Online Interview

Theme three: Digital portfolio learning for finding strategies to promote parental involvement of immigrant parents in PE

This theme describes that Ms. Aze believed that digital portfolio learning was an effective method to find strategies to promote parental involvement of immigrant parents in relation to PE. Two codes comprise this theme, including “comments about portfolio learning” and “finding a strategy.”

Theme four: Transformative learning experience regarding communication with immigrant parents in relation to PE

This theme captures Ms. Aze’s transformative learning experience regarding communication with immigrant parents in relation to PE in order to improve her communication to minimize cultural conflict with the parents. Three codes comprise this theme, including “cultural awareness,” “self-reflection,” and “change.”

Theme five: Motivation to share learning experience in PD with colleagues

This theme describes that Ms. Aze gained motivation to share her new learning through the PD program with her colleagues to promote collaborative learning regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including “collaborative learning with colleagues.”

Case VI: Mr. Kujo

Mr. Kujo's Personal Demographic Information

Mr. Kujo was a male twelfth-year teacher at a public elementary school in Osaka prefecture. He had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from China. Several themes were constructed from the analysis of his transcribed interview data (Table 42). These themes were: (*Theme one*) significance of communication for promoting parental involvement, (*Theme two*) significance of practical-based learning through digital portfolio learning, (*Theme three*) transformation of the attitude toward communication with immigrant parents in PE through transformative learning experience, (*Theme four*) importance of learning community including highly motivated teachers for PD, and (*Theme five*) motivation to share PD experience with colleagues.

Table 42. List of Themes from Mr. Kujo’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Self-directed learning	<i>Theme one: Significance of communication for promoting parental involvement</i>	• Significance of parental involvement	4
		• Significance of communication	5
		• Trust relationship	4
		• Commitment	6
<hr/>			
Semi-structured online interview			
Problem-centered learning	<i>Theme two: Significance of practical-based learning through digital portfolio learning</i>	• Practical-based learning	12
		• Connect with prior experience	5
		• Comments about portfolio learning	4
Transformative learning	<i>Theme three: Transformation of the attitude toward communication with immigrant parents in PE through transformative learning experience</i>	• Cultural awareness	7
		• Self-reflection	8
		• Attitude change	20
		• Learning the concept of parental involvement	5
Self-directed learning	<i>Theme four: Importance of learning community including highly motivated teachers for PD</i>	• Learning community	5
Intrinsic motivation	<i>Theme five: Motivation to share PD experience with colleagues</i>	• In-house PD opportunities	7
		• Collaborative learning with colleagues	12

Findings from Analysis by Self-reflective Journal Logs

Theme one: Significance of communication for promoting parental involvement

This theme describes that Mr. Kujo realized the significance of communication in developing a trusting relationship with immigrant parents to promote their involvement in PE. Four codes comprise this theme, including “significance of parental involvement,” “Significance of communication,” “trust relationship,” and “commitment.”

Findings from Analysis by Semi-structured Online Interview

Theme two: Significance of practical-based learning through digital portfolio learning

This theme describes that Mr. Kujo believed that a digital portfolio was an effective learning to promote practical-based learning because he successfully accessed other teachers' authentic problem-solving experiences. Three codes comprise this theme, including "practical-based learning," "connect with prior experience," and "comments about portfolio learning."

Theme three: Transformation of the attitude toward communication with immigrant parents in PE through transformative learning experience

This theme captures Mr. Kujo's transformative learning experience that affected his attitude toward communication with immigrant parents in relation to PE to improve interaction with the parents. Four codes comprise this theme, including "cultural awareness," "self-reflection," "attitude change," and "learning the concept of parental involvement."

Theme four: Importance of learning community including highly motivated teachers for PD

This theme describes that Mr. Kujo believed that it is important to develop a learning community with highly motivated teachers to promote PD regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including "learning community."

Theme five: Motivation to share PD experience with colleagues

This theme describes that Mr. Kujo believed that the online PD program helped him to enhance his own motivation to share PD learning experiences regarding parental

involvement of immigrant parents in relation to PE with his colleagues. Two codes comprise this theme, including “in-house PD opportunities” and “collaborative learning with colleagues.”

Case VII: Mr. Shin

Mr. Shin’s Personal Demographic Information

Mr. Shin was a male tenth-year teacher at a public elementary school in Saitama prefecture. He had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from the Philippines. Several themes were constructed from the analysis of his transcribed interview data (Table 43). These themes were: (*Theme one*) significance of understanding family’s background to adjust collaboration with parents, (*Theme two*) the learning of the communication strategy using ICT, (*Theme three*) the need for the authentic story regarding parental involvement of immigrant parents in PE for problem-solving, (*Theme four*) transformative learning experience regarding how to deal with cultural background of immigrant family, (*Theme five*) readiness to learn about the parental involvement of immigrant parents, and (*Theme six*) the need of PD for Japanese teachers to solve problem in the parental involvement of immigrant parents.

Table 43. List of Themes from Mr. Shin’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Self-directed learning	<i>Theme one: Significance of understanding about family’s background to adjust collaboration with parents</i>	• Family’s backgrounds	4
Problem-centered learning	<i>Theme two: The learning of the communication strategy using ICT</i>	• Significance of ICT	5
Semi-structured online interview			
Problem-centered learning	<i>Theme three: The need for the authentic story regarding parental involvement of immigrant parents in PE for problem-solving</i>	• Problem-solving	8
		• Authentic story	5
		• Finding a strategy	5
Transformative learning	<i>Theme four: Transformative learning experience regarding how to deal with cultural background of immigrant family</i>	• Cultural awareness	7
		• Attitude change	13
		• Self-reflection	12
Self-directed learning	<i>Theme five: Readiness to learn about the parental involvement of immigrant parents</i>	• Professional responsibility	4
		• Learning needs	4
Intrinsic motivation	<i>Theme six: The need of PD for Japanese teachers to solve problem in the parental involvement of immigrant parents</i>	• Needs of PD	4
		• Sharing PD tools with colleagues	4

Findings from Analysis by Self-reflective Journal Logs

Theme one: Significance of understanding about family’s background to adjust collaboration with parents

This theme describes that Mr. Shin learned the significance of understanding immigrant families’ diverse backgrounds to adjust collaboration approaches with immigrant parents in relation to PE. One code comprises this theme, including “family’s background.”

Findings from Analysis by Semi-structured Online Interview

Theme two: The learning of the communication strategy using ICT

This theme describes that Mr. Shin learned the communication strategies using ICT to improve the quality of communication with immigrant parents in relation to PE. One code comprises this theme, including “significance of ICT.”

Findings from Analysis by Semi-structured Online Interview

Theme three: The need for the authentic story regarding parental involvement of immigrant parents in PE for problem-solving

This theme explains that Mr. Shin believed that the authentic stories regarding parental involvement of immigrant parents in relation to PE were essential for her to learn problem-solving ideas and approaches. Three codes comprise this theme, including “problem-solving,” “authentic story,” and “finding a strategy.”

Theme four: Transformative learning experience regarding how to deal with cultural background of immigrant family

This theme captures Mr. Shin’s transformative learning experience regarding how to deal with the cultural backgrounds of immigrant families in their communication with immigrant parents in relation to PE. Three codes comprise this theme, including “cultural awareness,” “attitude change,” and “self-reflection.”

Theme five: Readiness to learn about the parental involvement of immigrant parents

This theme describes that Mr. Shin believed that he was ready to participate in the online PD program to learn about the parental involvement of immigrant parents regarding PE because of his professional responsibility at his school. Two codes comprise this theme, including “professional responsibility” and “learning needs.”

Theme six: The need of PD for Japanese teachers to solve problem in the parental involvement of immigrant parents

This theme describes that Mr. Shin believed that Japanese elementary teachers should participate in the PD program regarding parental involvement of immigrant parents in relation to PE in order to solve their problems with immigrant parents. Two codes comprise this theme, including “needs of PD” and “sharing PD tools with colleagues.”

Case VIII: Ms. Tobaru

Ms. Tobaru’s Personal Demographic Information

Ms. Tobaru was a female fourth-year teacher at a public elementary school in Saitama prefecture. She had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from Vietnam, Pakistan, and India. Several themes were constructed from the analysis of her transcribed interview data (Table 44). These themes were: (*Theme one*) significance of perspective-taking to minimize assumptions toward immigrant parents, (*Theme two*) preparedness to deal with problems regarding parental involvement of immigrant parents through digital portfolio learning, (*Theme three*) transformative learning experience regarding communication with immigrant parents in relation to PE, (*Theme four*) advantages of online learning platform to increase motivation to learn, and (*Theme five*) motivation to share PD experience with colleagues.

Table 44. List of Themes from Ms. Tobaru’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Reflective learning	<i>Theme one: Significance of perspective-taking to minimize assumptions toward immigrant parents</i>	<ul style="list-style-type: none"> • Significance of perspective-taking • Awareness of assumptions 	4 4
Semi-structured online interview			
Problem-centered learning	<i>Theme two: Preparedness to deal with problems regarding parental involvement of immigrant parents through digital portfolio learning</i>	<ul style="list-style-type: none"> • Finding a strategy • Preparedness • Connect with prior experience 	7 5 5
Transformative learning	<i>Theme three: Transformative learning experience regarding communication with immigrant parents in relation to PE</i>	<ul style="list-style-type: none"> • Perspective-taking • Attitude change • Self-reflection 	7 10 5
Self-directed learning	<i>Theme four: Advantages of online learning platform to increase motivation to learn</i>	<ul style="list-style-type: none"> • Advantages of online learning platform • Learning needs 	12 5
Intrinsic motivation	<i>Theme five: Motivation to share PD experience with colleagues</i>	<ul style="list-style-type: none"> • Sharing PD tools with colleagues 	11

Findings from Analysis by Self-reflective Journal Logs

Theme one: Significance of perspective-taking to minimize assumptions toward immigrant parents

This theme explained that Ms. Tobaru learned the significance of perspective-taking to minimize her assumptions or stereotypes toward immigrant parents in order to promote their involvement regarding PE. Two codes comprise this theme, including “significance of perspective-taking” and “awareness of assumptions.”

Findings from Analysis by Semi-structured Online Interview

Theme two: Preparedness to deal with problems regarding parental involvement of immigrant parents through digital portfolio learning

This theme describes that Ms. Tobaru believed that digital portfolio learning was an effective method to improve her preparedness to deal with problems in parental involvement of immigrant parents in relation to PE. Three codes comprise this theme, including “finding a strategy,” “preparedness,” and “connect with prior experience.”

Theme three: Transformative learning experience regarding communication with immigrant parents in relation to PE

This theme captures Ms. Tobaru’s transformative learning experience regarding communication with immigrant parents in relation to PE through self-reflection on their prior experiences in order to identify how to improve the quality of communication with the parents. Three codes comprise this theme, including “perspective-taking,” “attitude change,” and “self-reflection.”

Theme four: Advantages of online learning platform to increase motivation to learn

This theme describes that Ms. Tobaru found advantages of online learning platforms to increase her motivation to learn in the PD program. Two codes comprise this theme, including “advantages of online learning platform” and “learning needs.”

Theme five: Motivation to share PD experience with colleagues

This theme describes that Ms. Tobaru believed that the online PD program helped her to enhance her motivation to share PD learning experiences with her colleagues. One code comprises this theme, including “sharing PD tools with colleagues.”

Case IX: Ms. Nishi

Ms. Nishi's Personal Demographic Information

Ms. Nishi was a female seventh-year teacher at a public elementary school in Saitama prefecture. She had professional experiences of interaction with immigrant parents as a classroom teacher. These immigrant parents are from Spain, Peru, Bolivia, and Brazil. Several themes were constructed from the analysis of her transcribed interview data (Table 45). These themes were: (*Theme one*) significance of mutual understanding with immigrant parents about PE, (*Theme two*) importance of collaboration among teachers to introduce ICT in the communication with immigrant parents, (*Theme three*) preparedness for solving problems in the parental involvement of immigrant parents in PE, (*Theme four*) transformative learning experience to change the way of interaction with immigrant parents, and (*Theme five*) the need of PD for in-service teachers who face multiple challenges regarding parental involvement of immigrant parents in PE.

Table 45. List of Themes from Ms. Nishi’s Case Study

Theoretical Category Examples	Individual Theme	Code Examples	Number of narrative phrases
Self-reflective journaling logs			
Self-directed learning	<i>Theme one: Significance of mutual understanding with immigrant parents about PE</i>	• Mutual understanding	6
Problem-centered learning	<i>Theme two: Importance of collaboration among teachers to introduce ICT in the communication with immigrant parents</i>	• Significance of ICT • Collaboration among teachers	4 4
Semi-structured online interview			
Problem-centered learning	<i>Theme three: Preparedness for solving problems regarding parental involvement of immigrant parents in PE</i>	• Comments about digital portfolio learning	9
Transformative learning	<i>Theme four: Transformative learning experience to change the way of interaction with immigrant parents</i>	• Perceptual change	7
Motivation	<i>Theme five: The need of PD for in-service teachers who face multiple challenges regarding parental involvement of immigrant parents in PE</i>	• Necessity of PD • Teacher’s problem	7 7

Findings from Analysis by Self-reflective Journal Logs

Theme one: Significance of mutual understanding with immigrant parents about PE

This theme explained that Ms. Nishi learned the significance of mutual understanding with immigrant parents about PE. One code comprises this theme, including “mutual understanding.”

Theme two: Importance of collaboration among teachers to introduce ICT in the communication with immigrant parents

This theme describes that Ms. Nishi learned the importance of collaboration among teachers in her school to introduce ICT in the communication with immigrant parents in

relation to PE. Two codes comprise this theme, including “significance of ICT” and “collaboration among teachers.”

Findings from analysis by semi-structured online interview

Theme three: Preparedness for solving problems regarding parental involvement of immigrant parents in PE

This theme describes that Ms. Nishi believed that digital portfolio learning was an effective method to enhance her preparedness for problem-solving regarding parental involvement of immigrant parents in relation to PE. One code comprises this theme, including “comments about digital portfolio learning.”

Theme four: Transformative learning experience to change the way of interaction with immigrant parents

This theme captures Ms. Nishi’s transformative learning experience regarding communication with immigrant parents in relation to PE in order to change the way of interaction with immigrant parents. One code comprises this theme, including “perceptual change.”

Theme five: The need of PD for in-service teachers who face multiple challenges regarding parental involvement of immigrant parents in PE

This theme describes that Ms. Nishi believed that in-service teachers who face multiple challenges regarding parental involvement of immigrant parents in relation to PE need to participate in the PD program in order to develop problem-solving knowledge and skills. She gained motivation to share her new learning through the PD program with her colleague to promote collaborative learning regarding parental involvement of immigrant parents in relation to PE. Two codes comprise this theme, including “necessity of PD” and “teacher’s problem.”

Multiple Case Findings Based on Cross Case Analysis of All Nine Japanese Elementary School Teachers

This section addresses the overall description for all nine Japanese elementary school teachers. Descriptive data in this study compose of self-reflective journal logs and semi-structured online interview for each participant were constantly compared (categorized and recategorized, labelled and relabelled) to recur themes emerged from across cases associated with the research questions. The researcher analysed three main themes with seven subthemes that are indicated in Table 46. These themes were (a) digital portfolios as a problem-based learning tool, (b) transformative learning experience regarding communication with immigrant parents, and (c) the need for *Kenshu* (teacher training) for all elementary school teachers.

Table 46. Themes and Subthemes from Cross Case Analysis

Theme	Subthemes	Number of participants:
1 Digital portfolios as a problem-based learning tool	Benefits of other teachers' authentic problem-solving experiences to find strategies to promote parental involvement of immigrant parents regarding PE	9
	Enhanced preparedness to interact with immigrant parents from diverse backgrounds	9
2 Transformative learning experience regarding communication with immigrant parents	Self-reflection on professional experiences of communication with immigrant parents to identify the factors of miscommunication	9
	Transformed perceptions to use ICT to promote communication with immigrant parents in relation to PE	8
3 The need for <i>Kenshu</i> (teacher training) for all elementary school teachers	The need for PD focusing on parental involvement of immigrant parents in relation to PE	9
	Motivation to share learning experiences through the online PD program with colleagues to develop a collaborative learning community	8

Theme One: Digital Portfolios as a Problem-based Learning Tool

All participants believed that digital portfolios were a useful problem-based learning tool because the portfolios helped them assess and evaluate their professional needs, personal interests, or school environment. According to Doig and Groves (2011), a PD portfolio is a collection of instructional materials, called *kyozai* in Japanese. It seems that these participants improved their critical thinking skills and developed a better understanding of how to interact with immigrant parents regarding PE. In the digital portfolios, they reflected on and tried to solve their challenges, issues, and concerns. This theme consists of two subthemes: (a) benefits of other teachers' authentic problem-solving experiences to find strategies to promote parental involvement of immigrant parents regarding PE and (b) enhanced preparedness to interact with immigrant parents from diverse backgrounds.

Subtheme: Benefits of other teachers' authentic problem-solving experiences to find strategies to promote parental involvement of immigrant parents regarding PE

This subtheme explains that the participants felt a digital portfolio was beneficial to exchange and evaluate other teachers' portfolios because this helped them learn about other teachers' authentic cases, and they could examine practical ideas and strategies to maximize their learning. For example, Ms. Tobaru explained:

I believe that exchanging digital portfolios among teachers helped me to find strategies of parental involvement in relation to PE. For example, I learned how to negotiate with immigrant parents when their children wore earrings and participated in PE class. In Japan, wearing earrings is prohibited by school rules. In my experience, there was a child from the United States who wore earrings in my colleague's classroom. Then, I felt that I had no idea how to request his/her parents to take their child's earrings off. [...] If I needed to find a strategy or solution by myself, it would take a lot of time to decide. But I believe that digital portfolios helped me reduce effort and time in making strategies. (Ms. Tobaru, Interview)

Ms. Tobaru also said that she found digital portfolios much more useful learning materials than paper-based portfolios, because she could read the portfolios whenever

and wherever she needed using her smartphone. Another participant, Mr. Shin, learned through interacting with other teachers' case studies how to improve his practices in collaborating with immigrant parents in order to offer a safer learning environment in PE class. He explained:

I feel it was important for me to use case studies based on teachers' authentic experiences to learn how to collaborate with immigrant parents to prevent problems in PE. For example, I also learned that teaching immigrant parents about the concept of safety in Japanese PE is crucial. Because many immigrant children have the risk of getting injuries in some physical activities that they have never experienced, such as gymnastics. I believe that immigrant parents are not supportive of their children if they don't understand the PE curriculum and health risk in PE class. [...] Therefore, I feel digital portfolios helped me to increase my motivation for problem-based learning. (Mr. Shin, Interview)

Mr. Shin believed that digital portfolios help teachers to learn from other teachers' authentic experiences, reflect on their own experiences, and find out what they need to learn, how to improve their practices, and why learning is important for them, all fundamental concepts in andragogy theory (Knowles et al., 2020).

Subtheme: Enhanced preparedness to interact with immigrant parents from diverse backgrounds

The participants believed that exchange their digital portfolios among them helped them enhance preparedness to interact with immigrant parents from diverse backgrounds in relation to PE. For example, Ms. Aze, believed that evaluating other teachers' digital portfolios helped her identify new challenges (e.g., religious considerations) she had never faced in her career. She explained:

I believe that problem-based learning through digital portfolios allowed me to learn about other teachers' experiences and strategies. I am supposed to rotate to a different school the year after next. I believe that teachers' concerns and challenges are influenced by characteristics of the immigrant population in each school. Namely, teachers need to adjust their parental involvement approaches based on parents' nationality, religion, and so on. Therefore, problem-based learning was important for me to gain knowledge and ideas to solve problems with diverse parents that I have not yet experienced. I believe that digital portfolios are valuable learning materials for my future career. (Ms. Aze, Interview)

In this study, the participants had experience at a variety of different (urban or rural) elementary schools (only Mr. Satime and Ms. Aze worked at the same school), and each school included immigrant parents from different nationalities, languages, cultures, socio-economic statuses, and so on. Ms. Aze believed that teachers should become self-directed learners to identify their own learning objectives by learning from other teachers' experiences and becoming familiar with issues and challenges that she had not yet encountered (see also Onyon, 2012).

Theme Two: Transformative Learning Experience regarding Communication with Immigrant Parents

All participants reported they had experienced transformative learning through this PD program regarding the concept of communication with immigrant parents about PE. Transformative learning is a process in which teachers transform problematic assumptions and expectations (e.g., mindsets and meaning perspectives) (Mezirow, 2018). In this study, the video lectures allowed the participants to self-reflect about their feelings, beliefs, assumptions, and perspectives on their practices of communication with immigrant parents. For example, they believed it was crucial to learn the concept of high-context and low-context cultures, which may cause miscommunication between Japanese teachers and immigrant parents. Japanese teachers, who come from a high-context culture, use implicit communication and nonverbal cues; thus, if immigrant parents come from a low-context culture, they may rely more on explicit verbal messages. More specifically, Japanese teachers may assume certain information is common or understood, but the immigrant parents may have different experiences and need clearer explanation and guidance from the Japanese teachers (Tong & Yuqing, 2020). This theme consists of two subthemes: (a) self-reflection on professional

experiences of communication with immigrant parents to identify the factors of miscommunication and (b) transformed perceptions to use ICT to promote communication with immigrant parents in relation to PE.

Subtheme: Self-reflection on professional experiences of communication with immigrant parents to identify the factors of miscommunication

All participants realized that immigrant parents in their class might misinterpret teachers' explanations (e.g., about PE supplies, children's growth, and achievement in PE) because these explanations are grounded in Japan's high-context culture. Therefore, they found it necessary to transform their communication styles and methods based on the needs of immigrant parents. For example, Ms. Morita reflected on her professional experiences of communication with immigrant parents to transform her assumptions.

She said:

This PD program helped me to reflect on my experiences and transform my assumptions about the concept of communication with immigrant parents related to PE. For example, I often face challenges in explaining terminologies in PE. But I have never found out why the immigrant parents of children in my class don't understand what I say. When I watched one of the YouTube video clips, I learned there is a linguistic difference between teachers and immigrant parents due to high-context and low-context cultures. [...] In order to build mutual communication with immigrant parents regarding PE, I feel I need to apply communication methods such as the ABCD model from now on. (Ms. Morita, Self-reflective journal logs)

Ms. Morita learned how to apply the audience, behavior, condition, and degree model (ABCD model; Bloom, 1956) in providing direct, explicit, and clear information to immigrant parents related to PE. More specifically, she believed that the ABCD model helped her bridge high- and low-context cultures with immigrant parents by overcoming communication barriers by creating clearer and more explicit oral and written communication.

Subtheme: Transformed perceptions to use ICT to promote communication with immigrant parents in relation to PE

This subtheme captures the participants' transformative learning experiences regarding using Information and Communication Technologies (ICT) to promote communication with immigrant parents in relation to PE. For example, Mr. Kitta, believed that it was beneficial that the PD introduced how to use ICT as an idea to overcome different communication cultures. He commented:

When I learned about high-context and low-context cultures, I finally found the reason why I felt that communication with immigrant parents must be clear and straightforward. [...] I should use ICT to overcome language and cultural barriers with immigrant parents. Before participating in this PD program, I was hesitant to use ICT when I communicated with immigrant parents because I assumed using ICT was difficult. I believe teachers must use ICT to provide verbal communication in relation to PE, which is translated and clear for immigrant parents. Also, ICT is helpful for teachers to use visual aids such as pictures and videos to explain PE supplies and swimming classes that the parents are not familiar with in their culture. (Mr. Kitta, Interview)

Mr. Kitta found that ICT (e.g., translation and visual aids) helped him minimize cultural gaps with immigrant parents when he explained things unique to the Japanese PE context. Another participant, Mr. Satime, also reflected on his professional experiences and realized ICT was an essential tool for teachers without school support (e.g., school translator). He explained:

I believe that teachers should learn the concept of high-context and low-context cultures to transform their ways of transmitting information to immigrant parents. The YouTube video allowed me to question my assumption that there was no problem in communication with immigrant parents in relation to PE. Then, I realized that I have given immigrant parents little information related to PE so far. [...] I believe teachers who work without school support must use ICT in communication with immigrant parents. However, I think there are some challenges to use ICT in my school due to the lack of teachers' technology skills and prohibited functions due to ethical reasons such as privacy protection and prevention of illegal activities. (Mr. Satime, Self-reflective journal log)

Mr. Satime appreciated that the concept of high-context and low-context cultures was included in the video lectures. He believed that many elementary school teachers must improve their technology skills and create official ethical guidelines within their schools

(e.g., rules, objectives, and strategies) in order to enable them to integrate ICT into their communication with immigrant parents.

Theme Three: The Need for Kenshu (Teacher Training) for All Elementary School Teachers

All participants believed that this PD program would be valuable and beneficial for all elementary school teachers (e.g., novice teachers, advanced teachers, and school administrators) in order to reformulate their practices and motivation regarding parental involvement of immigrant parents in relation to PE. They said that there were limited PD opportunities to learn the theoretical knowledge regarding parental involvement of immigrant parents in their careers. In Japan, *Kenshu* (teacher training) is one of the main strategies of PD for elementary school teachers. For example, so-called “lesson study” (commonly included in *Kenshu* by Japanese teachers) has played an important role for Japanese teachers to refine their knowledge of teaching in PE through colleagues’ and mentors’ feedback and suggestions (Sato et al., 2020a). Typically, lesson study involves a group of teachers meeting regularly to discuss the implementation of research lessons in teachers’ own classroom. This theme consists of two subthemes: (a) the need for PD focusing on parental involvement of immigrant parents in relation to PE and (b) motivation to share learning experiences through the online PD program with colleagues to develop a collaborative learning community.

Subtheme: The need for PD focusing on parental involvement of immigrant parents in relation to PE

All participants felt that it was crucial to design future *Kenshu* that helps teachers develop their knowledge-base and practical skills regarding parental involvement of immigrant parents in order to become ready to work with immigrant parents from

diverse backgrounds. For example, Ms. Nishi believed that the topic of cultural awareness must be included in *Kenshu* for beginner teachers and school administrators.

She explained:

I believe that this PD program must meet elementary school teachers' unique needs as a part of *Kenshu* project. Especially, I think it is valuable learning for beginner teachers because they have lack of knowledge and skills to solve unexpected cultural conflicts with immigrant parents at school events such as the sports festival. I am saying this because they had never had such training when they were teacher candidates as university students. [...] Unfortunately, some school administrators have stereotypes and prejudice towards immigrant parents. Therefore, it is important for them to improve their cultural awareness to facilitate involvement of immigrant parents. (Ms. Nishi, Interview)

Another participant, Ms. Nogi believed that the formal PD workshops for novice teachers (first to third years of teaching experiences) must include practical content about social justice and diversity (e.g., equality, equity, and social justice). She explained:

I feel that my school district's formal PD program for beginner teachers must include the topic regarding parental involvement of immigrant parents related to PE. For example, the concepts of equality, equity, and social justice may help them reformulate their practices with immigrant parents. [...] Unfortunately, some teachers may be unable to access PD opportunities within their schools due to their school administrators' lack of motivation and effort. Therefore, I believe that the Prefectural Boards of Education need to provide equal PD chances for in-service teachers through formal PD programs. (Ms. Nogi, Interview)

In Japan, elementary teachers are legally obligated to attend formal PD programs organized by the Prefectural Boards of Education for 25 days a year (Hanamoto & Kishida, 2013). Therefore, Ms. Nogi believed that such formal PD programs should include content regarding parental involvement of immigrant parents in relation to PE for the benefit of teachers who lack school-based PD opportunities.

Subtheme: Motivation to share learning experiences through the online PD program with colleagues to develop a collaborative learning community

The participants believed that the online PD experiences helped them grow motivation to share their learning experiences with their colleagues to develop a

collaborative learning community. For example, Mr. Kujo, shared his motivation to apply online learning materials similar to those used in this PD program (digital portfolios and YouTube video clips) to lesson studies as a part of school-based PD (*Konai-Kenshu* in Japanese) at his school. He explained:

I would like to use digital portfolios and YouTube video clips when I plan a lesson study for my colleagues in the future. This year, I am responsible for organizing lesson studies as a part of *Konai-Kenshu* regarding multicultural education. But there are limited collaborative learning opportunities among teachers in my school so far. So, I believe that online learning materials from this PD can help me promote discussion among my colleagues to learn about immigrant families' cultural, racial, ethnic, and social backgrounds. I believe that this PD will help me create another lesson study for elementary school teachers to share, exchange, and discuss their knowledge, experiences, and practices regarding involvement of immigrant parents relating to PE. (Mr. Kujo, Interview)

Mr. Kujo believed that this PD program helped him to gain ideas about how to create another lesson study to provide his colleagues with collaborative PD opportunities to learn new knowledge (e.g., cultural characteristics and perspectives of diverse immigrant parents) while exploring and discussing teachers' ideas and plans regarding parental involvement of immigrant parents in PE.

Discussion

The purpose of this study was to analyse Japanese elementary school teachers' learning experiences during PD regarding immigrant parental involvement in PE at public schools in Japan. The study found that Japanese elementary teachers had positive learning experiences through accessing online learning materials (e.g., digital portfolios and YouTube video clips) that helped them find strategies to solve problems, overcome challenges, and reduce concerns in their professional lives. The online PD program helped teachers be self-directed learners, analyse their learning needs, select learning materials, and evaluate their PD experience (see also Rubenson, 2011). Based on andragogy theory, real-life learning experiences during this online PD program are

immediately applicable to the teacher's professional responsibility for facilitating the involvement of immigrant parents in relation to PE.

Digital Portfolios as a Problem-based Learning Tool

This study found that the teachers believed that they need PD opportunities that help them become reflective teachers who can assess their comprehension and skills in order to work effectively with immigrant parents from culturally and linguistically diverse backgrounds, and that digital portfolios helped them prepare to apply this new knowledge to their professional lives (Knowles et al., 2020). According to Cervero (1988), in andragogy, reflective learners demonstrate their ability to reflect in action, which involves being able to solve ill-defined practice situations in which they are more certain about the most appropriate action to pursue. They need to engage in reflective practices and use their repertoire of past experiences to make sense of the current situation and plan future actions. For example, Japanese teachers should learn how to minimize conceptual gaps between teachers and parents as well as conflicts regarding safety in PE classes. We suggest that future PD programs be designed so that teachers may be able to accomplish their unique learning objectives of solving complex real-life problems (Knowles et al., 2020) regarding immigrant parents in relation to PE, such as PE curriculum, health risk behaviours (e.g., risky physical activities), common illness risks (e.g., heatstroke), and nutrition education (e.g., maintaining physical strength) (see also Flory et al., 2014). Further, teachers should also become self-directed learners who continuously study the process of decision-making regarding children's health risks in PE class. To do so, through PD experience, Japanese teachers need to develop an understanding of diverse habits (e.g., rituals, fasting, clothing, manner of prayer) and

beliefs (e.g., faith, precepts, ethics, and morals) in immigrant parents' social and cultural contexts (Jafralie & Zaver, 2019).

Transformative Learning Experience regarding Communication with Immigrant Parents

The teachers in this study acknowledged that it was valuable to learn the concept of high- and low-context cultures and how this affects their interpersonal communication, in order to find clues to minimize the linguistic context gap with immigrant parents in relation to PE. For example, teachers in high-context cultures such as Japan depend on physical or social context, and the message is transmitted less explicitly through verbal codes (e.g., words); nevertheless, immigrant parents in low-context cultures expect more explicit, direct, and non-personal verbal communication (Bai, 2016). Following andragogy theory, writing behaviour goals and objectives helped the teachers express their ideas more explicitly in order to bridge communication differences between high- and low-context cultures (Knowles et al., 2020) which includes the four components of the ABCD model (Bloom, 1956). These components are (a) the *audience* is who (e.g., mother, child, teacher) will achieve the objective, (b) observable expected *behaviour* that the audience will perform, (c) the *conditions* (circumstances or environment) under which the audience will perform the expected behaviour, and (d) the *degree* to which the audience needs to perform (e.g., time, quantity, or quality).

As one example of the learning through PD lessons, all teachers learned the revised Bloom's taxonomy, which includes the six components of (a) remembering, (b) understanding, (c) applying, (d) analysing, (e) evaluating, and (f) creating, as a key tool to analyse and create an original framework of communication styles (Newton et al., 2020). As a result of this study, we suggest that the ABCD model and Bloom's

taxonomy can help teachers minimize the gap and conflict between high- and low-context cultures between the teachers and immigrant parents, so that they could have explicit and effective verbal communication.

According to Giannoukos et al. (2015), transformative learning is widely used in PD following andragogy theory and encourages teachers to demonstrate critical reflection on their past experiences and identify either functional or dysfunctional instances based on new learning. In this study, the YouTube video clips allowed the teachers to gain insight into how to integrate ICT and minimize the gap in cultural context between emic (insider) and etic (outsider) views between the teachers and immigrant parents in relation to PE. Technology-integrated PD in andragogy theory produces a paradigm shift that motivates teachers to apply ICT in real life in order to promote social inclusion of immigrant parents and increase parents' motivation to support their children (e.g., Fraile et al., 2018). In order to develop teachers' readiness to use ICT, we suggest that Japanese teachers learn how to secure digital safety in communication with immigrant parents, such as preventing ethical violations (e.g., cyberbullying) and protecting the privacy of teachers and parents (Tomczyk, 2019). To do so, PD programs should include interactional activities among teachers (e.g., role play and discourse) that allow them to experience transformative learning to reduce their hesitation to use ICT (Mezirow, 2018).

The Need for Kenshu (Teacher Training) for All Elementary School Teachers

The Japanese elementary teachers in this study believed that PD providers (e.g., teachers, school administrators, and school districts) must be aware of the necessity to introduce the concept of parental involvement of immigrant parents into existing *Kenshu* (teacher training in Japanese) opportunities for Japanese elementary teachers.

Following andragogy theory, teachers' readiness to learn is influenced by various cases, conditions, and situations (e.g., school environment, working years, and professional responsibilities) (Knowles et al., 2020). For example, lesson study is the main component of school-based PD (*Konai-Kenshu* in Japanese) in Japan. According to Kihara et al. (2021), PD using lesson study aims for Japanese elementary teachers to be able to modify their teaching through collective observations and reflections among all teachers to address the issues of their competence, confidence, and motivation. In order to facilitate collective study about parental involvement of immigrant parents among teachers, lesson study's learning process can be used in PD programs: (a) identifying specific issues, (b) planning with other teachers, (c) observation of the lesson by other teachers, and (d) post-lesson discussion with a lesson study group member. This type of training offers teachers opportunities to learn not only instructional knowledge but also various behavioural components (Hanamoto & Kishida, 2013). Therefore, we suggest that future formal PD programs be reformed to allow teachers to develop comprehensive knowledge and skills to facilitate parental involvement of immigrant parents in relation to PE.

Answers to Research Questions

Research Question One. What were Japanese elementary school teachers' experiences of online PD in relation to interacting with immigrant parents regarding PE?

This study found that Japanese elementary teachers in the study became self-directed learners to accomplish their own learning objectives to solve their problems with immigrant parents in relation to PE. For example, using digital portfolios with teachers' problem-solving experiences regarding parental involvement of immigrant

parents in relation to PE allowed teachers to access and learn diverse ideas, strategies, or approaches to improve their interaction practices with immigrant parents. More specifically, the teachers experienced three types of problem-based learning, including (a) the problems that they experienced in the past, (b) the problems that they are facing in the present, and (c) the problems that they will experience in the future. In this learning process, online platforms were helpful learning tools because the teachers successfully secured their autonomy to determine what, when, and how they learned. Therefore, the researcher indicates that using a digital portfolio played a key role as a component of the andragogy-based PD program regarding parental involvement of immigrant parents in PE.

The study found that Japanese teachers experienced theoretical-based learning through video lectures that helped them develop a knowledge base regarding parental involvement of immigrant parents in relation to PE. More specifically, the teachers gained an in-depth understanding of factors that cause various problems or challenges when interacting with immigrant parents regarding PE. For example, the teachers identified the reasons for miscommunication with immigrant parents regarding PE when they learned about the concept of high- and low-context culture. To help teachers develop their knowledge base regarding the parental involvement of immigrant parents in PE, the future PD program should be designed with critical theoretical knowledge associated with immigrant parents' beliefs and behavior. For example, the teachers should learn about the cultural and religious practices of immigrant parents to be able to implement culturally responsive practices when interacting with the parents in relation to PE.

Research Question Two. How did online PD learning experiences mediate Japanese elementary school teachers' perspectives of communicating, collaborating, and working with immigrant parents in relation to PE?

This study found that the online PD learning experiences transformed Japanese elementary teachers' perspectives and future actions regarding parental involvement of immigrant parents in relation to PE. More specifically, the PD program stimulated the teachers' critical thinking knowledge and skills to reflect on their experiences and assumptions in order to improve or modify their attitudes and behaviors to promote parental involvement of immigrant parents regarding PE. For example, the teachers learned that they need to modify their communication practices with immigrant parents by integrating with ICT to overcome language barriers due to high- and low-context cultural differences. According to the andragogy theory, teachers need to understand that their new learning through the PD program can be applied in their professional settings to solve problems or challenges with immigrant parents regarding PE (Knowles et al., 2020). In this study, the teachers recognized that the PD contents contributed to them gaining insights and ideas for transforming their behaviors (e.g., communication style) in order to meet immigrant parents' individual needs. Therefore, the researcher suggests that the future PD program must include practical learning topics (e.g., communication strategies, culturally responsive practices, diversity, and social inclusion) to help teachers experience a paradigm shift in their perceptions regarding parental involvement of immigrant parents in relation to PE.

Summary

The purpose of this study was to analyze Japanese elementary school teachers' learning experiences during PD regarding immigrant parental involvement in PE at

public schools in Japan. Based on andragogy theory, this study used an explanatory case study research design. Nine Japanese elementary teachers participated in the study. Data were collected from digital portfolios about immigrant parental involvement in PE, self-reflective journal logs, and semi-structured online interviews. Three major interrelated and complex themes were constructed from the data analysis: (a) *digital portfolios as a problem-based learning tool*, (b) *transformative learning experience regarding communication with immigrant parents*, and (c) *the need for Kenshu (teacher training) for all elementary school teachers*. The findings suggest that the PD focusing on immigrant parental involvement in relation to PE allowed teachers to transform their practices and perceptions in order to minimize psychological, cultural, and social distance from immigrant parents. This study may help teachers, school administrators, and researchers develop new insights and motivation to integrate the concept of immigrant parental involvement regarding PE into the PD systems of public elementary schools in order to enhance teachers' problem-solving knowledge and skills.

CHAPTER 5: FINAL DISCUSSION

Overview

This study explored two main components as the purposes of the study. This study (a) investigated Japanese elementary teachers' experiences of parental involvement of immigrant parents regarding PE in order to identify challenges or problems they need to solve, and (b) constructed a problem-solving-based PD program based on Japanese elementary teachers' experiences and feedback regarding parental involvement of immigrant parents by using online PD methods. To accomplish the purposes, the researcher implemented two series of studies:

Study one: *Japanese elementary classroom teachers' experiences with parental involvement of immigrants regarding physical education*

Study two: *Japanese elementary teachers' experiences during online professional development regarding involvement of immigrant parents in physical education*

In Study one, the researcher used the theory of teacher development (Katz, 1972) and examined Japanese elementary teachers' experiences and challenges regarding parental involvement of immigrant parents in relation to PE based on the four developmental stages (survival, consolidation, renewal, maturity). The theory of teacher development (Katz, 1972) was an appropriate framework because it helped the researcher gain a theoretical lens to identify teachers' survival challenges, consolidated knowledge and skills, renewal practices, and matured services that they experienced through collaborating with immigrant parents regarding PE. Moreover, the researcher found teachers' training needs that are important information to develop their professionalism regarding parental involvement of immigrant parents from immature to

maturity level. These results from Study one was helpful for the researcher in designing the problem-solving-based PD program that meets teachers' professional interests, needs, and situations.

In Study two, the researcher used the andragogy theory (Knowles et al., 2020) as a theoretical framework to design the problem-solving-based online PD program regarding parental involvement of immigrant parents in relation to PE. Andragogy theory was appropriate framework because it helped the researcher gain insights and perspective to design the PD contents, which addressed the specific learning needs of adult learners, such as teachers. The researcher determined to use a criterion (e.g., the revised version of Bloom's taxonomy), educational platforms (e.g., online PD platform), and instructional tips (e.g., digital portfolios, video lecture, self-reflective journal log, and peer evaluation) to increase teachers' engagement in their own problem-solving learning activity. The online PD program was designed based on the findings from the results of Study one to help teachers understand the relevance between learning materials and their professional lives in order to enhance their readiness and intrinsic motivation to learn. Andragogy theory also helped the researcher to examine Japanese teachers' learning experiences through the problem-solving-based online PD program regarding parental involvement of immigrant parents in relation to PE. More specifically, the researcher gained a theoretical lens to interpret and analyze complex phenomena of teachers' problem-solving learning, such as self-directed learning, transformative learning, the role of their prior experiences, and motivation to learn (Knowles et al., 2020). In short, the PD program successfully promoted teachers' problem-solving learning. For example, the exchange of digital portfolios with other teachers regarding parental involvement of immigrant parents through online PD

program allowed the teachers to find solutions for their problems or challenges that they experienced in the past, they are currently experiencing, or they will experience in the future. Therefore, the findings of Study two can be valuable insights for PD providers (e.g., teachers, school principals, researchers, or professors) to integrate the concept of parental involvement of immigrant parents with the existing PD system at public elementary schools.

The findings from both studies (Study one and two) explained teachers' experiences and perceptions regarding immigrant parental involvement that were associated with not only PE but also other academic subjects because Japanese elementary classroom teachers are responsible for teaching all academic subjects. Regarding this, it can be said that Japanese teachers face both challenges and problems specific to PE and common to other academic subjects. Therefore, Japanese teachers viewed PD contents and other teachers' practices relevant to all academic subjects, school life (e.g., bullying), and school events (e.g., school trips) as beneficial resources to gain problem-solving knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

Japanese Elementary Teachers' Experiences of Dealing with Problems and Challenges regarding Parental Involvement of Immigrant Parents in relation to PE

This study discovered various problems and challenges that Japanese elementary teachers experience regarding the parental involvement of immigrant parents in relation to PE. First, the study found that Japanese teachers believed that a lack of cooperation from immigrant parents who face socioeconomic obstacles (e.g., poverty, demanding job schedules) is challenging. More specifically, the teachers struggled to request those

immigrant parents to purchase necessary PE supplies (e.g., PE uniforms, skipping rope). This is because the teachers felt an ethical dilemma between *Honne* (e.g., expect immigrant parents to purchase PE supplies even in poverty) and *Tatemae* (e.g., teachers need to accept immigrant parents' socioeconomic backgrounds). Therefore, they felt inadequacy or unpreparedness to deal with the gap between their expectations of parents' cooperative behaviors and actual parents' uncooperative actions.

In addition, the study found that Japanese teachers faced communication barriers due to language and cultural differences when collaborating with immigrant parents concerning PE, creating challenges in offering an effective and safe learning environment in PE classes. For example, they struggled to explain to immigrant parents the safety concept in Japanese PE classes (e.g., injury or illness prevention). Moreover, they felt cultural conflict with immigrant parents when they faced difficulties in developing a mutual understanding of the Japanese PE system (e.g., PE curriculum) and roles (e.g., wearing PE clothes appropriately). They were afraid of their children being marginalized or excluded from PE class (e.g., not allowed to participate) due to a lack of collaboration between teachers and immigrant parents. Because of these factors, Japanese teachers recognized that they needed to generate new knowledge and skills to enhance collaboration with immigrant parents in relation to PE. To help teachers overcome the challenges of working with immigrant parents regarding PE, they need to have practical advice (e.g., communication), suggestions, or encouragement from someone (e.g., mentor teacher, senior teacher, and school principal) who has an in-depth understanding of their parental involvement practices and situations (Katz, 1972).

Second, the study found that Japanese teachers had implicit biases, stereotypes, or prejudice against immigrant parents, which is influenced by the unique interpersonal

concept of *Uchi* (in-group) and *Soto* (out-group) in Japan (Davies & Ikeno, 2002). This concept is one of the characteristics of Japanese collective culture. For example, Japanese teachers expected immigrant parents to behave as same as other parents (e.g., Japanese parents) in order to accomplish their responsibilities as parents to support their children's learning in PE (e.g., support for injury or illness prevention). Thus, they viewed immigrant parents as cultural outsiders when they were surprised at the unexpected behaviors of immigrant parents that are appropriate behaviors based on their diverse backgrounds (e.g., culture, tradition, race, religion, and ethnicity). They were afraid of miscommunication with immigrant parents regarding their children's important information in relation to PE (e.g., achievement and behavioral problems), because they may not be able to catch of parents' individual needs. To minimize their bias, stereotypes, or prejudice against immigrant parents, Japanese teachers must understand and respect diverse differences with the parents. Therefore, Japanese teachers must participate in PD opportunities to enhance their cultural awareness (e.g., dealing diversity and social justice) to minimize cultural and social conflict with immigrant parents in relation to PE.

Third, the study found that elementary teachers were extremely anxious about how to inform immigrant parents about unexpected accidents or incidents during PE classes (e.g., sudden injury or illness). For example, they struggled to exchange critical information about their children (e.g., health status, Japanese medical system, surgery due to serious injury) with immigrant parents in a medical emergency (e.g., life-threatening situation). They sought assistance from colleagues (teachers, principals, school nurses, and school interpreters) to avoid miscommunication with immigrant parents about children's physical, psychological, or physiological conditions. Therefore,

Japanese teachers must learn practical knowledge and demonstrate skills to promote joint work with their school personnel to provide immigrant parents with mature services (e.g., translation service and special guidance).

Overall, this study found that Japanese elementary teachers had less experience participating in PD opportunities, focusing on the parental involvement of immigrant parents in relation to PE. Because of this, they struggled to find materials and human resources that helped them learn ideas, strategies, or solutions to solve their own problems with immigrant parents. More specifically, teachers who work with a fewer teacher who have similar experiences of interacting with immigrant parents regarding PE must find solutions themselves. Therefore, it is crucial to enrich the PD program that allows Japanese teachers to acquire problem-solving knowledge and skills to overcome individual challenges working with immigrant parents and establish a physically, psychologically, and socially inclusive learning environment for their children in PE.

Japanese Elementary Teachers' PD Experiences to Gain Problem-solving Knowledge and Skills regarding Parental Involvement of Immigrant Parents in relation to PE

The problem-solving-based online PD program regarding parental involvement of immigrant parents in relation to PE helped Japanese elementary teachers develop their professional knowledge and skills based on their specific learning needs. The findings from Study two helped the researcher understand several important components of the PD program. First, the study found that the use of a digital portfolio was a useful learning method for teachers to experience problem-solving learning. In this study, the teachers experienced two types of learning processes using a digital portfolio: (a) developing one's own digital portfolio through reflecting on problem-solving

experiences regarding parental involvement of immigrant parents, and (b) evaluating other teachers' digital portfolios regarding parental involvement of immigrant parents. In these learning processes, the teachers created and stored interpretative records of reflection on their practices, values, and strategies that stimulated their critical thinking to identify practical ideas, approaches, or techniques to solve their own problems with immigrant parents in relation to PE (Xerri & Cambell, 2015). Moreover, other teachers' digital portfolios allowed them to access learning materials, including problem-solving stories regarding the parental involvement of immigrant parents, what they experienced in the past, what they currently experience, or what they will experience in the future. For example, the teachers gained new insights and perspectives on improving and modifying their practices (e.g., communication styles) to solve various problems with immigrant parents (e.g., conflicts due to cultural and religious differences). Therefore, it is crucial to create and store more digital portfolios addressing diverse problem-solving cases in order to enrich learning materials meeting teachers' learning needs for promoting immigrant parental involvement in PE.

Second, the study found that the online PD program allowed Japanese elementary teachers to experience transformative learning, which is one of the critical components of andragogy theory (Mezirow, 2018). More specifically, they implemented critical self-reflection to reformulate their meaning perspective, being more inclusive, cultivated, and integrative understanding of experience regarding parental involvement of immigrant parents in relation to PE (Mezirow, 1990). For example, a video lecture (using a YouTube video clip) focusing on communication strategies helped the teachers transform their assumptions regarding miscommunication with immigrant parents by learning the concept of high- and low-context cultural contexts (Bai, 2016). More

specifically, they realized the necessity to gain knowledge and skills to effectively utilize ICT to create explicit, direct, and non-personal verbal messages (both oral and written) to link between emic and etic perspectives with immigrant parents (Furuta et al., 2022). In order to foster teachers' transformative learning, the future PD program should (a) establish a safe learning environment where they can trust, (b) use accurate information, (c) adopt learner-centered learning, and (d) support them to analyze their issues through problem-based learning and critical reflection (Taylor, 2000).

Third, this study found that the online PD program increased Japanese elementary teachers' motivation to integrate the concept of parental involvement of immigrant parents in relation to PE with their PD opportunities in their schools or school districts. For example, the teachers gained motivation to share the learning materials in the PD program (e.g., digital portfolios and YouTube video clips) with their colleagues in order to develop a collaborative learning community to improve their understanding of immigrant parents' diverse backgrounds regarding PE. Moreover, there are several ideas to integrate the concept of immigrant parental involvement with the existing PD system: (a) using of a lesson study approach, reforming *Kenshu* (teacher training) for beginner teachers, and (b) reorganizing school districts' formal PD program. More specifically, these PD opportunities should include learning content related to diversity and social inclusion (e.g., the concept of equality, equity, and social justice) to cultivate teachers who can apply culturally responsive knowledge and skills in working with immigrant parents regarding PE. To help more teachers gain insights to apply the learning materials of the online PD program to their PD opportunities, the future research must redesign an online PD platform that teachers feel easy to access and enhance their readiness to learn.

Study Limitations

This study has three major limitations. First, the participants' professional years were limited. Gathering more qualitative data from participants with diverse professional years, including beginner to senior teachers, may help the researcher gain a better understanding of the teachers' developmental characteristics and PD needs regarding parental involvement of immigrant parents in relation to PE.

Second, the participants were selected from Japanese elementary schools located in a specific area in Japan. Having more diverse regions may enable us to implement cross-case analysis. By using cross-case analysis, researchers can gather critical evidence through learning from different cases (Eckstein, 2009).

Third, the sample size was small. Obtaining more participants with diverse backgrounds would enable us to gain a better understanding of teachers' unique experiences. In this study, the researcher was able to find different perspectives from teachers with diverse backgrounds, including classroom teachers. However, there were only a few participants from each background. Obtaining more participants with diverse professional responsibilities would enable us to better understand the unique PD experiences. Nevertheless, qualitative inquires, including case studies, typically use small samples to uncover the unknown themes from transcript data to explain social/educational phenomena (Patton, 2002). The intend of this research was to identify the common learning needs of Japanese elementary teachers to enhance their PD regarding parental involvement of immigrant parents in relation to PE.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

This study explored two main components as the purposes of the study. This study (a) investigated Japanese elementary teachers' experiences of parental involvement of immigrant parents regarding PE in order to identify challenges or problems they need to solve, and (b) constructed a problem-solving-based PD program based on Japanese elementary teachers' experiences and feedback regarding parental involvement of immigrant parents by using online PD methods. The primary contributions of this study were:

1. To reveal unique elementary teachers' experiences of dealing with challenges and problems regarding parental involvement of immigrant parents in the Japanese PE context.
2. To indicate important learning contents and instructional strategies to establish a PD program that helps Japanese teachers gain problem-solving knowledge and skills regarding parental involvement of immigrant parents in relation to PE.

The following section presents (a) suggestions to construct a PD program regarding parental involvement of immigrant parents in relation to PE, (b) recommendations, and (c) conclusion.

Suggestions to Construct a PD Program regarding Parental Involvement of Immigrant Parents in relation to PE

Based on the findings from the present study, the researcher suggests several ideas and tips for future PD providers (e.g., teachers, teacher educators, the Prefectural Boards of Education, researchers, and professors) to gain theoretical and practical insights in order to construct a PD program regarding immigrant parental involvement in relation to PE.

First, the researcher suggests that the PD providers must identify teachers' challenges and problems that they need to solve to promote parental involvement of immigrant parents in relation to PE before constructing the PD programs. This is because the PD contents should be relevant to teachers' individual professional lives to enhance their preparedness and motivation to engage in their own professional learning. More specifically, it is recommended to collect information about the specific issues of parental involvement of immigrant parents in PE, such as socioeconomic obstacles (e.g., less support to prepare necessary PE supplies), cultural conflicts (e.g., lack of understanding of PE curriculum, physical activity habits, religious practices), and safety concerns (e.g., a lack of cooperation from parent for health risk prevention, communication barriers during life-threatening situation). As one of the analytical methods, the theory of teacher development (Katz, 1972) can be used to interpretate teachers' challenges as well as their professional training needs to improve their practices regarding parental involvement in relation to PE.

Second, PD providers should construct a problem-solving-based PD program regarding parental involvement of immigrant parents in PE after they find the issues and concerns teachers face. Continuously, andragogy theory is used to design the PD content and materials, which promote teachers' problem-solving learning (Knowles et al., 2020). For example, PD providers must remember that teachers' prior experiences become valuable PD resources to stimulate their critical thinking skills to gain perspectives to apply their new learning in overcoming their challenges. In this learning process, teachers are expected to (a) conduct problem identification, (b) research and seek alternative actions, (c) consider other points of view, and (d) determine the best choice to execute (Moore, 2010).

Third, PD providers must decide to use appropriate online learning platforms based on teachers' individual and professional situations to maximize their engagement in the PD program. More specifically, the PD program should help teachers express multiple opinions regarding PD instructions and materials. In this case, Japanese teachers may struggle to find enough time and space when working at their schools. Teachers feel convenient when they can access whenever and wherever they have available chances (e.g., during a commute, child-rearing, housework, driving).

Fourth, using digital portfolios is a valuable strategy to promote teachers' problem-solving technique regarding parental involvement of immigrant parents in relation to PE. One of the benefits of digital portfolios is to allow teachers to access the data of various other teachers' current situations and practices. Teachers' PE learnings should be associated with their children's lives (e.g., body size, culture, tradition, physical activity, health, religion, disabilities). Therefore, it is crucial to create and store digital portfolios with diverse problem-solving initiatives to help teachers be able to access other teachers' practices based on their professional interests and needs.

Fifth, using video lectures is a valuable instructional approach to help teachers experience transformative learning to reflect and minimize their assumptions, stereotypes, or prejudice against parental involvement of immigrant parents in relation to PE (Mezirow, 2018). Japanese teachers should gain theoretical knowledge to minimize the gap between emic and etic perspectives when judging immigrant parents' PE behaviors (Furuta et al., 2022). For example, PD content should include the concept of high- and low-context culture to help teachers exercise critical thinking skills to transform their traditional communication styles to meet immigrant parents' needs (e.g., using ICT to provide explicit verbal and non-verbal information).

Sixth, the PD providers should help teachers learn about collaboration with immigrant parents and their children's life-threatening situations in relation to PE (Council on School Health, 2008). More specifically, teachers must learn about (a) communication strategies (e.g., translation techniques) to inform immigrant parents about their children's health status (e.g., degree of injuries, illness), (b) methods to reach immigrant parents with inflexible job schedule, and (c) transdisciplinary collaboration among school personnel to decide appropriate medical treatment with immigrant parents.

Seventh, the PD program should include learning content that promotes teachers' culturally responsive parental involvement regarding PE (Goodwin & King, 2002). More specifically, teachers need to gain knowledge and skills to address immigrant parents' unexpected thoughts and behaviors in supporting their children regarding PE. For example, the learning content should include immigrant parents' cultural backgrounds regarding PE, such as traditional sports, religious faith and practices (e.g., prayer, fasting, dress codes, commandments), cultural taboos (e.g., body contact, colors), and lifestyle habits (e.g., late to sleep). These topics related to cultural backgrounds may help teachers exercise their critical thinking skills to deal with moral and ethical issues with immigrant parents to ensure their children's rights to participate in PE.

Recommendations

The following recommendations may help teachers develop a harmonious and collaborative relationship with immigrant parents to promote their children's academic learning in PE and improve the quality of PD for elementary teachers.

First, school administrators and school districts need to establish continuous PD programs to improve teachers' knowledge, beliefs, and practical skills to develop a trustful relationship between teachers and immigrant parents. Typically, PD programs regarding parental involvement include multiple topics, such as collaborative planning and problem-solving, communication strategies, cultural awareness, and strategies for working with parents of diverse backgrounds and developing parent-teacher relationships (Smith & Sheridan 2019). This study emphasizes that PD regarding parental involvement for Japanese elementary teachers should focus on more specific professional needs of teachers, such as culturally relevant interaction with immigrant parents who have diverse backgrounds (e.g., socioeconomic hardship, demanding job schedules) in order to mature teachers' developmental stages. In order to provide learning opportunities that meet teachers' needs, on-site training from a trainer who has enough time, flexibility, and ample understanding about the teachers and their collaboration status with immigrant parents is most effective to master the development (Katz, 1972).

Second, it is recommended that classroom teachers obtain learning resources from specialists such as psychologists, social workers, and healthcare providers (Katz 1972). Exchanging experiences, ideas and strategies with local workers in diverse fields may help classroom teachers minimize their unconscious bias and reflect on their stereotypical thoughts about immigrant parents with diverse backgrounds. The teachers should be cautious when they justify their actions in thinking and working with immigrant parents (Bartolomé & Trueba 2000). Developing a digital portfolio is helpful for the teachers to assess and reflect on their practices in their communication with immigrant parents and demonstrate what they have learned and how they can apply

their knowledge for future preparedness (Stolle et al., 2005). Therefore, self-reflection is important to improve teachers' knowledge, beliefs, and skills for communicating with immigrant parents. Furthermore, it is essential to look into the phenomena of teachers' experiential learning in the process of minimizing their assumptions by using specific theories such as andragogy theory (adult learning theory; Knowles, 1989) to enrich the PD resources meeting teachers' needs in the future.

Third, the school district may need to enrich the school system and school personnel (e.g., school translator, school nurses) in order to promote teachers' transdisciplinary collaborations (Gillis et al., 2017). For example, the school district can hire extra school translators and/or experts in cross-cultural communication (e.g., researchers) to assist and help the school personnel to organize orientations or family workshops for linguistically diverse immigrant parents to provide information about the educational system in PE and parents' responsibilities (Araujo, 2009). Moreover, school administrators may be able to encourage transdisciplinary collaboration among the school personnel by establishing emergency action plans (EAP) with immigrant parents in order to address sudden accidents or incidents (e.g., life-threatening situations) of immigrant children (Tanis & Hebel, 2016). EAP should include plans for during a crisis (e.g., who contacts the parents), after the crisis (e.g., how to collaborate with parents to care for the child), and following the incident (e.g., how to assess the cooperation with parents).

Fourth, elementary teachers must develop their own digital portfolios to store and share their experiences, practices, and strategies regarding parental involvement of immigrant parents in relation to PE. In Japan, school and regional demographics influence teachers' problems and challenges in collaborating with immigrant parents

regarding PE. Thus, it is crucial to produce more digital portfolios, including diverse problem-solving cases, to secure teachers' options to access and choose appropriate learning materials based on their professional situations. To do so, school administrators should invite experienced mentors who have in-depth knowledge and skills in portfolio development so that they may be able to train elementary teachers as reflective professionals (Xerri & Campbell, 2015). Additionally, national-level institutions (e.g., in Japan, the Ministry of Education, Culture, Sports, Science and Technology, 2018) must incorporate an online platform that helps teachers to exchange and find digital portfolios based on their learning needs in relation to PE (e.g., immigrant parents' characteristics).

Fifth, school districts need to offer digital competence workshops for Japanese elementary teachers and school administrators in order to help them to prepare and learn how to use ICT in communication with immigrant parents. These types of workshops need to include several topics, such as (a) information and data literacy, (b) communication and collaboration, (c) digital content creation, and (d) safety (Vuorikari et al., 2022). In the workshops, the school districts may need to motivate school administrators to establish ICT policies that include clear objectives and rules to help them feel a sense of safety to incorporate ICT tools in their schools.

Sixth, school districts need to establish formal PD programs focusing on parental involvement of immigrant parents which are combined with relevant academic subjects that need cultural and ethical considerations (e.g., PE, moral education, health education, music, and arts). In Japanese elementary schools, one teacher is assigned to teach all the academic subject areas. The teacher may be able to share their knowledge and skills (which they learned in classroom teaching) and how they design dance

lessons, rhythmic physical activities, and visual aids (e.g., art materials) for their PE class with parents (Sato et al., 2020b). For example, these programs should include social justice and diversity-related topics (e.g., diverse backgrounds of immigrant parents, high- and low-context cultures, and culturally responsive strategies) to help teachers respond to parents' expectations or concerns appropriately. Inviting university professors and researchers to speak about theoretical knowledge (e.g., the concept of parental involvement, cross-cultural communication, and political issues) may be useful for elementary teachers to learn how to improve their practices.

Conclusions

Internationalization at Japanese public elementary schools is expected to continue growing. Thus, many teachers must be aware of their responsibilities to develop professional knowledge and skills to promote parental involvement of immigrant parents in order to establish equitable learning rights and opportunities in PE for all children, including JLLs. In order to accelerate the professional growth of teachers, the researcher suggests that enriching the PD resources regarding parental involvement of immigrant parents is crucial. The online PD program designed by the researcher is a way for teachers to start to transform their practices and perceptions regarding parental involvement of immigrant parents in PE in order to minimize the psychological, cultural, and social distance from immigrant parents. To enrich PD opportunities, we hope that this study will contribute to PD providers (e.g., teachers, school administrators, teacher educators, researchers, Prefectural Boards of Education) to develop new insights and motivation to integrate the concept of immigrant parental involvement regarding PE into the PD systems of public elementary schools in order to enhance teachers' problem-solving knowledge and skills.

In future research, first, the researcher should continuously and domestically verify teachers' learning outcomes of the PD program regarding parental involvement of immigrant parents in relation to PE. Second, the researcher needs to conduct individual interviews with immigrant parents and find real voices regarding issues and concerns in relation to PE and seek problem-solving strategies. Third, it might be beneficial to include principals and vice principals who can share unique needs through PD. They typically understand academic standard and working knowledge of curriculum as well as school environment in relation to immigrant parents.

In the final, the researcher once more emphasizes that the ultimate goal of parental involvement is to enhance children's academic achievements and establish a comfortable school life. In PE, Japanese teachers must collaborate with immigrant parents to provide their children with a physically, culturally, and socially safe learning environment to help them acquire essential competencies for their future enjoyable lives (e.g., psychomotor, cognitive, affective competencies). To innovate the existing PD system in Japan to establish inclusive PE for children with diverse backgrounds (e.g., immigration), the researcher suggests that more and more researchers start advocating the urgent need for PD to integrate the concept of parental involvement in PE.

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