Teacher Needs and Relevant Factors for Teaching Jiritsu-Katsudo in Special Needs Schools for Children with Physical Disabilities

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In this study, teacher requirements for Jiritsu-Katsudo instruction in special needs schools for children with physical disabilities were explored. Furthermore, fundamental data to contribute to the professional development of teachers were obtained. In Study 1, the structure of Jiritsu-Katsudo teaching needs was investigated. The causal model that affects these needs was explored in Study 2. The results revealed three influential factors, namely, medical understanding, approaches for designing individual teaching plans, and understanding Jiritsu-Katsudo philosophy. The factors affecting teachers' needs were examined using path analysis. The independent variables included the number of years of teaching experience in special needs schools and teacher collaboration. Teacher collaboration was closely connected to teacher needs. In particular, teacher collaboration in teaching Jiritsu-Katsudo affected all teacher needs factors, thus indicating that, when faced with uncertainty, teacher collaboration is important when teaching children with widely varying needs. It was further clarified that teachers require professional guidance on collaboration. Furthermore, inexperienced teachers have a greater need for approaches to design individual teaching plans.

Key Words: special needs schools for children with physical disabilities, Jiritsu-Katsudo, teacher needs, path analysis

Introduction

Jiritsu-Katsudo is a specialized field in the national curriculum of special needs schools in Japan. The goal of Jiritsu-Katsudo is to ensure each pupil acquires knowledge, skills, attitudes, and practices so as to achieve independence. These attributes are needed to allow those with disabilities to reduce or overcome obstacles in everyday life that are caused by their disabilities, thus, forming the foundation for mental and physical harmonious development (MEXT, 2009a). Unlike other subjects, the teaching goals and content of Jiritsu-Katsudo are not determined in advance. First, teachers are expected to have a precise understanding of each child's actual condition. Furthermore, teachers should establish the goals and content of Jiritsu-Katsudo by employing a bottom-up perspective and procedure, which is based on child-centered theory (Ando, 2015). It is thought that the effective teaching of Jiritsu-Katsudo may be achieved by integrating all the educational activities of the school during the time allocated for Jiritsu-Katsudo. This may be achieved by coordinating the teaching time for each academic subject. The teachers are required to design individual teaching plans (ITPs) for all the pupils when they are teaching Jiritsu-Katsudo at special needs schools.

Based on the achievements in special needs schools to date, it was decided that Jiritsu-Katsudo would be introduced into elementary schools for children who have disabilities aggressively (MEXT, 2017a). Teaching Jiritsu-Katsudo has an important role in promoting inclusive education in Japan. Consequently, the focus of this study was on teachers' professionality while teaching Jiritsu-Katsudo.

First, in the study, the trends related to the professionality of teachers in Japan were explored.
According to Imazu (1996), two ways of examining this professionality are by employing the teacher personal model and the formal education improvement model. The teacher personal model requires teacher quality in knowledge, skills, and attitudes while the formal education improvement model is based on the notion of enhancing the quality of formal education itself, including that in the classroom by improving the behaviors modeled by teachers, such as improving relation between the teacher and pupils. Imazu (1996) noted that people have been attributing professionality to the personal qualities of teachers who employ in-depth thinking in Japan and advocated that they should rather utilize the formal education improvement model as the issues schools face are becoming increasingly complex. Shibayama (2010) focused on the structure of teachers’ professionality and referred to the teacher personal model as the individual performance model and the formal education improvement model as the collaborative model. Therefore, when focusing on the newly proposed collaborative model, it is necessary to define collaboration. The definition thereof has been debated extensively (e.g., Barnard, 1938; Hargreaves, 1999). However, in this study, Fuchigami’s (2005) definition of collaboration, namely, “having a mutual understanding of and sharing a problem that should be worked on and working together to solve or improve on that problem” was employed.

In this study, the professionality required from teachers at special needs schools for children with physical disabilities as it relates to the teaching of Jiritsu-Katsudo was also explored. Because special needs schools have pupils who face diverse, overlapping, and sometimes severe disabilities, it is hoped that the professionality of those who teach Jiritsu-Katsudo will be enhanced. In education for such pupils, teachers are asked to cooperate with nurses who provide medical care as well as other teachers, physical therapists (PTs), occupational therapists (OTs), and speech-language hearing therapists (STs) so as to provide the best instruction. Discussions related to teachers’ professionality is expected to include the new collaborative model and not only the individual performance model (Ando, 2015).

The purpose of this study was to obtain fundamental data that will enhance discussions on professionality as well as the professionality that is imperative for teachers who are involved in Jiritsu-Katsudo in special needs schools for children with physical disabilities. The research comprised two studies. In Study 1, the professionality that teachers feel is imperative to have an understanding of teaching Jiritsu-Katsudo in these schools and the structure of these needs were explored and clarified. In Study 2, a causal model consisting of the factors that were extracted and their related factors were proposed and verified. Because the teacher career cycle has been noted by prior research as a related factor (Huberman, 1989), the related factors examined in this study included attributes of teachers such as years of teaching experience in special needs schools and collaboration with other teachers.

**Study 1**

**Purpose**

In Study 1, the Jiritsu-Katsudo teaching needs in special needs schools for children with physical disabilities were explored. Furthermore, the characteristics of teachers in special needs schools for children with physical disabilities (TPD) were clarified by comparing the scores for each factor between TPD and teachers in special needs schools for children with intellectual disabilities (TID).

**Method**

**Participants.** The primary sample comprised 296 teachers at three special needs schools for physical disabilities in prefecture A. In addition, 84 teachers from the intellectual disabilities section of the special needs school comprised the comparison group. Prefecture A is located in the Kanto area. The population is in the higher quartile among the 47 metropolises and districts. With the establishment of new schools, the ratio of young teachers is relatively high. The average number of years of service in special needs schools in prefecture A was the same as the national average revealed in the 2013 survey (MEXT, 2015). In the country, the ratio of people to special needs schools was 113,000 per one school whereas in prefecture A, there were 121,000 people per one school (MEXT, 2017b; Ministry of Internal Affairs and Communications, 2017).

**Content.** A two-part questionnaire was designed. Demographic information: Data on gender, age, years of teaching experience, years of teaching experience in special needs schools, and whether or not
the participant teachers had a special needs school teaching license were obtained.

*Jiritsu-Katsudo* teaching needs: Thirty-one items related to *Jiritsu-Katsudo* teaching needs were selected from previous studies. These included a precise understanding of each child's condition and the design of ITPs (Anezaki, 2001; Ichiki & Ando, 2010; Ichiki & Ando, 2013), understanding and applying teaching methods related to the body (Funabashi, 2016; Konno, 2014; Konno, 2016; Nakai & Takano, 2011), and supporting the widely varying needs of children in relation to concerns such as medical care and eating instructions (Iwakiri, 2013; Moriya, Okinaka, & Sakamoto, 2012; Takahashi, 2013).

**Procedure.** The study was conducted from December, 20XX to January, 20XX+1 after obtaining consent from the target schools. Approval for this study was obtained by the University of Tsukuba Ethical Review Board.

**Scoring and analysis.** While various profile questions required the participants to select an option, other questions were open-ended. The *Jiritsu-Katsudo* teaching needs scale required the participants to select the degree of importance of each item on a five-point scale, ranging from 1 (low) to 5 (very high). The participants were required to answer questions related to the *Jiritsu-Katsudo* teaching needs of the teaching content for the children in charge at the time of the survey.

To clarify the factors that affected the teaching of *Jiritsu-Katsudo*, the questionnaire items were evaluated using exploratory factor analysis, the major factor method, and the varimax rotation method. To identify the specific characteristics of TPD, the total scores for each factor for TPD were compared to the scores for TID.

All statistical analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 24.0.

**Results**

Of the 357 teachers, 272 responded, yielding a

| Table 1 | Results of Factor Analysis: *Jiritsu-Katsudo* Teaching Needs |
|---------|---------------------------------------------------------------|
|         | Factor 1: Medical understanding (*α*=.889)                   |
|         | Knowledge and skills for orthosis, and self-help device handling methods | .842 | .238 | .152 |
|         | Excretion management knowledge and skills                    | .685 | .082 | .395 |
|         | Disease and health care knowledge and skills                  | .683 | .299 | .148 |
|         | Knowledge and understanding of cerebral disease               | .677 | .219 | .406 |
|         | Knowledge and teaching methods for posture and movement        | .641 | .408 | .190 |
|         | Medical care cooperation with nurses                          | .542 | .158 | .360 |
| Factor 2: Approaches for designing ITPs (*α*=.837)       |
| Cooperation among teachers in the team-teaching class      | .146 | .738 | .223 |
| Feedback and redesign for the precise understanding of each child's actual condition and teaching plans from teaching records | .133 | .652 | .321 |
| Sharing the children's actual conditions among teachers    | .223 | .651 | .145 |
| Setting learning targets and developing content based on the precise understanding of each child's actual condition | .229 | .579 | .103 |
| Precise understanding of each child's actual condition     | .452 | .571 | .117 |
| The practical use of teaching records and evaluations from team-teaching | .151 | .547 | .358 |
| Factor 3: Understanding of *Jiritsu-Katsudo* philosophy (*α*=.824) |     |      |      |
| Clarifying the connection of instructions for *Jiritsu-Katsudo* and each subject | .286 | .213 | .694 |
| Ensuring effective and practical teaching records for evaluations | .180 | .379 | .681 |
| Knowledge and skills for information and communication technology | .315 | .149 | .607 |
| Making effective use of teaching records to improve teaching | .239 | .407 | .521 |

Factor contribution ratio (%) 21.554 19.514 15.275

*Note.* Major factor method and varimax rotation method. Cumulative contribution ratio: 56.343%
response rate of 76.2%. The answers that contained incorrect scale answers were excluded. Finally, 177 TPD and 34 TID were included in the analysis; the effective response rate was 77.6%.

Profile of TPD participants. The final sample included 56 (31.6%) males, 120 (67.8%) females, and 1 (0.6%) non-responder. The results showed the average age, years of teaching experience, and years of teaching experience in special needs schools were 41.81 (SD=9.322), 16.53 (SD=9.618), and 14.70 (SD=8.868), respectively. Furthermore, 99.4% of the TPD teachers had a special needs school teaching license.

Of the TID, there were 13 (38.2%) males and 21 (61.8%) females. The average age, years of teaching experience, and years of teaching experience in special needs schools were 41.18 (SD=8.847), 16.06 (SD=8.644), and 15.00 (SD=7.966), respectively. In addition, 100.0% of the TDI teachers had a special needs school teaching license.

Examination of each factor’s structure. The 31 items that related to Jiritsu-Katsudo teaching needs were analyzed by employing the major factor method and the varimax rotation method. Of the 31 items, 15 were eliminated because they did not obtain a significance level of .50 in absolute value. The remaining 16 items were re-analyzed. The results are displayed in Table 1.

The following six items were loaded on Factor 1: Knowledge and skills for orthosis, and self-help device handling methods; excretion management knowledge and skills; disease and health care knowledge and skills; knowledge and understanding of cerebral disease; knowledge and teaching methods for posture and movement; and medical care cooperation with nurses. Factor 1 was referred to as medical understanding because the items are related to the medical knowledge and skills required for TPD.

The following items were loaded on Factor 2: Cooperation among teachers in the team-teaching class; feedback and redesign for the precise understanding of each child’s actual condition, and teaching plans from teaching records; sharing the children’s actual conditions among teachers; setting learning targets and developing content based on the precise understanding of each child’s actual condition; precise understanding of each child’s actual condition; and the practical use of teaching records and evaluations from team-teaching. Factor 2 was referred to as approaches for designing ITPs because the items were concerned with teacher cooperation, the precise understanding of each child’s actual condition, and the design of teaching plans.

The following four items were loaded on Factor 3: Clarifying the connection of instructions for Jiritsu-Katsudo and each subject; ensuring effective and practical teaching records for evaluations; knowledge and skills for information and communication technology; and making effective use of teaching records to improve teaching. Because these items were related to basic Jiritsu-Katsudo philosophy, Factor 3 was called understanding of Jiritsu-Katsudo philosophy.

Cronbach’s alpha was calculated for the factors used in this study to ensure internal consistency; results revealed $\alpha=.889$, $\alpha=.837$, and $\alpha=.824$ for Factors 1, 2, and 3, respectively.

A comparison of physical disabilities and intellectual disabilities. The total scores for each factor of TPD were compared with those of TID to determine whether there were any specific characteristics related only to TPD.

The differences between the average scores for each factor were compared. The average scores of each factor for TPD were 25.04 (SD=3.966) for Factor 1, 27.27 (SD=2.853) for Factor 2, and 16.16 (SD=2.614) for Factor 3. The average scores for TID were 21.21 (SD=6.275) for Factor 1, 26.35 (SD=3.180) for Factor 2, and 14.62 (SD=2.882) for Factor 3. While the differences between Factors 1 and 3 were significant ($t(38.217)=3.433, p <.01; t(209)=3.107, p <.01)$, there was no significant difference for Factor 2.

Discussions

Following the exploration of the Jiritsu-Katsudo teaching needs for TPD, three factors were identified: Medical understanding, approaches for designing ITPs, and understanding of Jiritsu-Katsudo philosophy.

In relation to Factor 1, medical understanding, nurses, PTs, and OTs were introduced into the schools to improve medical care and the Jiritsu-Katsudo professionality of teachers (MEXT, 2013; MEXT, 2016). Therefore, daily cooperation with these specialists is imperative to ensure that the TPDs receive the medical knowledge and skills they need.

Factor 2, approaches for designing ITPs, was one of the most significant matters for TPDs because it is compulsory in special needs schools. Previous research has found that ITPs are generally designed
by several teachers (Fujita, Yanagimoto, Ishibe, Kawai, Yamamoto, Nishikawa, & Kawama, 1990; Yanagimoto, Fujita, Nishikawa, Yamamoto, & Kawai, 1991). Consequently, making decisions as a group is required when designing ITPs (Ando, 2001). Designing ITPs requires processes such as a precise understanding of each child’s actual condition and subsequently, establishing specific goals and teaching content. As the process of designing ITPs is complex, it is important that cooperation among teachers, and the connection between components and components for teaching Jiritsu-Katsudo form an integral part of the foundation.

Factor 3, understanding of Jiritsu-Katsudo philosophy requires an understanding of the inter-relatedness between the time for Jiritsu-Katsudo and the instructions for each subject on the premise of cooperation among teachers. Furthermore, it is related to the basic philosophy of Jiritsu-Katsudo; this includes an understanding of the relationship with class records, evaluations, and lesson enhancements. This factor is based on an understanding of mutual Jiritsu-Katsudo relationships in the design-practice-evaluation and improvement processes (Ando, 2015). On analyzing these three factors, two types of relationships were identified: First, the relationships between people and people to foster cooperation among colleagues and outside specialists for teaching Jiritsu-Katsudo, and second, the connection between components and components for teaching Jiritsu-Katsudo (e.g., MEXT, 2009a; MEXT, 2009b).

The average scores for each factor for TPD were compared with the scores for each factor for TID. The findings revealed that there were significant differences between Factor 1 (medical understanding) and Factor 3 (understanding of Jiritsu-Katsudo philosophy); however, no significant differences were found for Factor 2. Therefore, it is suggested that TPD should pay attention to the requirements associated with these two factors. Factor 2 was found to be a common need for both TPD and TID; consequently, both groups need to be made aware of the requirements. Teaching children with severe and multiple disabilities, and especially teaching Jiritsu-Katsudo to children who need medical care, is practiced in special needs schools for children with intellectual disabilities has varied from other special needs schools since the period of Yogo-Kunren (Imai & Narukawa, 2013). On the contrary, teachers are required to design ITPs for all pupils regardless of their disabilities. Based on the background outlined above, the differences between TPD and TID were revealed in this survey. Although statistical differences were evident in this study, the small number of participants from TID did not afford an adequate discussion.

Study 2

Purpose

The purpose of this study was two-fold: First, to investigate teacher collaboration when teaching Jiritsu-Katsudo and second, to examine the causal model that affects Jiritsu-Katsudo teaching needs. The independent variables in this study were years of teaching experience in special needs schools and the extracted teacher collaboration factors.

Method

The participants and procedures were the same as those in Study 1.

Content. Demographic information: The same demographic data employed in Study 1 were used in Study 2.

Teacher collaboration: Although 28 teacher collaboration factors for teaching Jiritsu-Katsudo were extracted from Shiiba, Saito, and Fukuzawa’s (2010) study on collaboration between practicum instructors and nursing school teachers, various modifications so as to fit the situation under study were implemented. In particular, practice instruction, teacher, and students were replaced with teaching Jiritsu-Katsudo, another teacher, and children, respectively.

Scoring and analysis. The scale for teacher collaboration when teaching Jiritsu-Katsudo required participants to assess items on a five-point scale, ranging from 1 (rarely) to 5 (most of the time).

Questionnaire items were evaluated by means of exploratory factor analysis so as to clarify the factors that affected teacher collaboration when teaching Jiritsu-Katsudo.

The constructed causal model was analyzed by employing path analysis. All statistical analyses were performed using the SPSS version 24.0 and Amos 24.0.
Results

Examination of structures for teacher collaboration. The 28 items related to teacher collaboration when teaching Jiritsu-Katsudo were analyzed by means of the major factor method and the varimax rotation method. The findings revealed that 18 items did not achieve .50 in absolute value and consequently, they were eliminated from the study. The remaining 10 items were re-analyzed. The results are presented in Table 2.

Five items were loaded on Factor 1: I share the children's intentions with other teachers so that the children are satisfied with the instructions; I make the best use of other teachers' opinions regarding the future direction of Jiritsu-Katsudo; when opinions differ, I discuss these with the other teachers so as to resolve the future directions of Jiritsu-Katsudo instruction; I discuss the problems of Jiritsu-Katsudo with other teachers; and I talk about teaching methods with other teachers so as to solve the children's problems. Factor 1 was termed, teacher collaboration when teaching Jiritsu-Katsudo.

Five items were loaded on Factor 2: I can exchange information and opinions regarding Jiritsu-Katsudo with other teachers freely; I can talk with other teachers casually and not only about Jiritsu-Katsudo; I share good information about the children with other teachers; I talk to other teachers if I see them; and I talk with other teachers so as not to cause accidents related to Jiritsu-Katsudo. As these items were related to teacher collaboration beyond the teaching of Jiritsu-Katsudo, this factor was referred to as teacher collaboration in all school education activities.

To examine internal consistency, Cronbach's alpha was calculated for the factors used in this study. The results revealed $\alpha=.870$ and $\alpha=.823$ for Factors 1 and 2, respectively.

Examination of the Structural Model. Path analysis employing Amos 24.0 was performed for the factors that affected Jiritsu-Katsudo teaching needs.

The independent variables included years of teaching experience in special needs schools and the teacher collaboration factors, namely, teacher collaboration when teaching Jiritsu-Katsudo and teacher collaboration in all school education activities. Modified indexes and various goodness-of-fit indexes were then extracted from the original model to develop the final model. In Fig. 1, the significant paths in the final model are depicted. Each goodness-of-fit index was high ($\chi^2 (9)=5.363, p=.802, GFI=.990, AGFI=.977, CFI=1.000, AIC=29.363, RMSEA=.000$), thus, indicating that the model showed a good fit to the data.

Factor 1, teacher collaboration when teaching Jiritsu-Katsudo was found to have a significantly positive path for medical understanding and understand-

Table 2 Results of Factor Analysis: Teacher Collaboration

| Factor 1: Teacher collaboration when teaching Jiritsu-Katsudo ($\alpha=.870$) | 1    | 2    |
|-------------------------------|------|------|
| I share the children's intentions with other teachers so that the children are satisfied with the instructions. | .799 | .323 |
| I make the best use of other teachers' opinions regarding the future direction of Jiritsu-Katsudo. | .730 | .376 |
| When opinions differ, I discuss these with the other teachers so as to resolve the future directions of Jiritsu-Katsudo instruction. | .714 | .351 |
| I discuss the problems of Jiritsu-Katsudo with other teachers. | .690 | .194 |
| I talk about teaching methods with other teachers so as to solve the children's problems. | .520 | .393 |
| Factor contribution ratio (%) | 28.432 | 26.612 |

Factor 2: Teacher collaboration in all school education activities ($\alpha=.823$)

| Factor 1: Teacher collaboration when teaching Jiritsu-Katsudo ($\alpha=.870$) | 1    | 2    |
|-------------------------------|------|------|
| I can exchange information and opinions regarding Jiritsu-Katsudo with other teachers freely. | .313 | .765 |
| I can talk with other teachers casually and not only about Jiritsu-Katsudo. | .326 | .683 |
| I share good information about the children with other teachers. | .306 | .656 |
| I talk to other teachers if I see them. | .173 | .569 |
| I talk with other teachers so as not to cause accidents related to Jiritsu-Katsudo. | .298 | .542 |
| Factor contribution ratio (%) | 28.432 | 26.612 |

Note. Major factor method and varimax rotation method. Cumulative contribution ratio: 55.044%
ing of Jiritsu-Katsudo philosophy. Years of teaching experience in special needs schools was found to have a significantly negative path for approaches to designing ITPs. Teacher collaboration when teaching Jiritsu-Katsudo and teacher collaboration in all school education activities both had significantly positive paths for approaches to designing ITPs. Teacher collaboration when teaching Jiritsu-Katsudo and teacher collaboration in all school education activities were significantly correlated.

**Discussion**

**Structure of teacher collaboration factors.** Two factors, namely, teacher collaboration when teaching Jiritsu-Katsudo and teacher collaboration in all school education activities, were identified. However, in Shiiba, et al.'s (2010) study, a three-factor structure was identified: decision-making, cooperativeness, and information sharing, which were loaded from the items related to discussions, helping each other, and sharing with each other, respectively.

Fuchigami (2005) noted that sharing perspectives on problems and cooperating when solving problems are important preconditions for collaboration. As the disabilities of children are severe and vary widely, teaching Jiritsu-Katsudo is complex in special needs schools for children with physical disabilities because their disabilities may be severe and vary widely. Consequently, this prompted the extraction of specific collaboration factors related to sharing perspectives on problems and cooperation in solving problems when dealing with Jiritsu-Katsudo instructions.

Teaching Jiritsu-Katsudo focuses on addressing the obstacles children encounter when learning. Furthermore, the entire school educational activities focus on the problems caused by their disabilities in everyday life (MEXT, 2009b). Fuchigami and Nishimura (2004) extracted everyday communication as a collaborative teacher efficacy factor. Therefore, collaboration was identified as necessary, not only for common problems, but also for collaboration in all school educational activities. Teachers, parents, and other specialists are required to collaborate when dealing with children with severe and multiple disabilities.

**Factors that affect needs of teachers.** An examination of the structural model revealed that both medical understanding and understanding of Jiritsu-Katsudo philosophy had a significantly positive path as a result of teacher collaboration when teaching Jiritsu-Katsudo. Furthermore, approaches to designing ITPs were found to have significant path because of years of teaching experience in special needs schools as well as both teacher collaboration factors.

Preconditions such as sharing perspectives on problems and cooperation in solving problems in Jiritsu-Katsudo instruction exist for teacher collaboration when teaching Jiritsu-Katsudo. In Study 1, the following basic relationships were revealed: Cooperation with outside specialists is required for medical understanding, teacher cooperation and connections between components and components
for teaching *Jiritsu-Katsudo* is needed for approaches to designing ITPs, and components and components for teaching *Jiritsu-Katsudo* with teacher cooperation as a precondition is connected to an understanding of *Jiritsu-Katsudo* philosophy. Furthermore, organizational collaboration with colleagues and outside specialists is required when teaching *Jiritsu-Katsudo* in an education setting for children who have physical disabilities (Konno, 2014). Consequently, in this study, it was believed that this collaboration factor was related to the needs factors based on the relationships between people and people as well as the connection between components and components for teaching *Jiritsu-Katsudo*.

Years of teaching experience in special needs schools and teacher collaboration in all school education activities were found to be affected only by Factor 2, approaches to designing ITPs. For the foundation of teacher needs in Factor 2, complex relationships were found between teacher cooperation and the connection of components; consequently, teacher collaboration in all school education activities also affected the needs of teachers related to Factor 2. Ichiki and Ando (2010) found that inexperienced teachers experience high levels of uneasiness in relation to designing ITPs. Thus, there was a negative path between years of teaching experience in special needs schools and Factor 2, thus, indicating that inexperienced teachers have higher needs.

This study revealed although two collaboration factors affected the needs factors, these factors were correlated. Consequently, it is recommended that this multicollinearity problem is resolved in further studies.

**General Discussion**

This study aimed to collect fundamental data so as to discuss the professional development of teachers in relation to teaching *Jiritsu-Katsudo* in special needs schools for children with physical disabilities. Teacher collaboration was found to be important when dealing with the uncertainty associated with the children's range of severe disabilities.

Ando (2015) revealed three types of professionality needed when dealing with *Jiritsu-Katsudo*: Professionality of personal qualities, professionality required in problem-solving collaborative efforts with colleagues, and professionality required in problem-solving collaborative efforts with relevant local medical and welfare specialists. Because medical understanding was found to be a key TPD need, teachers may need to increase their collaborative efforts with outside specialists in the future. Furthermore, because approaches to designing ITPs and understanding of *Jiritsu-Katsudo* philosophy were related to teacher collaboration, more emphasis should be placed on-the-job training. In this study, it was not possible to examine the relationship of the current situation of schools such as the format of ITPs and *Jiritsu-Katsudo* teaching needs. Therefore, so as to discuss a concrete approach such as on-the-job training, it is recommended that this problem be investigated in further studies.

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**Endnote**

1) *Yogo-Kunren* was established as a new field in the national curriculum for special schools in 1971.

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