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3 A Status Analysis of the Integrated Physical Education in Hong Kong Elementary Schools

4 Chunxiao Li and Shihui Chen

5 The Hong Kong Institute of Education

6 Jiabei Zhang

7 Western Michigan University

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12 Chunxiao Li is now the project assistant at Faculty of Arts and Social Science, The  
13 Hong Kong Institute of Education, Hong Kong, China. Shihui Chen is now the Associate  
14 Professor at Department of Health and Physical Education, The Hong Kong Institute of  
15 Education, Hong Kong, China, and Jiabei Zhang is a Professor at the Department of Health,  
16 Physical Education, and Recreation, Western Michigan University, USA.

17 Correspondence concerning this article should be addressed to Shihui Chen,  
18 Department of Health and Physical Education, The Hong Kong Institute of Education. Email:  
19 shchen@ied.edu.hk

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Abstract

The purpose of this study was to analyze the current status of integrated physical education (PE) in general PE classes at elementary schools in Hong Kong. A questionnaire and cover letter were sent to 115 participants. A follow-up was made to contact non-respondents two weeks after the initial dissemination of questionnaires. Of those that were surveyed, 72.17% (N=83) responded. The results indicated that there were 12 different types of students with disabilities integrated into general settings. Most inclusive classroom integrated 1-3 students with disabilities and class sizes vary widely from school to school. Teachers received limited personnel support, faced more serious barriers for integration in the future, and possessed the need for professional development. Seven valuable implications of the results were discussed.

*Key word: integrated physical education, adapted physical education, and general physical education*

1 A Status Analysis of the Integrated Physical Education in Hong Kong Elementary Schools

2 The philosophy of integration is to support students with disabilities in general physical  
3 education settings (Block, 2007) and globalization of integration is ever more advocated  
4 (DePauw & Doll-Tepper, 2000). Research on integrating students with disabilities in general  
5 PE has been increasing (Porretta & Sherrill, 2005). One of the critical research issues is about  
6 investigating the status of integrating PE classes. Findings through examining current status  
7 of integrated service delivery can be used for developing models which may boost integration  
8 (Chandler & Greene, 1995).

9 Placement is a basic area of integration. A nationwide study on examining placement  
10 options on students with disabilities was conducted by Jansma, and Decker (1990). Findings  
11 showed that the majority of students with disabilities were integrated in regular settings. The  
12 other study about placement variables of integrated PE was conducted by Jansma and Decker  
13 (1992). Results showed that five variables influence on placement of integrated PE included  
14 level and type of disability, safety considerations, teaching objectives, teachers'  
15 recommendations, special education experts' recommendations, and viewpoints of parents.

16 Melograno, and Loovis (1991) compared the survey result on status of PE for students  
17 with disabilities between 1980 and 1988. They found that results in 1980 were reaffirmed in  
18 1988; teachers were lack of the ability to provide appropriate PE for students with disabilities.  
19 Chandler, and Greene (1995) also comprehensively studied the status of integrated PE service

1 delivery, but they mainly focused on the placement, teachers' perceived needs, curriculum  
2 content, and activity offerings needs.

3 Lieberman et al. (2002) found that general PE teachers believed they faced many  
4 barriers when integrated students with visual disabilities, which revolved around lack of  
5 teacher preparation. Other barriers relative to integration reported were lack of equipment  
6 (63%), curriculum (57%), and schedule time (56%). More recently, Hodge et al. (2004) found  
7 that large classes adversely pose negative impacts on general PE teachers' teaching  
8 effectiveness and teachers confronted with a lot of challenges (e.g., lack of knowledge,  
9 students' safety, and class management) when delivering integrated PE service.

10 Support service is of key importance for the philosophy of integration and it generally  
11 refers to personnel assistance to students with disabilities in general PE settings (Block, 2007).  
12 Support provided for integrated PE has been proved helpfully for students with and without  
13 disability (Kasser & Lieberman, 2003). For example, research findings showed trained peer  
14 tutors could not only improve the motor performance (Houston-Wilson et al., 1997), but also  
15 motor engagement of students with mild disabilities in general PE settings (DePaepe, 1985;  
16 Lieberman et al., 2000; Lieberman, Newcomer, McCubbin & Dalrymple, 1997; Webster,  
17 1987). Students with severe disabilities could also be integrated successfully in general  
18 settings when support is provided to general PE teachers (Vogler et al., 2000). However, not  
19 all the integrated settings are received or got sufficient support.

1 For example, a report from The Australian Institute of Health and Welfare indicated  
2 that only 17% of all children with a disability in regular classes receive support (Australian  
3 Institute of Health and Welfare, 2004). Although not all children with a disability need  
4 additional support, there is unmet need for support in many schools and classes  
5 (Commonwealth of Australia, 2002). There are also other studies reported that schools  
6 provided little support for integration and teachers felt inadequately prepared to teach  
7 integrated PE classes(Hardin, 2005; Hodge et al., 2004; LaMaster et al., 1998; Smith &  
8 Green, 2004).

9 Teachers have to develop their skills which necessary for effective teaching, teachers'  
10 needs must be thus addressed for successful integration. If the teachers' needs cannot be  
11 considered, the situation of negative attitudes toward teaching students with disabilities will  
12 continue (Chandler & Greene, 1995). Findings concerning in-service physical educators'  
13 needs showed that they stressed the following themes: lack of knowledge of motor  
14 assessments, management techniques, smaller student-staff ratios, use of instructional  
15 supports, curriculum planning and implementation and cooperation with special educators,  
16 parents, and medical professionals (Chandler & Greene, 1995; Heikinaro-Johansson &  
17 Sherrill, 1994; Hodge, Ammah, Casebolt, Lamaster & O'Sullivan, 2004; Kelly & Gansneder,  
18 1998; Melograno & Loovis, 1980; Melograno & Loovis, 1991).

19 At present, scholars begin to pay attention to paraeducators' needs. One example is the

1 study conducted by Davis and his colleagues (2007); they investigated paraeducators' training  
2 needs in their study. Findings indicated that paraeducators' most desired training areas  
3 included activity modifications, attributes of students with disabilities, and knowledge of  
4 motor development.

5 When comes to Hong Kong, the government did not take any actions in terms of  
6 including students with disabilities in the regular school setting until late 1997 (Chen, Lau &  
7 Jin, 2006). To date, most students with special education needs are educated in 62 special  
8 schools and some students with mild to moderate disabilities are included in regular schools  
9 in Hong Kong (EDB, 2007). Support service projects such as "White Paper on Rehabilitation  
10 Program Plan" and "Model Whole School Approach to Integration" have been taken to  
11 support students with disabilities in general school. However, there is only one research (see  
12 Chen, Lau & Jin, 2006) concerning the preservice teachers' attitudes towards integration and  
13 no systematic research has been conducted to find out the student placement, barrier, support,  
14 and teachers' perceived needs on inclusive physical education in Hong Kong.

15 The purpose of this quantitative research was to extend the previous research based on  
16 the context of Hong Kong. More specifically, following research questions were addressed in  
17 present study: (a) integrated PE service delivery; (b) integrated PE service barriers; and (c)  
18 integrated PE personnel needs. A status profile of integrating of students with disabilities in  
19 general PE classes at elementary schools in Hong Kong was also investigated in this study.

## 1 Method

### 2 *Participants*

3 The target participants of this study were all PE teachers from the general elementary  
4 schools in Hong Kong in which students with disabilities were included. A roster of 280  
5 general elementary schools was obtained from the webpage of Education Bureau of Hong  
6 Kong (EDB). Generally, there are at least two PE teachers from each elementary school and  
7 they should possess education certificate in order to deliver PE service. PE teachers (N=115)  
8 from these schools were selected through two ways, which were “snow ball” and phone calls  
9 for getting the permission for administering questionnaires.

### 10 *Instrument*

11 An instrument, Inclusive Physical Education Service Delivery Questionnaire (IPESDQ),  
12 was applied in this study. It was mainly modified from the previous instrument initiated by  
13 Shu (1996) for his master thesis. Other instruments such as Teacher Integration Attitudes  
14 Questionnaire (TIAQ) and readings about articles concerning inclusive physical education  
15 service delivery were also referred when revised the instrument.

16 A panel of experts (N=8), including professors in special education and adapted PE,  
17 reviewed the initial IPESDQ, and all suggestions were considered in modifying the IPESDQ.  
18 An additional review of the revised IPESDQ was conducted by 10 physical educators from

1 general elementary schools in Hong Kong. All suggestions were considered, and the IPESDQ  
2 can be deemed to have face validity as defined by Borg and Gall (1989).

3 The final version of the IPESDQ includes four parts and totally 41 items in it. Part one is  
4 for understanding the personnel profile of participants (7 items from items 1 to 7). Part two is  
5 for examining the integrated PE service delivery (18 items from items 8 to 27). Part three is  
6 for studying the integrated PE service barriers (2 items from items 28-29). Part four is  
7 planned to investigate the integrated PE personnel needs (12 items from item 30 to 41).

#### 8 *Data Collections*

9 The first step of the data collection was to get PE teachers' permissions for answering  
10 questionnaires. As mentioned above, the permissions were got through two ways which were  
11 "snow ball" and phone call. After the previous step, a list for administering questionnaires  
12 was created. A questionnaire, a postage paid return envelope (not for participants using email)  
13 and a cover letter explaining the purpose of the study and instructions for completing the  
14 questionnaire were delivered or emailed to each participant. A follow-up was made to contact  
15 nonrespondents two weeks after the initial dissemination of questionnaires (Porretta, Kozub  
16 & Lisboa, 2000).

#### 17 *Data Analysis*

18 Data collected were analyzed through the software of SPSS 16.0 for Windows. Such

1 descriptive statistics as means, frequencies, and percentages were used to report participants'  
2 demographics, the status of integrated PE service delivery, the status of integrated PE service  
3 barriers, and the status of integrated PE personnel needs.

#### 4 Results

##### 5 *Return rate of the questionnaire*

6 Totally 115 questionnaires were sent to our participants at the first mail-out. Sixty  
7 questionnaires were collected after first mail-out. A follow-up was then made to contact all  
8 nonrespondents two weeks after the initial dissemination of questionnaires. After the second  
9 round mail-out, another 23 questionnaires were collected. A total of 83 questionnaires were  
10 received and the final return rate of the survey was at 72.17%.

##### 11 *Integrated PE service delivery*

12 In the second part of the questionnaire, teachers were first asked to report the number  
13 of students with disabilities integrated in general PE classes. In elementary schools, 93.0% of  
14 students with disabilities received physical education service, in which 71.0% of the students  
15 with disability received integrated physical education service delivery; however, it was regret  
16 to find that about 7.0% of students' physical education rights were deprived. Most integrated  
17 PE classes integrated 1-3 students with disabilities, while only few classes had more than 4  
18 students with disabilities. A big range of class sizes was observed, ranging from 8 to 36.

1           When these teachers were asked to report the types of disabilities integrated in general  
2 elementary schools, 12 different types of disabilities were identified. Among 12 disabilities  
3 students with learning disability, attention deficit disorder with hyperactivity, autism, speech  
4 impairment, and mental retardation were commonly integrated. They were most likely with  
5 mild disabilities with a few of students with moderate disabilities.

6           Teachers were asked their concerns about teaching integrated PE classes as well. 28.6%  
7 of teachers thought they were competent with teaching students with disabilities, and 54.5%  
8 of teachers were not sure they can deliver integrated physical. 76.6% of teachers agreed and  
9 strongly agreed students with disabilities like their physical education and 23.4% of teachers  
10 not sure if students like their teaching or not. Only 7.8% of teachers disagreed students with  
11 disabilities should be integrated into general physical education classrooms (see Table 1).

12           (Insert Table 1 here)

### 13 *Integrated PE service barriers*

14           Teachers were asked to report what supports they received. About 33.3% of teachers  
15 claimed that they received personnel support from teaching assistant, and 30.7% of teachers  
16 received support from speech therapist. The percentage of support from volunteer, parents,  
17 and special education expert were around 18.7. It was astonished to find 24.0% of teachers  
18 receive no support from personnel. 66.3% of teachers strongly agreed or agreed that schools  
19 provided little support to integrated physical education (see Table 2)

1 (Insert Table 2 here)

2 Teachers were also asked to report barriers for delivering integrated PE classes. Table 3  
3 provides the frequencies of barriers for delivering integrated PE. The biggest barrier was the  
4 lack of material and curriculum guidance for integrated PE service delivery (48.1%) that was  
5 followed by the barrier of lacking of knowledge and skills (45.7%). The third barrier was lack  
6 of policies or legislations for developing inclusive physical education (40.7%). The least five  
7 barriers were insufficient teaching passion (3.7%), insufficient learning passion by students  
8 with disabilities (6.2%), low degree of adaptability from parents (6.2%), bad interpersonal  
9 relationship between teachers and students (8.6%), and others (6.2%) such as hard to manage  
10 class and safety issue.

11 (Insert Table 3 here)

### 12 *Integrated PE personnel needs*

13 Teachers were asked to report needs for policy, sports meeting, guidance, certification,  
14 and equipment for integrated PE classes. Table 4 indicates that 61.5% of responses strongly  
15 agreed or agreed government mandating policies or legislations to develop inclusive physical  
16 education and 27.7% of teachers held neutral opinions on this issue. Negative attitude was  
17 observed since 10.8% of teachers thought it was not necessary to issue these kinds of policies  
18 and legislations. 73.5% of teachers strongly agreed or agreed to hold more sports meeting for  
19 students with disabilities and only 2.4% of responses disagreed that.

1 Table 4 also shows that 57.9% of teachers showed that they strongly needed or needed  
2 curriculum guidance and teaching material on inclusive physical education and only 4.8% of  
3 them disagreed upon that. Through this table, it was also able to find that 53.0% of teachers  
4 strongly agreed or agreed that integrated PE teachers should possess a certificate for teaching.  
5 31.3% of teachers stand neutral point and 15.6% of teachers strongly disagreed or disagreed  
6 with the certification of integrated PE. Also, more than the half of teachers (62.7%) strongly  
7 agreed and agreed to purchase sports facilities and equipments.

8 Teachers were also asked to report the in-service training for integrated PE instruction.  
9 The results we found were that 44.0% of teachers never received trainings on integrated PE.  
10 The responses that had attended some workshops and modules were at 19.0% and 36.0%  
11 respectively. Only one teacher awarded a degree in adapted physical education (about 1%).  
12 When teachers were asked if they needed getting in-service training, 83.1% of teachers said  
13 “YES!”

14 According to Table 5, there were 9 different training contents that teachers hoped to  
15 learn. The nature and needs of specific disability was the most greeting training content by  
16 teachers (69.0%), followed by communication skills (56.3%), motor control and learning  
17 (52.1%), assessment and measurement (45.1%), teaching planning (42.3%), prevention and  
18 management of sport injury (33.8%), classroom and behavior management (32.4%), legal  
19 issue on adapted physical education (23.9%), and history of adapted physical education

1 (12.7%).

2 (Insert Table 5 here)

3 When considering the ways for training, most teachers (52) chose short-term training  
4 and school visit (39) was the second popular way for training. Reading club and self-study  
5 were not very sought by teachers because they were at 2 and 16 respectively. About time for  
6 training, workday was selected by 34 teachers and 30 teachers chose summer vacation. There  
7 were 18 teachers preferred to get training after work. It was easily to find that weekend day  
8 and winter vacation were not very welcomed by teachers. When teachers were asked “what is  
9 the most pressing perceived support they need?” Four major themes that were identified were  
10 in-service training, teaching guidance and materials, personnel support.

## 11 Discussions

12 The findings obtained from this study present a status profile of integrating students with  
13 disabilities in general PE classes in Hong Kong elementary schools. The majority of students  
14 with disabilities (71%) are currently integrated in general PE classes in elementary schools in  
15 Hong Kong, where students with 12 different types of disabilities at the mild level of severity  
16 are included in a big range of class sizes (8 to 36) and 1-3 students with disabilities each class  
17 in most classes. Most teachers (48%-83%) in the integrated PE classes believe that they want  
18 to receive more support from EDB of Hong Kong, be ready to face more serious barriers for  
19 the integrated PE instruction in the future, and receive more in-service training on integrating

1 students with disabilities in general classes.

2 From the profile describe above, there are seven aspects that are valuable for discussion.

3 The first aspect is that EDB of Hong Kong should establish a police to allow those students  
4 with more types of disabilities to be integrated in elementary PE classes. EDB of Hong Kong  
5 currently only allows a total of five categories of disabilities (autism, mild mental retardation,  
6 physically handicap, hearing disorder, and visual impairment) to have PE classes in integrated  
7 settings (EDB, 2007). However, according to our findings, there were 12 different types of  
8 students with disabilities placed into general elementary schools, including such other types  
9 of disabilities as hyperactivity and learning disability, but have not included in EDB policy  
10 yet. Students with such disabilities were integrated maybe because they were able to be  
11 educated in general elementary schools or their parents hope their children receive education  
12 in general settings (Grove & Fisher, 1999; Yssel, Engelbrecht, Magdalena, Eloff & Swart,  
13 2007). Therefore, EDB of Hong Kong should expand its police to include more types of  
14 disabilities in general classes.

15 The second aspect is that more students with severe disabilities should be integrated in  
16 general PE classes in Hong Kong. Although more than five types of students with disabilities  
17 were educated in general elementary schools, most of them were with mild disabilities and  
18 only few students with moderate disabilities and students with severe disabilities were not  
19 found. This may be due to the combination of lack of knowledge and supports in integrated

1 PE. In Hong Kong, many teachers lack the professional preparation in integrated PE  
2 instruction. As presented in the result section, only 28.6% of teachers thought they were  
3 qualified with teaching students with disabilities and 66.3% of teachers believed that schools  
4 in Hong Kong provided limited support to integrated PE. Consequently, the combination of  
5 lack of knowledge and support in integrated PE lead to absent of students with moderate and  
6 severe disabilities in Hong Kong general elementary schools. EDB of Hong Kong should set  
7 up a police to include more types of disabilities in general classes.

8 The third aspect is that a smaller class size with no more than 20 students for each  
9 integrated PE class should be employed in integrated elementary PE classes in Hong Kong.  
10 Student achievement increases when class size is reduced from largely more than 20 students  
11 each class to less than 20 students (U.S. Department of Education, 1998), which represents an  
12 ideal class size. However, a big range of class sizes was observed in our finding, ranging  
13 from 8 to 36 in general PE classes in Hong Kong. Integrated elementary PE classes in Hong  
14 Kong should be reduced their sizes to no more than 20 students per class as noted by U.S.  
15 Department of Education (1998).

16 The fourth aspect is that the number of students with disabilities in an integrated PE  
17 class should be reduced to less than 3 students with disabilities. Sherrill (2004) recommended  
18 a PE class recommended that each integrated classroom should just have 1-2 students with  
19 disabilities; otherwise, defeat, teacher burnout, and intensify discipline problems may be

1 resulted in. Our finding, however, shows some integrated classes integrated 3-4 students with  
2 disabilities that may negatively impact on the achievement of all students included in an  
3 integrated PE class (Sherrill, 2004). It is clear that integrated elementary PE classes in Hong  
4 Kong should set up a rule for integrating no more than 2 students with disabilities in an  
5 integrated PE class with a size of 20 students.

6       The fifth aspect is that EDB of Hong Kong should provide more support to personnel  
7 teaching integrated PE classes. As indicated in our finding, 30.7% of teachers declared that  
8 they received personnel support from speech therapist. This value was much higher than  
9 other values within personnel support (e.g., volunteer, and special education expert, see Table  
10 2). The difference was mainly owing to the Enhanced Speech Therapy Grant from EDB was  
11 provided to elementary schools for delivering speech therapy service (EDB, 2007). It was  
12 astonished to find 24.0% of teachers receive no support from personnel. In addition, 66.3% of  
13 teachers believed that schools provided few support to integrated PE. It was consistent with  
14 other findings (Australian Institute of Health and Welfare, 2004; Commonwealth of Australia,  
15 2002; LaMaster et al., 1998). Adapted PE teacher should be the best and most effective form  
16 of support to integrated PE teachers (O'Brien, Kudláček & Howe, 2009); however, only 8.0%  
17 of Hong Kong teachers said they received support from adapted PE teacher. More personnel  
18 support is therefore needed for elementary integrated PE teachers in Hong Kong.

19       The sixth aspect is that more serious barriers for integrated PE classes are expected by

1 integrated PE teachers in Hong Kong in the future. As shown in Table 3, the biggest barriers  
2 for integrated PE instruction in Hong Kong were the lack of curriculum guidance (48.1%),  
3 lacking of knowledge and skills (45.7%), and policies for developing integrated PE (40.7%).  
4 These findings indicate that fewer participants confronted barriers in integrated PE service  
5 delivery in Hong Kong than in USA. In USA, Lieberman et al. (2002) found that the most  
6 common barrier identified was a deficit in professional preparation (66%) and other barriers  
7 identified were lack of equipment (63%) and programming or curriculum (57%). One key  
8 factor contributed to the difference was that large numbers of students with moderate and  
9 severe disabilities were included into general classes in USA. It is predicable that Hong Kong  
10 will confront more barriers in future as more and more students with severe disabilities are to  
11 be integrated into a general PE classes (Vogler et al., 2000; Block & Zeman, 1996).

12 The last aspect is that a need for preparing personnel for integrated PE instruction does  
13 exist in elementary schools in Hong Kong. Although 16.9% of the teachers claimed that they  
14 did not need any training for delivering integrated PE teaching, as presented in our findings,  
15 most teachers (83.1%) expressed that they did need to get in-service training for integrating  
16 students with disabilities in general PE classes. Among these teachers, as shown in Table 4,  
17 57.9% expressed they need to receive curriculum guidance, 53.0% believed the certification  
18 of Adapted PE teachers was desired. Interestingly, most teachers believed that the nature and  
19 needs of the disabilities (69.0%), communication skills (56.3%), motor learning and control

1 (52.1%), assessment and measurement (45.1%), and teaching planning (42.3%) were critical  
2 areas they should be prepared. Elementary schools in Hong Kong should therefore consider  
3 how to prepare these teachers for integrated PE instruction.

4 In summary, students with 12 types of disabilities at mild level are integrated in general  
5 PE classes in Hong Kong elementary schools with a range of class sizes from 8 to 36 and 1-3  
6 students with disabilities in a class. Most PE teachers in the integrated PE classes believe that  
7 EDB of Hong Kong should have more types of disabilities to be integrated in general classes,  
8 allow students with severe disabilities to receive PE with their normal peers, reduce the size  
9 of an integrated PE class to no more than 20, and limit the number of students to less than 3  
10 in each class. These teachers also believe that EDB of Hong Kong provide more support to  
11 personnel, help them to be prepared to face more serious barriers for integration in the future,  
12 and provide them with the in-service training about how to integrate students with disabilities  
13 in general PE classes.

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## 1 Table 1

2 *Percentages on Concerns with Teaching Integrated Physical Education (N=83)*

Concerns	SA	AG	UD	DA	SD	C P
I am competent with teaching	7.8	20.8	54.5	6.9	0	100.0
Students like my teaching	26.0	50.6	23.4	0	0	100.0
Students should be integrated	16.9	49.4	26.0	7.8	0	100.0

3 *Note.* SA=Strongly Agree, AG=Agree, UD=Undecided, DA=Disagree, CP=Cumulative Percent

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1 Table 2  
 2 *Frequencies of Personnel Support That Teachers Received*

Personnel support	Responses		Percent of Cases
	N	Percent	
Charity group	12	8.6%	16.0%
Volunteer	14	10.0%	18.7%
Parents	14	10.0%	18.7%
Teaching assistant	25	17.9%	33.3%
Speech therapist	23	16.4%	30.7%
Psychotherapist	4	2.9%	5.3%
Physical therapist	6	4.3%	8.0%
Special education expert	14	10.0%	18.7%
Adapted physical education expert	6	4.3%	8.0%
Colleague	4	2.9%	5.3%
No support	18	12.9%	24.0%
Total	140	100.0%	186.7%

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## 1 Table 3

2 *Frequencies of Barriers Teachers Confronted*

Barriers	Responses		Percent of Cases
	N	Percent	
Lack of policies/ legislations	33	9.6%	40.7%
Lack of administrative support	29	8.5%	35.8%
Lack of materials and curriculum guidance	39	11.4%	48.1%
Lack of knowledge and skills	37	10.8%	45.7%
Limited ways for in-service training	23	6.7%	28.4%
Limited instructional time	27	7.9%	33.3%
High student-staff ratios	25	7.3%	30.9%
Limited communication and cooperation with other professionals within school	21	6.1%	25.9%
Limited support from professionals outside school	23	6.7%	28.4%
Lack of sports venue and facilities	17	5.0%	21.0%
Architectural barriers	17	5.0%	21.0%
Bad interpersonal relationship between teachers and students	7	2.0%	8.6%

Barriers	Responses		Percent of Cases
	N	Percent	
Bad interpersonal relationship among students	11	3.2%	13.6%
Insufficient teaching passion	3	.9%	3.7%
Insufficient learning passion by students	5	1.5%	6.2%
Low degree of adaptability from parents	5	1.5%	6.2%
Low ability level from students with disabilities	15	4.4%	18.5%
Others	5	1.5%	6.2%
Total	342	100.0%	422.2%

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1 Table 4

2 *Percentages of Perceived Needs on Policy, Sports Meeting, Curriculum Guidance,*3 *Certification, and Equipment*

Perceived Needs	SA	AG	UD	DS	SD	CP
Policy /legislations	14.5	47.0	27.7	10.8	0	100.0
Sports meetings	20.5	53.0	24.1	2.4	0	100.0
Curriculum guidance	13.3	44.6	37.3	4.8	0	100.0
Certificate of APE	15.7	37.3	31.3	6.0	9.6	100.0
Facilities/Equipment	25.4	37.3	30.1	7.2	0	100.0

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1 Table 5

2 *Percentages of Training Content from Teachers*

Training Content	Responses		Percent of Cases
	N	Percent	
Motor Control and Learning	37	14.2%	52.1%
Nature and Needs of Specific Disability	49	18.8%	69.0%
Assessment and Measurement	32	12.3%	45.1%
Communication Skills	40	15.3%	56.3%
History of Adapted Physical Education	9	3.4%	12.7%
Teaching Planning	30	11.5%	42.3%
Classroom/Behavior Management	23	8.8%	32.4%
Legal Issue on Adapted Physical Education	17	6.5%	23.9%
Prevention and Management of Sports Injury	24	9.2%	33.8%
Total	261	100.0%	367.6%

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