

## ORIGINAL ARTICLE

# The Development of Inclusive Education Support Assessment Tool (IE-SAT)

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## ABSTRACT

The study aimed to develop the Inclusive Education Support Assessment Tool(IE-SAT) in order to verify the effects of the dispatch of special needs education supporters, which has been carried out by the Government of Japan. The results of the verification of the content validity for the composition and features of this tool and the formation of its domains and items will be introduced in this article.

<Key-words>

Special needs education supporter, inclusive education, assessment tool, IE-SAT

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## I . The Theme and Purposes of Study

In 2007, the Ministry of Education, Culture, Sports, Science and Technology prescribed the good education for children with disabilities in the Notification about the Implementation of Special Needs Education. It was also clearly stipulated that the proper education should be given to the children who have special needs for education from elementary to high schools in the Notification by implementing special needs education in all the schools that have the children who needs special educational support. As the number of children with disabilities has increased in elementary and middle schools, it is estimated that the children who require special supports for their education due to the learning disabilities (LD), ADHD, Asperger syndrome, etc. account for the 6.5 percent in the regular classes (Ministry of Education, Culture, Sports, Science and Technology, 2012). However, the necessary supports for their special needs for education have not been properly provided because of the short manpower.

The amended School Education Act, which was enacted in 2007, stipulated the implementation of the education that enables children with disabilities who attend elementary and middle schools to overcome their difficulties that were caused by their disabilities. Furthermore, since 2007, special needs education supporters who assist and support the school life of children with disabilities have been dispatched by using the local government budget. Special needs education supporters who have been dispatched to the regular schools have supported the school life of the children who have difficulties in schools due to the disabilities including developmental disabilities by helping their learning and securing their health and safety according to the characteristics of their disabilities and educational needs.

According to the survey on the dispatch of special needs education supporters in elementary and middle schools by the Ministry of Education, Culture, Sports, Science and Technology in 2006, 13,616 supporters were working at 8,922 elementary and middle schools. The local fiscal measures that enabled the expense for the dispatch of special needs education supporters to be paid from the local government budget was announced in 2007 and since then, the number of special needs education supporters has increased nationwide with dispatching them to public kindergartens since 2009 and to public high schools since 2011. In 2014, 49,706 of special needs education supporters were dispatched by using 53 billion Yen through local fiscal measures, which is the amount of budget that can dispatch 46,300 special needs education supporters; 5,638 to public kindergarten, 43,586 to public elementary and middle schools and 482 to public high schools. The number of special needs education supporters has increased steadily (Table 1).

&lt;Table 1&gt; Dispatch of Special Needs Education Supporters

(Unit: one million Yen, person)

Year	Kindergarten		Elementary and Middle Schools		High Schools		Total		Local Government Budget
	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	Budget from local fiscal measures	Number of the Supporters	
2006		3,299		18,200		226		21,725	
2007		3,513	21,000	22,486		278	21,000	36,277	Approx. 25,000
2008		3,437	30,000	26,092		224	30,000	29,753	Approx. 36,000
2009	3,800	3,779	30,000	31,173		219	33,800	35,171	Approx. 38,700
2010	3,800	4,252	34,000	34,132		341	37,800	38,725	Approx. 43,500
2011	4,300	4,460	34,000	36,524	500	367	38,800	41,351	Approx. 44,300
2012	4,500	4,807	36,500	39,371	500	443	41,500	44,621	Approx. 37,600
2013	4,800	5,217	39,400	41,157	500	483	44,700	46,857	Approx. 51,400
2014	5,300	5,638	40,500	43,586	500	482	46,300	49,706	Approx. 53,000

Children can get assistance and supports for their learning and living from special needs education supporters at School by the dispatch of special needs education supporters (Chamoto & Kikuchi, 2014). Moreover, the results of the survey on the special needs education supporters also showed that they have positively affected the children and others; there were a lot of responses implying that the performance of special needs education supporters is effective (Hosoya, Kitamura & Igarashi, 2014).

There, however, are also some problems that have been revealed such as the lack of the knowledge about and experience of special needs education and the absence of the nationwide data to scientifically verify whether the special needs education supporters have properly performed their jobs in the field of special needs education. Moreover, the dispatch and utilization of special needs education supporters have depended on the judgment of each local government, for there is no regulation for the budget for the dispatch of special needs education supporters in the School Education Act and the budget for the dispatch of special needs education supporters is included in the tax revenue allocated to local governments which is the general revenue. The situation even happened that the budget that should have been used for the dispatch and utilization of special needs education supporters was used for other projects; for example, in 2008, even though 36 billion Yen (the amount of budget that can dispatch 30,000 special needs education supporters) was allocated for special needs education supporters nationwide, only 29,753 special needs education supporters were dispatched. Furthermore, it could be considered as a problem that the budget of the central government is small; in 2014, the number of public schools was 38,607 including 4,714 kindergartens, 20,558 elementary

schools, 9,707 middle schools and 3,628 high schools, but the number of special needs education supporters per school was only 1.29 (Ministry of Education, Culture, Sports, Science and Technology, 2014). To solve abovementioned problems and to facilitate the dispatch and utilization of special needs education supporters, it is necessary to clearly present the scientifically proven educational effects of special needs education supporters to the central and local governments.

It, however, was impossible to verify the educational effects of the dispatch of special needs education supporters, because there was no tool to measure them. Therefore, this study aimed to develop Inclusive Education Support Assessment Tool (IE-SAT) that enables to measure the effects of the dispatch of special needs education supporters.

## II. Structure and Features

IE-SAT is the tool to measure the performance of support system for children with disabilities within a school including special needs education supporters based on the concept of inclusive education. IE-SAT consists of three domains and 10 items including network, supports for learning and supports for living. Evaluators can give the scores between one and five for 10 items and quantitatively measure the performance of special needs education supporters in the supportive system of schools for students with disabilities.

The construct of IE-SAT was established based on various materials including administration data and preceding studies; the four items in the Purposes of the Dispatch of Special Needs Education Supporters in the section of the Dispatch of Special Needs Education Supporters from the material No. 8: About the Special Needs Education Supporters of the 13th session of Special Committee for the Desirable Development of Special Education by the Ministry of Education, Culture, Sports, Science and Technology (2011) (See Table 2); the Report of High School Working Group in the Conference of the Research Partners on the Special Needs Education (2009); and the results of the Research on the Support System for the Dispatch of Special Needs Education Supporters to the Prefectural High Schools in Okinawa Prefecture. In addition, the concepts of Inclusive Education assessment Tool (IEAT) (Han, Yano & Yonemizu, 2015) were also included for the construct of IE-SAT.

<Table 2> Purposes of the Dispatch of Special Needs Education Supporters of the Ministry of Education, Culture, Sports, Science and Technology

○1	To properly respond to the needs of students with developmental disabilities in regular classes
○2	To support the students with disabilities who have been approved to study at the regular elementary and middle schools
○3	To support the adjustment of students who need special supports due to their disabilities to school life among the students who attend high schools
○4	To assist the central roles of special needs schools <sup>1</sup>

Ministry of Education, Culture, Sports, Science and Technology (2011)

<Table 3> Inclusive Education Assessment Tool (IEAT)

IEAT	Guarantee of Rights	Has the right to education been guaranteed?
		Has the extracurricular activities been guaranteed?
		Has the equal opportunity been secured?
	Improvement in Environment	Have the efforts been taken to improve the learning environment?
		Have the efforts been taken to improve the expertise of teachers?
		Have the opportunities for inclusive learning been provided?
		Have the network among various professionals (or organizations) such as health, medicine, welfare and labor and among parents been formed and operated?
	Reform in Curriculums	Have the efforts to improve the independence of students been taken?
		Have the efforts for the participation of community in the inclusive education been taken?
		Have the efforts to promote the awareness of disabilities been taken?
		Have the efforts for the cultivation of the leaders who work for inclusive society been taken?

Han, Yano & Yonemizu (2015)

### III. Domains of IE-SAT

This tool consists of three domains of network, supports for learning and supports for living. The domains were determined based on the administration data and preceding studies; the Purposes of the Dispatch of Special Needs Education Supporters in the section of the Dispatch of Special Needs Education Supporters by the Ministry of Education, Culture, Sports, Science and Technology (2011); the research results of the Current State of Support System for Students with Disabilities within High Schools by

<sup>1</sup> Special needs schools play central roles for the special needs education in Japan, by taking the responsibilities such as 1) assisting the teachers at elementary and middle schools, 2) providing consulting about and offering the information on special needs education, 3) guiding and supporting children with disabilities and 4) networking and coordinating the related organizations such as welfare, medicine and health.

the Ministry of Education, Culture, Sports, Science and Technology; and the concepts of Inclusive Education Assessment Tool (IEAT)(Han, Yano & Yonemizu, 2015).

In the domain of Network, it is evaluated whether the contacts or communications among parents, teachers and special needs education coordinators via in-person communication or phone calls are being made and whether they attend the support meetings that are hosted by schools. In the domain of Supports for Learning, the level of supports for learning activities and group activities within and outside of schools is evaluated. In the domain of Supports for Living, the level of supports for the activities of daily living and the group activities is evaluated.

#### IV. Definitions of Items

The 10 items of IE-SAT have been determined based on the Guideline for the Special Needs Education Supports by the Ministry of Education, Culture, Sports, Science and Technology (2007), which has specifically prescribed the roles of special needs education supporters via six domains (19 questions), the Act on the Elimination of Discrimination against Persons with Disabilities and the materials on the implementation of inclusive education.

##### ① Network

It refers to whether the contacts or communications among guardians, teachers and special needs education coordinators via in-person communication or phone calls are being made and whether they attend the support meetings that are hosted by schools.

Q1. Has the communication been made between the special needs education supporter and parents?

In addition to the communication via the network, whether special needs education supporters provide the information on the learning and living of students at the school to parents and whether they are provided the information on them at home by parents are also evaluated.

Q2. Has the communication been made among the special needs education supporter, homeroom teacher and other teachers?

This question implies the significance of in-person communication between special needs education supporters and teachers as well as the communication via daily records or other written materials. Whether the information on the learning and living of students is sufficiently being shared among special needs education supporters, homeroom teachers and other teacher is evaluated.

Q3. Has the communication been made among the special needs education supporter, special needs education coordinators and school nurses?

Whether the information on the learning and living of students is being shared among special needs education supporters, special needs education coordinators and

school nurses is evaluated. The exchange of the information on students via in-person communication is also considered as important as well as via daily record or written materials.

- Q4. Has the special needs education supporter participated in the committee for supporting the learning and living of students with disabilities?

Whether the special needs education supporters are allowed to participate in the committee for supporting the learning and living of students with disabilities and to freely express their opinions in the committee is evaluated. If special needs education supporters are not allowed to participate in the committee, but are only supposed to write daily records, they should answer that they don't participate in the committee.

## ② Supports for Learning

- Q5. Have the students with disabilities become to receive more supports for the individual learning activities through the special needs education supporter?

Whether the supports of special needs education supporters enable students to understand the contents of classes more and to be provided with more help is evaluated. The supports for learning for students include note-taking by special needs education supporters, the assistance for moving between classrooms and the efforts on the prevention from hurting themselves.

- Q6. Have students with disabilities become to receive more supports for their group learning activities through the special needs education supporter?

Whether the dispatch of special needs education supporters enables students to receive more supports for the communication during classes is evaluated.

- Q7. Have students with disabilities become to receive more supports for their learning activities outside of schools through the special needs education supporter?

Whether the more supports for learning activities of students such as the group activities with classmates or other students, school excursion, field trip and outdoor camp program for one night and two day have been provided through the dispatch of special needs education supporters is evaluated.

## ③ Supports for Living

- Q8. Have students with disabilities become to receive more supports for fostering independence in the daily activities of living within a school through the special needs education supporter?

Whether the more supports for fostering independence in the daily activities of living within a school such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule have been provided through special needs education supporters is evaluated.

Q9. Have students with disabilities become to receive more supports for fostering independence in the group activities through special needs education supporters?

Whether the more supports for performing activities during classes and classroom-cleaning time have been provided through special needs education supporters is evaluated.

Q10. Has the understanding of the disabilities of both students with and without disabilities been improved through the special needs education supporter?

Whether the understanding of the difficulty that the students with disabilities have in daily activities of living such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule has been heightened among students without disabilities through special needs education supporters is evaluated. The efforts to improve the awareness of disabilities among students without disabilities are also included in the evaluation.

## V. Evaluation

All the scores of 10 questions are added; four questions in the domain of network, three in supports for learning and three in supports for living, which were given the score between one and five. The score of each question is doubled and added; the perfect score of total is 100.

The evaluation with using this tool is applied for each special needs education supporter; if one special needs education supporter cares more than one student, the evaluation can be implemented for the supports for one student who most needs the supports of special needs education supporter.

The evaluators who evaluate the performance of special needs education supporters may be special needs education supporters, administrators, special needs education coordinators and homeroom teachers, but the evaluators must not modify the results of evaluation results.

For the most desirable results, the integrated evaluation results that are obtained from separately implementing the evaluations by special needs education supporters, homeroom teachers, special needs education coordinators and administrators for the performance of each special needs education supporter should be submitted to the committee for supporting the learning and living of students with disabilities and discussed to improve their performance.

## VI. Face Sheet

The face sheet includes the information on the student with disabilities who is the subject of the supports of a special needs education supporter such as grade, age and types of disabilities and the information on the special needs education supporter such as



age, gender, whether to hold teacher's license or not, the period working as a special needs education supporter, the period working as a teacher, the time of education about special needs education within one year and previous occupation.

<Table 4> Face sheet

Inclusive Education Support Assessment Tool (IE-SAT)

- The tool to evaluate the performance of special needs education supporters in the implementation of inclusive education

Inclusive Education Support Assessment Tool (IE-SAT) is the tool to evaluate the support system for students with disabilities by utilizing the special needs education supporters in the perspective of inclusive education. This tool should be filled for each special needs education supporter.

1. Student who is provided supports by one special needs education supporter	
The number of students who are provided supports by one special needs education supporter is [_____].	
(When a special needs education supporter provides supports to more than one student, please write the information on one student who most needs the supports.)	
① Grade	_____th grade
② Gender	[ Male / Female ]
③ Types of Disability	[ Intellectual disability / physical disability / health impairments / visual impairment / hearing impairment / developmental disability* / multiple disabilities** / acquired disabilities · multiple disabilities*** ]
	* Developmental disabilities: [ LD / ADHD / autism spectrum disorder ]
	** Multiple disabilities: [Intellectual disability / physical disability / health impairments / visual impairment / hearing impairment / developmental disability ]
	※ Please check the (○) corresponding to the items that you think is most appropriate for each question regardless of whether the student has been diagnosed or not.
	*** Acquired disabilities · multiple disabilities– Medical care [Has been medically cared / has not been medically cared]

## 2. Special needs education supporter

(Please, fill the blank, only when the evaluator accords with the special needs education supporter who is the subject of this evaluation.)

- ① Age \_\_\_\_\_ years old
- ② Gender [ Male / Female ]
- ③ Teacher's license [ Kindergarten/elementary/middle school ( ) High school ( )  
Special needs school ( ) School nurse ( )  
School dietitian ( ) Librarian ( ) No license ( ) ]  
Teacher's license for special needs education: [ 2nd / 1st /  
Specialization license / N/A ]
- ④ Period working as a special needs education supporter(excluding substitute teachers):  
[ \_\_\_\_\_ years \_\_\_\_\_ months ]
- ⑤ Period working as a teacher(including substitute teachers, but excluding special needs education teachers):  
[ \_\_\_\_\_ years \_\_\_\_\_ months ]
- ⑥ Period working at special needs schools(including substitute teachers, but excluding special needs education teachers):  
[ for intelligent disabilities \_\_\_\_\_ years / for physical disabilities \_\_\_\_\_ years  
for health impairments \_\_\_\_\_ years / for visual impairments \_\_\_\_\_ years  
for hearing impairments \_\_\_\_\_ years / for intellectual and physical disabilities \_\_\_\_\_ years ]
- ⑦ Time of education for special needs education within one year: about \_\_\_\_\_ hours
- ⑧ Previous occupation \_\_\_\_\_

## VII. The Development and the Content Validity of IE-SAT

The construct and items of IE-SAT have been determined through the discussion with researchers and in-service teachers based on the aforementioned administration data, studies and case studies. Since then, the content validity was verified through the expert survey for five experts on special needs education. Finally in March, 2015, the IE-SAT(tentative) was established through the review meeting that includes seven teacher's consultants of Special Support Schools Department of Prefectural Schools Education Division in Okinawa Prefectural Board of Education (Tanaka, Yonemizu & Yano et al., 2015).

To verify the validity of IE-SAT (tentative), the survey was implemented for 135 in-service teachers in August, 2015. Before distributing questionnaires, the information on special needs education, current state of the special needs education supporters and inclusive education was explained to those teachers for about two hours. The questionnaires were distributed to only teachers who consented to survey after sufficient explanation for the purpose of research and ample time for questions and answers. The number of teachers who participated in the survey is shown in Table 5.

The 123 questionnaires (91.1%) out of 135 distributed questionnaires were valid. The results of the survey on the content validity for the 10 items of three domains of IE-SAT (tentative) are shown in Table 6. In results, 95 percent of respondents answered that all the 10 items of three domains are valid. Even though there were negative responses, it may be interpreted as the lack of the knowledge of special needs education supporters. The manual for IE-SAT was edited to include the specific examples, because there were five responses having told that the definitions on network and supports for learning outside of school need to be more elaborated. Through the abovementioned process of content validity, IE-SAT has been finally developed (See Table 7).

<Table 5> Number of teachers who participated in the survey for the verification of content validity

	Number	Percentage (%)
Kindergarten • Elementary Schools	49	36.3
Middle Schools	48	35.6
High Schools	22	16.3
Special Needs Schools	16	11.9
Total	135	100.0

<Table 6> Results of the Verification of Content Validity of Each Question (%)

	Positive	Negative
Q1	95.9	4.1
Q2	100.0	0
Q3	99.2	0.8
Q4	99.2	0.8
Q5	99.2	0.8
Q6	100.0	0
Q7	98.5	1.6
Q8	98.5	1.6
Q9	99.2	0.8
Q10	99.2	0.8

(n=123)

<Table 7> Inclusive Education Support Assessment Tool (IE-SAT)

<b>Inclusive Education Support Assessment Tool (IE-SAT)</b>						
- The tool to evaluate the performance of special needs education supporters in the implementation of inclusive education						
<p>① Please check the (○) corresponding to the answer that you think is most appropriate for each question without exception from Q1 to Q10.</p> <p>② Please add the three subtotals and enter the score in the total score box.</p>						
<b>Total Score (①+②+③) ×2</b>					<b>/100</b>	
<b>① Network refers to the contacts or communication via in person or phone calls</b>						
<b>Q1</b>	Has the communication been made between the special needs education supporter and parents?	5	4	3	2	1
<b>Q2</b>	Has the communication been made among the special needs education supporter, homeroom teacher and other teachers?	5	4	3	2	1
<b>Q3</b>	Has the communication been made among the special needs education supporter, special needs education coordinators and school nurses?	5	4	3	2	1
<b>Q4</b>	Has the special needs education supporter participated in the committee for supporting the learning and living of students with disabilities?	5	4	3	2	1
<b>① Subtotal of Network</b>					<b>/20</b>	
<b>② Supports for Learning</b>						
<b>Q5</b>	Have the students with disabilities become to receive more <u>supports for the individual learning activities</u> through the special needs education supporter? The supports for the individual student's learning activities refers to the direct supports for learning to improve the level of understanding the contents of classes such as the assistance for note-taking.	5	4	3	2	1
<b>Q6</b>	Have students with disabilities become to receive more <u>supports for their group learning activities</u> through the special needs education supporter? The supports for group learning activities refer to the supports for students with disabilities to improve the communication with other students without disabilities in the situation of the presentation during classes or small talking with friends.	5	4	3	2	1
<b>Q7</b>	Have students with disabilities become to receive more supports for their learning activities outside of schools through the special needs education supporter?	5	4	3	2	1
<b>② Subtotal of Supports for Learning</b>					<b>/15</b>	
<b>③Life Support</b>						
<b>Q8</b>	Have students with disabilities become to receive more supports for fostering independence in the daily activities of living within a school through the special needs education supporter? The supports for fostering independence in the daily activities of living within a school refers to providing helps for the activities such as changing clothes, using toilet, eating, taking medicine, moving, arranging things and managing schedule.	5	4	3	2	1
<b>Q9</b>	Have students with disabilities become to receive more supports for fostering independence in the group activities through special needs education supporters? The supports for fostering independence in the group activities refers to helping students with disabilities in performing activities during classes and classroom-cleaning time.	5	4	3	2	1
<b>Q10</b>	Has the understanding of the disabilities of both students with and without disabilities been improved through the special needs education supporter?	5	4	3	2	1
<b>③ Subtotal of Supports for Living</b>					<b>/15</b>	
<b>Calculation</b>	Double the subtotals of three domains and add all three subtotals. Perfect score is 100.					

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