

# **NISE Bulletin**

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### Research Projects for FY 2013

Category	Research Title	Research Unit	HARADA Kimihito	FY 2012-2013
Specialized Research A	Research on Curriculum Development and Implementation for Schools and Classes for Special Needs Education	Promoting Unit	HARADA Kimihito	FY 2012-2013
	P Practical Study on Establishing Support Regime for Developing an Inclusive Education System. - Through the practices in schools and communities in model projects - [Medium-term Specific Research (Research on the Inclusive Education System)]	Perspective Unit	SASAMORI Hiroki	FY 2013-2014
	Assessment of Guidelines through Creation of Prototype Digital Textbooks and Teaching Materials. -Aiming at developing accessible digital textbooks- [Medium-term Specific Research (Research on Application of ICT in Special Needs Education)]	ICT/AT Unit	KANAMORI Katsuhiko	FY 2012-2013

Specialized Research B	Research on Effective Use of Teaching Materials and Devices for Schools for Special Needs Education (Visual Impairments) and Sharing of Relevant Information -With emphasis on roles of ICT- [Medium-term Specific Research (Research on Application of ICT in Special Needs Education)]	Visual Impairments Unit	KANEKO Takeshi	FY 2012-2013
	Research on Promoting Organizational and Systematic Learning Assessment in Education for Intellectual Disabilities - The case studies in schools for special needs education (intellectual disabilities)-	Intellectual Disabilities Unit	OZAKI Yuzo	FY 2013-2014
	Research on Advancing Effective Use of AT/ICT in Schools for Special Needs Education (Physical/Motor Disabilities) -Aiming at supporting to regular schools- [Medium-term Specific Research (Research on Application of ICT in Special Needs Education)]	Physical/Motor Disabilities Unit	NAGANUMA Toshio	FY 2012-2013
	Research on Improvement in Teaching Children with Speech and Language Delays as Their Main Needs from the Stage of Early Childhood. -Classification of the actual state of children and assessment of effectiveness of teaching-	Speech and Language Disorders Unit	KUBOYAMA Shigeki	FY 2012-2013
	Research on Understanding of Characteristics of Children with Autism in Classes for Special Needs Education for Children with Autism and Emotional Disturbances in Terms of Learning in Arithmetic and Mathematics Classes	Autism Unit	OKAMOTO Kunihiko	FY 2012-2013
	Research on Specific Instruction and Support for High School Students Who Have Special Needs Involving Developmental Disabilities: LD, ADHD, and HFA etc. -How to provide effective instruction and support, mainly in classes-	Developmental Disabilities and Emotional Disturbances Unit	SASAMORI Hiroki	FY 2012-2013
	Research on Development of Information Package, contributing to Assessment, Objectives and Content's Setting and Evaluation for Students with Severe and multiple disabilities.	Multiple Disabilities Unit	SAITO Yumiko	FY 2013-2014

## Outlines of Research Projects for FY 2013

### Specialized Research A

## Research on Curriculum Development and Implementation for Schools and Classes for Special Needs Education

**Research period:** FY2012-2013

**Research unit:** Promoting Unit

**Principal researcher:** HARADA Kimihito

**Co-researchers:**

NAGANUMA Toshio(sub-principal researcher), TSUGE Masayoshi, OZAKI Yuzo, KOBAYASHI Michiyo, KANEKO Takeshi, KUSAKA Naomi, YANAGISAWA Akiko, KAMIYAMA Tsutomu

**Outline:**

In Specialized Research A "Practical study on curriculum development based on the course of study for schools for special needs education" conducted in FY 2010-2011, a questionnaire survey was conducted in all the schools for special needs education in Japan, which amount to some 1,000. As a result, we identified the overall status of implementation of curriculum development and issues that need to be addressed in the transitional phase to the New National Curriculum Guidelines at Schools for Special Needs Education.

In the study for FY 2012-2013, based on the results from the previous questionnaire survey, we will identify the current status of issues or concerns that were raised in the previous survey, such as the development of curricula specially designed for each type of disabilities at schools for special needs education, types of curricula and the course system, vocational education at upper secondary

departments, interactions and collaborative learning in curricula, and relationships between activities to promote independence and activities for other educational objectives and individual subjects in developing curricula. This study will be conducted through repeated visits to schools for special needs education and, with the cooperation from those involved in schools participating in the survey, we will discuss how curricula should be developed in order to address identified issues and concerns.

We will also discuss the development of "special curricula" for classes for special needs education at elementary and lower secondary schools, which can be developed based on the National Curriculum Guidelines for Schools for Special Needs Education. More specifically, questionnaire surveys to education boards and visit surveys to elementary and lower secondary schools will be conducted to identify the current status and issues, including the presence or absence of manuals for developing curricula for classes for special needs education and procedures for developing curricula at schools, with types of disabilities taken into account.

Based on results from the surveys and discussions above, the status of the development and implementation of curricula based on the current National Curriculum Guidelines at Schools for Special Needs Education will be reviewed comprehensively so as to prepare basic materials for the next revision to the curriculum guidelines.

### Specialized Research A

## Practical Research on Establishing Support Regime for Developing an Inclusive Education System

### -Through the practices in schools and communities in model projects-

[Medium-term specific research (research on inclusive education systems)]

**Research period:** FY2013-2014

**Research unit:** Perspective Unit

**Principal researcher:** SASAMORI Hiroki

**Co-researchers:**

KUBOYAMA Shigeki(sub-principal researcher), NIIHIRA Shizuhiro, KOMATSU Yukie, MAKINO Yasumi, SATO Hajime, SAITO Yumiko, TAMAKI Munehisa, OZAWA Michimasa, KAIZU Akiko, TOKUNAGA Akio, OSAKI Hirofumi, KUMATA Hanae, SHOJI Michiyo, MATSUMI Kazuki, OKAMOTO Kunihiro, WAKUI Megumi, ITO Yumi, ISHIZAKA Tsutomu, MORIYAMA Takashi

**Research collaborators:** FUJIMOTO Hiroto, SAWADA Mayumi

**Outline:**

The Subdivision on Primary and Secondary Education of the Central Council for Education published a report titled 'Report on the Promotion of Special Needs Education for Developing an Inclusive Education System Leading to the Creation of Cohesive Society' on 23 July 2013. Reflecting the findings of the report, as well as the findings from our two research projects in FY 2011-2012, namely a medium-term Specialized Research, Specialized Research A, 'Research for teacher's professional standards and development of teacher training program in inclusive education systems' and another Specialized Research A study, 'Study on consideration and special guidance to children who need special support in developing an inclusive education system', we

will conduct a series of case studies of ongoing practices in model schools designated by the Ministry(MEXT), investigating and verifying our findings of a process in which educational expertise is nurtured among teachers and staff, schools and local communities reflected in every child's leaning and how this process can be run in terms of organizational structure.

As for creating an Inclusive Education System, our two previous studies conducted in 2011-2012 as part of medium-term Specialized Research confirmed, in order to the educational expertise in teachers, staff, schools and local communities to continue to be obtained and used, systematic commitment in organizations, such as in schools, supported by prefectural education boards was necessary and cooperation and collaboration with various related parties and people were vital. With this in mind, the research project focuses on the

organizational side of developing an Inclusive Education System, such as how best to implement effective trainings, share information and build cooperative and collaborative relationships with parties involved.

In this project, drawing examples from visionary projects, we will clarify the fundamental approach in creating a support regime for an Inclusive Education System. We will then carry out a series of case studies, investigating and verifying the approach, and collaborating with model projects designated by MEXT.

The approach, investigated and verified with related information regarding the schools and the local communities, will then be published and is expected to be used by schools and local education boards.

#### Specialized Research A

### Assessment of the Guidelines for Creating Digital Textbooks through Creation of Prototype Digital Textbooks and Teaching Materials -Aiming at developing accessible digital textbooks-

[Medium-term specific research (research on application of ICT in special needs education)]

**Research period:** FY2012-2013

**Research unit:** ICT/AT Unit

**Principal researcher:** KANAMORI Katsuhiko

**Co-researchers:**

UMEDA Mari(sub-principal researcher), TANAKA Yoshihiro,  
MUNEKATA Tetsuya, TAKEDOMI Hirofumi, YOKOO Shun,  
DOI Kouki

**Research collaborator:** KANEKO Takeshi

**Outline:**

In this study, a prototype digitized textbook will be created partly based on the Guidelines developed in FY 2011 and through its assessment, effectiveness of the guidelines will be verified and the contents will be improved.

In this study, a prototype digital textbook will be created using the materials from several textbooks created based on the Guidelines developed in FY 2011. During the course of the study, function tests will be carried out by research collaborators and their results will be reviewed in detail through discussion with them. The functions will also be assessed at schools by teachers with practical teaching experiences using the digital textbook on a trial basis. Through these assessments, the effectiveness of the Guidelines will be evaluated and the results will be reflected in improvements to them. The study is expected to produce a concrete proposal on guidelines for creating digital textbooks, with its effectiveness verified, meeting the special educational needs.

#### Specialized Research B

### Research on effective use of teaching materials and devices for schools for special needs education (visual impairments) and sharing of relevant information - With emphasis on roles of ICT -

[Medium-term specific research (research on application of ICT in special needs education)]

**Research unit:** Visual Impairments Unit

**Principal researcher:** KANEKO Takeshi

**Co-researchers:** MUNEKATA Tetsuya, TANAKA Yoshihiro,  
SAWADA Mayumi, DOI Kouki

**Research period:** FY 2012-2013

**Outline:**

Schools for special needs education (visual impairments) are required to provide specialized and high quality education for visually impaired students at their own schools and, at the same

time, to serve as a regional center for education for visually impaired children to focus their efforts on increasing external support.

In this study, we will identify the current status and issues concerning maintenance and effective use of teaching materials and devices for students with visual impairments, which are specialties of schools for special needs education (visual impairments). In addition, we will also discuss measures to

improve teaching materials and devices and promote their use as well as a system to share information on maintenance and effective use of teaching materials and devices.

In the discussion, emphasis will be placed on the role of ICT, whose usefulness has been particularly acknowledged in education of the visually impaired.

#### Specialized Research B

### **Research on Measures to Promoting Organizational and Systematic Learning Assessment in Education for Intellectual Disabilities** **-The case studies in schools for special needs education (intellectual disabilities)-**

**Research period:** FY2013-2014

**Research unit:** Intellectual Disabilities Unit

**Principal researcher:** OZAKI Yuzo

**Co-researchers:**

WAKUI Megumi(sub-principal researcher), TAKEDOMI Hirofumi, MATSUMI Kazuki(sub-principal researcher), KAMIYAMA Tsutomu

**Outline:**

Learning assessments are conducted in order to understand a child's learning progress, so that these data can be used to enhance the child's learning activities. In the field of education for intellectual disabilities, teaching is carried out based on individually set objectives and contents. However, there is an issue of Validity in setting objectives, teaching contents and teaching method. It is here a systematic learning assessment plays an important role in solving this problem. Our preliminary and preparatory study of 2012 showed, while some schools have clear criteria for assessment, there are schools which lack an organization-wide approach, such as setting common criteria or assessment time and sharing methods. In each of these cases, learning assessments were indeed conducted for a subject or a set of units, but lacked clear correlations either to other subjects and units, or to the comprehensive learning assessment based on the annual teaching program.

With this in mind, the study investigates measures to promote organizational and systematic learning assessment in education for students with intellectual disabilities.

In this research project, following the outcomes from our survey in 2012, we will re-run a questionnaire survey on ongoing learning assessments and related research, and on efforts towards organizational and systematic learning assessment to identify such as a practice method and application aspect of learning assessment that the schools need to establish. We will also conduct interviews at our associated research organizations with regards to their views on learning assessment criteria, examples of a creative approach and PDCA cycle in relation to learning assessments, as well as conduct practical studies. With these, we are aiming to present an approach for more clearly defined and shared procedures of assessment with commentary on implementing the approach, as well as examples from case studies, that will be useful in promoting organizational and systematic learning assessment.

Outcomes from this study are expected to improve the educational activities in schools for special needs education (intellectual disabilities) and special needs classes, by raising the standard for objective setting, teaching contents and methods, with the provision of the information on measures promoting organizational and systematic learning assessment.

#### Specialized Research B

### **Advancing Effective Use of AT/ICT in Schools for Special Needs Education (Physical/Motor Disabilities)** **- Aiming at supporting to regular schools –**

[Medium-term specific research (research on application of ICT in special needs education)]

**Research unit:** Physical/Motor Disabilities Unit

**Principal researcher:** NAGANUMA Toshio

**Co-researchers:** KANAMORI Katsuhiko(sub-principal researcher), TOKUNAGA Akio, SAITO Yumiko

**Research period:** FY 2012-2013

**Outline:**

At schools for special needs education (students with physical/motor disabilities), it is particularly important to use assistive technology (AT) effectively according to a wide variety of

disabling conditions of students. It is hoped that AT will be used more effectively and systematically and that relevant knowledge and findings will be used more effectively to help improve the role of these schools as a resource center.

In the study, knowledge and findings (information, technology, etc.) concerning the effective use of AT by schools for special needs education (students with physical/motor disabilities) will be organized and reviewed. Based on organized and reviewed knowledge and findings, we will also discuss measures for schools

for special needs education as a resource center to take in order to promote the effective use of AT in assisting students with physical/motor disabilities at elementary and lower secondary schools.

Our emphasis in the study will be particularly on e-AT (electronic and information technology based Assistive Technology) among AT, one of the roles of ICT.

#### Specialized Research B

### Research on improvement in teaching children with speech and language delays as their main needs from the stage of early childhood

#### - Classification of the actual state of children and assessment of effectiveness of teaching methods -

**Research period:** FY2012-2013

**Research unit:** Speech and Language Disorders Unit

**Principal researcher:** KUBOYAMA Shigeki

**Co-researchers:** KOBAYASHI Michiyo(sub-principal researcher), MAKINO Yasumi

**Outline:**

"Language classrooms for young children" and "language classrooms" provide children with speech and language delays as their main needs and their parents with counseling and assistance services. However, while there are many different factors that cause speech and language delays, there have been no sufficient efforts to understand the relationships between these factors and actual state of these children. It has also not been clarified in a well-organized manner how to teach and assist these children. In this study, we will discuss what to teach and how to teach and assist, from the early

childhood, children who need special education for speech and language needs referring to results and findings from research that has recently been advanced in other fields, such as LD education and instructions on social skills.

We will identify the actual state of children with speech and language delays as their main needs who are receiving instructions and assistance at "language classrooms for young children" and "language classrooms." We will also identify what instructions and assistance are provided to these children according to the growth of these children and will organize collected information.

\*The term "language classrooms" is used to collectively call resource rooms for children with speech and language needs, and special classes for children with speech and language needs.

#### Specialized Research B

### Research on understanding of characteristics of children with autism in classes for special needs education for children with autism and emotional disturbances in terms of learning in arithmetic and mathematics classes

**Research period:** FY2012-2013

**Research unit:** Autism Unit

**Principal researcher:** OKAMOTO Kunihiro

**Co-researchers:** YANAGISAWA Akiko(sub-principal researcher), SATO Hajime, ISHIZAKA Tsutomu, SASAMORI Hiroki

**Outline:**

In our study of FY 2010-2011, we investigated instruction of Japanese language which particularly associated with characteristics of children with autism enrolled class for special needs education of children with autism and emotional disabilities. We identified how children with autism acquired the contents of Japanese language. Also, we discussed instructional object, teaching

contents and annual teaching plan of Japanese language appropriate characteristics of children with autism. We discussed that it is important for teachers to instruct based on achievement level of children with autism in subject teaching. The same goes for teaching arithmetic and mathematics..

In this present study, we assume that children with autism show gaps among their achievement of the leaning on arithmetic or mathematics. In addition, we predict that some children with autism use their own strategy to answer arithmetic questions. So, teachers should understand of their strategy.

The purpose of present study is to identify characteristics of children with autism in learning arithmetic and mathematics and to discuss the appropriate teaching approach for them.

## Specialized Research B

## Research on specific support for high school students who have special needs involving developmental disabilities: LD, ADHD, and HFA etc.

### - How to provide effective instruction on classes -

**Research unit:** Developmental Disabilities and Emotional Disturbances Unit

**Principal researcher:** SASAMORI Hiroki

**Co-researchers:** UMEDA Mari(sub-principal researcher), TSUGE Masayoshi, KOMATSU Yukie, TAMAKI Munehisa, KAIZU Akiko, ITO Yumi

**Research period:** FY 2012-2013

**Outline:**

Students who have special needs for their developmental disabilities and so forth are not given sufficient accommodations and modifications in general classes at junior and high schools, because, unlike elementary schools where one teacher is responsible for each student's daily living activities in general, secondary schools adopt a system where each teacher is only responsible for teaching his/her specialized subject. This makes it difficult for secondary schools to establish a system similar to that of elementary schools. Particularly at high schools, due to differences of courses and disciplines, there are many serious issues that need to be addressed, such as the necessity of ingenuity in arranging classes for these students, accommodations given to these students on examinations, assessment methods, and career guidance. It is therefore necessary to adopt a different approach at high schools from that at elementary and lower secondary schools.

At high schools, while there are some students who lack motivation because of their self-image that they are not good at

learning, there are quite a few whose motivation for learning can be raised if they are given accommodations and modifications to help them understand lessons easily, assigned subjects easier for them to learn, and an individually tailored assessment method, which can help them become more independent. In implementing these efforts, it is necessary not only to provide careful accommodations and modifications to those with learning difficulty but also to pay careful attention to the whole classrooms. As students of high schools are in adolescence, it is also necessary to address issues unique to the adolescent stage because a self-awareness of being different from others may serve as a factor associated psychological and behavioral problems. It is required for those involved to consider the effective use of services and functions (e.g. education in like a resource room) to provide individually-adapted assistance, including psychological care.

In the study, we will discuss how instruction and support, mainly in classes, should be provided to students who have special needs for their developmental disabilities and so forth at high schools according to characteristics of disabilities. This discussion will be based on onsite experience at schools participating in our study and from the viewpoints of "methods to assess the actual state," "development of class curricula," "organization of curricula," "test format and other materials," "test implementation and evaluation methods," "teaching systems/setting for teaching" and "support system in school."

## Specialized Research B

## Development of Information Package (Tentative Proposal), Contributing to Assessment, Objectives and Contents Setting, and Evaluation for Students with Severe and Multiple Disabilities

**Research period:** FY2013-2014

**Research unit:** Multiple Disabilities Unit

**Principal researcher:** SAITO Yumiko

**Co-researchers:** KUMATA Hanae(sub-principal researcher), OSAKI Hirofumi, OZAWA Michimasa

**Research collaborator:** NAGANUMA Toshio

**Outline:**

The government's education guidelines states that an individualized educational support plan for each student with

severe and multiple disabilities must be developed in collaboration with the family, the local community and other concerned parties. In the commentaries of the guideline, it is also stated that the individualized educational plan must be executed on PDCA cycle with assessing current conditions of a student, setting learning objectives, devising instructional contents and methods, evaluating his/her progress appropriately, and improving instruction



according to the evaluation. Our preliminary and preparatory study in 2012 found that many schools found it difficult to identify and assess condition of students with severe and multiple disabilities appropriately, and to set long-term learning objectives for them. With a vision of 'creating and implementing an educational plan (including individualized educational plans and educational support plans) that contribute to the present and the future of a student with severe and multiple disabilities', the research project aims to create an information package as a tentative proposal which is to contribute to development and practice of educational plans for those students. In addition, it aims to run trials in schools and verify its usefulness and improve

it with the feedback.

The contents of the information package (tentative proposal) will be chosen based mainly on the items whose importance was confirmed by the preliminary and preparatory study, supported by previous studies in and out of Japan as well as observational knowledge. As for the usefulness trial, we are planning to ask the cooperation of associate pilot schools.

The outcomes from this project are expected to facilitate the creation of individualized educational support plans and individualized education plans, as well as contributing to the enhancement of such education.

## H24-A-01 (Specialized Research A)

**A study on special needs school management and leadership by principals****[Research period]** FY2011-FY2012**[Principal researcher]** OOUCHI Susumu**[Summary]**

In 1998, the issue of establishing autonomy and independence in the management of school education was subject to deliberation by the Central Council for Education. This development was the impetus for the inclusion in the Ministry of Education, Culture, Sports, Science, and Technology's "Education Reform Plan for the 21<sup>st</sup> Century" of ideas on organizational management in schools and boards of education. The plan placed emphasis on implementing organizational and flexible school management, explicitly mentioning, among other things, the need for independence among and displays of leadership by school principals. Discussions are being held at the 2011 School Management Support Promotion Council on further instituting school organizational and flexible management systems and reducing the burden of tasks borne by schools.

Taking into account these trends, the current research looks at the current state of steps being taken to improve school management at special needs schools, as well as the things that still need to be done. It became clear from surveys of principals of special needs schools that, in terms of achievements in the way of school

management, school missions and visions had been well-communicated throughout schools and morale among school staff was high. On the other hand, there were indications of things that had yet to be accomplished for the improvement of school organizations.

Issues that have yet to be fully addressed in supporting the management of special needs schools include: the fact that there are a multitude of occupations in special needs schools, there has been an increase in specialization with the diversifying disabilities among students, the inherent difficulty in rating schools, the difficulties in cooperating with communities due to the fact that students attending special needs schools live in places scattered from one another geographically, and other factors specific to special needs schools. The study showed the importance of mechanisms that assist in coordinating management among principals and of the role of boards of education in promoting community-driven management.

**[Keywords]**

School management, leadership by principals, special needs schools, training courses

## H24-A-02 (Specialized Research A)

**A study on educational expertise under inclusive education systems and the development of training curricula****[Research period]** FY2011-FY2012**[Principal researcher]** SAWADA Mayumi**[Summary]**

To provide guidance and support to meet the diverse educational needs of each student, it is necessary to devise systems that not only promote higher levels of expertise among individual teachers, but that encourage individual teachers to utilize their strengths further. Moreover, mechanisms that guarantee expertise on the part of organizations and the community are necessary as well.

The purpose of this research is to examine systems that guarantee human resource development and expertise, which are key to the direction of national policy as the country attempts to build

inclusive education systems, and to provide information to the relevant institutions. For this endeavor, we gathered pertinent information from sources in Japan and overseas alike, organized that information as it relates to expertise specific to professions and roles, and looked at the question of just what qualities and abilities form the foundations necessary to all teachers. In addition, we first put together a document titled "A teacher training guide for inclusive education systems: Realizing education for diverse forms of learning — utilizing the concept of special needs education—" (a tentative proposal), which is a collection of strategies for equipping teachers with the qualities and abilities that all teachers need. We also compiled information on mechanisms that guarantee expertise on the part of organizations and the

community for the purposes of building and promoting inclusive education systems.

**[Keywords]**

Inclusive education systems, expertise, teacher training, special needs education, training guide

H24-A-03 (Specialized Research A)

## **Research on special accommodation and instruction for students with special needs aimed at building inclusive education systems: Informative examples of special accommodation and administration**

**[Research period]** FY2011-FY2012

**[Principal researcher]** FUJIMOTO Hiroto

**[Summary]**

The purpose of this research is to look at present school situations in which students with disabilities and students without disabilities study together and determine the forms of special accommodation and methods of instruction necessary for building inclusive education systems in the future.

Studies are currently underway with a view to ratifying conventions concerning the rights of persons with disabilities, views on the conditions necessary for building inclusive education systems in Japan have yet to be fully articulated. For this research, we conducted field surveys on forms of special accommodation and methods of instruction where students with disabilities and students without disabilities study together. We then studied

specific cases observed in these surveys and put together the results as a collection of informative examples. In putting together informative examples of desirable forms of special accommodation for students with disabilities, our purpose was to illustrate practical examples of ideal forms of special accommodation, methods of instruction, etc. for students with disabilities in line with the new concepts of “reasonable accommodation” and “creating basic environments” as introduced in “Promoting special needs education for the construction of inclusive education systems to build a cohesive society,” a report issued on July 23, 2012 by the Subdivision on Elementary and Secondary Education of the Central Council for Education.

**[Keywords]**

The construction of inclusive education systems, reasonable accommodation, creating basic environments

H24-K-01 (Collaborative Research)

## **Creating educational materials based on “accessible design” for use by visually impaired children and adults using technologies for imprinting Braille and tactile symbols alongside visible print**

**[Research period]** FY2011-FY2012

**[Principal researcher]** DOI Kouki

**[Summary]**

Braille, which is a tactile writing system for visually impaired children and adults, is a tool to access information used in educational materials for and the daily lives of visually impaired children who attend schools for the blind and other such institutions. However, because of the fact that much time is required to learn Braille, that there are not enough textbooks for learning Braille that make it easy for learners to do so, and that visually impaired children must learn Braille at an early stage, there is a need for improvements to Braille educational materials that is felt by teachers of Braille at schools for the blind, by staff at

social welfare corporations who are responsible for assisting with the learning of Braille, and by visually impaired children and adults themselves. To address this issue, for this research we created Braille instructional materials (trial versions) in order to study better forms of textbooks for learning Braille that incorporate the concept of “accessible design” based on the needs of Braille teachers and learners, etc. Specifically, we developed a new apparatus for imprinting Braille and tactile symbols that uses a colorless, transparent UV-curing resin ink that makes the feel of the Braille dots stronger and therefore easier to read, and that also allows for imprinting alongside visible print. The Braille instructional materials we made also

include a feature that reads out audio corresponding to the content. We asked visually impaired persons to rate the Braille instructional materials we made on ease of use, and they were rated highly. Through this research, we found that in addition to the tactile readability of Braille, the effective use of audio is

a necessary element for the creation of accessible educational materials that are easier for Braille learners to learn from.

**[Keywords]**

Accessible design, visually impaired children and adults, Braille, tactile symbols, educational materials

H24-K-02 (Collaborative Research)

## Developmental research on a handwriting evaluation system that takes into account the characteristics of students with low vision

**[Research period]** FY2011-FY2012

**[Principal researcher]** OOUCHI Susumu

**[Summary]**

When children with low vision write Kanji, issues encountered include precision, legibility, and balance. These issues likely stem from difficulties in utilizing the visual sense. On the other hand, there are students who have learned to write legibly despite having extreme difficulty in seeing, and for this reason, we believe that these issues are not caused exclusively by low vision, but also have to do with the accumulation of unapt experiences. To make improvements, it is absolutely necessary to take approaches that the learners themselves are comfortable with, and to do this, an objective method of evaluation is needed. In this research, we attempted to develop a handwriting evaluation system for students with low vision.

In the first chapter, we review efforts to date involving handwriting in the education of students with low vision. We then summarize the position taken in the *Course of Study Guidelines* on handwriting by students with low vision and give an overview of research and practical reports on handwriting instruction published so far. We compiled 10 points particularly worthy of attention when teaching handwriting to students with low vision: the transition from larger to smaller characters, emphasis on Kanji radicals and other components, correct stroke order and pronunciation aloud, attention to the overall balance in the shape of characters, careful instruction, amount of practice, the use of haptic perception, self-awareness, increased opportunities to write, and building vocabulary.

In the second chapter, we surveyed the realities of handwriting instruction for children with low vision at special needs education schools for the visually impaired to gather basic materials involving improvements to instruction methods. It was found that younger children require more attention with regard to handwriting. At the elementary school stage, handwriting issues are more serious the earlier the stage of education children are in, and as they progress to higher academic years, those issues abate. It was found that in the secondary education stage, around 60 percent of students are able to write easy-to-read characters, but the chief issues are character balance, accuracy, and stroke order. Methods for evaluating handwriting almost exclusively relied on example books and subjective assessment. Objective methods of evaluation were not in use.

The third chapter details our attempt to develop a system for objectively evaluating characters handwritten by children with low vision. After testing using existing systems, we developed a prototype for an evaluation program that one can use to evaluate the shape and stroke order of characters. It is hoped that, through the use of this system, the handwriting of students with low vision will be evaluated objectively and that students with low vision will be able to go about their studies with a higher level of awareness of their own handwriting.

**[Keywords]**

Visual impairments, amblyopia, handwriting, Kanji, educational materials

## Report on FY 2013 National Institute of Special Needs Education Seminar

FY 2013 National Institute of Special Needs Education Seminar entitled “Promotion of special needs education for building inclusive education system -focus on efforts of school and local community- “ was held for two days from January 30 (Thursday) to January 31 (Friday), 2013. The venue of the seminar was the National Olympics Memorial Youth Center, Yoyogi, Japan. It was honored to have about 1000 participants, more than usual years. Their interest and enthusiasm for inclusive education system came through over this seminar.

In the afternoon of the Day 1, Ms. OYAMA Mami, Director of Division of Special Needs Education, Elementary and Secondary Education Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT) provided an explanation from the administrative perspectives, followed by the session 1, a keynote speech and symposium entitled “efforts of school and local community for building inclusive education system”.

ISHIKUMA Toshinori (Vice-president of University of Tsukuba/Superintendent of Education Bureau of Laboratory Schools), from a school psychology perspective, made a keynote speech specifically about cooperation with school, family and local community as well as psycho-educational supportive service, under the idea of “Everyone is asset and supportive of everyone else”.

At the symposium, issues of current situation as well as implementation in school and local community were discussed by panelists from various viewpoints, such as secondary school, special needs school, board of education and parent’s association, then holding an exchange of views on future development with participants following Professor Ishikuma’s lecture.

Participants who were in respective positions had time to contemplate future effort in school and local community.

During the first part of the session 2 of Day 2, three ongoing

research projects of NISE regarding application of ICT in special needs education, such as “Assessment of Guidelines through Creation of Prototype Digital Textbooks and Teaching Materials”, “Research on Effective Use of Teaching Materials and Devices in Schools for Special Needs Education (Visual Impairments) and Sharing of Relevant Information” and “Research on Advancing Effective Use of AT/ICT in Schools for Special Needs Education(Physical/Motor Disabilities)” were presented. The second part of the session 2 focused on topics and research issues. NISE provided a progress report on follow-up research in “Finding from the survey on children who are in regular classes, suspected of developmental disabilities and in need of special needs support”, which was declared by MEXT in December 2012, and reporting on progress and current situation of creating databases on support for building inclusive education system, as topics on NISE’s project and research in this fiscal year. Useful questions or comments were offered by participants.

In the afternoon on Day 2, poster presentation session was held followed by the session 3. In the poster session, results of research projects that finished in previous year were presented, such as education for children with multiple disabilities, education for children with speech and language disorders and education for children with health impairments including an exchange of views with participants.

The session 3 consisted three workshops entitled as “Issues and current situation of school curriculum in special needs education schools and special needs classes”, “Guidance on arithmetic and mathematics for children with autism”, and “Now and the future of special needs education in upper secondary school”. In each of workshops, discussion deepened through a question and answer and an exchange of views with participants. Records of the two-day seminar will be updated on the NISE’s website.



## Other Topics

### World Autism Awareness Day 2013

In December 2007, the United Nations General Assembly adopted a resolution, proposed by Consort of the Emir in the State of Qatar, to declare April 2 as World Autism Awareness Day, encouraging Member States to take measures to raise awareness about autism, in cooperation with NPOs, etc. In response to this, the Japanese government established the executive committee for promoting World Autism Awareness Day, and as a joint host organization, the National Institute of Special Needs Education (NISE) is actively playing a role in promoting the awareness for autism. April 2 to 8 was designated as the developmental disabilities week and events to educate the public about developmental disabilities were held in various locations. As a part of World Autism Awareness Day 2013 events, Tokyo Tower was the venue of the Light It Up Blue on the evening of April 2, where it was lit up in blue along with other famous buildings in many parts of the world as

well as in Japan. World Autism Awareness Day 2013 symposium was held under the theme of “Cohesive society -Our very special life-“on April 6 at Nadao Hall in Kasumigaseki. In addition to symposium, there were a film showing and talk show.



### World Autism Awareness Day 2013 in Yokosuka

The 4<sup>th</sup> World Autism Awareness day 2013 in Yokosuka, as a part of events titled “Disabled Person’s Week in Yokosuka” supported by Yokosuka city, was held under the theme of “Let’s get to know about autism – spread small connections-“on December 7 at Yokosuka Sogo Fukushi Kaikan, with the aim of raising understanding and awareness about autism. 12 students in Yokosuka Sogo High School participated in this event as volunteer work to help ensure the success of the event, with 160 people participating in it a wide age group. At the end of the event, a mother and her daughter with autism impressed people with their speech.



### FY 2013 Workshop on Counseling and Support Staff for Guidance and Selection of Schools of Enrolment

Workshop on Counseling and Support Staff for Guidance and Selection of Schools of Enrolment was held on July 17-18, for people who play a role as a leader in the field of board of education support (tentative name) in each prefecture and designated city, with the aim of improvement of their expertise and enhancement of support for counseling and support for guidance and selection of schools of enrolment. This workshop has started since 2013 and 68 leaders participated in it from around the country.



On the first day, lecturing on counseling and decision making for guidance and selection of schools of enrolment, providing administrative advice by the MEXT (Special Needs Education Division, Elementary and Secondary Education Bureau) and reporting on projects by NISE researcher. On the second day, holding section meetings by each prefecture and designated city

about building an agreement with individual and family in coherent support system and decision making of guidance and selection of schools of enrolment from early stages, based on the reports submitted in advance by participants, as well as a discussion about efforts in counseling and support for school attendance at the municipal level.

## FY 2013 Workshop for Leaders of Guidance Practices in School Dormitories for Special Needs Education

Workshop for Leaders of Guidance Practice in School Dormitories for Special Needs Education was held on July 25-26, for staff in school dormitories who play a role as a leader in each prefecture, with the aim of improvement of their expertise and development of their leadership. This workshop is held annually and 79 staff participated in it from around the country. On the first day, making a presentation of practical guidance in school dormitories and providing administrative advice by the MEXT (Special Needs Education Division, Elementary and Secondary Education Bureau).

On the second day, holding group sessions by types of disabilities, after a lecture by NISE researcher.



## FY 2013 Workshop for Leaders of Education for Developmental Disabilities

Workshop for Leaders of Education for Developmental Disabilities was held on August 1-2, for school staff who play a role as a leader in support and guidance for children with developmental disabilities in each prefecture, with the aim of improvement of their expertise and enhancement of support and guidance by local governments. NISE has provided this workshop since FY 2008. 112 school staff including kindergarten and upper secondary school teachers, who are in charge of support and guidance for children with developmental disabilities participated in it from around the country.

On the first day, making a presentation titled "building a database of the construction of inclusive education systems", which has addressed by NISE, as well as lecturing on the current situation and the issue of education for developmental disabilities, and coherent support for children with developmental disabilities. On the second day, discussing about information and data based on the reports submitted in advance by participants in each

section meeting (first section meeting: support for connection with kindergarten and elementary school, second section meeting: support for connection with secondary school and upper secondary school), after lecturing by relevant institutions.



## FY 2013 Workshop for Leaders of Promoting Joint Activities and Learning

Workshop for Leaders of Promoting Joint Activities and Learning was held on November 21-22, in cooperation with the MEXT, for school staff who play a role as a leader in joint activities and learning for children with or without disabilities, with the aim of raising understanding for joint activities and learning, and disabilities in each prefecture. This workshop is held annually. It was provided section meeting as well as providing administrative advice and practical report this year and 67 school staff participated in it from around the country.



## The 36<sup>th</sup> National Workshop for Promotion of Special Needs Education

The 36<sup>th</sup> National Workshop for Promotion of Special Needs Education beginning with a ceremony held to commemorate the National Federation of Special Needs Education's 50<sup>th</sup> anniversary was held on December 6-7, at National Olympics Memorial Youth Center, in cooperation with the MEXT, NISE and National Federation of Special Needs Education. The workshop was held over the two days and consisted of three parts. Making a presentation of the effort and holding a discussion about each part, the first part titled "Progress in

Special Needs Education" offered by member of National Federation of Special Needs Education, the second part titled "PTA activity for implementation of cohesive society" offered by member of PTA at elementary and secondary school and school for special needs education, and the last part titled "Perspective of communication with relevant institutions and the role of coordinators in school for special needs education" was reported by coordinators in kindergarten, elementary and secondary school and school for special needs education.

## FY2013 National Institute of Special Needs Education Open day

NISE held open day on November 9, providing information about accommodation in life circumstance for children with disabilities, display and demonstration of educational assistive devices by use of ICT effectively for children with disabilities and simulated experience of each disability. 206 people participated in it, who are involved in the field of education, medical and welfare, and besides includes undergraduate and graduate students, with some comments such as "deepening understanding of special needs education", "more interesting about inclusive education", "helpful information of various assistive devices" and "hoping that more people know about this marvelous institution". NISE has committed to providing participants with deeper

understanding of special needs education for the next open day.





## Information Center of Education for Children with developmental Disabilities -Exhibition Room for Teaching Materials and Devices-

The Center's website was opened on August, 2008 and it has been providing databases on teaching materials and devices in education and support for children with developmental disabilities, as one of contents on the website.

These materials and devices are available for try actually at "Exhibition Room for Teaching Materials and devices".

On this November, renovated a room next to "i-Library : Exhibition Room for Educational Support Devices and Materials" on the first floor of main building and set up "Exhibition Room for Teaching Materials and Devices" newly.

Changes and improvements in the setting up of new exhibition room are as follows.

### 1. Color

You will see it is muted color in exhibition room, such as grain-colored shelves, ivory-colored walls and a part of a signboard and exhibit panels are used to same color NISE'S logo in green.

### 2. Seeable and touchable display

We provide a place where anyone can reach exhibits and try them by adjusting for height and wideness of shelves. There are books available for inspection in a book display rack.

### 3. Categorization

Displayed materials and devices are grouped into 11 categories according to the databases on the center's website, such as "Listening", "Speaking", "Reading", "Wrighting", "Calculation",



"Reasoning", "Exercise, Posture and unskillfulness", "Carelessness", "Hyperactivity and Impulsiveness", "Sociality" and "Coursework".

Showing intended use on display panels for simplicity of using materials.

### 4. High technology and low technology

In addition to paper card games, various latest equipments such as an electronic blackboard, tablet computers and DAISY digital talking book are displaying. Using both high-tech and low-tech equipments is key for meeting needs of individual children with disabilities. We hope you will find these materials and devices such as Kanji cards and other playing cards excellent as well as digital computers on your visit to the Center.

## Opening website of "Database for supporting the construction of Inclusive Education System"

"Promoting special needs education for the construction of inclusive education systems to build a cohesive society" was reported on July, 2012 by the Subdivision on Elementary and Secondary Education of the Central Council for Education. As this issue, NISE opened the website for providing information about the construction of inclusive education system with the MEXT's corporation.

The MEXT has been implemented "Model project for the

construction of inclusive education system" since 2013, collecting practical cases of "Reasonable Accommodation" for children with disabilities in each associated school and occasionally report to the MEXT with requirement. NISE is planning to officially release these practical cases on July, 2014 after making a database of them. NISE will provide useful information on the web.

## FY2013 “Tsujimura-award”

“Tsujimura-award” present person such as remarkable achiever or competent researcher in the field of special needs education, in honor of late TSUJIMURA Yasuo who contributed to promotion and development as a leading expert in special needs education in Japan as well as NISE’S first president.

“Tsujimura- award” had been hosted by Education Foundation for Children with Disabilities. As dissolution of the foundation, NISE has been assigned to hold “Tsujimura- award” from the beginning of this fiscal year by way of contribution to promotion of special needs education.

Mr. MIYAZAKI Hidenori (Professor emeritus at the University of Toyo) received an award of FY2013 “Tsujimura-award” which was determined by a selection committee holding on November and then NISE had an award ceremony and memorial speech on December 11.



At the speech, Mr. Miyazaki made such a great presentation titled “Promoting special needs education for the building of cohesive society –Improvement of special needs education for the construction of inclusive education system-“.

## Promotion of Special Needs Education for Developing an Inclusive Education System

Special Needs Education Division,  
Elementary and Secondary Education Bureau,  
Ministry of Education, Culture, Sports, Science and Technology (MEXT)

### 1 Current Situation of Special Needs Education

Children with disabilities, need to be given appropriate education with special consideration for the degree of each condition of disability, so that they can maximize their possibility, become independent, and take part in society. Therefore, special textbooks for them, faculties with expert knowledge and experience, and wheel chair accessible structure are in use at special needs education schools and special needs education classes at primary and secondary schools (which are hereinafter referred to as public schools). Also, In addition to special needs services in resource rooms, each person's educational need is filled by disabled-friendly teaching methods such as achievement based teaching and teaching in small groups, and effective use of Special Needs Education Assistants<sup>1</sup> in the public school classes.

As of May 1<sup>st</sup> 2012, approximately 366,000 students belong to special needs education schools, special needs education classes of public schools and special needs services in resource rooms<sup>1</sup>. Among them, the students at the stage of compulsory education were about 302,000, or 2.9% of all students at the same educational stage. The number of students taking classes at special needs education schools, in the public school classes, or by special needs services increases year after year. And, the rate of students who weren't mentally challenged, but had a possibility of developmental disability is around 6.5% when the Ministry of Education, Culture, Sports, Science and Technology (MEXT) carried out research in 2012.

In recent years, the seriousness, overlap, and diversification of disabilities was increased. Demands for supporting students with developmental disabilities such as Learning Disabilities (LD),

Attention-Deficit/Hyperactivity Disorder (ADHD), high-functioning autism and requests for finding educational requirements from the early stage have been growing. In addition, the percentage of enrollment to high school level special needs education school increases, and students with disabilities have more chances after graduation. In consideration of all situations, the School Education Act was amended in June of 2006. And, previous school system for the blind, deaf and otherwise was converted into "special needs education school system" which can manage two or more types of disabilities in order to handle multiple disabilities. Special needs education schools should give advice and support about the educational matters of students with disabilities by using their highly specialized knowledge and skills at the request of public schools, so that they play a role as a center system of special needs education (functioning as a resource center) in the community. Also in public schools, fosterage of special needs education for students with disabilities including development disabilities is specifically set by law.

Along with the issue of Revised Basic Law for Persons with Disabilities in August of 2011, the law set out that necessary measures such as better education content, methods and so on must be taken with the best effort possible to enable students with disabilities and other students to study together as much as possible. The purpose is to give people with disabilities good education suitable for their ages, abilities, and characteristics of their disabilities.

### 2 Actions for Fostering Special Needs Education

#### (1) Looking at the Future Direction of Special Needs Education

Treaty for the rights of people with disabilities (Convention on the Rights of Persons with Disabilities) was adopted at the General

Assembly in December of 2006 and took effect in May 2008. The Japanese government signed the treaty in September 2007; however, it hasn't yet been ratified.

<sup>1</sup> Employees who assist school life and give learning support to children with disabilities in public schools.

<sup>2</sup> Offering extra class in public school for children with mild disabilities (excluding intellectual disability) to reverse their disabilities.

## Recent Policy and Status on Special Needs Education in Japan

The government is trying to conclude the convention as soon as possible and is discussing how to adjust Japanese laws and regulations. In the field of education, our task is adapting to an inclusive education system. Therefore, the Special Committee of the Future Direction of Special Needs Education set by the Central Education Council considered the way to develop special needs education in order to establish the system. As a result, “Fostering Special Needs Education to Establish an Inclusive Education System for Realizing a Cohesive Society (made by The Subdivision on Primary and Secondary Education)” was released in July 2012. The report states; ① creating an inclusive education system in order to realize a cohesive society, ② advising families about entering school and selecting a school, ③ enhancing reasonable accommodation and an educational environment, ④ developing various places to study and partnerships between schools, ⑤ raising the expertise of teacher and staff.

### **(2)Improving Support System Provided by Community and School -Support for Children Include Developmental Disability-**

#### **①System Improvement to Develop Special Needs Education**

Revision of School Education Act became effective after April 1<sup>st</sup> of 2007. On the same day, MEXT gave a notification called “Fostering of Special Needs Education (announced by Director-General Elementary and Secondary Education Bureau)” to promote the efforts of Each School and the Board of Education. In addition to support system improvement, it also mentioned basic idea and points of attention about special needs education.

Our nation pays part of expense as Project for the Promotion of Special Needs Education System for every school (from kindergarten to high school, special needs education school, and so on.)

In this project, cooperation with relevant organizations, visiting and advising school, helping by specialized team, building up and opening training courses and more are conducted.

We summarized the points to prevent and deal with abuse to persons with disabilities in July 2012, and reported how to teach children under medical treatment in March 2013. The information was made public to the relevant organizations.

According to the research of improving status of special needs education in fiscal 2004, public schools almost perfectly arranges foundation such as establishment of “in-school committee<sup>1</sup>” to set up support system and appointment of “Special Needs Education

Coordinator<sup>1</sup>.” And also, they steadily encourage making “individualized teaching plans” and “individualized education support plans.” Kindergartens and high schools are in progress, but are relatively behind compared to the schools.

#### **②Support Project for Developmental Disability**

School support for children with developmental disabilities have mostly fostered in public schools. However, it has to make more progress in kindergartens and high schools, too. MEXT picks up high schools and offers carrier education program for students with developmental disabilities within “Project for The Fostering of Special Needs Education”.

Besides, the ministry offers “Special Needs Education Study Project by Using Support Skill and Private Organizations.” In this project, appropriate teaching materials for respective conditions of disability have also been studied, and effective teaching methods and educational effect have been researched and studied by using these materials since fiscal 2009.

#### **③Allocation of Special Needs Education Assistant from Public Kindergartens to High Schools**

In public schools, there are many different types of children with disabilities including developmental disability and Certified Students<sup>1</sup> defined by Article5 of the Order for Enforcement of the School Education Act. With the above in mind, Japan has continued financial measures towards each municipality to let it allocate a “Special Needs Education Assistant” who assists school life and gives learning support to children with disabilities since 2007. The financial support expanded into kindergartens from 2009 and to high schools from 2011. We assist allocation of Special Needs Education Assistants by providing information like giving pamphlets which explain activity examples of the assistants to the Boards of Education.

The allocation number of Special Needs Education Assistants nationally increases. (Public kindergartens: about 4,800, public primary and secondary school: about 39,400, public high schools: around 400 assistants are allocated as of May 1<sup>st</sup> 2012.)

#### **④Adaptation to severity and overlap of disability**

Recently, disabilities of children who attend special needs education school become more severe and overlapped. It is

<sup>3</sup> Committee for Special needs education led by a principal in order to establish support system through the entire school

<sup>4</sup> Specialized teacher who helps school to cooperate with related organizations (educational or medical institution) and gives parents educational advices.

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required for us to appropriately respond to the issue. Considering these situations, Law was changed in June 2006 so that the school system for the blind, deaf and otherwise changed into the system for special needs education school. The course of study<sup>1</sup> for special needs education school posted in March 2009 was also improved.

### ⑤ "Medical Care" at School for Special Needs Education

There are pre-school children and pupils who need daily medical care at special needs education schools, and they should be protected in order to have a safe school life.

Therefore, MEXT and Ministry of Health, Labour and Welfare have worked together and practically studied how to foster connections between schools for blind, deaf and otherwise (now called as special needs education school) and medical institutions since 1998.

On the other hand, the Certified Social Worker and Certified Careworker Act are partially revised because of "the Nursing Care Insurance Act for Strengthening the Basis of Nursing Service" (Act No.72 of 2011) which came into effect in June 2012. Due to this change, nursing care staff who took certain measure of training programs can also provide a medical care such as clearing phlegm blocked throats under certain conditions. Teachers in special needs education school used to provide medical care by ignoring the illegality. But, the new act makes them able to provide medical care institutionally.

In October 2011, MEXT began "the Medical Care Review Committee for Special Needs Education School" in order to consider whether schools for special needs education can provide safe and appropriate medical cares or not, and the committee put together its conclusion as a report in December. In response to it, MEXT notified the Boards of Education how to apply new act effectively to protect health and safety for children who need medical care.

### ⑥ School Enrollment Support

In order to support the students with disabilities, there is a system to encourage school enrollment on special needs education based on "the Act Related to Encouragement of School Enrollment for Special Needs Education School."

The system is used for guarantee educational opportunities to students with disabilities. Considering with special circumstances about attending special needs education school and special needs education class in public school, the nation

and local authorities pay whole or part of expenses which is required to attend school according to their financial capacity. For example, expense for transportation, textbook, boarding house, and so on. The purpose is to reduce parents' financial burden.

### (3) Improving Educational Curriculum for Special Needs Education

About educational curriculum for special needs education in schools for special needs education, primary and secondary schools, we investigated it based on a report from the Central Council for Education posted in January 2008. After that, the courses of study (school curriculum guidelines) for primary and secondary school were published the same March, and the courses of study for high school and school for special needs education were issued following March.

The course of study for special needs education school were updated from following points of view; ① updating its educational curriculum along with an improvement of educational curriculums for kindergarten, elementary, middle and high school, ② enhancement of teaching contents for each student to adapt severity, overlap and diversification of disability. ③ enhancement of carrier education to promote students' independence and social participation.

Also, about special needs education in public schools, we specified that teachers provide students planned and organized teaching according to respective state of disability such as creating individualized teaching plans and individualized education support plans. Middle school and junior high school level special needs education school have fully carried out the new course of study since 2012.

#### ① Adaptation for Severity, Overlap, and Diversification of Disability

In the school for special needs education, in order to adapt for severity, overlap, and diversification of disability, we had regulated making individualized teaching plan, thinking out an educational curriculum for students with intellectual disability, and offering in-home or hospital visitation teaching to students who cannot go to school because of their disability. The new course of study for special needs education was issued in March 2009. It newly defines example methods such as cooperation between teachers and employment of outside experts. Also, the course of study states that faculty have to

<sup>5</sup> Pre-school children with certain degree of disabilities (defined by Article 22-3 of the Order for Enforcement of the School Education Act) who are certified that they can go to public schools by Board of Education

<sup>6</sup> National guideline books for making school curriculum

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make individualized educational support plans in order to help students with related organization from the perspective of providing appropriate teaching for each students, as well as adding rule, “basics to interact with other people” as a content of “independent activity”

### ② Carrier Education and Working Support Cooperating with Related Organization

It is very important for person with disability to be supported for employment and achieve vocational independence in order to be independent and take part in society throughout his or her life. Nevertheless, among graduates of schools for special needs education high school division, ratio of the people who enter welfare institutions are reached 65%. At the same time, ratio of people who get job are still 25% in recent years. Thus, vocational independent rate is in harsh conditions. Possible factors are improvement of organizing high school level special needs education school, and the number of people who find employment is remaining flat although the number of students attended the high school division is increasing because of the growth of in-home or hospital visitation teaching caused by increasing severity and overlap of disabilities.

The new course of study describes several improvements due to enhancement of carrier education and working support; ① increasing opportunity for job experience such as long-term training at industrial fields, ② development of organizational framework at schools and cooperation with labour- and welfare-related institutions, ③ creating a new expert subject, “Welfare” in special needs education school high school divisions where students with intellectual disability go to. Now, MEXT studies development of carrier education in line with the purpose of the new course of study.

To foster employment of people with disabilities, a measure which unites institutions in the field of education, welfare, medical care and labour as one is required. For example, developing measures making smooth transition not only from welfare to employment, but also from school life to working life.

Therefore, MEXT cooperated with Ministry of Health, Labour and Welfare in March 2013 and issued a document to the Prefectural Boards of Education. The document fosters job support activities for children with disabilities by using various measures for labor organizations such as working support

seminar and project fostering of people with disabilities’ job experiment.

### ③ Development of Joint Activities and Learning<sup>1</sup>

Spending the time with children with disabilities and children without disabilities together is not only significant for all children to raise sociability and enrich humanity, but also very important opportunity to understand and get to know each other in a right way.

For that reason, former version of the course of study has regulated to provide a time which both children can share, and every school has been taking necessary steps. And now, the new course of study adds regulation of making opportunity for joint activities and learning together based on The Basic Law for Persons with Disabilities. Besides, since 2010, MEXT have been taking on a practical research which fosters relationship and joint educational programs with public schools in the areas where special needs education school exists and its students live. National Institute of Special Needs Education (NISE) develops human resources that will be leaders of each prefecture. It targets for teachers and teaches’ consultants, and holds the Research Council for Leader to Foster Joint Activity and Learning.

### (4) Improving Specialty of Teachers

The revised Basic Law for Persons with Disabilities issued in Aug 2011 states “Related to education for persons with disabilities, the nation and local authority (omitted) have to hire experts and enhance their qualifications, (omitted) foster development of the other environment.” Now, further improvement of teachers’ expertise is required. Also, As of May 1<sup>st</sup> of 2012, the ratio of teachers who have special needs education school teacher’s license is 71.1%, so that raising the percentage is an urgent issue.

Therefore, MEXT requests the Prefectural Boards of Education to set a goal and make a plan for increasing the percentage. At the same time, we ask them comprehensive decision with deep thought about status of teacher’s license holding ratio when they employ, train, and allocate teachers. Also, we have held leader training course which targets leaders of the Prefectural Boards of Education since 2006. Besides, NISE provides a variety of training

<sup>7</sup> Students with and without disabilities spending some time together as part of the school activities.

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programs in order to raise talented person to be a leader at each prefecture.

### **(5) Efforts by National Institute of Special Needs Education (NISE)**

NISE, as the only national institute for special needs education, fosters specialized study and training about how to teach preschool children, school children, and adolescent with

various disabilities which include developmental disability. Moreover, it establishes “information center for developmental disability education,” and the center offers educational information related to developmental disability and shows lectures for teachers to educators and parents through the internet.

## Recent Data on Education for Children with Disabilities in Japan

Statistical data are collected as of May 1, 2013

### (1) Number of schools for special needs education, number of classes, number of children enrolled, number of teachers and staffs - totals for national, public and private institutions -

	Number of schools	Number of classes	Number of children enrolled				
			Kindergarten dept.	Elementary dept.	Lower secondary dept.	Upper secondary dept.	Total
Total	1,059	32,842	1,569	37,097	28,829	62,499	129,994
Total of Schools for Specific Disability only	847	24,281	1,453	27,675	21,756	48,117	99,001
(1) Visual impairment	66	1,252	207	616	487	1,990	3,300
(2) Hearing impairment	91	1,842	1,136	1,992	1,325	1,631	6,084
(3) Intellectual disabilities	491	15,678	65	18,544	15,896	39,972	74,477
(4) Physical/motor disabilities	136	4,493	45	5,587	3,273	3,703	12,608
(5) Health impairment	63	1,016	-	936	775	821	2,532
Total of Schools for two or more Disabilities	212	8,561	116	9,422	7,073	14,382	30,993
(1)+(3)	1	51	8	114	82	-	204
(1)+(5)	1	20	-	9	2	25	36
(2)+(3)	8	220	32	185	152	363	732
(3)+(4)	124	5,354	11	6,099	4,487	10,002	20,599
(3)+(5)	13	488	-	528	502	888	1,918
(4)+(5)	20	794	12	829	517	621	1,979
(1)+(4)+(5)	1	37	1	28	22	30	81
(2)+(3)+(4)	1	60	3	60	46	89	198
(2)+(3)+(5)	1	40	14	45	23	62	144
(3)+(4)+(5)	23	807	4	873	649	1,210	2,736
(2)+(3)+(4)+(5)	1	41	6	40	34	47	127
(1)+(2)+(3)+(4)	2	106	9	111	115	130	365
(1)+(2)+(3)+(4)+(5)	16	543	16	501	442	915	1,874
Total of teachers & staffs							90,814
Number of teachers							76,387
Number of staffs							14,427

\*This table is classified by the type of disabilities which each school specifies according to their school regulations.



**(2) Number of schools for special needs education, number of classes, number of children enrolled based on disability categories established** - totals for national, public and private institutions -

	Number of schools	Number of classes	Number of children enrolled				
			Kindergarten dept.	Elementary dept.	Lower secondary dept.	Upper secondary dept.	Total
Visual impairment	87	2,241	227	1,760	1,114	2,793	5,894
Hearing impairment	120	2,787	1,215	3,099	1,909	2,310	8,533
Intellectual disabilities	681	27,754	211	32,889	25,482	56,773	115,355
Physical/motor disabilities	324	11,986	150	13,595	8,243	10,019	32,007
Health impairment	139	7,212	14	7,349	5,164	6,663	19,190

\*In this table, the number of schools, classes and children enrolled were counted based on disability category respectively, so that these numbers were multi-counted if they are related to two or more disabilities.

**(3) Number of classes for special needs education, number of children enrolled, number of teachers in charge, number of ordinary schools in which classes for special needs education are established**

- totals for national, public and private institutions -

	Elementary schools		Lower secondary schools		Total	
	Number of classes	Number of children	Number of classes	Number of children	Number of classes	Number of children
Intellectual disabilities	15,663 (47.8%)	57,565 (50.5%)	7,765 (52.2%)	29,395 (58.2%)	23,428 (49.2%)	86,960 (52.9%)
Physical/motor disabilities	1,927 (5.9%)	3,226 (2.8%)	738 (5.0%)	1,148 (2.3%)	2,665 (5.6%)	4,374 (2.7%)
Health impairment	927 (2.8%)	1,693 (1.5%)	398 (2.7%)	704 (1.4%)	1,325 (2.8%)	2,397 (1.5%)
Low vision	265 (0.8%)	322 (0.3%)	75 (0.5%)	95 (0.2%)	340 (0.7%)	417 (0.3%)
Hard of hearing	585 (1.8%)	944 (0.8%)	243 (1.6%)	385 (0.8%)	828 (1.7%)	1,329 (0.8%)
Speech and language disorders	450 (1.4%)	1,454 (1.3%)	83 (0.6%)	114 (0.2%)	533 (1.1%)	1,568 (1.0%)
Autism/ Emotional disturbance	12,956 (39.5%)	48,757 (42.8%)	5,568 (37.4%)	18,626 (36.9%)	18,524 (38.9%)	67,383 (41.0%)
<b>Total</b>	<b>32,773</b>	<b>113,961</b>	<b>14,870</b>	<b>50,467</b>	<b>47,643</b>	<b>164,428</b>
Number of teachers in charge	35,047		16,211		51,258	
Number of schools established	15,747		7,652		23,309	

\*The secondary schools are not included here. There are no special classes in those schools.

\*Special needs education classes for Autism/Emotional disturbance was substituted for ones for Emotional disturbance since 2009.

**(4) Number of children receiving special needs services in resource rooms, number of teachers in charge, number of ordinary schools in which resource rooms are established - public institution -**

	Elementary schools	Lower secondary schools	Total
Speech and language disorders	32,390 (49.5%)	284 (4.7%)	32,674 (45.9%)
Autism	9,744 (14.9%)	1,530 (25.2%)	11,274 (15.8%)
Emotional disturbance	6,137 (9.4%)	1,313 (21.7%)	7,450 (10.5%)
Low vision	141 (0.2%)	20 (0.3%)	161 (0.2%)
Hard of hearing	1,704 (2.6%)	352 (5.8%)	2,056 (2.9%)
Learning disabilities	7,714 (11.8%)	1,636 (27.0%)	9,350 (13.1%)
Attention deficit hyperactivity disorder	7,596 (11.6%)	921 (15.2%)	8,157 (11.5%)
Physical/motor disabilities	16 (0.02%)	1 (0.02%)	17 (0.02%)
Health impairment	14 (0.02%)	6 (0.1%)	20 (0.03%)
<b>Total</b>	<b>65,456</b>	<b>6,063</b>	<b>71,159</b>
Number of teachers in charge	4,955	746	5,797 *1
Number of schools established	2,781	498	3,333 *2

\*1 The data includes 95 teachers of schools for special needs education.

\*2 The data includes 54 schools for special needs schools.

**(5) National demographic data for schooling of children**

		Compulsory education stage (elementary and lower secondary)		All stages (kindergarten to upper secondary)	
Number of children enrolled (all)		10,403,076	(100.0%)	15,435,754	(100.0%)
Number of children receiving special needs education		301,873	(2.9%)	365,941	(2.4%)
Breakdown of above	Enrollment in special schools	65,926	(0.6%)	129,994	(0.8%)
	Enrollment in classes for special needs education	164,428	(1.6%)	164,428	(1.1%)
	Number accessing resource rooms	71,519	(0.7%)	71,519	(0.5%)
Number of children postponed or exempted schooling because of their disabilities		56	(0.0005%)		
Breakdown of above	Blind/visual impairment	0	} 44		
	Deaf/hearing impairment	0			
	Intellectual disabilities	9			
	Physical/motor disabilities	4			
	Health impairment	31			
	Enrolled in children's facilities/corrective institutions	65			
	Others	3,412			

\*The number of children enrolled in schools for special needs education and special classes include all national, public and private institutions while those of resource rooms came from the data of public institution only.

**(6-1) Trend of the enrollment rates belong to the classes for children with multiple disabilities counted by disability categories among all children in the schools - totals for national, public and private institutions –**

① Elementary and lower secondary department

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total (%)	31.0	36.6	38.3	43.8	45.1	44.6	43.4	43.5	43.3	43.1	42.8	42.5	41.2	41.2	41.1	40.1	39.1
Visual impairment		26.6	30.9	35.4	41.9	43.3	43.8	42.3	44.5	46.4	46.0	47.0	48.8	46.5	44.3	45.3	41.0
Hearing impairment		12.7	12.7	15.7	17.9	17.4	17.9	17.9	18.4	19.4	18.8	19.6	26.1	24.9	24.7	24.8	25.0
Intellectual disabilities		34.1	34.0	37.2	37.6	36.7	34.9	34.9	34.3	34.3	34.3	35.9	34.9	34.5	34.2	33.3	31.9
Physical/motor disabilities		53.9	59.9	71.4	75.0	74.9	74.4	74.8	75.3	75.4	75.3	66.1	64.5	63.8	59.7	61.7	59.7
Health impairment		33.3	33.0	31.4	32.5	34.1	35.9	37.9	38.5	39.5	39.3	44.4	44.8	45.5	45.5	43.3	43.1

\*The ratios are calculated by the type of major disability of the child after 2007, though they were calculated by the type of school they belonged to until 2006. Furthermore, in previous cases, case count might be doubled or more for the child with multiple disabilities.

② Upper secondary department

	1980	1985	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total (%)			15.6	18.8	23.9	23.2	23.0	23.1	22.4	22.4	22.0	22.1	21.3	21.0	19.9	19.5	19.0
Visual impairment			7.2	8.0	7.6	7.9	8.3	8.0	7.5	7.7	7.9	8.1	15.8	15.6	15.4	16.8	16.0
Hearing impairment			5.3	6.0	7.9	7.3	7.2	8.0	8.9	9.5	7.9	8.0	18.8	18.3	16.9	15.9	15.5
Intellectual disabilities			9.0	13.6	17.9	17.1	16.5	16.8	16.2	16.5	16.3	17.8	17.4	16.8	15.9	15.6	15.1
Physical/motor disabilities			32.3	51.1	60.5	59.5	60.8	60.8	59.6	58.1	57.9	46.9	43.7	41.8	38.0	37.9	36.4
Health impairment			28.8	30.6	45.1	45.0	44.5	44.5	41.6	44.2	39.5	39.5	37.7	39.1	33.9	31.6	31.2

\*The ratios are calculated by the type of major disability of the child after 2007, though they were calculated by the type of school they belonged to until 2006. Furthermore, in previous cases, case count might be doubled or more for the child with multiple disabilities.

**(6-2) The number of children belong to the classes for children with multiple disabilities counted by disability categories and their enroll rates among all children in the schools - total for national, public and private institutions -**

	Elementary and lower secondary dept.		Upper secondary dept.		Total	
	Number of children	Enrolment rate	Number of children	Enrolment rate	Number of children	Enrolment rate
Total	25,784	39.1	11,906	19.0	37,690	29.3
(1) Visual impairment	517	46.9	238	12.0	755	24.4
(2) Hearing impairment	670	20.2	198	12.1	868	17.5
(3) Intellectual disabilities	9,473	27.5	4,858	12.2	14,331	19.3
(4) Physical/motor disabilities	7,125	80.4	2,589	69.9	9,714	77.3
(5) Health impairment	536	31.3	315	38.4	851	33.6
(1)+(3)	37	18.9	-	-	37	18.9
(1)+(5)	5	45.5	2	8.0	7	19.4
(2)+(3)	70	20.8	25	6.9	95	13.6
(3)+(4)	4,805	45.4	2,484	24.8	7,289	35.4
(3)+(5)	305	29.6	173	19.5	478	24.9
(4)+(5)	1,078	80.1	445	71.7	1,523	77.4
(1)+(4)+(5)	38	76.0	19	63.3	57	71.3
(2)+(3)+(4)	55	51.9	25	28.1	80	41.0
(2)+(3)+(5)	13	19.1	2	3.2	15	11.5
(3)+(4)+(5)	597	39.2	282	23.3	879	32.2
(2)+(3)+(4)+(5)	19	25.7	15	31.9	34	28.1
(1)+(2)+(3)+(4)	122	54.0	48	36.9	170	47.8
(1)+(2)+(3)+(4)+(5)	319	33.8	188	20.5	507	27.3

\*This table is classified by the type of disabilities which each school specifies according to their school regulations.

\*The enrollment rates were calculated as 'the number of children belonged to the classes for children with multiple disabilities' divided by 'the total number of children in the school'.

**(7) Situations after graduation****① Situations after graduation from lower secondary department of schools for special needs education or classes for special needs education of lower secondary regular schools**

- totals for national, public and private institutions -

		Number of graduate students	Number of students who entering higher education	Number of students who entering training institutions	Number of students who entering work life	Number of students who entering institutions or medical institutions	Others
Schools for special needs education	Total	9,280 (100.0%)	9,131 (98.4%)	11 (0.1%)	2 (0.02%)	60 (0.6%)	76 (0.8%)
	Visual impairment	166 (100.0%)	166 (100.0%)	-	-	-	-
	Hearing impairment	451 (100.0%)	450 (99.8%)	-	-	-	1 (0.2%)
	Intellectual disabilities	6,688 (100.0%)	6,594 (98.6%)	5 (0.1%)	-	44 (0.7%)	45 (0.7%)
	Physical/motor disabilities	1,565 (100.0%)	1,542 (98.5%)	-	1 (0.1%)	6 (0.4%)	16 (1.0%)
	Health impairment	410 (100.0%)	379 (92.4%)	6 (1.5%)	1 (0.2%)	10 (2.4%)	14 (3.4%)
Classes for special needs education		15,717 (100.0%)	14,718 (93.6%)	392 (2.5%)	137 (0.9%)	470 (3.0%)	

\*Upper columns are for the number of students and lower columns are for its share (%) to the total. The total of all the rates above does not reach 100% because of the round off.

**② Situations after graduation from upper secondary department of schools for special needs education**

- totals for national, public and private institutions -

		Number of graduate students	Number of students who entering higher education	Number of students who entering training institutions	Number of students who entering work life	Number of students who entering institutions or medical institutions	Others
Schools for special needs education	Total	17,707 (100.0%)	471 (2.7%)	445 (2.5%)	4,420 (25.0%)	11,801 (66.6%)	570 (3.2%)
	Visual impairment	330 (100.0%)	104 (31.5%)	12 (3.6%)	36 (10.9%)	143 (43.3%)	35 (10.6%)
	Hearing impairment	529 (100.0%)	220 (41.6%)	39 (7.4%)	173 (32.7%)	73 (13.8%)	24 (4.5%)
	Intellectual disabilities	13,541 (100.0%)	72 (0.5%)	248 (1.8%)	3,842 (28.4%)	9,029 (66.7%)	350 (2.6%)
	Physical/motor disabilities	2,785 (100.0%)	42 (1.5%)	99 (3.6%)	293 (10.5%)	2,238 (80.4%)	113 (4.1%)
	Health impairment	522 (100.0%)	33 (6.3%)	47 (9.0%)	76 (14.6%)	318 (60.9%)	48 (9.2%)

\*Upper columns are for the number of students and lower columns are for its share (%) to the total. The total of all the rates above does not reach 100% because of the round off.

**(8-1) Trend of the enrollment rates in upper secondary department of schools for special needs education after graduation from lower secondary department of schools for special needs education or classes for special needs education of lower secondary regular schools** - totals for national, public and private institutions -

[As of March in each year]

		1980	1985	1990	1995	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Schools for special needs education	Total	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	Visual impairment	59.7	61.4	67.2	77.5	90.1	90.7	92.0	91.3	92.1	92.7	94.2	93.7	94.7	95.0	95.6	95.8
	Hearing impairment	89.6	92.5	90.8	91.4	94.4	92.5	95.4	94.2	95.3	93.6	96.3	99.4	97.6	98.4	97.6	97.6
	Intellectual disabilities	94.8	96.8	95.6	95.2	95.4	94.5	93.8	96.6	94.6	96.9	96.0	92.0	96.9	94.2	95.7	91.1
	Physical/motor disabilities	49.9	56.7	66.8	81.2	94.5	94.4	95.8	95.1	95.8	96.9	97.4	97.0	97.8	97.5	98.2	98.5
	Health impairment	71.9	74.5	78.1	84.6	94.1	95.5	95.0	94.3	95.5	94.6	96.7	96.7	96.9	95.9	96.3	97.4
	Classes for special needs education	24.0	22.8	28.5	31.0	42.9	46.4	42.9	45.3	45.0	47.7	49.9	50.0	50.4	52.4	53.1	51.5
Classes for special needs education	11.5	25.9	39.7	52.1	62.2	64.9	73.1	62.6	64.6	64.8	65.5	70.2	69.7	70.0	67.3	66.5	

**(8-2) Trend of the rates of the students who going to the work from the upper secondary department of schools for special needs education (regular course)** - totals for national, public and private institutions -

[As of March in each year]

Type		1980	1985	1990	1995	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Schools for special needs education	Total	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
	Visual impairment	42.7	33.0	35.7	29.2	22.0	20.5	19.4	20.4	20.5	22.7	23.1	24.3	23.7	23.6	24.3	25.0
	Hearing impairment	30.2	25.5	27.6	18.3	12.6	13.3	11.9	11.9	17.0	14.4	12.4	15.3	19.1	21.4	16.3	10.9
	Intellectual disabilities	49.7	48.5	47.6	37.0	31.4	29.3	25.5	31.5	34.4	32.4	35.4	42.4	35.1	33.5	34.5	32.7
	Physical/motor disabilities	57.9	37.8	40.7	33.4	25.5	23.7	22.4	23.2	23.2	25.3	25.8	27.1	26.4	26.7	27.4	28.4
	Health impairment	24.5	19.2	20.2	13.0	6.5	6.6	6.0	6.4	6.1	7.7	7.7	11.8	11.0	9.7	12.0	10.5
	Health impairment	5.8	8.5	18.6	18.0	8.0	6.1	10.1	13.0	10.3	15.4	18.5	16.4	12.1	11.0	12.2	14.6

**(9) The status of homebound education in the upper secondary department of schools for special needs education** - national, public and private institutions -

	Prefectures	Number of schools	Number of children
2001	All the prefectures	261	895
2002	All the prefectures	269	1,012
2003	All the prefectures	266	1,038
2004	All the prefectures	257	936
2005	All the prefectures	249	934
2006	All the prefectures	235	923
2007	All the prefectures	248	929
2008	All the prefectures	248	948
2009	All the prefectures	244	942
2010	All the prefectures	248	894
2011	All the prefectures	238	931
2012	All the prefectures	235	949

**(10) Expenditure of school education per one child** - public institution -

[FY 2010]

Public	Expenditure of school education	
Schools for special needs education	7,710,042 Yen	Expenditure per child enrolled in schools for special needs education is  8.5 times as high as those of children in ordinary elementary schools  7.2 times as high as those of students in ordinary junior high schools
Elementary schools	908,184	
Lower secondary schools	1,072,875	

**English Abstracts of the Research Papers from *Bulletin of The National Institute of Special Needs Education* or “国立特別支援教育総合研究所研究紀要”, Vol. 40, 2013.**

1. TOKUNAGA Akio, TANAKA Koji, SAKAI Yutaka, HARUNA Yuichiro, and SATO Hisao (2013). Study of ICF/ICF-CY use in the fields related to Special Needs Education for multidisciplinary approaches, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp.

**Study of ICF/ICF-CY use in the fields related to Special Needs Education for multidisciplinary approaches**

TOKUNAGA Akio, TANAKA Koji, SAKAI Yutaka, HARUNA Yuichiro, and SATO Hisao

**Abstract:** Characteristics of using ICF/ICF-CY in medical, welfare, health and labor fields related to special needs education in Japan was investigated, and compared to the use of special schools, toward contribution to multidisciplinary approaches using ICF/ICF-CY. Published articles (n=112) were analyzed from the perspective of previous research and compared with survey data of special schools. Results indicated that the articles commonly referred to conceptual frameworks and components. The main difference between the articles was that items and statistics were described in labor related fields, more often than in other fields. Compared to use in special schools, it was indicated that more importance was attached to the use of concepts. Moreover, in related fields, items were mentioned more frequently and evaluations were conducted more often. It was indicated that using conceptual frameworks for comprehending cases was effective and that knowledge about items is necessary for multidisciplinary approaches using ICF/ICF-CY.

**Key words:** Special Needs Education, Related field, ICF, ICF-CY, Multidisciplinary Approach

2. KIKUCHI Kazufumi (2013). Possibilities for Supporting Career Development by using ICF in Special Needs, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 23-35, 2013.

**Possibilities for Supporting Career Development by using ICF in Special Needs**

KIKUCHI Kazufumi

**Abstract:** It is necessary to ensure the consistency of guidance and support provided in schools and school departments to preserve the independence and social participation of students with special educational needs. This study aimed to identify possibilities of supporting the career development, and clarify important points related such support of students with special needs, by analyzing case studies in the use of ICF in special schools. Results indicated the following. (1) Organizational comprehension of career concepts, (2) facilitation for student participation and (3) coordinated collaboration with other supporters and association can result in more effective, person-centered support, with connections across time and space. Moreover, the participation of students and the enrichment of organizational engagements through multidisciplinary collaboration and cooperation between related associations and other professions in medical, welfare and labor fields is required to support the career development of students with special educational needs.

**Key words:** Career development, ICF, Participation, Collaboration between related associations



3. SAKAI Yutaka, TANAKA Koji, and TOKUNAGA Akio (2013). Compatibility between “Health” in the Course of Study for Kindergarten and ICF-CY, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 37-49, 2013

## Compatibility between “Health” in the Course of Study for Kindergarten and ICF-CY

SAKAI Yutaka, TANAKA Koji, and TOKUNAGA Akio

**Abstract:** The compatibility between the contents of “health”, one of five domains in the course of study for kindergarten, and ICF-CY categories was investigated as the first step in the practical use of ICF-CY in early childhood education. Methods: The description of “health” in the guidelines of the course of study for kindergarten was linked to the ICF-CY categories by referring to the ICF linking rules. Results: Ten categories of ICF-CY body functions, 66 categories of ICF-CY activities and participation, 12 categories of ICF-CY environmental factors were linked to the description of “health” in the guidelines. Discussion: Description of “health” was highly compatible with ICF-CY categories. Most of the contents of “health” in the guidelines were basic life habits. Therefore, ICF-CY categories that were linked to “health” consisted mostly of activities and participation categories. These results indicate the possibility that ICF-CY can be utilized in early childhood education. Further studies are needed to establish well-defined linking rules related to the compatibility of the ICF-CY for early childhood education, as well as to investigate the compatibility of ICF-CY categories with domains other than “health” that are related to the educational contents of kindergartens.

**Key words:** Course of Study for Kindergarten, ICF-CY, Compatibility, Early Childhood Education, Health Domain

4. MUTAGUCHI Tatsumi (2013). Development of Braille reading speed in children with acquired blindness, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 51-65, 2013

## Development of Braille reading speed in children with acquired blindness

MUTAGUCHI Tatsumi

**Abstract:** The development of Braille reading speed in seven children with acquired blindness who switched from reading printed text to Braille text after the 4th grade of elementary school was investigated. Five of them received intensive training for one year with the aim of acquiring the ability to use both hands efficiently. Of the seven children, five achieved reading speed of about the same level as the average reading speed congenitally blind children in the sixth grade who had used Braille text since the first grade. However, blind children who were enrolled in a regular school and used printed writing remained at the second grade level in congenitally blind children. In the intensive training, the one-handed reading speed of three of the five children improved with little difference between the left and right hands, but two-handed gain was not constant. In two children who began receiving instruction in the sixth grade, reading had improved greatly after summer vacation, but a large left-right difference appeared. This shows that while it is possible to generally reach the Braille reading speed of congenitally blind children even if Braille reading is introduced in the latter years of elementary school, achieving that is difficult if printed text is normally used, acquiring skill in shifting to the next line is needed for two-handed gain to appear, and the reading speed of the dominant hand only will improve in cases when there is little intervention from the instructor.

**Key words:** Braille reading speed, children with acquired blindness, children with congenital blindness, intensive training, two-handed gain

5. SAITO Yumiko, YOKOO Shun, KUMATA Hanae, OSAKI Hirofumi, MATSUMURA Kanyu, and SASAMOTO Ken (2013). Expertise and development of teachers for students with multiple disabilities, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 67-80, 2013.

### Expertise and development of teachers for students with multiple disabilities

SAITO Yumiko, YOKOO Shun, KUMATA Hanae, OSAKI Hirofumi, MATSUMURA Kanyu, and SASAMOTO Ken

**Abstract:** A contemporary issue in special needs education in Japan is providing appropriate education for students with severe, multiple disabilities. However, the expertise of teachers of such students and how their expertise was obtained and developed remains unclear. Therefore, the process of developing practical expertise by teachers for dealing with students having multiple disabilities, as well as the requisites for developing such expertise were investigated. Experienced teachers (N = 9) that had worked in several special needs schools for students with different disabilities were interviewed. Data were analyzed using qualitative study methodology. Results indicated that the dominant theme was by practicing in several special needs schools for different types of disabilities, experienced teachers have developed expertise, knowledge and techniques for teaching students with multiple disabilities. In addition, they have deepened their understanding and beliefs regarding children, disabilities, and about education through reflection. Moreover, they continue working to achieving positive results. The need for a system to ensure the necessary expertise for teachers of students with multiple disabilities, and the need for accumulation and cultivation are discussed.

**Key words:** expertise for educating students with multiple disabilities, qualitative inquiry, expertise on accumulation, expertise on cultivation, reflection

6. OKABE Yuko and SATO Miyuki (2013). What are the ideal outcomes for preschoolers in need of special education? —Case study of a child who attended a day care center for special-needs children—, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 81-95, 2013.

### What are the ideal outcomes for preschoolers in need of special education? — Case study of a child who attended a day care center for special-needs children —

OKABE Yuko and SATO Miyuki

**Abstract:** One goal of support programs for children with special needs is to provide medical and educational support that helps put them on a path toward a happy life. Support programs have to provide not only short-term, but also middle and long-term benefits. We examined the effects of support programs for children and their families, provided by a day care center for children with special needs. We interviewed a mother of a child who completed the support program 14 years ago. We also interviewed three educational and human services workers in a day care center for children with special needs. Results indicated that children's adjustment and adaptation to the new life environment were connected to support programs which helped them adopt good lifestyles. Moreover, support programs that cultivated trusting behaviors in other people were important throughout the children's stages of development. Furthermore, educational programs to understand children and their disabilities were useful for good decision-making related to adjusting and adapting to the children's new environments during their life stages. Also, learning how to utilize social resources and helpful information was important for children and families to enjoy life.

**Key words:** Day care center for children with special needs, Early support program, Parental support, Life stage, Utilization of social resources

7. SHIJO Kiyomi (2013). Review of Studies on Support for Children with Developmental Disabilities in Mainstream Classrooms, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 97-108, 2013.

## Review of Studies on Support for Children with Developmental Disabilities in Mainstream Classrooms

SHIJO Kiyomi

**Abstract:** Research conducted in Japan and other countries regarding special needs education for children with developmental disabilities in mainstream classrooms was reviewed. In Japan, after the change from “special education” to “special needs education,” promoting special needs education in mainstream classrooms has become a focus of interest. Research topics related to this field have expanded from problems related to individual support to problems about class wide support. As a result, the perspective of “interactions in the classroom by diverse learners” has become important. Research undertaken from a socio-cultural perspective could be a key to comprehensively treating both the individual and the classroom. Studies taking the socio-cultural approach have analyzed not only learning in the same place, but also the equal participation. Interactions that arise in the classroom can lead to more authentic and creative learning, and to the realization of an inclusive class. It is suggested that future directions for such research would include the classification of more complicated interactions in the classroom and identification of strategies to extend learning by diverse students.

**Key words:** mainstream classroom, class wide support, socio-cultural approach, interaction, inclusive classroom

8. MUNEKATA Tetsuya, SAITO Yumiko, and TSUGE Masayoshi (2013). A Compilation of International Studies in “the Japanese Journal of Special Education” on the Education for Children with Disabilities since 1964, *Bulletin of The National Institute of Special Needs Education*, Vol. 40, pp. 109-124, 2013.

## A Compilation of International Studies in “the Japanese Journal of Special Education” on the Education for Children with Disabilities since 1964

MUNEKATA Tetsuya, SAITO Yumiko, and TSUGE Masayoshi

**Abstract:** Articles in the Japanese Journal of Special Education, published since 1964 (N = 1385) on the education of children with disabilities in overseas countries were reviewed. Research articles on this topic (N = 100) that accounted for 7.2% of the total articles published in the journal were identified. In the last 12 years this ratio had increased by approximately 150% to 8.9%. The country with most references was the U.S., which was mentioned in 40% of all articles. The principal disability category was “uncategorized,” which was mentioned in 50% of all articles. The articles were more likely to be published under the category of “Current Topics” or as “Review” articles, rather than as “Original Articles” or as “Practical Research.” Articles on educational legal systems of overseas counties decreased from 60.9% to 44.2% in the last 24 years, whereas those on educational methods, educational interventions, and surveys, increased significantly from 17.4% to 36.4%. Finally the contents of each article were summarized and described by disability categories.

**Key words:** Compilation of Research, Overseas Countries, Education for children with Disabilities, Japanese Journal of Special Education



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