Current Special Education in Britain:
Deaf-blind Education and Staff Development

Hiroyuki Sugai
(Department of Education for Children with Multiple Disabilities)

This article provides an overview of the current state of educational reform as it affects special needs education in the United Kingdom and focuses on the uniqueness of deafblind/multisensory impairment education. The central government in the UK introduced the market principle to schools with the aim of improving educational outcomes. Recent policy has focused on curricular reform of academic subjects. In the field of the education of children with special needs, there has seen dramatic changes in educational policy and practice since the concept of “Special Educational Needs (SEN)” was introduced in the 1981 Education Act. This relatively new concept stressed that the content of services provided should be directly based on the child’s special educational needs. On the one hand while many students with SEN were able to access mainstream schooling, on the other they faced new difficulties in their learning environment, especially those children with severe learning difficulties and/or complex needs. This paper suggests that at present there are insufficient resources in mainstream schools in Britain to provide for children who have specific and complex needs. The outcome of this debate is that the importance of professional educational treatment has been recognized once again. This finding was based on a government report that showed that many staff who work with pupils who are deafblind use specific and wide-ranging strategies and that they should have a thorough understanding and knowledge of the condition. The central government has established guidelines for meeting these standards of expertise and information about the uniqueness of deafblindness. However, many staff still have concerns that the needs of children with deafblindness or multisensory impairments will become lost in mainstream settings. Most teachers in regular classes do not have expertise in this field, so the issue of staff development has become increasingly important. This overview of recent educational trends, including the provision of deafblind education in Britain suggest that more professional expertise in more inclusive educational settings is required, the importance of individual needs as a catalyst for educational intervention, and for a greater emphasis on a multi/interdisciplinary approach. In Japan, it is suggested that the uniqueness of education for children who are deafblind should be stressed and that expertise should be developed through a system of in-service training of teachers.

Key Words: Deafblind, multi-sensory impaired, special educational needs, special education in Britain, expertise

Literacy in Japanese Deaf Education: hanging Concepts and Methods

ODA Yoshiaki
(Department of Children With Hearing and Speech Handicaps)

The development of Literacy in deaf children has always been a major objective of the education of the deaf. However, since the education of the deaf began, the concept and methodology of educational intervention for deaf children's literacy has changed the teaching of literacy instruction by the manual method has shifted towards a highly designed letter-based teaching methodology using the pure oral method. Following this various modalities of Japanese code for developing children's literacy have been used. The current shift in emphasis, however, is to bilingual approach for literacy development. And also new changes are happening in a global context of rapid development of information technology that may have an influence on the concept of literacy itself. In this paper a functional framework of intervention for deaf children's literacy is proposed.
Characteristics of Academic Failure in Children with Learning Disabilities: 
A Comparative Study

KAIZU Akiko
(Department of Education for Children with Health Impairments)

This study examines the characteristics of academic failure in children with LD. Initially a Learning Disabilities Screening Checklist (LDSC) to profile the academic skills of children with LD was constructed. Based on the definition of LD proposed by the Ministry of Education, Culture, Sports and Science (MEXT, 1999), the LDSC consists of six academic areas: listening, speaking, reading, writing, mathematical calculation and mathematical reasoning. Each area consists of 20-24 items. The 134 items of the LDSC were chosen based on previous research on factors contributing to academic failure in children with LD by Kaizu (1997, 2000). The experimental group of children with LD (n = 124) and the control group (n = 304) were assessed using the LDSC and were compared by age level (7-9 years and 10-12 years). The items of academic failure were classified from the means of academic failure scores and from items showing significant difference between the LD and control groups. From this analysis, the characteristics of academic failure in children with LD were clarified because it examined not only significant difference between the groups, but also the degree of academic failure by age level. It was found that in some types of academic failure, the means of scores were significantly different between the LD group and the control group in lower grades, but not in upper grades. We interpret this to mean that children with LD slowly, but steadily acquire academic skills in certain areas. On the other hand, academic failure was observed in which there was a significant difference between the two groups in both age levels. We suggest that this is probably closely related to the cognitive characteristics of children with LD and that this kind of academic failure is associated with the difficulty in acquiring of specific academic skills even if the child is engaged in learning. This study provides a comprehensive understanding of academic failure in children with LD by age level and has implications for teaching goals and methodology. 

Key Words: Learning disabilities, academic failure, academic assessment, checklist, comparative study

Development and Use of New-type Push Switches using Strain Gauge Technology for the Education of Children with Severe and Multiple Disabilities

MUNEKATA Tetsuya, MIFUNE Shunsuke* and NAKAMURA Hitoshi
(Department of Educational and Information Technology)
(* Kaise Protective Care School for Physically Handicapped Children, Tottori Prefecture)

This paper reports on the development of new type of push-switch system for children with limb paralysis and visual disability based on strain gauge technology. The system provides real time audio feedback in response to even fine motor movement. A case study of the functioning of the new system and analysis of results suggest that the system is effective. The first system developed was relatively expensive because of the system configuration. A second version, however, using a micro-controller, a 12 bits A/D converter, an amplifier circuit, 4 strain gauges, and a power supply unit, provides comparable functioning at 1/30th of the original cost. Consequently, the updated version is easier to implement and set-up in classrooms. Results of the case studies and future issues are also discussed. 

Key Words: Special education, children with severe and multiple disability, strain gauge, A/D converter, microcontroller, educational technology

"Period of Integrated Study" by Collaboration of Teachers in Tsukyu and Teachers in Ordinary Classrooms

KUBOYAMA Shigeki and TOYOTA Hiromi*
(Department of Education for Children with Speech and Hearing Handicap)
(*Tsurukawa-Daisan Elementary School, Machida)

This Case Study reports on the progress in gaining greater understanding of the feelings of individuals with handicapping conditions to improve collaboration. The study was conducted during periods of "Integrated Study," in ordinary classrooms of elementary schools and highlights the importance of teachers in Tsukyu (resource room) and in ordinary classes collaborating in the education of children attached to Tsukyu. This is because these children spend the greater part of their school lives in ordinary classrooms. The researchers and
In the sessions entitled "Yasashisa tte nandarona? (How do you think about tenderness?)" it was found that students from first to sixth grade experience continual inconvenience and report this experience. The aim of the sessions is that every child gains an awareness of the feelings of individuals with handicap and is motivated to engage in support activity for them.

Educational Treatment by use of Picture Books for Blind Children: A Case Study

KANEKO Takeshi
(Department of Education for Children with Visual Impairments)

Picture books for blind children include pictures made with tactile materials to enhance understanding, but occasionally these books have pictures, which cannot be understood tactually by blind children. The purpose of this study was to make valid and interesting picture books for blind children using pictures that could be understood tactually and, by use of these books, to enhance the development of blind children and their learning. Examples of this are improvement in tactile perception, tactile imagery and imagination on pictures and stories, the learning of Braille, and so on. These aspects were investigated in a Case Study using picture books of a blind girl aged 3-6 years. It was found that, 1) tactile perception generally improved and "searching" and "tracing" tactile perception improved, 2) the child enhanced the stories using gestures and by modeling the characters in the picture books (tactile imagery and imagination were enhanced), and 3) she became interested in the Braille used in the picture books and this improved the efficiency of her learning of Braille.

Key Words: Picture books for blind children, tactile perception, imagery, imagination, Braille

Acquisition of the Skills of Reading and Writing Yoon Scripts in Children with Reading Difficulties

SATO Katsutoshi
(Department of Education for Children with Intellectual Disabilities)
MORITA Haruhiito
(Child Guidance Centre, Saitama Prefecture)
MAEKAWA Hisao
(Institute of Special Education, University of Tsukuba)

The purpose of this Case Study was to investigate the appropriate training strategy and problems of reading and writing in a child with reading difficulties. According to psychological assessment, the child showed weakness in successive processing and language development. Before he participated in the training programmes, he read Yoon with two syllables. Word completion tasks were used in his training. Word cards with blank characters of Yoon syllables and character pieces with Yoon syllables were prepared. In these word completion tasks, the child had to select the right character from three pieces. As a result of this training programme, he became able to read many Yoon syllables with or without training stimuli and to select all the correct pieces in the word completion tasks. But he could write few Yoon syllables in the generalization stimuli. Results are discussed from the perspective of phonological processing and auditory discrimination processing.

Questionnaire Survey on Session for Understanding Hearing Handicap in Primary School.

SATO D.S. Masayuki
(Department of Education for Children with Speech and Hearing Handicaps)

The aim of this paper is to clarify details of a questionnaire survey conducted on session for understanding hearing handicap. Questionnaire items focused on the difficulty of sessions for understanding hearing handicap, the individual understanding of children with hearing handicap and so on. The subject of this questionnaire survey concerns teachers of schools for the deaf, special units for hearing handicap in primary schools with experience in session for
understanding hearing handicap in a class of primary school.
The main findings are as follows:
1. It is difficult to present knowledge on hearing (listening) and communication concerning hearing handicap with appropriate terms, because children with hearing handicap carry various personal conditions.
2. On the individual understanding hearing handicap, it shows how hearing children should communicate with children with hearing handicap on individual cases and that children with hearing handicap participates on construction of session for understanding hearing handicap.

These finding suggest that we should consider the how in communication with children with hearing handicap and the listening (hearing) through their hearing aid concretely concerning the development of teaching materials for understanding hearing handicap.

Key words: children with hearing handicap, understanding hearing handicap, hearing aid, primary school

Educational Practice of Computer Literacy and Information Education in Special Schools

WATANABE Akira, OSUGI Nariki, NAKAMURA Hitoshi
(Department of Educational and Information Technology)

In this study 255 examples of teaching in the area of Joho kyouiku (computer literacy and information education) in special schools were analyzed. The analyses were conducted from the following perspectives: 1) type of disability, 2) educational subject, 3) educational content, 4) educational methodology and, 5) educational outcomes. Interpretation of results, current states of educational practice of computer literacy and information education in special schools was discussed. Finally, efforts to improve the teaching of computer literacy and information education to meet the educational needs of children with disabilities are presented.

Key Words: Computer literacy, information education, special schools, educational practice

Inservice Training for Special Education Teachers to Improve Computer Literacy: A Survey of Education Centers in Urban and Rural Prefectures

NAKAMURA Hitoshi, MUNEKATA Tetsuya, OSUGI Nariki, and KOMAGO Yasuhira *
(Department of Educational and Information Technology)
(*Kansai International University)

Education Centers, including Special Education Centers in urban and rural prefectures are central bodies in the provision of in-service teacher training courses. This paper reviews the findings of a questionnaire survey of training courses for computer literacy and school support systems of 11 Special Education Centers and 48 Education Centers in urban and rural prefectures and major cities designated by government ordinance. All the organisations approached to participate were respondents. The main findings were that nine Special Education Centers (i.e. 82%), and 21 Education Centers (i.e. 44%) provide in-service teacher training on computer literacy for special education teachers. The remaining two Special Education Centers provided alternative arrangements. 47 of the total of 48 Education Centers provide in-service training courses accessible to special education teachers, and one center reported alternative provision. These findings suggest there is adequate in-service training in computer literacy for special education teachers in all prefectures and major cities in Japan. In terms of supporting Kohnai Kenshu (peer professional development programs in schools), 50% of Education Centers replied that they have the capacity to send personnel to school on request. Concerning responding to request concerning the use of the Internet in schools, in the majority of cases Special Education and Education Centers provide assistance via electronic mail, telephone, facsimile, and so on. This finding also suggests that the centers provide flexible and wide ranging services, not only for schools, but also for parents and other relevant organizations.

Key Words: In-service Training, Computer Literacy, Special Education Centers, Information Literacy, Kohnai Kenshu [Peer Professional Development Programs]
Health Education and Health Management of Children with Profound and Multiple Disabilities who need Special Health Care in Special Schools

KAWASUMI Ryuichi, ISHIKAWA Masataka and GOKAMI Tetsuo
(Department of Education for Children with Multiple Disabilities)

This paper provides an overview of a nationwide survey conducted in 2000 of children with profound and multiple disabilities in need of special health care. Special health care is defined as the provision of services such as sputum suction, tube feeding and so on. Analysis was made of 1,135 responses to one survey item concerned with the educational plan and provision made for health maintenance of these children. Responses were categorized as follows: 1) Health observation and provision made for the child's physical condition, 2) health education and, 3) health management. In the first category, various health indices, including vital signs, were extracted and some suggestions made. Nine types of direct approach were observed in Category (2), and nine necessary conditions were found in Category (3).

Key Words: Special health care, health observation, health education, health management, profound and multiple disabilities

Current Situation of Education for Children with Autism in Regular Classes II: Features of Individual Children and Teacher Needs

HIROSE Yumiko and TOJO Yoshikuni
(Branch: Section of Education for Children with Autism)

In the report "New Perspectives of Special Education in the 21st Century" (Ministry of Education, Culture, Sports, Science and Technology, 2001), it is suggested there is a need for positive special education support for children with mild handicapping conditions enrolled in regular classes in elementary and junior high schools. To investigate this issue, questionnaires were circulated to teachers of children with autism in regular classes in elementary schools. There were 184 respondents. In addition, the survey included not only children enrolled in regular classes, but also those in special classes and in interaction programmes. Analysis was based on data categorized according to the achievement levels obtained by children with autism, and the following factors; degree of disorder, behavioral problems, educational tasks in the curriculum, teacher concerns about children during and after class, teacher support needs and types of child support presently provided. The findings were as follows: 1) Teachers are most concerned about the difficulty of classroom learning in low achievers. 2) Teachers are concerned about behavioral problems in class regardless of achievement level. 3) Teachers of low achieving children with autism are in need of a support professional familiar with autism and able to make teaching materials. 4) Teachers of high achieving children with autism need more in-service training and a teaching manual on the education of children with autism. 5) Teachers manage to teach children with autism relying on their own devices and initiative. 6) Teachers are most concerned about the lack of daily living skills in the low achieving group. 7) Teachers are concerned about behavioural problems regardless of achievement level, and teachers need inservice training and a teaching manual for the education of children with autism regardless of their achievement level. It is suggested that to cope with the current situation, greater effort should be directed towards, 1) assessing children who use Tsukyu classes to better understand the criteria used in the interview process for entrance, 2) in-service training for the education of autistic children in regular classes and, 3) improving the quality of education of children with autism in Tsukyu and special classes.

Children with Attention Deficit/ Hyperactivity Disorder: A Survey of All Primary and Secondary Schools in a Rural City

HANAWA Toshio, BABA Hiroo*, ATSUMI Yoshikata, OHSHIBA Fumie, KOREEDA Kiyoji, TAMAKI Munehisa
(Department of Education for Children with Emotional Disturbance)
(* Classroom of Nagano Prefectural Hanada Special School in Suwako-Kenkougakuen)

The report "New Perspectives of Special Education in the 21st Century," (Ministry of Education, Culture, Sports, Science and Technology, 2001), emphasizes that in the future children with attention deficit/hyperactivity disorder (ADHD) should be educated with appropriate educational support. To develop appropriate methods for
educational support for children with ADHD a basic requirement is understanding the needs of these children in schools. To address this requirement, a survey of all schools (primary and secondary) in a city located in a rural region was conducted. It was found that the prevalence of suspected ADHD, including not only official diagnosis, was 0.57%, but with medical diagnosis it was only 0.26%. The prevalence ratio was highest at the 4th grade level of the primary school. Of 43 children diagnosed with ADHD in primary schools, 28 were in regular classrooms and 15 in special classes. While children with signs of ADHD had a variety of educational problems, it was found that teachers were attempting to meet their needs with resourcefulness and creativity.

**Key Words:** Attention Deficit/ Hyperactivity Disorder (ADHD), survey, regular class, educational support, questionnaire

**Study of Information Retrieval System for Web Pages in Special Education**

KATSUMA Yutaka and OSUGI Nariki

Department of Educational and Information Technology

At Division of Research and Development, Information Center of Special Education, the National Institute of Special Education, the authors had been making the "Web page link list" for various organizations related to Special Education, and opened up to Internet. This link list has been fortunately used by a lot of users.

The web link list has the weak point that necessary information is not searchable at once while it is intuitive and comprehensible. In this research, we planned to reorganize and expand it, and to integrate the directory type interface and the search engine into the link list.

As a result, the user came to be able to collect easily information more than with the past one.

**key word:** information retrieval, search engine, index, link list, Web page

**Special Supportive Education for Children with High-Functioning Autism and Asperger's Syndrome from the Perspective of Specificity in Approach-Avoidance Judgments in Brain Functioning**

TOJO Yoshikuni

(Branch: Section of Education for Children with Autism)

In this paper, the nature of special supportive education for children with autistic spectrum, such as high-functioning autism and Asperger's syndrome, is discussed from the perspective of specificity in approach-avoidance judgments (especially the predominance of avoidance judgments) in brain functioning. Attitudes to support based on the individual needs of each child are considered. The paper initially reviews previous research on brain function, social competence, heredity and environment, the beginnings of the problem with autistic spectrum, and the formative process of various typical symptoms of autism. Together with the assumption of biological disorder in the limbic system (in particular the amygdala), it is proposed that the high probability of typical symptoms of autism (such as “qualitative impairment in social interaction,” “communication difficulty,” “restricted, repetitive and stereotyped patterns of behavior, interests and activities,” “lack of attachment,” “theory of mind deficit,” and “strong feelings of fear and insecurity”) stems from specificity in approach-avoidance judgments. In addition, based on reports of people with high-functioning autism and Asperger's syndrome, the type of support designed to meet individual needs is discussed. It is suggested that the basic attitude to children with autistic spectrum lies in inhibition of the formative process of various symptoms by the elicitation of approach judgments to people and objects that reduce fear and insecurity. Finally the theoretical foundation of supportive education is discussed.

**Key Words:** autism, supportive education, individual needs, approach-avoidance judgment, amygdala