

**A COMPARATIVE STUDY OF SPECIAL EDUCATION ELIGIBILITY
FOR CHILDREN WITH AUTISM IN FOUR COUNTRIES**

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A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Arts in the School of Education.

Chapel Hill

2010

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ABSTRACT

Increases in the prevalence of autism spectrum disorders have raised global concerns, and the education of children with autism has been the focus of clinicians, educators, and parents worldwide. Although some concepts regarding autism are similar across countries, identification of children with autism and their eligibility for special education services may differ. A systematic review was made of special education laws for eligibility of autism classification in Japan, Korea, the UK, and the US and their relationship to the UN Conventions on the Rights of the Child and the Rights of Persons with Disabilities. The International Classification of Functioning, Disability and Health (ICF – CY) was used to compare assessment tools for children with autism. The results of the study indicated that there is variability in how children with autism are defined and considered eligible for special education across the four countries. Special education laws were based on the rights of equal and fair educational opportunities for children with special education needs. A match of content of common measures with ICF-CY codes indicated that two of the major measurement tools view children with autism as having restrictions in their abilities to perform activities rather than having a loss of physiological and psychological functions. The common language and framework of the ICF-CY may be a useful approach for teachers and parents in identifying children with autism and providing special education for them.

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CHAPTER 1

INTRODUCTION

In recent years, the reports of dramatic increases in the prevalence of autism spectrum disorder (ASD) in the United States and other countries have raised the concerns of clinicians, educators, and parents (Fombonne, 2003; Newschaffer, Falb, & Gurney, 2005; Tidmarsh & Volkmar, 2003; UN General Assembly, 2007). For example, in the US, the total reported number of children ages 6 to 21 enrolled in special education under the autism category dramatically increased from 22,445 in the 1994-1995 school year to 140,254 in the 2003-2004 school year (Shattuck, 2006). Epidemiologically, early research suggested classic autism to be relatively rare with a proportion of 4 to 6 per 10,000 (Lotter, 1967). Using diagnostic criteria that were established in the early 1990s, the number of children with ASD has increased to 6 or 7 per 1,000, which is approximately 10 times higher than estimates using earlier criteria (Chakrabarti & Fombonne, 2001; Fombonne, 1999; 2003a; 2003b; MMWR, 2009). Higher autism prevalence has been reported recently, with a proportion of over 1% of children in the countries of Japan, Sweden, the United Kingdom, and the United States (MMWR, 2009). The estimated proportion of children identified with ASD was 2.7% in one study from Norway (MMWR, 2009). Reflecting concern for the rapidly increasing ASD prevalence, the United Nations created the World Autism Awareness Day, April 2nd, with the intention to raise awareness of autism at all levels in society (UN General Assembly, 2007). The day was dedicated "to creating greater understanding about autism and promoting universal adherence to the UN Convention. By combining research and awareness-raising efforts, we can provide adults and children with disabilities such as autism the protection, support and full membership of an inclusive society" (The Secretary General Message for World Autism Awareness Day, 2010).

One response to the increased prevalence of autism worldwide has been to recognize that people with autism should be supported and educated with fair and equal conditions provided to persons without disabilities. However, even though the concept of autism has been shared

across nations, identification of who is a person with autism and his or her eligibility for services may be different across countries. There is a need to identify what autism is and how it is used to classify children for special education services.

CHAPTER 2

REVIEW OF THE LITERATURE

Autism is a complex neurodevelopmental disorder that is challenging to diagnose because of wide variation in expression (Lang, 2010). The most frequently cited definition of autism is provided in the text revision of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR; American Psychiatric Association, 2000). For the purpose of diagnosis and classification of children with disabilities, the DSM-IV-TR is commonly used for diagnosing children with mental disabilities among mental health professionals. According to the DSM-IV-TR classification system, autism is one of the pervasive developmental disorders (PDDs). All children with PDDs are characterized by qualitative impairments in social interaction, imaginative activity, and both verbal and nonverbal communication skills. They have a limited number of interests and activities, which tend to be repetitive and intensive, and the manifestation of symptoms occurs within the first 3 years of life. The other four PDDs are Rett's disorder, childhood disintegrative disorder, Asperger's disorder, and pervasive developmental disorder—not otherwise specified (PDD-NOS). Several studies have criticized unclear criteria for PDDs under the DSM-IV-TR system (Buitelaar et al., 1999; Szatmari, 2000; Waterhouse, et. al, 1998). "It is not at all clear that we have reliable diagnostic criteria for PDD-NOS" (Szatmari, 2000, p. 732). In particular, it has been criticized that the diagnostic criteria for Autistic Disorder, PDD-NOS, and Asperger's disorder are not clear due to unspecified symptom differences (Kabot, Masi, & Segal, 2003). In practice, PDD and PDD-NOS, as well as PDD-NOS and Asperger's, are often used interchangeably (Kusch & Petermann, 1995; Tsai, 1998; Volkmar, 1997). Despite unclear diagnostic criteria, children with PDDs live with a chronic condition and are in need of intervention and education.

The right to education is a fundamental right of all children including children with disabilities as described in the UN Convention on the Rights of the Child. According to the UN Convention on the Rights of the Child (1989), "a mentally or physically disabled child should

enjoy a full and decent life in conditions which ensure dignity, promote self reliance and facilitate the child's active participation in the community" (UN Convention on the Rights of the Child, 1989, Art 23. Sec 1.) The UN Convention on the Rights of the Child has influenced policy making for children with special needs who are classified as mentally or physically disabled in the United Kingdom, the United States, and many other countries (United Nations Children's Fund [UNICEF], 1999, 2001; United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994). The UN Convention on the Rights of the Child and the UN Convention on the Rights of Persons with Disabilities (2007), which are international human rights documents intended to protect the rights of people with disabilities, also specify the rights of education for children with disabilities.

In order to implement the Rights of the Child in the areas of education and interventions for children with autism, it is necessary first to establish the criteria used to determine special education eligibility for a child with autism. In this context, children's conditions are named and recognized within a certain classification. Hobbs (1975) emphasized the importance of classification systems by stating that "classification is serious business. Classification can profoundly affect what happens to a child. It can open doors to services and experiences the child needs to grow in competence, to become a person sure of his worth, and appreciate the worth of others, to live with zest and to know joy" (*The Futures of Children*, p. 1). Thus, it is essential to name and classify children's disability with a comprehensive and positive classification system, which is differentiated from labeling children's disabilities, in order to facilitate children's development and learning.

An important challenge in autism classification is to find out by what criteria children are identified as having autism and how their eligibility for special education is defined. Based on a medical model, the current DSM-IV-TR classification system of PDDs has some problems because PDDs are not discrete biological units but exist as a spectrum (Szatmari, 2000). Under this classification system, clinicians focus on finding differences between PDD sub-types. This

approach has not been very useful to document children's developmental functions and the complexity of the diagnosis may be confusing (Szatmari, 2000), although the purpose of DSM-IV-TR is to offer reliable and valid classification to improve clinical treatment (House, 2002). In the medical model, the purpose of treatment is eliminating the underlying cause of disability or compensating for its effects. Even though the primary purpose of education should help children reach to their full potential through learning, the medical model has dominated in identifying and educating children with disabilities.

In the same context, Simeonsson and his colleagues (2008) pointed out that a problem in current special education, practice is the lack of a consistent definitional approach or systematic classification in the US and other countries. Along with clear and scientific classification criteria, using reliable and valid measurement tools and accurate procedures is also essential for identifying children with autism. In diagnostic situations, the measurement tools and procedures are various, and these need to be compared and identified in terms of validity and reliability. However, since there is no operational definition of autism, the perception and criteria of autism may be different from one culture to another, although many countries commonly implement the DSM-IV-TR or International Classification of Disease (ICD)-10 criteria.

In US schools, children with PDDs are classified under the autism category based on the Individuals with Disabilities Education Act (IDEA 2004; US Department of Education, 2005). Under the IDEA classification system, autism is 1 of 13 primary disability identification categories after being added in 1990 as part of Public Law 101-476 (Education of the Handicapped Act Amendments of 1990, 1990). The IDEA focuses on identifying psychological or medical disabilities that would prevent a child or adolescent from learning in a public education setting (House, 2002). Under the IDEA regulations, children with disabilities from infancy through adolescence are provided practical services to improve their development and quality of life. The purpose of the IDEA, therefore, is to provide all US children with special needs with a fair and equal opportunity to benefit from public education.

It is important to be aware that DSM IV-TR diagnoses are not synonymous with special education eligibility. When it comes to special education, state and federal education codes and regulations drive special education eligibility decisions, not the DSM IV-TR. The IDEA 2004 (Individuals with Disabilities Education Improvement Act) defines eligibility for special education services as a student with autism as follows [US Department of Education, 2005 (c) (1) (i)].

1. Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotypical movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.
 - i. Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c) (4) of this section.
 - ii. A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.

When it comes to special education eligibility for a student with autism, a student's conditions must "adversely affect a child's education performance." This is a major difference from the DSM-IV-TR diagnosis. Thus, students with milder symptoms such as PDD-NOS and high-functioning autism should have more careful examination of their learning needs with special education assistance (Brock, Jimerson, & Hansen, 2006). Even though more strict classification conditions are required by which autistic students with academic difficulties are eligible to receive special education services, the number of students in the autism category under

special education has also dramatically increased. The increased incidence of autism is demonstrated by the growing number of students classified as autistic under the IDEA (IDEA 2004; US Department of Education, 2005). For example, in 2004, students classified with autism represented 2.7 percent of all school-age students with disabilities served under IDEA in comparison to .001 percent of those in 1991 (Brock et al., 2006).

There are several factors that may explain the dramatic increase of children identified with autism in special education settings. Some recent research suggested that environmental factors may affect the development of autism (Hertz-Picciotto, Croen, Hansen, Jones, Water, & Pessah, 2006; Ozonoff & Rogers, 2003). According to these studies, several specific environmental exposures contribute to a greatly increased risk for autism (Hertz-Picciotto et al., 2006; Ozonoff & Rogers, 2003).

Another factor that may influence the increase of autism in special education settings is replacement of classification. Before Public Law 101-476 in 1990, there was no separate autism category, and children with autism enrolled in special education were included in the legal definition of the “Other Health Impairments” (OHI) service category or mental retardation (Brock et al., 2006; Shattuck, 2006). Further analysis of US Department of Education data (2005) provides the possibility that the increasing number of students with autism does not mean that there is a true increase in students under the autism category in special education. According to the data of the US Department of Education (2005), as the incidence of autism classification has increased, the incidence of mental retardation has decreased. For example, whereas the number of students with autism as a percentage of all students with disabilities served under the IDEA increased by 2.6 percent between 1991 and 2004, the number eligible under the mental retardation category decreased by 2.8 percent during this period. The changes in rates of autism and mental retardation may be due to the fact that students with autism were misdiagnosed under the mental retardation category. It may also be due to the fact that IEP teams have become more skilled at identifying students with autism who were previously misclassified under the mental retardation

classification (Brock et al., 2006). Shattuck (2006) also supported the claim that the increase in the prevalence of autism corresponds to a decrease in other diagnostic categories. His study indicated that higher autism prevalence was significantly related to declines in the prevalence of mental retardation and learning disabilities (Shattuck, 2006).

Replacement of classification under the IDEA can be considered as one of limitations of the diagnostic and classification systems. The diagnostic categories are often operationalized differently from one system to another. Simeonsson and his colleagues (2008) suggested that this misclassification may be that the IDEA does not represent dimensions of an underlying conceptual framework. For example, the current 13 categories under the IDEA are based on four different criteria: etiology (TBI, Other Health Impaired), impairments (Auditory, Visual, and Motor), diagnosis (Mental Retardation, Autism), and functional limitations (Developmental Delay). Based on these different criteria, students with disabilities may be eligible to be assigned to multiple categories without any consideration of their severity of impairment or degree of functioning. According to a report published by the Centers for Disease Control and Prevention (CDC) in 2009, for example, 30-51% (41% on average) of the children had an Intellectual Disability under the category of Mental Retardation ($IQ < 70$) in US special education. Many students with autism also have behavioral problems, and they can meet the category of OHI, with the medical term of ADHD (Attention Deficit and Hyperactivity Disorder) or BED (behavioral emotional disturbance) category with depression (Leyfer et al., 2006). In these situations, school mental health practitioners should consider the “true meaning” of classification for children, which is not limited within the name of category but considers children’s level of functioning and severity of disability.

Simeonsson and his colleagues (2008) raised important questions in several areas, from identification of disability to intervention for children with disabilities: how to define disability, how to determine education eligibility, and how to provide children with disability with appropriate clinical services. They also broadened their perspective to develop policy that

influences implementation of assessment and intervention. In the discussion of the issues, the lack of a comprehensive model of disability and health functioning and a classification system that is consistent with a comprehensive understanding of human functioning as well as disability are challenges associated with this problem. Based on a comprehensive classification framework, the link with assessments to track children's developmental and personal paths and intervention implemented for the child's disability were also emphasized (Simeonsson, Simeonsson, & Hollenweger, 2008). They also noted variability in special education policies and practices across cultures and countries in terms of the definition of disability. In particular, how is disability defined? Is disability based on diagnoses, categories, or special needs language across different cultures or countries?

The International Classification of Functioning, Disability and Health (ICF) addresses the above questions. The ICF was approved by the World Health Assembly in 2001 (WHO, 2001). The ICF provides an integrated framework and taxonomy to categorize dimensions of health, functioning, disability, and related environmental factors. The development of the ICF brought a conceptual shift "from a consequence of disease classification to a component of health classification" (WHO, 2001). The ICF was expanded to classify functioning of children and youth considering their rapid growth and development with significant changes in physical, social, and psychological functioning in a separate version, the International Classification of Functioning (ICF-CY). The ICF-CY provides a framework and a language for describing children's problems, from infancy to adolescence involving functions and structures of the body, activity limitations and participation restrictions, and environmental factors. Based on frameworks of universal standards, the UN Conventions on the Rights of the Child and the Rights of Persons with Disabilities, and the children and youth version of the International Classification of Functioning (ICF-CY) complement each other. One defines the rights of children with disabilities and the other offers a way to document the dimensions of the children's rights in the real world (Simeonsson et al., 2003).

With a perspective of disability as a multifaceted phenomenon, the ICF-CY classifies functional characteristics of a child with disability across dimensions, not documentation of diagnoses or persons. Use of the ICF-CY would enable a comparison of the special education eligibility for students with autism across several different countries. With a comprehensive and systematic classification system, accurate and valid assessment procedures and appropriate use of assessment tools are also crucial to identifying children's disabilities and functioning. In the practice of autism identification, there could be differences in the use of assessment procedures and tools across countries. Measurement tools may also be misused in different cultural contexts. For example, according to a meta-analysis of autism research between 1996 and 2005 in Korea, the Childhood Autism Rating Scale (CARS; Schopler, Reichler, & Renner, 1988) was used as the only diagnostic tool in clinics with 24.2% of the sample in their study (Kim & Kim, 2006). Although the CARS is a frequently used measure in the US (Luiselli et al., 2001; Ozonoff et al., 2005), the Manual of the CARS (1988) clearly indicated that it must be used with other developmental measurement tools. In the assessment process in US school/clinic settings, the CARS has been administered with other assessment tools that measure children's cognitive function, developmental function, adaptive skills, and direct observations. What are differences in the use of assessment tools for identifying autism? With the importance of international comparison of the definition and criteria of autism, there is a need for studies regarding comparisons of assessment tools and procedures.

The purpose of this study was to compare special education laws and assessment tools with a common language for special education eligibility for children with autism in four different countries using ICF-CY codes. Even though assessment of functions as well as disabilities is essential as the basis for interventions in order to decrease functional limitations and increase strengths and positive functions of students with special needs, no study has been conducted that applies the ICF-CY to identify special education eligibility of children with autism. As the UN Convention on the Rights of Child and the Convention on the Rights of Persons with Disabilities

(2007) specify the rights of children with disabilities, the rights of children with disabilities must be specified in legal documents and protected in order to help their basic needs be met and to provide the opportunities for these children to reach their full potential (UNESCO, 1989). Research has indicated that the development of children with autism is influenced by the environment, including the immediate environment such as home, workplace, and school as well as the societal environment of laws, social services, and culture. There is a need for a cross cultural study based on the doctrine of the UN Convention on the Rights of Child and the Convention on the Rights of Persons with Disabilities to compare special education laws in order to identify the definition of autism and the educational support including the process of evaluation to find out special education eligibility across countries. The four countries of the Japan, Korea, UK, and US were selected for this study. These countries are all developed and education-centered countries in Western culture (Europe, North America) and Eastern culture (Asia). A study reported that even though all four countries provide additional resources to students with disabilities, the extent to which these resources are made available varies among countries (Ebersold, & Evans, 2008). For example, 35.5% of students receive additional resources for educational purposes in the US and 22% in the UK, in contrast to 0.56% in Korea and 1.31% in Japan. These statistics show that students with disabilities in the US and UK are more likely to receive educational assistance than students with disabilities in Korea and Japan. In that sense, the statistics may be a reflection of social awareness of the disabilities, because the comparison of which countries are more supportive of education for children with disabilities provides us with reasons to judge. It is also possible to infer cultural differences in the perception of disabilities including autism.

Based on the reviewed issues regarding special education eligibility for children with autism, it would be useful to examine how it is defined in four countries. This study will investigate special education eligibility within the framework of the ICF-CY guided by the research questions below.

1. On what basis do laws in the US, UK, Korea, and Japan define special education for children with autism?
2. How do the special education laws of each country match with the UN Convention on the Rights of the Child and the UN Convention on the Rights of Persons with Disabilities?
3. What kinds of assessment tools and procedures are used for identifying eligibility for special education in each country?
4. To what extent does the information in the assessment tools correspond to ICF-CY codes?

CHAPTER 3

METHODS

Materials

Information about the laws and measurement tools were requested from mental health practitioners in each country. A form to review special education eligibility of children with autism and related measures was developed and used in this study. Based on available information, a systematic review of two types of documents was implemented. First, special education laws for eligibility of autism classification in four countries (US, UK, Korea and Japan) were reviewed. Basic information, including the name of the law, the location of the document on websites, the year the law was developed, and the agency that produced it, was recorded. Second, a review was made regarding whether the document reflected children's rights, particularly articles in the UN Convention on the Rights of the Child and the UN Convention on the Rights of Persons with Disabilities. A review was also made to determine if definitions of children with special needs and children with autism were described in the legal system.

The next step was to review two frequently used assessment measures and procedures for identification of the autism in terms of the name of measure and the purpose and focus (behavioral, cognition, social) of the measurement tool. A review was also made to determine if the criteria for special education eligibility were described. Finally, the content of frequently used assessment tools in each country was matched to ICF-CY codes in terms of the major ICF components of body function, body structure, activities and participation, and environmental factors.

Procedures

Two approaches were taken to gather formation for this study. In one approach, mental health practitioners who are involved in assessment and treatment of children with autism in the four countries were contacted for information about the laws and documents in their countries. These international practitioners attended the Treatment and Education of Autistic and

Communication handicapped CHildren (TEACCH) trainings and had several years of experience in autism assessment and treatment. One Korean practitioner received a Ph.D. in special education specifically in the field of autism treatment and family support. She has been involved in the education and therapy of children with autism for over 10 years at Seoul National University Children's Hospital Department of Psychiatry, which is a privileged institution for assessment and treatment of children with autism. Another Korean practitioner has served for 12 years as a special education teacher, and the last informant has been involved with autism assessment and treatment over 20 years after she received her Ph.D. degree; she introduced the CARS to Korea by translating and standardizing the instrument. A Japanese mental health practitioner who participated in this study is one of the leading persons in the field of treatment of autism and attended the TEACCH annual conferences and training workshops for several years after she obtained her Ph.D. A practitioner in the UK is the NAS Education Advice Line Coordinator for England and Wales. The Education Advice Line offers information, support, and advice to parents and caregivers of children with autism spectrum disorder regarding special educational needs laws, processes, procedures, and entitlements through a telephone support line. Thus it should be noted that the information provided from the UK was restricted to the laws and assessment procedures in England and Wales. Another informant was one of the TEACCH international trainers, and she serves as an assistant head teacher, specializing in Autism Spectrum Disorder in UK educational settings. The practitioners were provided with a form requesting information about the availability and location of documents regarding special education eligibility of children with autism. If they did not have the information, the practitioners forwarded the form to appropriate officers involved in special needs education departments. As a second approach, the researcher searched information through internet search engines and journal reviews. Based on the information provided by mental health practitioners, legal documents on the web were also investigated. Special education laws in each country were easily accessible through websites. The full text of special education law of Korea was available in two language

versions, Korean and English. Japanese special education laws were provided in Japanese and a brief version was provided in English. A person who could interpret the laws from Japanese into English assisted the researcher with obtaining the information.

The mental health practitioners were also requested to provide information regarding the legal documents on eligibility for special education of children with autism and frequently used assessment tools. In the US, *the Guilford County Schools Psychological Services Training Manual* for practicum students was reviewed due to its quality as a document for the autism support team. In order to analyze assessment tools for autism eligibility with the framework of the ICF-CY, a review matrix was developed. For each assessment tool, subscales and items were classified by the ICF-CY codes. For example, Body Function was recorded as (b), Body Structure as (s), Activities as (a), Participation as (p), and Environmental factors as (e). If the element was not consistent with the definition for one of the ICF-CY domains, it was labeled as (nm: no match). When the element was consistent with the definition for a specific ICF-CY element, it was determined whether it was consistent with a chapter definition and then a code within that domain. The extent to which the element matched a code definition was designed by using criteria for degree of fit: a value of 1 meaning weak, 2 indicating moderate, and 3 showing a strong match with ICF-CY codes.

Special education laws and assessment tools obtained from each country were reviewed and analyzed to answer the research questions. Descriptive statistics were used to present the results and to make comparisons across the four countries. In order to respond to Question 1, analyses were made of special education laws, and definitions of special education eligibility across the four countries. For Question 2, comparison was made of the extent to which rights defined in the UN Convention on the Rights of Children and UN Convention on the Rights of Persons With Disabilities were addressed in the laws of the four countries. For Question 3, analyses were made of tools and procedures used in different countries to assess children with autism. For Question 4, measurement tools used in each country were compared in terms of the

extent to which content matched the ICF-CY. The match of ICF-CY codes and degree of fit of test items were reviewed with the thesis advisor and revised if needed.

CHAPTER 4

RESULTS

The results of this study are organized in terms of the four research questions. A summary in Table 1 indicates general information in terms of Research Questions 1 through 3. Table 1 presents basic information including the names of laws, website locations, years of development, and ministries or agencies that created the laws. In Japan and the UK (England and Wales only), special education laws are part of the Education Law of each country while Korea and the US have independent Special Education Acts. Although the locations of the laws are different, all of the laws in each country emphasize that appropriate and free education should be provided to students with special educational needs in regular school settings as well as in special schools and classes.

This commonly shared perspective on special education manifests education rights in the UN Convention on the Rights of Child (1989) and in the UN Convention on the Rights of Persons with Disabilities (2007).

1. On what basis do laws in US, UK, Korea, and Japan define special education eligibility for children with autism?

The first research question involved comparison of the laws for special education and special education eligibility for children with autism in each of the four countries. Table 2 provides the definitions of special education in each country, and Table 3 describes the special education eligibility for children with autism in each country. As can be seen in Table 2, the term of “special needs education” is used in Japan and UK while “special education” was used in Korea and the US. Literally, “special needs education” emphasizes children who need special educational supports while “special education” focuses on education for children with special needs. In order to emphasize the concept of inclusion, the Japanese government changed the title from “special education” to “special needs education” in 2008.

Table 1. Special Education Laws in Four Countries

	Japan	Korea	UK (England & Wales)	USA
Name of Law	-School Education Act -Fundamental law of Education -Developmental Disabilities Services Act	Special Education Act for individuals with disabilities and others	The Education Act 1996 (EA96) SEN Code of Practice (SENCoP)	IDEA (Individuals with Disabilities Education Act)
Website location	http://law.e-gov.go.jp/htmldata/S22/S22HO026.html http://www.mext.go.jp/b_menu/kihon/about/index.htm http://www.mext.go.jp/a_menu/shotou/tokubetu/main/002/001.htm	http://www.mest.go.kr/me_kor/teacher/teacher9/index.html	www.opsi.gov.uk http://www.teachernet.gov.uk/doc/3724/SENCodeofPractice.pdf	http://idea.ed.gov/
Year	2006, 2006, 2004	2007	1996, 2001	2004
Ministry/agency	Ministry of Education	Ministry of Education	Department for Education	US Department of Education
*Reflection of CRC Article 28: general education	Yes	Yes	Yes	Yes
*CRC Article 23: Disability	Yes	Yes	Yes	Yes
*CR PWD Article 24: education	Yes	Yes	Yes	Yes
*CR PWD Article 7 rights of children/disability	Yes	Yes	Yes	Yes
Definition of Children with Disability	Yes	Yes	Yes in Disability Discrimination Act (1995)	Yes
Age range	0-18	3-17 (0-3 free education if asks)	2-19	3-21
Identification of children with autism	Yes	Enforcement Regulations Article #10	No	Yes
Decision making regarding autism	Autism diagnosis: medical doctors (mostly)	Special education support center (a special education teacher)	statutory assessment (multi-disciplinary)	IST/SST team (multi-disciplinary)
Frequently used assessment tools	CARS, ADOS, PEP-3, WISC-IV	CARS (mostly), ADOS	ADOS, CARS, ASDI, 3Di	ADOS, CARS, ADI-R, ABC, Gilliam Autism Rating Scale

* Appendix 1

In particular, education laws in UK described only students who need education due to learning difficulties. Thus, in the UK there was no specific definition of children with disabilities whereas the other three countries specified categories of disabilities that adversely affect children's learning.

Table 2. Definition of Special Education in 4 countries

	Definition of Special Education
Japan	" Special needs Education " is the perspective on supporting efforts proactively for social participation and independence of the students with disabilities , understanding the educational needs of the individual students in order to enhance their abilities or overcome difficulties in their life through learning.
Korea	The term “special education” means education performed, in order to satisfy the educational needs of persons subject to special education, by providing both curricula suitable for each characteristics and service related to special education according to Subparagraph 2. [Article 2] “ Special education”
UK (England & Wales)	<p>Meaning of “special educational needs”</p> <p>(1) A child has “special educational needs” for the purposes of this Act if he has a learning difficulty which calls for special educational provision to be made for him.</p> <p>(2) Subject to subsection (3) (and except for the purposes of section 15(5)) a child has a “learning difficulty” for the purposes of this Act if—</p> <p>(a) he has a significantly greater difficulty in learning than the majority of children of his age,</p> <p>(b) he has a disability which either prevents or hinders him from making use of educational facilities of a kind generally provided for children of his age in schools within the area of the local education authority, or</p> <p>(c) he is under the age of five and is, or would be if special educational provision were not made for him, likely to fall within paragraph (a) or (b) when of or over that age.</p> <p>(3) A child is not to be taken as having a learning difficulty solely because the language (or form of the language) in which he is, or will be, taught is different from a language (or form of a language) which has at any time been spoken in his home.</p>
US	A child is in need of special education, meaning that he or she must be in need of specially designed instruction to receive a free appropriate public education (FAPE) in the least restrictive environment (LRE) that conforms to an individualized education program (IEP). In addition, each child with a disability is entitled to related services, such as transportation, psychological services, physical therapy, and occupational therapy, to assist him or her in benefiting from an IEP.

In this context, as Table 3 shows, no definition of autism was described on the Education Act 96 in UK. In Japan, autism is one of 11 disabilities under the special needs educational categories. According to the Developmental Disability Services Act (2004), autism is defined with criteria similar to the ICD-10 and DSM-IV classification systems: three major impairments in children’s functioning in social relationships, language development, and restricted interests and behavioral problems with onset before age three.

Table 3. Definitions of autism for special education eligibility in 4 countries

	Definition of Autism
Japan	Autism appeared before three years old: (1) Difficulty in forming social relationships with others, (2) Delayed language development, (3) for Behavioral disorders that are characterized by a narrow focus on one particular interest or concern, it is estimated that there is some dysfunction of the central nervous system factors.
Korea	Person who needs educational achievement and adaptation in his/her daily life with an impairment in social interaction and communication skills and with restrictive and repeated interests and activities
UK	No definition of autism was presented.
US	<p>Autism means a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age three that adversely affects a child's educational performance. Other characteristics often associated with autism are engagement in repetitive activities and stereotypical movements, resistance to environmental change or change in daily routines, and unusual responses to sensory experiences.</p> <ul style="list-style-type: none"> i. Autism does not apply if a child's educational performance is adversely affected primarily because the child has an emotional disturbance, as defined in paragraph (c) (4) of this section. ii. A child who manifests the characteristics of autism after age three could be identified as having autism if the criteria in paragraph (c)(1)(i) of this section are satisfied.

No specific condition that impacts students' learning adversely due to the impairments was described in any relevant special educations laws in Japan. The definition of autism in Korean special education settings is very similar to that of Japan in the use of DSM-IV-TR criteria. The difference is the emphasis on the needs of students' educational achievement and adaptation in their daily lives due to their functional impairments.

For the US definition of autism, more specified presentations were provided for communication, social interactions, and patterns of behaviors and characteristics, similar to the criteria of the DSM-IV-TR and ICD-10. However, it is also stated that if a child's academic performance was not influenced by his/her presentation of autistic behaviors, with an emotional disturbance, the child is not classified under the autism category in the special education setting in the US. While the definitions of autism in Japan, Korea, and the US are consistent with the DSM-

IV-TR/ ICD-10 diagnostic criteria, the special needs education approach in UK is a paradigm shift from that of the other countries. There is no definition of autism within the laws in the UK, just as there is no definition for any other disability. The Special Educational Needs (SEN) laws are not prescriptive, and assessment is made on the basis of each individual child's difficulties.

2. How do the special education laws of each country match with the UN Convention on the Rights of the Child and the UN Convention on the Rights of Persons with Disabilities?

As can be seen in Table 1, all of the countries' special education laws reflect the UN Conventions in terms of basic rights of education for children with disabilities. In particular, all countries emphasize free, compulsory, and fair education for children with disabilities by providing them with various appropriate educational supports, training, and therapies. All the countries' special education systems satisfied children's basic education needs as described in the UN Convention on the Rights of the Child Article 23: "Recognizing the special needs of a disabled child, assistance extended in accordance with paragraph 2 of the present article shall be provided free of charge, whenever possible, taking into account the financial resources of the parents or others caring for the child, and shall be designed to ensure that the disabled child has effective access to and receives education, training, health care services, rehabilitation services, preparation for employment, and recreation opportunities in a manner conducive to the child's achieving the fullest possible social integration and individual development, including his or her cultural and spiritual development."

Although all the countries specified protection from discrimination due to children's disabilities, there were some differences among the countries in terms of how the system provided children with disabilities with support for "achieving fullest social integration and individual development" (UN Convention on the Rights of the Child, article 23). For example, in the US

and UK, children who receive special education services have their own individualized education program. Their development and achievement are progressively monitored by periodic evaluations. The special education laws in the US and UK guarantee children's legal rights by guaranteeing legal procedures such as due process hearings (US) and appeals (UK). However, the special education systems in Japan and Korea are not supportive of ensuring children's basic rights when these are challenged in comparison with the other two countries. Perceptions of children with disabilities in Japan and Korea have been that they are "special," which means children with disabilities are treated differently by labeling and differentiating them due to their differences from the majority. For this reason, many parents in Korea and Japan may not want their children placed in special education classes or schools unless the children have apparent difficulties in learning. Parents with mentally and physically disabled children do not proactively demand their children's rights to education and the governments in Japan and Korea do not invest to develop additional resources for children with disabilities. The situations in each country were described in the study by Ebersold and Evans (2008), which showed that 35.5% of students received additional resources for educational purposes in the US and 22% in the UK, in contrast to 0.56% in Korea and 1.31% in Japan.

3. What kinds of assessment tools and procedures are used for identifying the eligibility of children with autism for special education in each country?

The Childhood Autism Rating Scale (CARS; 1988) and the Autism Diagnostic Observation Schedule (ADOS; 2001) were the most frequently used assessment instruments among four countries. As can be seen in Table 1, CARS or ADOS were administered with other cognitive measurements such as the Wechsler Intelligence Scale for Children: Fourth edition (WISC-IV) and developmental measurements such as Psychoeducational Profile: Third edition (PEP-3) in the comprehensive assessment for identifying children with autism in Japan. No assessment procedures and tools for special education eligibility for children with autism were

stated in four education laws in Japan. A mental health practitioner indicated that medical doctors usually diagnose the children and educational settings accept the report and decide on special education eligibility. In private clinics, psychologists can choose assessment tools and the assessment results are released to the schools with the agreement of parents.

According to a study regarding the assessment tools that identified children with autism in Korea between 1996 and 2005, CARS was the most frequently used tool (39.3%), Autism Behavior Checklist (ABC) was the next at 12.1%, and both CARS and ABC were at 9.1% (Kim & Kim, 2006). Recently, the frequency of using ADOS has been growing in Korea; however, many practitioners and parents prefer to use the CARS due to the big cost difference between the CARS (\$3) and the ADOS (\$100-250). A comprehensive assessment is administered depending on the practitioners and settings because no criteria for the assessments procedures and tools have been established in the special education laws. If a student is referred to the special education support center in the Local Education Agency for special educational eligibility, the parents do not need to pay for the assessment. Otherwise, the cost for the assessment in the clinics is not supported for the parents in Korea. In Japan and Korea, identifying autism depends on a practitioner's impression, knowledge based on assessment tools, and his or her assessment judgment. The professional's clinical decision, therefore, impacts children's special education eligibility.

In contrast, assessment procedures in the UK and the US are very detailed and systematic. Multiple procedures and multidisciplinary teams are developed to decide a child's special education eligibility. In the US, a review of existing evaluation data is part of an initial evaluation process by the IEP Team, which usually consists of a school psychologist, a special education teacher, a classroom teacher, a speech language pathologist, parent(s), and other qualified professionals (The Guilford County Schools Psychological Services Training Manual, 2008). Then, a review is made of multiple sources of information and multiple methods of assessment, such as observations in different classrooms, psychoeducational assessments including cognitive

tests, achievement tests, adaptive skills, development, and behaviors. In addition to these assessment methods, autism screening or diagnostic assessments may be conducted by providing a parent with the Gilliam Autism Scale, or direct assessment of a child's behaviors by observation and interview methods, which may be used with the ADOS in school settings. Many practitioners also implement the use of CARS. With combined multiple sources and data, the IEP defines special education eligibility for a child with autism in the US. In the UK, for a student with autism to be identified as a child with a special education need, the school must provide School Action or School Action Plus, which are additional educational services within the school setting. If a child does not make adequate progress in School Action and School Action Plus, the school and the child's parents have the right to request a "statutory assessment" of the child's education. A statutory assessment is a multi-disciplinary assessment by the Local Authority for the purpose of identifying a child's special education needs.

4. To what extent does the information in the assessment tools correspond to ICF-CY codes?

The matching of the ADOS and the CARS content with ICF-CY codes of activity and participation and body function is summarized in Table 4. All the matched items measure children's functioning and disability, which are coded as body function and structures and activities and participation. No contextual factors such as environmental factors, which make up the physical, social, and attitudinal environment, are included in the ADOS. In the ADOS, 58.8-62.5 % of all modules are matched with activity and participation, 13.3 – 29.4% of the items are matched with body function, and 11.8-26.7% of the items did not match with the ICF-CY codes. With the matched items, the average degree of fit of the ADOS was weak to moderate within the range of 1.2 -1.56. In the CARS, 28.6% of the items matched with body function and 71.4% of the items matched to the activity and participation codes. All items except "General impressions", which is an overall evaluation, matched well with to the ICF-CY codes.

Table 4. ADOS: Congruence of content with ICF-CY Codes

Subscale	Module 1	DF	Module 2	DF	Module 3	DF	Module 4	DF
Communication								
Stereotyped/idiosyncratic use of words or phrases	NM*		NM*		NM*		NM*	
Frequency of Vocalization directed to others	d331	2	NA		NA		NA	
Use of other's body to communicate	NM*		NA		NA		NA	
Gestures	d3350	3	NA		NA		NA	
Pointing	d3350	3	d 3350	3	NA		NA	
Amount of social overtures/maintenance of attention	NA		d 710	1	NA		NA	
Conversation	NA		d350	3	d350	3	d350	3
Descriptive, conventional, instrumental, or informational gestures	NA		d3350	3	d3350	3	d3350	3
Reporting of Events	NA		NA		d330	2	NA	
Emphatic or Emotional gestures	NA		NA		NA		d3350	2
Reciprocal social interaction								
Unusual eye contact	d1600	1	d1600	1	d1600	1	d1600	1
Facial expressions directed to others	d 3350	3						
Shared enjoyment in interaction	d71048	1	NA		NA		NA	
Showing	d3350							
Spontaneous initiation of joint attention	b1403	2	b1403	2	NA		NA	
Response to joint attention	b1403	2	NA		NA		NA	
Quality of social overtures	d71040	1	d71040	1	d71040	1	d71040	1
Quality of social response	NA		d71041	1	d71041	1	d71041	1
Amount of reciprocal social communication	NA		NM*		NM*		NM*	
Overall quality of rapport	NA		d730	2	d730	2	NA	
insight	NA		NA		b1644	3	NA	
Empathy/comments on other's emotions	NA		NA		NA		NM*	
Responsibility	NA		NA		NA		d2400	1
Play								
Functional play with objects	D1311	2	NA		NA		NA	

NM* = No Match NA = Not Applicable DF= Degree of Fit (1= weak 2= moderate 3= strong fit)

Subscale	Module 1	DF	Module 2	DF	Module 3	DF	Module 4	DF
Imagination(creativity)	b1264	1	b1264	1	b1264	1	b1264	1
Stereotyped behaviors and restricted interests								
Unusual sensory interest in play material/person	d160	1	d160	1	d160	1	d160	1
Hand and finger and other complex mannerisms	b7653	1	b7653	1	b7653	1	b7653	1
Unusually repetitive interests or stereotyped behavior	b7653	2	b7653	2	NA		NA	
Excessive interest in unusual or highly specific topics or objects	NA		NA		d160	1	NA	
Compulsions or rituals	NA		NA		NM*		NM*	

NM* = No Match NA = Not Applicable DF= Degree of Fit (1= weak 2= moderate 3= strong fit)

	Module1	Module 2	Module3	Module 4
Body Function (b)	5/17 (29.4%)	4/16 (25.0%)	3/16 (18.8%)	2/15 (13.3%)
Activity & Participation (d)	10/17 (58.8%)	10/16 (62.5%)	10/16 (62.5%)	9/15 (60%)
No Match (NM*)	2/17 (11.8%)	2/16 (12.5%)	3/16 (18.8%)	4/15 (26.7%)
Average Degree of Fit (DF)	1.47	1.56	1.44	1.2

Table 5. CARS: Congruence of content with ICF-CY Codes

Items	Code	DF
1. Relating to people	d710	2
2. Imitation	d130	3
3. Emotional response	b1520	3
4. Body use	d120	2
5. Object use	d131	1
6. Adaptation to change	d2304	1
7. Visual response	d110	1
8. Listening response	d115	2
9. Taste, smell, and touch response and use	d120	3
10. Fear or nervousness	b152	1
11. Verbal communication	d330	2
12. Nonverbal communication	d335	2
13. Activity level	b1252	3
14. Level and consistency of intellectual response	b117	2
15. General impressions	NA	

NA = Not Applicable DF= Degree of Fit (1= weak 2= moderate 3= strong fit)

	CARS
Body Function (b)	4/14 (28.6%)
Activity & Participation (d)	10/14 (71.4%)
Average Degree of Fit	2.0

The questions in the CARS address clear and common situations so these had an overall good fit with the ICF-CY codes. The match of CARS items had a moderate degree of fit with ICF-CY codes, equal to 2.0.

Both ADOS and CARS measure children's body function and execution of tasks in their everyday lives. Both assessment tools primarily assess children's limitations in communication and interpersonal relationships rather than impairments of physiological functions of body systems. The match of these measures with ICF-CY codes was weak for the ADOS and moderate for the CARS.

Based on the match of content with the ICF-CY, it appears that both ADOS and CARS view children with autism as having restrictions in their abilities to perform activities rather than having a loss of physiological and psychological functions.

CHAPTER 5

DISCUSSION

The purpose of this study was to compare special education laws and frequently used assessment tools with a common language for special education eligibility for children with autism using ICF-CY codes in Japan, Korea, UK, and US. First, definitions of autism for special education eligibility in each country were compared. Interestingly, each country's definition of autism for the purpose of special education existed along a spectrum from the medical perspective to the educational perspective. In Japan, psychiatrists' diagnosis in clinics is the most crucial judgment for children's special education. Thus, the definition of autism is well matched with that of the DSM-IV-TR. In Korea, even though a special education support center, which is composed of several special education teachers, is technically in charge of identifying special education eligibility for students with autism, in practice, a psychiatrist's diagnosis or a clinical psychologist's reports are crucial to special education eligibility. The definition of autism combines a medical perspective with educational needs: special education is provided for children with autism when their symptoms adversely affect their educational achievement.

Across the US, school districts have autism support teams, and IEP teams comprised of school mental health professionals and teachers use assessment data from multiple sources and gathered with multiple methods. The definition of autism is similar to the definition in the DSM-IV-TR; however, the influence of children's disability as it adversely affects their learning is emphasized. In the UK, no specific category of children's disabilities exists in their Education Act. The education laws in the UK specify only students who need special education due to their learning difficulties.

Second, the consistency of each country's special education laws with the UN Convention on the Rights of the Child and the UN Conventions on the Rights of Persons with Disabilities was addressed. All countries' special education laws were based on the rights of equal and fair educational opportunities for children with special education needs. However, social supports to

protect children with disabilities proved to be different between Eastern and Western countries. Although sometimes seen as simple opposites, an individualism-collectivism paradigm as a framework for cultural differences (Hofstede, 1980) explains reasonably the differences between Eastern countries and Western countries in interpreting their special education laws. Special education laws in the US and the UK include legal protections such as due process hearings in the US and the appeals process in the UK when the rights of children with disabilities are challenged. In contrast, special education in Korea and Japan seeks to achieve the same rights for children without disabilities as for children with disabilities without those legal protections. Thus, both countries emphasize “not to be discriminated from others.”

These different perceptions may come from cultural differences in the perspective on human beings. Traditionally, Korea and Japan are collectivistic societies that prioritize values of social relationships and collaboration of people. The purpose of education is to make “well-rounded and devoted” people who can contribute to the values of their families and countries, values coming mostly from Confucianism and hierarchical social structures. In contrast to the collectivistic culture, people in the US and UK tend to emphasize their values in terms of the “uniqueness of self,” which is called an individualistic perspective. In an individualistic culture, each individual’s independence is the most important value. In order to protect independence, personal boundaries should be protected. For this reason, the primary function of the law is to protect the individual’s basic rights. Based on this cultural difference, the special education laws in Western countries are more active and assertive to protect the rights of children with disabilities whereas those of Eastern countries emphasize protection from discrimination.

Third, this study investigated assessment tools and procedures for identifying the eligibility of special education. CARS and ADOS were the common tools among all four countries although their use varied within each country. Basically, these assessment tools are intended to be implemented with other cognitive, developmental, and behavioral measurement tools in order to identify autism in all countries. However, the actual practice in each country

varies depending on the settings and practitioners. In Korea, 24.2% of practitioners administered only the CARS in clinical evaluations due to the fact that no legal obligation requires the process (Kim & Kim, 2006). In Japan and Korea, medical doctors diagnose autism based on the DSM-IV-TR criteria along with interviews of caregivers. Considering that medical doctors' diagnoses critically influence special education eligibility of children with autism, more comprehensive and multi-faceted assessment procedures are needed. In the US, diverse evidence-based assessment tools are used in school settings and clinics (Ozonoff, Goodlin-Jones, & Solomon, 2005). For the purpose of direct observation, ADOS and CARS are commonly used tools in the US as well. Within multi-disciplinary teams, multiple areas are measured with different tools: parent report (ADI-R, SCQ, PIA, PDDBI), intelligence (Mullen, DAS, WISC-IV, Stanford-Binet 5, Leiter-Revised), language (CELF, PPVT, EOWPVT, TLC, CCC), and adaptive behavior (Vineland). There are variations between countries in the application of assessment tools and procedures in order to identify children with autism, from the simple use of assessment tools for the purpose of diagnosis to comprehensive assessments in order to understand individual needs and develop interventions for children with disabilities. However, the assessment tools in each country are used to identify children's impairments or disabilities because these instruments were developed based on the DSM-IV-TR system that is a medical model. Considering that the main purpose of assessment in special education settings is to identify students' current level of functioning as well as educational difficulties, the current assessment procedures and tools are not sufficient to fulfill the ultimate goals of special education. This perception is consistent with that of Lollar and Simeonsson (2005), who suggested that assessment of function is essential as the basis for intervention planning to decrease functional limitations and improve well-being. In this sense, for mental health practitioners in each country, it may be beneficial to understand the purpose of assessment, which links intervention planning and accurate assessment of children's functioning as well as disability, which is a framework of the ICF-CY.

A final focus of this study was to analyze the correspondence of frequently used measurement tools with ICF-CY codes. Both the ADOS and CARS address only individual functioning factors of the ICF-CY model without considering environmental factors that influence children with autism. In both of these measures, activity, participation, and body function were the primary elements corresponding with ICF-CY codes. ADOS and CARS view children with autism as being restricted in their abilities to perform expected behaviors and tasks rather than having a loss of physiological and psychological functions. Differences between the definitions of autism as a “complex neurodevelopmental disorder” (Lang, 2010) versus “restriction of ability which is educable” can be a controversial issue in intervention and education approaches.

Based on a biopsychosocial model of disability in practices with children, the ICF-CY addresses both biological factors and environmental factors of functioning, which facilitate children’s development through appropriate intervention and education. The ICF-CY provides a framework for autism intervention and education, and this study investigated how ADOS and CARS content matched with this framework. The degree of fit of ADOS was weak to moderate and the degree of fit of CARS was moderate. Many questions in CARS are asking clearly defined activity questions such as, “The child shows the appropriate type and degree of emotional response as indicated by a change in facial expression, posture and manner.” Thus, the degree of fit for CARS is better than for the ADOS. Questions in the ADOS cover combined areas in the ICF-CY and deal with complex situations; for example, a question in Module 2 aims to assess the child’s ability to follow and comment on a sequential story in a picture book and to generate spoken language. For these reasons the degree of fit of ADOS with the ICF-CY was weak.

In conclusion, the results of this study indicate that there is variability in how children with autism are defined and considered eligible for special education across the four countries of Japan, Korea, UK, and the US. Serving as the global standard for defining and documenting disability, the ICF-CY can provide a framework to determine special education eligibility and intervention for children with autism. Identifying children on the basis of functional profiles

rather than diagnostic labels is important in order to meet the educational needs of a child and also for tracking children's development. A corresponding need for functional assessment measures for screening, clinical assessment, and outcome evaluation should be addressed with the ICF-CY in order to determine special education and intervention for children with autism.

Several implications for autism practice in school settings should be addressed based on this study. In the US and UK, practices related to autism do not seem to use a framework that links assessment and intervention or monitoring children's progress. Using the common language and systematic framework of the ICF-CY may enable assessment of children with autism and support their development and help teachers and parents to understand children's health functioning and facilitate planning for them. The lack of a reliable and valid standard for identifying autism for the purpose of special education is a concern in Japan and Korea. In particular, the identification of autism using medical diagnosis and the misuse of assessment tools needs to be addressed and changed. Applying a medical model to identify children's impairments or disabilities does not provide much information about autistic children's development or their need for intervention. With the growing increase of autism around the world, there is a need to implement a common definition of autism for children and defining the basis for meeting their rights to education.

APPENDIX

Article 23	<p>1. States Parties recognize that a mentally or physically disabled child should enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community.</p> <p>2. States Parties recognize the right of the disabled child to special care and shall encourage and ensure the extension, subject to available resources, to the eligible child and those responsible for his or her care, of assistance for which application is made and which is appropriate to the child's condition and to the circumstances of the parents or others caring for the child.</p> <p>3. Recognizing the special needs of a disabled child, assistance extended in accordance with paragraph 2 of the present article shall be provided free of charge, whenever possible, taking into account the financial resources of the parents or others caring for the child, and shall be designed to ensure that the disabled child has effective access to and receives education, training, health care services, rehabilitation services, preparation for employment and recreation opportunities in a manner conducive to the child's achieving the fullest possible social integration and individual development, including his or her cultural and spiritual development</p> <p>4. States Parties shall promote, in the spirit of international cooperation, the exchange of appropriate information in the field of preventive health care and of medical, psychological and functional treatment of disabled children, including dissemination of and access to information concerning methods of rehabilitation, education and vocational services, with the aim of enabling States Parties to improve their capabilities and skills and to widen their experience in these areas. In this regard, particular account shall be taken of the needs of developing countries.</p>
Article 28	<p>1. States Parties recognize the right of the child to education, and with a view to achieving this right progressively and on the basis of equal opportunity, they shall, in particular:</p> <p>(a) Make primary education compulsory and available free to all;</p> <p>(b) Encourage the development of different forms of secondary education, including general and vocational education, make them available and accessible to every child, and take appropriate measures such as the introduction of free education and offering financial assistance in case of need;</p> <p>(c) Make higher education accessible to all on the basis of capacity by every appropriate means;</p> <p>(d) Make educational and vocational information and guidance available and accessible to all children;</p> <p>(e) Take measures to encourage regular attendance at schools and the reduction of drop-out rates.</p> <p>2. States Parties shall take all appropriate measures to ensure that school</p>

	<p>discipline is administered in a manner consistent with the child's human dignity and in conformity with the present Convention.</p> <p>3. States Parties shall promote and encourage international cooperation in matters relating to education, in particular with a view to contributing to the elimination of ignorance and illiteracy throughout the world and facilitating access to scientific and technical knowledge and modern teaching methods. In this regard, particular account shall be taken of the needs of developing countries.</p>
<p>Article 7 Children with disabilities</p>	<p>1. States Parties shall take all necessary measures to ensure the full enjoyment by children with disabilities of all human rights and fundamental freedoms on an equal basis with other children.</p> <p>2. In all actions concerning children with disabilities, the best interests of the child shall be a primary consideration.</p> <p>3. States Parties shall ensure that children with disabilities have the right to express their views freely on all matters affecting them, their views being given due weight in accordance with their age and maturity, on an equal basis with other children, and to be provided with disability and age-appropriate assistance to realize that right.</p>
<p>Article 24 Education</p>	<p>1. States Parties recognize the right of persons with disabilities to education. With a view to realizing this right without discrimination and on the basis of equal opportunity, States Parties shall ensure an inclusive education system at all levels and life long learning directed to:</p> <ul style="list-style-type: none"> a. The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity; b. The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential; c. Enabling persons with disabilities to participate effectively in a free society. <p>2. In realizing this right, States Parties shall ensure that:</p> <ul style="list-style-type: none"> a. Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability; b. Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live; c. Reasonable accommodation of the individual's requirements is provided; d. Persons with disabilities receive the support required, within the general education system, to facilitate their effective education; e. Effective individualized support measures are provided in environments that maximize academic and social development,

consistent with the goal of full inclusion.

3. States Parties shall enable persons with disabilities to learn life and social development skills to facilitate their full and equal participation in education and as members of the community. To this end, States Parties shall take appropriate measures, including:

- a. Facilitating the learning of Braille, alternative script, augmentative and alternative modes, means and formats of communication and orientation and mobility skills, and facilitating peer support and mentoring;
- b. Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community;
- c. Ensuring that the education of persons, and in particular children, who are blind, deaf or deafblind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development.

4. In order to help ensure the realization of this right, States Parties shall take appropriate measures to employ teachers, including teachers with disabilities, who are qualified in sign language and/or Braille, and to train professionals and staff who work at all levels of education. Such training shall incorporate disability awareness and the use of appropriate augmentative and alternative modes, means and formats of communication, educational techniques and materials to support persons with disabilities.

5. States Parties shall ensure that persons with disabilities are able to access general tertiary education, vocational training, adult education and lifelong learning without discrimination and on an equal basis with others. To this end, States Parties shall ensure that reasonable accommodation is provided to persons with disabilities.

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