

SPECIAL EDUCATION PRACTICES IN CHINA AND THE UNITED STATES: WHAT IS TO COME NEXT?**Jamie L. Worrell****Mary Taber***Florida Atlantic University*

In the global arena, governments and educational professionals struggle with issues such as providing educational opportunities for all students, including identification and placement of students with disabilities. In spite of eligibility and placement issues, and a tremendous population of school aged children the Chinese have made inroads in terms of including students with disabilities in regular classrooms. In addition, The United States has made an effort to revamp education by developing models of Response to Intervention (RTI) to target and provide appropriate educational interventions to struggling learners who may or may not have a disability. RTI requires screening of every student to see what students may need extra help or remediation. RTI requires the use of scientifically validated instructional strategies and progress monitoring to ensure that each child is responding appropriately to the instruction provided.

This article describes efforts made by the Chinese and the United States to provide educational opportunities for all students including those with disabilities. The authors describes both countries special education laws, definition of disabilities, present day special education practices and finally discusses the future of special education in both China and the United States.

Special Education Law in China

Special education as we know it began with the Foundation of the People's Republic of China on October 1, 1949 under Mao Zedong. A state school system was established and special schools for the blind and deaf were founded. In addition, a series of five-year plans was enacted for policy development (Deng et al. 2001; Lewis, Chong, Lao, & Lo, 1997). Mao's egalitarian philosophies regarded all children with and without disabilities as being equal and having equal abilities to contribute to the work of the socialist society (Deng et al. 2001). Although special education grew slowly under Mao, education in general suffered greatly during the Cultural Revolution (Lewis, et al. 1997). Service delivery was relegated to separate schools only and it was not until the 1980s that special education began to grow again.

According to Ellsworth and Chang (2007) there were sincere efforts to provide special education to students with disabilities when China opened its doors to the world in 1979. Having contact with western countries led to major social and economic reforms and special education was redefined so that all children including those with disabilities were to receive nine years of free education (Chen, 1996). However, a firm legal foundation for the provision of education for all students did not come until 1986, when the National People's Congress promulgated the Compulsory Education Law of the People's Republic of China (Pang & Richey, 2006).

The Compulsory Education Law was perhaps the most important piece of legislation in terms of the provision of a basic education for all students of school age. This law required that schools accept students with special needs and it required that all students attend school for nine years entering school by the age of six. In addition, provisions shall be made for special schools for the education of the deaf, blind, or retarded as well (Deng et al. 2001; Ministry of Education [MOE] of the People's Republic of China, 2004).

The Compulsory Education Law was just the beginning of real education reform in China. The law provided extensive guidelines for parents, teachers, and facilities as well as established requirements and deadlines for attaining universal education (MOE of the People's Republic of China, 2004). By November, 1985 the larger urban and suburban areas had achieved universal year education, while the rural areas were able to manage only four to six years. The local people's congresses were encouraged to bring the outlying rural areas in line with the urban areas.

With approval of the Chinese Government, the China Disabled Persons Federation was established in 1988 to serve the needs of the disabled. The federation was instrumental in the passage of the first law in China to directly address the needs of the disabled, the *Law on the Protection of Disabled Persons* (Zhang Liu, 2001). The Law on the Protection of the Disabled Persons (1990) emphasized that families, work units and community organizations must share the responsibility for caring for the disabled. Action to develop early intervention program was emphasized as well (Chen, 1996).

Special Education Law in the United States

Several federal legislation acts have helped shape what has now become known as RtI. The first law was the reauthorization of the Individuals with Disabilities Education Act (IDEA) in 1997, this *set in motion fundamental, conceptual, and practice changes in special education* (CEN, 2006, p.2). The law now defined special education as a continuum of services and not just a place. The law called for early intervention practices to take place before children were labeled as having a disability and there was a tremendous shift in the focus accountability: from procedures to student performance and outcomes. The reauthorization of IDEA pushed for more inclusive schooling, higher academic expectations for students with disabilities, more intensive early and pre-referral intervention procedures, and more flexibility in the use of funds and assessment practices. Changes in assessment requirements now encouraged: *a variety of assessment tools and strategies to gather relevant functional and developmental information, including information provided by a parent, that may assist in determining whether the child is a child with a disability and the content of the child's individualized education program, including information related to enabling the child to be involved in and progress in the general education curriculum* (20 U.S.C. 1414 (a) (2) (A)).

The focus on gathering assessment information permitted the use of existing data, which included existing evaluation data, current classroom-based assessments and observations, teacher and related service providers' observations. All these assessment procedures and techniques are now part of the data collection and monitoring piece of RTI, which was documented in IDEA 2004. IDEA 1997 paved the way for response to intervention language to be used in IDEA 2004. The use of the actual language stemmed from the lack of widespread use of assessment practices that were encouraged in IDEA 1997. IDEA 2004 stated that states cannot require districts to use IQ tests to determine LD eligibility; instead the law permits districts to use RTI. Additionally, the law stated that children can not be made eligible for ESE if their low achievement was due to *lack of appropriate instruction* in math, reading or LEP. In 2004, Congress also worked to align IDEA and No Child Left Behind. The major statements that helped link the two laws together are: Use of scientifically-based instruction, frequent progress in monitoring with changes in programs as needed, stronger intervention in general education, student outcomes drive decisions, and reducing over-identification in special education. Still, IDEA 2004 does not require states to use RTI; it only prevents states from mandating the use of the discrepancy model when identifying students for learning disabilities if local educational agencies desire to adopt RTI methodology (20 U.S.C. 1414 (b) (6) (B)).

Response to Intervention is not new to the field of special education and has had significant impact on raising student achievement in Reading, using the Three Tiered Reading Model (Vaughn Gross Center for Reading and Language Arts at the University of Texas at Austin, 2005), in providing Early Intervention Services (Grimes & Kurns, 2003) and in improving overall student behavior with school-wide behavior management techniques (Sugai, et al, 2000).

Definition of Disabilities in China

China recognizes six categories of disability visual, hearing, intellectual, physical, psychiatric disabilities, and multiple impairments (Clark & Zhou, 2005; Hampton, 2001). There are currently 60 million people with disabilities in China, with about 25% of these people living in urban areas and 75% in rural areas (Hampton, 2001). The legal definition of disability as put forth by the Law of the People's Republic of China on the Protection of Disabled Persons is as follows Zhang, 2007, Chapter 1, and Article 2:

A disabled person refers to one who suffers from abnormalities or loss of a certain organ or function, psychologically or physiologically, or in anatomical structure and has lost wholly or in part the ability to perform an activity in the way to be considered normal. The term "disabled persons" refers to those with visual, hearing, speech or physical disabilities, mental retardation, mental disorder, multiple disabilities and/or other disabilities. (p. 1)

Definition of Disabilities in United States

Under the reauthorization of the Individuals with Disability Education Act in 2004, the following disability categories are acknowledge for receiving special education services: autism spectrum disorder, deaf-blindness, deafness, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, other health impairment (e.g., asthma, attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia and Tourette syndrome), specific learning disability (e.g. dyslexia, dyscalculia, dysgraphia, auditory and visual processing deficits), speech or language impairment, traumatic brain injury, visual impairment (including blindness), and developmental delay.

Current Diagnosis and Eligibility Issues in China

Evidence can be found of efforts at psychological testing throughout Chinese history but it was not until the 20th Century that the first standardized test was developed in the Western world (Zhang, 1988). Such tests as the Binet-Simon Scales, the Merrill Palmer Scale, and the Draw-A-Man test were translated and adopted for use by the Chinese. The Society of Psychological Testing was founded in 1931 when testing became popular in China (Zhang, 1988). However, with the founding of the People's Republic of China in 1949 individual psychological testing came under fire and was largely abandoned (Zhou & Peverly, 2003). Under Marxist philosophy, people were seen as social beings and their thoughts and personality characteristics were seen as reflections of an individual's social class. There was no room for psychological testing that was based on individual differences (Zhang, 1988).

In 1962 the CPA initiated educational psychology which established psychological research in the schools (Zhou, Bray, Kehle, & Xin, 2001). Eligibility determinations in China can be problematical as well. Frequently, there are inaccurate translations of commonly given Western instruments such as the Stanford Binet Intelligence Scale IV, or the Draw a Person Test, which are usually administered to determine whether a child has mental retardation; No attention is paid to adaptive behavior. These tests have cultural bias as well. In addition, in rural areas, vision and hearing screenings are often given improperly resulting in highly suspect eligibility claims (Liang, 1993b cited in Deng, et al., 2001).

Diagnosis and eligibility issues emanate from two drastically different definitions: the former Soviet Union definition and the prevailing definition used in the United States (McLoughlin, Zhou, & Clark, 2005). Many professionals in China adhere to the Soviet definition, which places responsibility for eligibility determination on the medical field. Believing that mental retardation is caused by neurological problems, these professionals use the Chinese Category of Mental Disorders, the equivalent of the DSM IV that is used in the United States (McLoughlin, et al., 2005). Diagnosis is based on observation, interviews and psychological assessment performed by psychiatrists with little to no knowledge of psychometrics (McLoughlin, et al. 2005).

Other professionals feel that the environment plays a significant role in determining disability and thus look for ways to change the environment surrounding the child. However, the system of identifying students who have disabilities is fraught with the potential for inaccuracies. After the teacher refers a child, appropriate observations and paper work are completed (Cheng, 1994 cited in Deng & Manset, 2000). With permission of the local education authorities, special teachers are called in to test the student. In many cases these professionals use translated versions of standardized tests commonly used in the West; e.g. the Stanford-Binet Intelligence Scale IV (Thorndike, Hagen, & Sattler, 1985). It is very difficult to accommodate the child's culture using western instruments. Moreover, many of these instruments are only available in large cities (Deng & Manset, 2000).

In fact, there is a shortage of school psychologists in China who are trained specifically to give these instruments. Moreover, the roles of school psychologists are unclear at best, and at worst, lack scientific foundation (Fen, 1996). However, that appears to be changing due to the fact that while psychology had been considered a pseudoscience 25 years ago, it is now a fast growing respected field (Martin, 1998). Chinese universities are being asked to establish scientist/practitioner programs that are

designed for students interested in doctoral, master's, baccalaureate, or in service training in order to help alleviate this shortage. In addition, Chinese universities are reaching out to other universities in Taiwan and even the United States to assist in their development of a school psychology program (Zhou, et al. 2007).

It is interesting to note that there does not appear to be a great deal of concern in China about the use of Western methods for determining the eligibility for special education (Lewis, et al., 1997). This may be due to an eagerness to identify and provide for persons with disabilities quickly. However, in light of the potential inaccuracies that exist with the use of these instruments, it may require a second look at the whole issue of testing and assessment. These diagnostic measures provide a stark contrast to the Response to Intervention paradigm that American schools are gradually adopting.

Current Diagnosis and Eligibility Issues in United States

Currently, IDEA 2004 does not require states to use RTI; it only prevents states from mandating the use of the discrepancy model when identifying students for learning disabilities if local educational agencies desire to adopt RtI methodology (20 U.S.C. 1414 (b) (6) (B)). The discrepancy model compares a student's current level of academic performance with their intelligence quotient (IQ). The discrepancy model also examines whether or not a student has any processing deficits. The school psychologist will administer specific tests to the student, depending on the student's ethnic and economic background, to limit test bias, and type up a narrative report of the testing results. This report is most commonly known as the Psycho-educational report. If there is a significant difference between the student's IQ score and academic achievement score and processing deficit(s), the child may qualify for special education services. The majority of public school districts in the United States are using Response to Intervention as a means to identify students with emotional, language, and learning disabilities instead of the discrepancy model.

According to the National Association of State Directors of Special Education, the term Response to Intervention is defined as *the practice of providing high-quality instruction and intervention matched to student need, monitoring progress frequently to make decisions about change in instruction and goals, applying the child's response data to important educational decisions* (Batsche, Elliot, Graden, Grimes, Kovalski, Prasse, Reschly, Schrag, & Tilly, 2005, p.1). High quality instruction is defined as using scientifically research-based interventions that are matched to the needs of the student(s) in the classroom, to produce increase academic success. Through using high quality instruction, the classroom teacher is able to meet each student at his/her point of need. Monitoring the level of academic progress for each student is a vital component of RTI, because the academic data collected through the monitoring component, allows the educator to make critical educational decisions. During the monitoring stage, the classroom teacher is using curriculum-based assessments to determine student's academic performance relative to their peers in the classroom. Norm-referenced tests are also used to compare students in the class to students of the same age and grade across the nation. The data from these tests will assist the classroom teacher in determining to lessen or increase the intensity of interventions.

If a student is *unresponsive* to the research-based intervention(s) that the RTI team has identified and the student has progressed through the three tiers of intervention, then the student would become eligible for special education services. There is no need for Psycho-educational testing as a means to qualify the student for special education services, however psycho-educational testing can be done in addition to the RTI data to give the team a better overall picture of the student's current level of performance and if the student displays any processing deficits.

Present Day Special Education in China

China has made tremendous strides in terms of educating students with disabilities over the past 30 years. Of particular note, is the emphasis on inclusionary practices for students with visual impairments, hearing impairments, and students with mental retardation.

While the People's Republic of China has been committed to providing special education services in special schools, the thinking began to change with the realization that services could not possibly be provided to all students with disabilities utilizing the special school model. Since the passage of the Compulsory Education Act of 1986 China has made efforts to universalize compulsory special education to meet the needs of a model for special education with Chinese characteristics (Fei, 2007). At the 1988 National Conference on Special Education in Beijing, it was decided that placing students

in special classes attached to regular schools or in mainstream settings would provide for greater enrollment of students with disabilities (Lewis, et al., 1997). Thus the initial impetus for including students with disabilities was for economic expediency rather than the rights of students with disabilities.

However, once the *Learning in a Regular Classroom* (LRC) policy was initiated, inclusion was seen as a way to better meet the needs of all students, both those with disabilities and those without. Begun in 1987 as an experiment by the Chinese government, the hope was that this would provide greater access to the educational experience for students with disabilities than they previously had had. These experiments focused on three parameters: eligibility conditions, teacher training, and instructional modifications (Fei, 2007). In fact, LRC was the main method of universalizing compulsory education among children with disabilities (Meng & Zhiyong, 2007). Enrollment numbers have gone up significantly so that Chinese students with disabilities are receiving some services (Ellsworth & Chang, 2007).

In an effort to determine the prevalence of people with disabilities, the Committee of National Sampling Survey of the Handicapped did a survey in 1987. This survey revealed that China had approximately 5.164 million people with disabilities out of a total population of 1.1 billion (Zhang, 2007). Surprisingly, the prevalence of people with disabilities appears to be lower in China than in other countries. However, according to Deng and colleagues (2001) this difference may be due to the fact that China does not recognize all of the categories of disability that other countries do. In addition, China is an agriculturally based culture with the majority of people lives in rural areas with unfavorable economies. Physical labor is the primary work in these rural areas where people can live normal lives even if they cannot read or write. Therefore, many people with disabilities (e.g. autism, learning disabilities, and mental retardation) may not be served in rural and remote areas (Deng, et al., 2001).

Interestingly, the LRC policy bears some resemblance to the Regular Education Initiative (REI) proposed by Madeline Will in 1986 (Will, 1986). The REI was designed so that all students are educated in the general education setting, regardless of disability so that we could achieve equality and social justice in our educational system. However, the LRC policy was implemented not to provide equality and social justice for students with disabilities; rather it was established pragmatically in order to enroll as many students with disabilities as possible (Meng & Zhiyong, 2007).

In contrast to the REI which provided that all students regardless of disability be educated in the general education setting, Evelyn Deno (1970) proposed that the United States provide a Cascade of Services in terms of its educational offerings so that all students could profit from educational experiences according to their need. China appears to favor this kind of a model in that they now offer a continuum of service from separate schools, special classes attached to regular schools, to the LRC policy (Meng & Zhiyong, 2007).

Therefore, western influence in terms of inclusive education is evident. Western influences are also manifested in terms of educational practices within the classroom. Chinese educators have concluded for example that a combination of whole group instruction, cooperative learning, and individual tutoring would be appropriate for use in inclusive classrooms (Chen, 1997; Deng, Poon-McBrayer, Farnsworth, & McCabe, 2001). However, the influence of the USSR can be seen as well, in that the LRC policy stresses remedying the deficiencies of the student rather than identifying and developing the students' potential (Meng & Zhiyong, 2007).

The LRC policy is not without its difficulties however. While this policy is a definite improvement over the previous pattern of social education, which simply placed children with disabilities in separate schools, regular schools cannot always provide for the special needs of their students (Jianghua & Meng, 2007). In many cases, teachers are not properly trained to assist students with disabilities and professional standards for teachers are too low (Fei, 2007). When these teachers encounter difficulties there are too few specialists such as experts in language and vocational therapy to assist (Fei, 2007). Typical class size in regular schools is much larger than in special schools and frequently the regular school teachers do not have special education training (Jianghua & Meng, 2007). In addition, when examined closely many students with disabilities are placed in regular education classes in name only. That is these students are not truly being educated and are just *drifting in regular education* (Jianghua & Meng, 2007).

Eligibility for the LRC placements consists of those students who can adapt to studies and life at ordinary schools. At present, three categories of disability are being served in the regular education setting: visually impaired, hearing impaired, and mentally retardation (Fei, 2007). The most notable achievement made by China's LRC programs is the significant increase in numbers of enrolled children (Deng & Manset, 2000).

Cultural Influences

China is a country with an extensive history and a rich culture. Influences in the field of special education and indeed of all of society stem from Confucianism which stressed harmonious relations and a hierarchical society. The influences of political and economic conditions, foreign influences, and Chinese Socialist ideology have impacted special education as well (Deng, et al., 2001). The education system in China remains focused on preparing the top students in the country to compete for admission to the best universities. This practice emanates from the Confucian tradition of maintaining the social hierarchical order with education seen as a privilege for the few (Ellsworth & Zhang, 2007). Unfortunately this means that the unique needs of the majority of students are often ignored or neglected (McLoughlin, et al., 2005). LRC therefore has been practiced in a vastly different social and cultural context from that of the West, where the inclusive education initiative is developing (Deng & Guo, 2002).

According to Deng, et al., (2001) China must fashion inclusion and other educational concepts to meet its unique needs in terms of its culture, economic outlook, and belief system. In order to develop the concept of LRC more fully for example, China needs to look to other countries for support and advanced theories (Deng & Manset, 2000). Ellsworth & Chang (2007) reflected on observations made of classrooms in Beijing and Shanghai. Interviews were conducted with special education professors at Beijing Normal University and East China University in Shanghai as well. While they recognize what great strides China has made in terms of developing their special education system they see teacher education and training as being tantamount. Development and expansion of early intervention programs as well as public awareness and education about disabilities and special education are also seen as essential (Ellsworth & Chang, 2001). The shift from paying attention to enrollment to the quality of education needs to take place before advances in special education can take place (Fei, 2007).

Present Day Special Education in the United States

Components of Response to Intervention

The RTI model is defined as *A multi-tiered approach to providing services and interventions to students at increasing levels of intensity based on progress monitoring and data-analysis* (Bureau of Exceptional Education and Student Services, 2006, p.1). RTI serves two purposes: to provide struggling students with early, effective instruction, and to provide a valid means of assessing learner needs. The assessment component in RTI serves these two purposes; in all actually the *intervention* becomes the test stimulus. The two main components of RTI are identifying *at-risk* students and monitoring those students progress through dynamic assessment. To identify *at-risk* students in the classroom (which is done during the 1st two months of the new school year), a school can decide on one of two ways: One way is to look at their students' performance on the pervious year's high stake test and choose a criterion such as scores below the 25th percentile to designate the *at-risk* label, the second way is to administer a standardized assessment to all students within the first month of school and designate those scoring below a specific percentile as *at-risk*. After *at-risk* students are identified at a school, the general educators now must monitor the students' responsiveness to classroom instruction. After a certain number of weeks of classroom instruction, the *at-risk* students are given an assessment in the area of risk to see if improvements have been made (Fuchs, 2003).

Response to Intervention uses a variety of academic assessments. In tier I, benchmark assessments are most commonly used. Benchmark assessments, often referred to as universal screening tools, are commonly used in classrooms. They are used to provide a clear and detailed picture of student learning. The term benchmark is defined as a standard by which others can be measured. Moreover, benchmarks allow educators to determine students' strengths and weaknesses against set criteria or against the performance of other students in the classroom, school, district, or state (Shores & Chester, 2009). These benchmark assessments are usually administered at least three times a year and data is collected to ensure students are making adequate progress.

Besides the universal screening assessments, progress monitoring is used throughout the school year, usually in the form of curriculum-based measurements (CBM). Progress monitoring is a researched based practice used to assess students' academic performance and assess the effectiveness of instruction. Progress monitoring can be implemented with individual students or an entire class (Shores & Chester, 2009). Curriculum-based measurements allow the teacher to examine an academic competence, track academic development, and use the data to screen, monitor, and diagnosis academic deficits. Students whose teachers implemented the ongoing measurement and evaluation achieved better than students whose teachers used conventional monitoring methods, such as periodic teacher-made tests, informal observations, and printed work samples (Fuchs, Deno, & Mirkin, 1984).

Types of Response to Intervention Models in the United States

There are now four different types of approaches when implementing RTI model into schools: the Standards Protocol Approach, the Problem Solving Approach, the Mixed Model, and the Behavioral Model. The problem solving approach is the approach that is most widely used by practitioners whereas the Standard Treatment Protocol is mainly preferred by researchers. The Mixed Model is when Standard Treatment Protocol model is used for academics and the Problem-solving model is used for behavior. The Standard Treatment Protocol model is mostly used for common academic deficiencies based on assessment results, then a schedule for implementing the needs based interventions are decided upon. The Problem Solving Approach is used for less common academic/behavior issues (Fuchs & Deshler, 2007). The Behavioral Model, known most commonly as *Positive Behavioral Interventions and Support*, can be used at the school-wide and classroom level or used as an individual support. It focuses on establishing consistent expectations and uses data throughout the process with ongoing assessment for instructional decision making and establishing a system of rewards and consequences.

The Standard Treatment Protocol is an alternative to the problem solving approach when implementing RTI. The Standard Treatment Protocol is a two-tier system. The first tier is the initial implementation of the 1st intervention. All teachers are trained on how to administer the intervention and the intervention is given in small groups or individually in a general education classroom for a fixed duration of time (usually 10-15 weeks). If students' respond to the treatment trail, they are viewed as remediated and non-disabled. If students are unresponsive in the first tier, they are moved to a more intensive (tier two) standard treatment protocol where the intervention is not given within the general education classroom. During tier two, if students demonstrate adequate progress, they are returned to the general education classroom. If students in tier two demonstrate non-adequate progress, a disability is suspected and further evaluation is permitted.

Both approaches have a conceptually different meaning for the term *non-responsiveness*. Standard Treatment Protocol may be viewed as a pretty rigorous test for *non-responsiveness*. When students fail in tier two, their *non-responsiveness* appears much more likely to be caused by a disability than the absence of good teaching. However in tier two, some students may actually make adequate progress with the intervention, but still not be able to survive effectively in the general education classroom. With the Problem-Solving Approach, the term *non-responsiveness* is viewed less intensely and less systematic instruction takes place with the implementation of the interventions since the classroom teachers are not explicitly trained on the interventions. The Problem-Solving Approach would more likely produce *false positives*, whereas the Standard Treatment Protocol Approach would more likely produce *true positives*, but may overlook students with mild disabilities (Fuchs & Fuchs, 2006).

Whatever approach or model of response to intervention is decided on by a district, the schools in that particular district must first ensure that at least eighty percent of their students are making adequate progress in the general education classroom. If less than eighty percent of a school's student population is not making adequate progress in the general education classroom, the school along with assistance from the district must first begin by analyzing current teaching practices that are being implemented in the classrooms and using that data, begin to make modifications or adaptations to teaching expectations and the use of instructional strategies in the classroom; only then can the school begin the daunting task of implement response to intervention strategies within their classrooms.

Along with the push to implement response to intervention models in schools, researchers in the field of special education are calling for the principals of the Universal Design for Learning (UDL) to be implemented in inclusive classrooms. UDL is a new approach to curriculum (goals, materials, methods, and assessment) that is firmly based upon the belief that every learner's needs are unique and each

learner brings in different strengths and weaknesses to the general education classroom (Rose & Meyer, 2002). These learners enter the classroom with very different levels of: background knowledge, reading and math ability, emotional needs, and family involvement; therefore a *traditional* curriculum of *one-size-fits-all* is unrealistic in meeting these students' needs. In order for educators to be successful in teaching their students, they must strive to meet each student at his/her point of need.

The Universal Design for learning redesigns the curriculum by addressing students' individual needs front and center. The UDL framework provides accessibility which supports the development of materials that can be adjusted by the classroom teacher, varied instructional approaches, and relevant and reliable assessment methods. It requires teachers to recognize impending barriers to learning and in turn create solutions to all students' equal access to learning (Rose & Meyer, 2002).

Another reason for the push for UDL classroom is that the Universal Design for Learning is embedded in neuroscience. Neuroscience research suggests the existence of three broad neural networks in the brain that oversee three fundamental facets of learning like the recognition, planning, and selecting of patterns (Cytowic, 1996). UDL identifies these three learning substrates as recognition, strategic, and affective networks (Cytowic, 1996; & Rose & Meyer, 2002). The three UDL principles guide the design of flexible curricula by calling for the embedding of options that support differences in recognition, strategic, and affective networks: to support recognition learning, provide multiple, flexible methods of presentation; to support strategic learning, provide multiple, flexible methods of expression and apprenticeship; to support effective learning, provide multiple, flexible options for engagement (Rose & Meyer, 2002). Using these three principles, each aspect of the curriculum is made flexible.

It is important to note that Response to Intervention and the Universal Design for Learning are different from one another. *RTI is a process for making educational decisions based on an at-risk student's success or failure during specialized intervention, while UDL is a process for making curriculum design decisions to maximize success in the general curriculum* (Strangman, Hitchcock, Hall, Meo, & Coyne, 2006, p.8). However, they both share the objective of improving educational outcomes for students with and without disabilities.

The Future

Although there are differences in the timeline of the development of Special Education in China and America, there are many similarities. It appears that our concerns are similar in that we would like to provide education for all children and we would like to prepare our students for the work force. In addition, there are compulsory education laws in both countries and both governments make an effort to see that these laws are enforced. In China, however, 80% of children with disabilities live in rural areas and many of them are prevented from attending school. In fact full enrollment has not been achieved for students without disabilities in these areas either. This is due to an unfavorable economy, a lack of transportation and resources, and a lack of awareness of disability related issues (Deng, 2008).

Both countries recognize the importance of parent involvement. In the United States, parent advocacy in large part was what brought about changes in the law so that a free and appropriate public education is available for all students. While the Compulsory Education Laws in China apply to children with visual or hearing impairment, or mental retardation, they do not include students with severe disabilities or autism. Parents of students with disabilities in China are beginning to address such issues so that all students have access to an education (McCabe, 2003).

The goal of Response to Intervention is not only to identify students with disabilities more quickly in the general education classroom, but to also provide the much needed services for *at risk* students who may or may not have qualified under the IQ-Discrepancy model with early intervention services. Response to Intervention, if implemented appropriately, ensures that the general education classroom teachers are providing students with research-based interventions that are directly matched to the students' needs as soon as a need is identified. The majority school districts across the United States have committed to implement response to intervention within their schools. Some states are still in the beginning stages of disseminating all the information regarding response-to-intervention, other states have began pilot RTI programs at specific school sites, while some states and their school districts have gone full speed ahead and established an RTI model that is implemented in the majority of their schools.

It is important to note there is no one size fits all approach when implementing a response to intervention model; local school districts must analyze each of their schools, which include but is not limited to, the school's leadership style, faculty, student population, academic and behavior data trends, and school climate. The school district then must individualize their district level response to intervention plan to meet the needs of each individual school site. One key to ensure a successful implementation of an RTI model at a school site is ensuring that teachers are adequately trained on implementing research based intervention, collecting data on the intervention, and effectively monitoring student progress. Teachers must effectively make informed instructional decision regarding the data they collected in their classroom and truly understand the response to intervention model and each of its components that are being used at their school site. In addition to implementing a Response to Intervention model, schools must also utilize the Universal Design for Learning framework to provide accessibility which supports the development of materials that can be adjusted by the classroom teacher, varied instructional approaches, and relevant and reliable assessment methods. Schools need the teacher *buy-in* factor and a commitment to learning and implementation of the model itself. This is a process that is years in the making and is consistently being monitored and tweaked.

China's initiative, *Learning in a Regular Classroom* has enjoyed great success both in terms of increasing enrollment of school aged children and in developing its inclusion policies. However, China has several major hurdles to overcome. First is the reality of large class sizes. Typically classes have between 40 and 75 students thus making it extremely difficult to individualize instruction for those students who need it (Jianghua & Meng, 2007; McCabe, 2003). Special schools on the other hand typically have about ten students (Jianghua & Meng). Additionally, teacher training is problematical as well. Many teachers in ordinary schools have never had training in special education (Lei, 2004).

While the US is beginning its journey toward RTI, China is refining its version of inclusion. China's educators have been undergoing a change in paradigm in terms of acceptance of students with disabilities. It was found in a qualitative study that rural area teachers had a more positive attitude toward inclusion than did urban teachers (Deng, 2008). The urban teachers were more prone to choose segregated education if conditions permitted it even though they looked positively on the notion of inclusion. In the rural areas not only are resources less plentiful but special schools are almost nonexistent (Deng, 2008).

China is at the threshold for making the leap to implementing effective components of response to intervention and the universal design for learning. Educators and researchers need to continue seeking assistance globally in order to create an education system that serves every student appropriately while accommodating its unique culture and diverse population.

If China implements UDL, teachers would be able to recognize impending barriers to learning and in turn create solutions so that all students can obtain equal access to learning (Rose & Meyer, 2002). Additionally, if China applies the principals of Response to Intervention in its schools, teachers would be able to meet their students' needs more effectively and better prepare them for the work force or college. Each child deserves the opportunity to perform up to his/her fullest potential and implementing the Universal Design for Learning and Response to Intervention framework is a starting point for China to ensure that this happens.

References

- Batsche, G., Elliot, J., Graden, J.L., Grimes, J., Kovalski, J.F., Prasse, D., Reschly, D.J., Schrag, J., & Tilly, W.D., III (2005) *Response to intervention: Policy considerations and implementation*. Alexandria, VA: National Association of State Directors of Special Education.
- Bender, W., & Shores, C. (2007). *Response to intervention: A practical guide for every teacher*. Thousand Oaks, CA: Corwin Press.
- Bureau of Exceptional Education and Student Services (2006). *The response to intervention (RtI) model*. (Florida Department of Education Publication No. FY: 2006-8). Tallahassee, FL: Author.
- Center for Educational Networking, (2006). Focus on results. *Guidance and Technical Assistance for Special Education Stakeholders*, 7 (2), 1-12.
- Chen, Y. (1996). Making special education compulsory and inclusive in China. *Cambridge Journal of Education*, 26 (1), 47-58.
- Clark, E. & Zhou, Z. (2005). Autism in China: From acupuncture to applied behavior analysis. *Psychology in School*, 42 (3), 285-295.

- Cortiella, C. (2006). *Parent advocacy brief: A parent's guide to Response-to-Intervention*. New York: National Center for Learning Disabilities. Retrieved March 1, 2008, from http://www.nclld.org/images/stories/downloads/parent_center/rti_final.pdf
- Cummings, K.D., Atkins, T., Allison, R., & Cole, C. (2008). Response to intervention: Investigating the new role of special educators. *Teaching Exceptional Children, 40* (4), 50-55.
- Cytowic, R. E. (1996). *The neurological side of neuropsychology*. Cambridge: The MIT Press.
- Deng, M. (2008). The attitudes of primary school teachers toward inclusive education in rural and urban China. *Frontiers of Education in China, 3*(4), 473-492.
- Deng, M. & Guo, L. (2007). Local special education administrators' understanding of inclusive education in China. *International Journal of Educational Development, 27*, 697-707.
- Deng, M. & Manset, G. (2000) Analysis of the "learning in regular classrooms" movement in China. *Mental Retardation, 38* (2), 124-30.
- Deng, M., Poon-McBrayer, K.F., & Farnsworth, E. B. (2001) The development of special education in China: A sociocultural review. *Remedial and Special Education, 22* (5), 288-298.
- Deno, E. (1970). Special education as developmental capital. *Exceptional Children, 37*, 229-237.
- Deno, S. (2002). Problem Solving as "best practice". In A. Thomas, & J. Grimes (Eds.). *Best Practices in School Psychology, 6*, 37-56.
- Ellsworth, N. J. & Zhang, C. (2007). Progress and challenges in China's special education development: observations, reflections, and recommendations. *Remedial and Special Education, 28* (1), 58-64.
- Epstein, I. (1988). Special education provision in the People's Republic of China. *Comparative Education, 24* (3), 365-375.
- Fei, X. (2007) The Chinese "learning in a regular" classroom: History, current situation, and prospects. *Chinese Education and Society, 40* (4), 8-20.
- Grimes, J., & Kurns, S. (2003, December). *An intervention-based system for addressing NCLB and IDEA expectations: A multiple tiered model to ensure every child learns*. Paper presented at the National Research Center on Learning Disabilities Responsiveness to Intervention Symposium, Kansa City, MO.
- Hampton, N. Z. (2001). An evolving rehabilitation service delivery system in the people's republic of China. *Journal of Rehabilitation, 67* (3), 20-25.
- Jianghua, L. & Meng, D. (2007). On several relations in the process of developing inclusive education. *Chinese Education and Society, 40* (4), 33-43.
- Johnson, E.S., & Smith, L. (2008). Implementation of response to intervention at middle school: Challenges and potential benefits. *Teaching Exceptional Children, 40* (3), 46-52.
- Kovaleski, J., & Prasse, D. P. (2004). Response to instruction in the identification of learning disabilities: A guide for school teams. *NASP Communications, 32* (5), 4-8.
- Lewis, J., Chong-Lau, S., & Lo, J. Y. C. (1997) Disability, curriculum, and integration in China. *European Journal of Special Needs Education, 12* (2), 95-106.
- McLoughlin, C.S., Zhou, Z., & Clark, E. (2005). Reflections on the development and status of contemporary special education services in China. *Psychology in the School, 42* (3), 273-283.
- Mellard, D. F., & Deschler, D. D. (2004). LD identification: It's not simply a matter of building a better mousetrap. *Learning Disability Quarterly, 27* (4), 229-242.
- Meng, D. & Zhiyong, Z. (2007). The Chinese "learning in a regular classroom" and Western inclusive education. *Chinese Education and Society, 40* (4), 21-32, translated by ME Sharpe, Inc.
- Ministry of Education of the People's Republic of China (2004). *Survey of the educational reform and development in China*. China Education and Research Network Web Site: Retrieved December 31, 2008 from http://www.edu.cn/Researchedu_1498/20060323/t20060323_113688.shtml
- Minneapolis Public Schools. (2002, December). *Identification of students with disability under the problem-solving model*. Retrieved March 1, 2008, from <http://pic.mpls.k12.mn.us>
- Flugum, K.R., & Reschly, D.J. (1994). Prereferral interventions: Quality indices and outcomes. *Journal of School Psychology, 32* (1), 1-14.
- Fuchs, D., & Deshler, D. (2007). What we need to know about responsiveness to intervention and should be afraid to ask. *Learning Disabilities Research & Practice, 22* (2), 129-136.
- Fuchs, D. & Fuchs, L.S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41* (1), 93-99.
- Fuchs, L.S. (2003). Assessing intervention responsiveness: Conceptual and technical issues. *Learning Disabilities Research & Practice, 18* (3), 172-186.
- Fuchs, D., & Fuchs, L.S. (2001). Responsiveness to intervention: A blueprint for practitioners, policymakers, and parents. *Teaching Exceptional Children, 38* (1), 57-61.

- Fuchs, L. S., Deno, S. L., & Mirkin, P. K. (1984). The effects of frequent curriculum-based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal*, 21, 449-460.
- Pang, Y. & Richey, D. (2005). A comparative study of early intervention in Zimbabwe, Poland, China, India, and the United States of America. *International Journal of Special Education*, 20 (2), 122-131.
- Pang, Y. & Richey, D. (2006). The development of special education in China. *International Journal of Special Education*, 21 (1), 77-86.
- Rose, D. H., & Meyer, A. (2002). *Teaching every student in the digital age: Universal design for learning*. Alexandria, VA: Association for Supervision and Curriculum Development (ASCD).
- Shores, C. & Chester, K. (2009). *Using response to intervention to raise student achievement*. Thousand Oaks, CA: Corwin Press.
- Strangman, N., Hitchcock, C., Hall, T., Meo, G., & Coyne, P. (2006). *Response to instruction and universal design for learning: How might they intersect in the general education classroom?* Center for Applied Special Technology. The Access Center: Washington DC.
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T., Neslon, C. M., Scott, T., Liauspin, C., Sailor, W., Turnbull, A. P., Turnbull III, H. R., Wickham, D., Wilcox, B., & Ruef, M. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions*, 2, 131-143.
- Thorndike, R. L., Hagen, E.P., & Sattler, J. M. (1986). *Guide for administering and scoring the Stanford-Binet* (4th Ed.). Chicago: Riverside.
- U.S. Department of Education. *Individuals with Disabilities Education Improvement Act of 2004* (IDEA). Retrieved December 20, 2007 from www.ed.gov/policy/speced/guid/idea/idea2004.html.
- Vaughn Gross Center for Reading and Language Arts at the University of Texas at Austin. (2005). *Introduction to the 3-Tier Reading Model: Reducing reading difficulties for kindergarten through third grade students* (4th ed.). Austin, TX: Author.
- Vaughn, S. (2003) *How many tiers are needed for response to intervention to achieve acceptable prevention outcomes*. Presented at National Research Center on Learning Disabilities RTI Symposium, Kansas City, Mo, December 5, 2003.
- Wedl, R. J. (2005). *Response to intervention: An alternative to traditional eligibility criteria for students with disabilities*. Minnesota: Education Evolving.
- Will, M. (1986). Educating children with learning problems. *Exceptional Children*, 53, 411-415.
- Yang, H. & Wang, H. (1994). Special education in China. *Journal of Special Education*, 28 (1), 93-105.
- Zhang, E. (2008, January). The protection of rights of people with disabilities in China. *Disability World*, 28. Retrieved January 16, 2009, from http://www.disabilityworld.org/01_07/china.shtml#2
- Zhang, H. (1988). Psychological measurement in China. *International Journal of Psychology*, 23, 101-117.
- Zhang Liu, G. (2001). *Chinese culture and disability: Information for U.S. service providers*. Retrieved December 28, 2008 from Center for International Rehabilitation Research Information and Exchange Web Site: <http://cirrie.buffalo.edu/china.html>
- Zhou, Z. & Peverley, S. T. (2003). Foreword to the special issue: Psychoeducational and psychosocial functioning of Chinese children. *Psychology in Schools*, 40 (1), 1-4.