

# Educating Exceptional Children:

Jacqueline Specht, Ph.D

The Oxford dictionary defines exceptionality as “forming an exception; very unusual; outstandingly good”. The thesaurus on my word processor provided the following synonyms: outstanding, excellent, brilliant, antonym of ordinary. Isn't it interesting, then, that when we investigate exceptionality in education and psychology textbooks and journals, we define it in ways that focus on limitations, with synonyms like disability, special needs, and “at risk”?

The current article will focus on the issue of exceptionality as one that presents issues for the teacher in terms of meeting the learning needs of students. That is, children can be thought of as exceptional if they are different from the “norm”. However, not all children who are different from the norm present issues about which classroom teachers would be concerned. For example, the child who is left handed is different from the norm, but we do not need think twice about providing her with left-handed scissors.

## Definition and Diagnosis of Exceptionality

The reasons for school problems can be broad and complex. Although statistics on children with school problems vary, we tend to see exceptionalities occur in the general population of children at approximately the following rates: learning disabilities, 7-10%; emotional disturbances, 5-10%; ADHD, 5%; chronic illness, 5% and mental retardation, 2-3%.<sup>1</sup>

In defining exceptionality, it is sometimes useful to differentiate between the types of exceptionalities and their incidence. High incidence conditions occur frequently in the groups of children labelled as exceptional. Learning disabilities are the most common, representing an estimated 50% of exceptionalities in the classroom. Other high incidence disabilities include speech impairments, mental retardation, and behavioural disturbances. Low incidence disabilities are less common and include multiple disabilities, hearing, visual, and orthopaedic impairments.

The frequency with which teachers see these exceptionalities affects their ability to understand and program for the child. If a teacher sees a child with a learning disability in every class she teaches, she will have a better sense of how to deal with the student's needs than she might when presented with a child who has Rett's syndrome (an exceptionality with a low incidence). The challenges teachers face when program planning for children with exceptionalities arise from both a lack of experience or knowledge and a lack of resources. Resources for working with children with special needs tend to be more plentiful for high incidence than for low incidence exceptionalities. In any case, the link between exceptionalities (whether high or low incidence) and resources lies in the diagnosis.



While the purpose of diagnosing an exceptionality from an educational perspective is to assist in the development of an Individualized Education Plan (IEP), the financial implications of diagnosis are significant as well.

As a result of this link, diagnosis has become a central concern for educators working with children who are having difficulty learning in a regular classroom setting. While the purpose of diagnosing an exceptionality from an educational perspective is to assist in the development of an Individualized Education Plan (IEP), the financial implications of diagnosis are significant as well. Some exceptionalities will be diagnosed before the child gets to school (e.g., Down Syndrome); however, the issues surrounding the education of the child will only be discussed once the child is enrolled. Other exceptionalities (e.g., learning disability) typically are not diagnosed until the child is in school, as they are difficult to identify until the child enters the learning environment. In either case, diagnosis is the key to financial support for special programs.

Most school systems use a team-based approach for

# Current Issue for Educators

diagnosis. Parents, professionals hired by the school board (e.g., teachers and psychologists), and outside professionals (e.g., occupational therapists and physicians) interact to determine the best plan of action for the child at school. The typical first-line assessment to determine special learning needs is an intelligence test. Why? Because most of the funding for learning needs has IQ at the centre of its definition. Children who are labelled mentally retarded have an IQ on the Wechsler Intelligence Scale below 70 (roughly the lower two percent). Children who are gifted have an IQ above 130 (roughly the upper two percent). Children who are diagnosed as having a learning disability must have at least average intelligence and perform poorly in school for reasons that are not related to sensory impairment, emotional disturbance, or lack of stimulating environment (e.g., gaps in education because of illness or frequent family moves).

## Is the Intelligence Test the Best Measure?

Historically, intelligence tests were developed to predict school achievement: and that they do. The highest single predictor of success in school is a child's score on an intelligence test. This strong relationship exists, especially at elementary school, because intelligence tests are static; they tell us what the child has learned rather than what the child has the ability to learn. We know that past learning does tend to predict future learning. However, we cannot predict with 100% accuracy how children will do in school simply by knowing their IQ scores.

The intelligence test is the best place to start, but it may not be the best measure on its own. One test cannot answer all questions; in fact, it may raise more questions than it answers. For example, if it was determined that a child who was having difficulty learning to read had average intelligence, we would not diagnose a learning disability until we ruled out other explanations. Perhaps the child is having difficulty hearing the sound correspondence because of a hearing loss; perhaps she is having difficulty seeing the letters up close and requires corrective lenses. The best assessment process is one that taps the knowledge and expertise of professionals to address intellectual, academic, and medical functioning.

Linda Siegel, a professor at the University of British Columbia, is vocal about a larger issue around the use of the IQ score in the diagnosis of learning disability. As mentioned previously, if there is a gap between school performance and potential as measured by the IQ test, the child is diagnosed with a learning disability. In a recent issue of the *Journal of Learning Disabilities*, Siegel discusses the work that she and her colleagues have undertaken. They have shown in numerous studies that some children who have a learning

disability do not show this gap, while others have the gap, but show no academic difficulties. Furthermore, IQ scores do not predict who will benefit from remediation and who will not. Siegel's point, and one that bears repeating here, is that "we should abandon the concept of IQ and turn our efforts toward early identification, early intervention and remediation"<sup>2</sup> That is, we should be concerned less with a child's IQ level and more with what is interfering with the child's learning and how to best assist the child.

Others, however, argue that alternate approaches may be problematic in that intelligence tests do provide learning profiles to help psychologists program for children in the classroom. Their concern is that throwing out the discrepancy model and replacing it with something else that may be equally flawed will not accomplish the goal of identifying specific learning needs and strategies for exceptional children in the classroom. Too often, educators tend to throw out whole programs and replace them with new programs that have not been adequately assessed. This is an argument, according to some, for good academic research to find alternatives to IQ discrepancy as a diagnostic measure.<sup>3</sup> It is safe to say that no program of assessment is perfect and that this issue is one that will continue to be the subject of debate.

## Neurological Basis of Learning Exceptionalities in Children

Research that examines the brain in relation to learning provides us with potential information about what may underlie some learning and behaviour exceptionalities.

There is no doubt that the brain is involved in learning. The brain rules who we are and what we do. A constant finding reported in the research literature is that the brains of children with exceptionalities are different than the brains of typically developing children. Two disorders that have received a lot of attention in this area are ADHD and dyslexia.

Children with ADHD tend to exhibit impulsive and inappropriate behaviours. Barkley, in discussing the issue of ADHD from the aspect of behavioural inhibition (i.e., the ability to stop inappropriate behaviours that are being punished and/or not rewarded), noted that the region of the brain associated with

A constant finding reported in the research literature is that the brains of children with exceptionalities are different than the brains of typically developing children.

determining prevalence rather than to a true increase.

Not surprisingly, public concern about increased numbers of children diagnosed with exceptionalities has led to widespread speculation by individuals and special interest groups that environmental factors are to blame. For example there have been recent claims of a link between the measles, mumps and rubella vaccination in early childhood and the increase in autistic spectrum disorders. The medical community has not found any evidence to substantiate this link. Wise consumers of information need to question the source and the research methodology underlying attempts to link environmental factors with learning exceptionalities.

## Conclusion

Most current educational programs for children with learning exceptionalities depend for their funding on a stringent diagnostic and labelling process. Yet, when educators discuss exceptionality, they tend to focus on classroom modification and what teachers can and cannot do. Perhaps it would be wise to follow their lead and encourage more research into the ways we can help children who are having difficulty achieving, with less emphasis on the issues of diagnosis and labelling.

Consider the initial example of the child who is left-handed. Not so long ago this child would have been forced to use her right hand because left-handedness was a sign of the devil. Perhaps our current attitudes and understandings of learning exceptionalities will go the way of our beliefs about the left-handed child. ☺

- 1 D.M. Phillips, S.K. Longlett, C. Mulrine, J. Kruse, and R. Kewney, "School Problems and the Family Physician," *American Family Physician*, 1999 ([www.aafp.org/afp/990515ap/2816.html](http://www.aafp.org/afp/990515ap/2816.html)) downloaded September 10, 2003.
- 2 A. D'Angiulli and L. S. Siegel, L. S., "Cognitive Functioning as Measured by the WISC-R: Do Children with Learning Disabilities Have Distinctive Patterns of Performance?" *Journal of Learning Disabilities*, 36 (2003): 448-58.
- 3 D. S. Bailey, "Who is Learning Disabled?" *Monitor on Psychology* 34, no. 8 (2003): 58-60.
- 4 R. A. Barkley, *ADHD and the Nature of Self-Control* (New York: Guilford, 1997).
- 5 H. C. Quay, "Inhibition and Attention Deficit Hyperactivity Disorders," *Journal of Abnormal Child Psychology*, 25 (1997): 7-13.
- 6 J. N. Giedd, F. X. Castellanos, B.J. Casey, P. Kozuch, A.C. King,, S. D. Hamburger, and J.L. Rapoport, "Qualitative Morphology of the Corpus Callosum in Attention Deficit Hyperactivity Disorder," *American Journal of Psychiatry*, 151 (1994): 665-669.

## EN BREF

La plupart des programmes éducatifs pour les enfants qui ont des troubles d'apprentissage sont financés sur la base d'un diagnostic strict et d'un processus d'étiquetage fondé, plus souvent qu'autrement, sur des tests de quotient intellectuel. Même si ces tests peuvent constituer un bon point de départ, ils suscitent souvent plus de questions que de réponses. Or, la recherche indique que les cerveaux d'enfants qui ont des besoins particuliers sont différents de ceux d'enfants qui se développent normalement. Quelle que soit la méthode de mesure utilisée, il semble que le nombre d'enfants qui ont des besoins particuliers s'accroît. Cette apparente augmentation est sans doute due à un meilleur dépistage, à de nouveaux critères et à des méthodes différentes de celles du passé pour déterminer la prévalence des troubles.

- 7 J. I. Breier, P. G. Simos, G. Zouridakis, and A.C. Papanicolaou, "Lateralization of Activity Associated with Language Function Using Magnetoencephalography: A Reliability Study," *Journal of Clinical Neuropsychology*, 17, 2000: 503-510.
- 8 J. I. Breier, P. G. Simos, J. M. Fletcher, E. M. Castillo, W. Zhang & A.C. Papanicolaou, "Abnormal Activation of Temporoparietal Language Areas During Phonetic Analysis in Children with Dyslexia," *Neuropsychology*, 17(4), 2003.
- 9 M. J. Adams, R. Treiman, M. Pressley, "Reading, Writing, and Literacy," in *Handbook of Child Psychology, Vol. 4, Child Psychology in Practice*, eds. I. Siegel and A. Renninger (New York: Wiley, 1998).
- 10 H. R. Searight and A. L. McLaren, "Attention-Deficit Hyperactivity Disorder: The Medicalization of Misbehaviour," *Journal of Clinical Psychology in Medical Settings* 5 (1998): 467-495.
- 11 L. H. Diller, "The Run on Ritalin: Attention Deficit Disorder and Stimulant Treatment in the 1990s," *Hastings Center Report* 26 (1996):12-18.
- 12 T. Charman, "The Prevalence of Autism Spectrum Disorders: Recent Evidence and Future Changes," *European Child & Adolescent Psychiatry*, 11 (2002): 249-256.

**Jacqueline Specht** is an associate professor in the Faculty of Education at the University of Western Ontario. She is a research associate with the Centre for Communicative and Cognitive Disabilities at UWO ([www.edu.uwo.ca/cccd](http://www.edu.uwo.ca/cccd)) and an investigator with the Research Alliance for Children with Special Needs ([www.racs.n.ca](http://www.racs.n.ca)), funded by the Social Sciences and Humanities Research Council Of Canada. Her research interests include the psychosocial aspects of children with special needs.

# pdstore.com

A not-for-profit online bookstore featuring learning resources of all types, hard to find textbooks, teacher resources and more!



[www.pdstore.com](http://www.pdstore.com)