



Review Article

A Review of Definitions and Identifications of Specific Learning Disabilities in Malaysia and Challenges in Provision of Services

Dzalani, H.^{1*} and Shamsuddin, K.²

¹*Occupational Therapy Programme, School of Rehabilitation, Faculty of Health Sciences, Universiti Kebangsaan Malaysia, Jalan Raja Muda Abdul Aziz, 50300 Kuala Lumpur, Malaysia*

²*Department of Community Health, Faculty of Medicine, Universiti Kebangsaan Malaysia, Jalan Yaakob Latif, Bandar Tun Razak, 56000 Cheras, Kuala Lumpur, Malaysia*

ABSTRACT

This paper aims to highlight issues on differences in definitions and terminologies of specific learning disabilities used in Malaysia compared to those used in some other countries based on published and unpublished materials on learning disabilities/specific learning disabilities. In Malaysia, a broad generic definition of ‘learning disabilities’ is adopted and this approach poses challenges in providing support and services for those with this disabilities. Lack of standardized and culturally sensitive measurements and the limited number of professionals with specialized training to deal with identification of those with specific learning disabilities are other challenges faced in this country. This paper advocates a review of the current definitions of specific learning disabilities to one that can better guide planning and provision of appropriate services to the target group in Malaysia.

Keywords: Definition, learning disabilities, specific learning disabilities

INTRODUCTION

The term learning disabilities (LD) was first established in the United States in 1962 by Dr. Samuel Kirk. This terminology is used

to describe students who puzzled parents and teachers with their low academic achievement despite normal physical appearance like that of typical students (Vaughn *et al.*, 2000). To date, the term Specific Learning Disabilities (SLD) is commonly used in the international context to refer to those previously known as having LD. In the United States, about 4% of the students attending public schools are estimated to have SLD.

ARTICLE INFO

Article history:

Received: 1 March 2012

Accepted: 28 August 2012

E-mail addresses:

liedza69@yahoo.com (Dzalani, H.),

khadijah@ppukm.ukm.my (Shamsuddin, K.)

* Corresponding author

In Malaysia, the Social Welfare Departments (SWD) as cited in Aminah Bee et al. (2009) reported that 38.7% of registered persons with disabilities in the country are those having 'learning disabilities'. The significant number reported by the SWD raised concern on the criteria used for identification. In addition, ineffective interventions for persons with LD/SLD may be due to the very broad and heterogeneous definition of 'learning disabilities' used locally. The current criteria used in identification of persons with LD/SLD in Malaysia lead to misclassification and subsequent inadequacy of services.

This paper aims at highlighting issues of definitions and terminologies related to LD/SLD used in Malaysia. It will also compare definitions used in other countries with that used locally and the challenges this posed on services provision for those labelled as having SLD. This review was based on analysis of published and unpublished materials on learning disabilities in Malaysia and overseas.

GLOBAL DEFINITIONS OF SPECIFIC LEARNING DISABILITIES

The definition of SLD used in the United States (U.S.) has been widely adopted by other countries such as Canada (Learning Disabilities Association of Canada, 2002), Australia (Klassen *et al.*, 2005), Japan (Kataoka *et al.*, 2001), Hong Kong (Lau, 1998; Hong Kong Society of Child Neurology and Developmental Paediatrics (HKCNDP), 2006) and South Korea (Jung, 2007).

The most commonly cited definition of SLD is the definition established by IDEA (Individual with Disability Education Act) and the National Joint Committee on Learning Disabilities (NJCLD) (Kavale & Forness, 2000). The definition held by NJCLD, [the committee that was formed by the representatives of eight U.S. national organizations that have major interest in SLD], is found to be the most precise definition for SLD and has obtained a high level of acceptance among many national associations in the United States (Hamill, 1990; Hammond, 1996).

NJCLD refers SLD as "a heterogeneous group of disorders manifested by significant difficulties in the learning and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span. Problems in self-regulatory behaviours, social perception, and social interaction may exist with SLD but do not, by themselves, constitute a SLD. Although SLD may occur concomitantly with other disabilities (e.g.: sensory impairment, intellectual disabilities, serious emotional disturbance), or with extrinsic influences (e.g. cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences" (NJCLD, 1998, p.1).

In Japan, the Committee on Guidance/Education Planning for Children with Learning Disabilities, 1999, defined SLD as the disability that consists of

“varied conditions, fundamentally without intellectual disabilities, manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, calculating or reasoning. Learning disabilities are presumed to be caused by central nervous system dysfunction rather than visual impairment, hearing impairment, intellectual handicap, emotional disturbance, or environmental influences being the direct cause” (Kataoka *et al.*., 2001, p. 3).

In Hong Kong, the Hong Kong Society of Child Neurology and Developmental Paediatrics (HKCNDP) refers SLD to a group of disorders manifested as significant difficulties in the acquisition and use of listening, speaking, reading, writing or mathematical abilities, despite access to conventional teaching. These disorders are intrinsic to the individual and neurobiological in origin, with onset in childhood and extending beyond it. SLD is not the direct result of sensory impairment, mental retardation, social and emotional disturbance or environmental influences (e.g., cultural differences or insufficient/inappropriate instruction), (HKCNDP, 2006).

In the United Kingdom (UK), the term learning disabilities or learning difficulties are used to refer to those with lower intellectual functioning (Heslop & Abbott, 2008; Abbott & Heslop, 2009). The term “SLD” in UK is used to describe individuals that demonstrate similar characteristics to those described as having LD/SLD in the United States and many other countries like Japan and Canada (Reid, 2003).

With regards services, in many developed countries with more standardized definition of SLD such as the United States, UK and Canada, services for persons with SLD has become a national concern. Since persons with SLD has intellectual capacity to learn but experienced difficulties in specific cognitive and processing functions, students in these countries were placed in mainstream classes but are provided with academic support and accommodations. In the United States for example, educational services for SLD are mandated by the education acts (IDEA, 2004; Test *et al.*, 2006). Support and accommodations include remedial teaching and incorporation of instructional learning strategies skills, academic remediation strategies, testing accommodations, and the use of assistive technology in assisting students with SLD facing academic problems at all education levels, primary, secondary and post-secondary education/training institutions.

Literature on characteristics of persons with SLD showed that SLD is not an exclusively academic related problem (Lam, 2009; Lerner, 2003; Rojewski, 1992). In the United States, their education acts had mandated schools to provide transition services for transition aged students no later than age 16 years. The act requires individual transition planning be developed to help prepare students to engage in the post-school outcomes of their interest and these may be post-secondary education/training and/or employment. Vocational rehabilitation services are also provided for school leavers with SLD (Koller, 1994).

In Asia, the HKCNDP following the use of standardized definition of SLD had urged the Hong Kong government to provide necessary services for persons with SLD. The services include early identification, assessment, education remediation and accommodations, examination accommodations, school support, and services for higher education and adults with SLD, as well as provision of community support and development of self-help groups, and professional training for those dealing with persons with SLD (HKCNDP, 2006).

DEFINITIONS OF SPECIFIC LEARNING DISABILITIES IN MALAYSIA

In Malaysia, the term LD is more commonly used than the term SLD. The definition of Learning Disabilities is established mainly for registration purposes for support and services. There is no specific formal definition for SLD (Gomez, 2004). The description of 'learning disabilities' used in Malaysia is likened to that of the UK definition. This is not surprising since historically Malaysia was under the British rule before gaining independence in 1957. Many education officers and teachers had been sent and continued to be sent to UK to be trained. However, this generic definition raised challenges in providing support and services as well as researches relevant for each sub-groups within the current broadly defined 'learning disabilities'.

Generally, there are two different approaches for defining Learning Disabilities. First, is the definition used in

the medical field while the other refers to the one used by the educational and social services such as those provided by the Ministry of Women, Family, and Community Development and the Ministry of Education. Medical officers, paediatricians, paediatric neurologists and child psychiatrists establish the diagnosis of LD/SLD based on the guidelines of Learning Disorders outlined in the Diagnostic Statistical Manual IV (DSM IV). Learning Disorders (Previously known as Academic Skills Disorders) are divided into four categories (American Psychiatry Association, 2000; Fauman, 1994; First & Tasman, 2004). The group consists of 'Reading Disorder'/Dyslexia (F315.00), 'Mathematics Disorder'/Dyscalculia (F315.1), 'Disorder of Written Expression' (F315.2) and 'Learning Disorders Not Otherwise Specified' (Learning Disorder NOS; F315.9). According to DSM-IV-TR guidelines, the diagnosis of learning disorders are established when the person's reading achievement, mathematical ability and/or writing skills, is substantially below the expected "grade" as measured by individually administered standardized tests, given the person's chronological age, measured intelligence, and age appropriate education (First & Tasman, 2004). DSM-IV-TR also emphasized the importance of understanding the underlying processes that include 'input' (e.g. visual or auditory perception), 'integration' (e.g. sequencing, abstracting, and organization), 'memory' (e.g. short-term, rote, and long-term) and 'output' (e.g. language and motor) (First & Tasman, 2004).

For social welfare purposes, medical officers are compelled to use the term 'learning disabilities' as imposed by the Social Welfare Department for disabilities registration (Social Welfare Department, 2009). However, local articles on Learning Disabilities written by health care providers continues to use the term 'learning disorders' (Amar, 2008) or its specific subtypes such as 'dyslexia' (Normah, Shalisah & Nor'izam, 1999)

The Social Welfare Department (SWD), under the Ministry of Women, Family, and Community Development has established seven categories of disability for registration purposes. These categories are hearing disability, visual disability, speech disability, physical disability, 'learning disabilities', mental disability and multiple disabilities (Social Welfare Department, 2010). Disability registration with SWD enables persons with disabilities in Malaysia to receive supports and services provided by the government and government-linked agencies. Upon registration, they are given a card with their personal information such as photo, name, address and type of disability, and are eligible for public support. However, the SWD has its own operational definition of Learning Disabilities. It refers to those with intellectual ability (mental age) that is not in accordance with their chronological age and also demonstrated profound difficulties in performing their daily livings. Conditions included under this category are global developmental delay, Down syndrome, ADHD, autism, intellectual disability, slow learner and

SLD. The SWD has used the term 'learning disabilities' more broadly to provide support as well as education, employment and social services for more affected individuals. In the earlier years, the SWD had also used the term 'intellectual disability' (Khairul Anuar, 2004) to the group currently labelled as those with 'learning disabilities' in Malaysia.

The Ministry of Education Malaysia recognised SLD as a category of students with special needs. The Ministry of Education refers the term SLD to students who are unable to learn in the mainstream education classroom setting. The teachers observe a difference between the achievements of these students and the rest of the class in regards to their reading, writing and arithmetic skills. The ministry through its Special Education Division, refers the term 'learning disabilities' to a group of students with special needs who has learning problems in schools (Special Education Division, 2012). Their learning difficulties could be due to intellectual dysfunction, neurological syndromes and/or neurological processing problems. The term 'learning disabilities' as used by the Ministry of Education is the same as the one that is used by the Social Welfare Department. However, the Ministry of Education, has in addition established its own definition for the SLD (dyslexia) condition, which refers dyslexia to individuals who seemed to have intellectual functioning equivalent or above typical students at similar age but have significant difficulty in spelling, reading and writing. These students have low academic

achievement, generally 2 years behind their peers without disabilities (Special Education Department, 2003).

‘Learning disabilities’ definition, as defined and used by the SWD is also being adopted by other government and non-government organizations (NGOs) in Malaysia. Generally the usage of this term demonstrates eligibility for disability support and services (Fonseca, 1996). However, there are NGOs, such as the Dyslexia Association of Malaysia which provides services for people with dyslexia, which used an SLD definition drawn from the international literature (Dyslexia Association of Malaysia, 2011).

IDENTIFICATION OF SPECIFIC LEARNING DISABILITIES

A discrepancy between intellectual ability and academic achievement is the long-established method in identification of SLD in most developed countries. The IQ-achievement discrepancy refers to the concept of “unexpected” achievements in the SLD definition. The child’s achievement (mostly refer to academic achievement) is low compared to his or her ability (mostly refer to intellectual capacity). The ability-achievement is measured using standardized tools such as Kaufman Assessment Battery for Children (K-ABC) and Wechsler Intelligence Scale for Children (WISC). However, this traditional approach of identification is criticised for its limitations especially in the development of intervention for persons with SLD.

The IQ test which measures the general intelligence performance “g” is necessary in identification of persons with SLD. It helps rule out intellectual disabilities, slow learner and ability-expectation mismatch (Wodrich & Schmitt, 2006). However, some scholars in the field of SLD in the United States disagreed on the use of IQ in defining person with learning disabilities. Seigel (1989) argued that the IQ test score is inappropriate as measurement of a person’s intelligence in defining SLD as it fails to predict the specific cognitive functions central to academic skills, reading, spelling, and language task. Furthermore, studies had shown higher reading achievement in individuals with low IQ (Seigel, 1989; Share *et al.*, 1989). In addition, academic achievement is also influenced by other factors such as motivation, self-discipline, attention, motor and phonological processing skills (Duckworth & Seligman, 2005; Rindermann & Neubauer, 2001). The ability-achievement discrepancy approach is criticised for its disadvantages in identification of children with SLD. This includes its inability to discriminate between children with SLD from those who are ‘low achievers’ (Fletcher *et al.*, 1994; Hale *et al.*, 2011) and leads to a ‘wait-to-fail’ situation before children with SLD get needed services (Vaughn & Fuchs, 2003; Hale *et al.*, 2011).

‘Response to intervention’ (RTI) is a new alternative approach to definition and identification of SLD that is currently being researched and practiced in the United States. The main criterion of this approach

is the replacement of the use of the IQ score test as measurement for the achievement discrepancy approach (Fletcher *et al.*, 2004, Fuchs & Fuchs, 2006). RTI focuses on discrepancies relative to age-based expectations and instructions instead of cognitive discrepancy (Fletcher & Vaughn, 2009). Many scholars in this field supported the RTI process-based identification of SLD (Fletcher *et al.*, 2004, and 2011, Fuchs & Fusch, 1998; Ysseldyke, 2005). Using this approach, students who do not benefit from general education classroom are given research-based interventions. Those who do not respond to interventions, labelled as 'non-responders' are provided with additional intensive interventions. Students who consistently fail to show response to these intensive interventions are deemed to need special education services (Sotelo-Dynega *et al.*, 2011) and are required to undergo more comprehensive evaluation to determine their eligibility for special education and identification of SLD (Fletcher *et al.*, 2011).

The most recent approach in identification of SLD uses 'research-based procedures'. This approach uses alternative research-based procedures instead of conventional IQ achievement-based assessment in the evaluation of the strengths and weaknesses of persons with SLD in their abilities (Hale *et al.*, 2011; Sotelo-Dynega *et al.*, 2011). The individual standardized cognitive and achievement measures are used to identify the cognitive strengths, cognitive deficits, and achievement deficits associated with the cognitive deficit

(Hale *et al.*, 2008). An example of this research-based procedures approach is the 'Concordance-Discordance Model' by Hale & Fiorello (2004). The Federal Regulations for identification methods for students with SLD in the United States permitted three methods of identification which are Ability-Achievement Discrepancy, RTI and Alternative Research-Based Procedures (United States Department of Education, 2006). In addition, many researchers suggested the use of comprehensive evaluation of cognitive and/or neuropsychological processes in identification of SLD even if the RTI approach is used first (Fletcher *et al.*, 2005; Kavale & Spaulding, 2008; Hale *et al.*, 2006, 2011; Wodrich *et al.*, 2006).

IDENTIFICATION OF SPECIFIC LEARNING DISABILITIES IN MALAYSIA

In 2003, the Special Education Division, Ministry of Education developed a local instrument, the Instrumen Senarai Semak Disleksia (ISD), to screen students in the primary schools suspected to have dyslexia. This screening instrument consists of three elements: (i) students' level of mastery in reading and writing (spelling) and numeracy skills (difficulties); (ii) teachers'/ parents' perception of students' abilities (strengths); and (iii) predictors of dyslexia. The purpose of the screening instrument is to help teachers identify students who have or who are at risk of having dyslexia. Using this instrument, students who are identified as probably having dyslexia are further

referred to the medical or healthcare services for confirmation of the diagnoses (Ministry of Education, 2003).

The Ministry of Education Malaysia introduced the Literacy and Numeracy Screening (LINUS) programme for primary school children in 2010. The LINUS program aim for each child to master their basic literacy and numeracy skill after following the three year primary education (Ministry of Education, 2010a). Children are screened using LINUS Assessment for their reading, writing and arithmetic skills when they enter primary school at age 6 years. Three LINUS assessments are carried out for year one students in March, June and September. Those who fail this screening are either placed in LINUS programme or referred to the health facilities for diagnostic evaluation prior to placement in programs for students with special education needs. The LINUS intervention program focuses on improving the students' basic reading, writing and arithmetic skills. Remedial teachers and selected high performance teachers are assigned to teach students in the remedial classes which consist of smaller number of students (Ministry of Education, 2010a). This recent move by the Ministry of Education is seen as a positive step towards early identification of students with 'learning disabilities' in Malaysia (The Star, 2012). Toh *et al.* (2011) found that out of 93 primary one students who were referred for 'learning disabilities' at Lau King Howe Memorial Children Clinic, 72% of them failed the LINUS assessment. Although the clinical diagnosis and non-verbal ability of

these students varied, the majority of them do not have intellectual disability. Toh *et al.* (2011) reported that 10.8% of the year one student in their study had SLD.

In Malaysia, the clinical psychologists are responsible in providing data on children behaviour psychological performances that are normally required to establish diagnosis. The Wechsler Intelligence Scale for Children (WISC) is commonly used as a clinical tool to provide a child's IQ estimation score. The evaluation of child's behaviour (for example, Vineland Adaptive Behaviour Scales, Child Behaviour Checklist), dyslexia characteristics using Dyslexia Screening Test, the child's academic/school performances (based on teachers report and/or tests in the clinic), and family report are equally important and have been taken into consideration when making a diagnosis. The diagnosis is established based on the input from a multi-disciplinary team which most commonly consist of clinical psychologist, psychiatrist and/or paediatrician.

CHALLENGES IN PROVIDING SUPPORT AND SERVICES FOR INDIVIDUALS WITH SPECIFIC LEARNING DISABILITIES IN MALAYSIA

Standardized definition is essential for accurate identification of persons with SLD for the purpose of services planning and implementation (Fonseca, 1996; Jung, 2007). Standardized definition facilitates assessment, intervention and research on the problems and needs of this group. The absence of consensus on the standardized definition makes estimation of its prevalence

difficult and this will compromise services provision (Jung, 2007).

In Malaysia, services including educational and social services for persons with SLD are deemed for those grouped under the umbrella term 'learning disabilities' by the SWD. Historically, special education services for people with disabilities in Malaysia started with services for persons with sensory disabilities (hearing and visual impairment) and subsequently followed for those with intellectual disabilities (Aminah Bee *et al.*, 2009; Jamila, 2005). The Special education classes for students with 'learning disabilities' at government funded schools were started in 1988 for primary school children and in 1995 for secondary school students (Jamila, 2005). It is only recently, since 2004 that the education programme for students with dyslexia is made available in the governments funded schools. In other word, the special education classes for students with 'learning disabilities' were established mainly to serve children with intellectual disabilities who were previously known as 'mentally handicap' and not those with SLD. Many students with SLD are left to struggle in the mainstream classes due to lack of support from the education system and are at risk of becoming academic failures or labelled as low achieving students (Sariah, 2008). It is of no surprise when many parents share their deep feelings of dissatisfaction and concerns on the unmet needs of their children within the local educational system in their conversations and discussions on these issues (Sariah, 2008; The Star, 2010; Suet, 2007; personal interviews with parents).

The Ministry of Education special programme, the 'dyslexia programme', was initiated following the implementation of the dyslexia screening instruments in schools. However, this programme is limited to children in primary and secondary schools. Support and services at post-secondary school level are not documented. Currently the 'dyslexia programme' is available in 51 primary schools and 16 secondary schools all over Malaysia (Ministry of Education, 2010b). This number is relatively small compared to the number of students with SLD in the country. In schools with no 'dyslexia programme', students with SLD can choose to study in either mainstream classes without support services from special education teachers or opt to follow the Special Education Integrated Program (SEIP). According to their performance, students with SLD who followed the SEIP are placed in either the inclusive class (together with typical students and following the mainstream curriculum) or segregated class (with students with 'learning disabilities'; and following alternative curriculum). Support and services for students with SLD in the inclusive or segregated classes vary based on available resources in schools. In addition, the alternative SEIP curriculum developed for students with intellectual disabilities had been criticised as being inappropriate for those with SLD (Sariah, 2008). Mohd Sharani (2004) emphasised that students with special needs including those with SLD should use similar curriculum to that given to typical students in the mainstream classes. However, modification of the curriculum

should be made whenever necessary and supported by the best teaching and learning approaches (Mohd Sharani, 2004). Adnan and Hafiz (2001) had suggested that the current approaches in the implementation of inclusive education in Malaysia are due to the inability to define and characterise persons with disabilities in this country.

While educational services for students with SLD has received considerable attention from the Ministry of Education, advocates of those with SLD including parents of children with SLD, as well as special educators and professionals involved in this group perceived that progress is relatively slow and inadequate (Star, 2003; Cho, 2005; Suet, 2007). They felt that the political will and commitment on the development of services for person with SLD in Malaysia is still relatively low. Jung (2007) suggested governments' low supports for research based definition and identification of SLD is due to concern about cost since special education services is expensive.

In Malaysia, the number of professionals such as child psychiatrists, paediatricians/child neurologists and clinical psychologists, necessary for identification and evaluation of children with learning disabilities are limited. There is also no educational psychologist placed in schools or the school district offices. In addition to this, we also lack standardized assessments tools that are locally and culturally sensitive. The current practice in identifying persons with SLD involves using the western assessments tools such as the Wechsler's products of intellectual assessments, Vineland Adaptive

Behaviour Scales, Dyslexia Screening Test and academic skills assessments for local use. Although some may use the translated version of these instruments, these are mainly limited to the Malay Language. Moreover, many of these translated assessment tools are still beset by validation issues. Imprecise identification of persons with SLD leads to misconception about their needs for support and services (Jung, 2007; Mohd Zulkifli, 2011).

Disparity in services provision for persons with SLD is evident in countries where definition and identification of persons with SLD are not clear. Like in Malaysia, in South Korea, SLD is recognized as a disorder and included as a category under special education (Jung, 2007). The concept of SLD is not well distinguished from underachievement, slow learning, and mental retardation. Generally there is minimal understanding or misconception of SLD among teachers and parents. The lack of set criteria and assessment instruments for identifying students with SLD in South Korea has lead to inadequate educational services at secondary and tertiary level (Jung, 2007).

The Malaysian broad and generic definition of "learning disabilities" that include SLD as a sub-group also pose challenges on maintaining database and research on SLD. Data from studies that include or combined many disability groups may provide a broad viewpoint on problems faced by persons with disabilities and carry the risk of over generalizing the findings (Caton & Kagan, 2006; Levine & Nourse,

1998). It is of no surprise that special education teachers in this country also have low understanding of 'learning disabilities' and SLD (Mohd Zulkifli, 2012). Two local studies on transition programme for students who attended SEIP in government funded schools, reported findings on broadly defined 'learning disabilities' and did not address the specific needs of sub-groups labelled to have 'learning disabilities' (Abdul Rahman, 2004; Noraini, 2009). Rojewski (1992) recommended that the needs of individuals with SLD must be further studied to ensure that educational and transition programmes offered reflect and fulfil those needs.

RECOMMENDATIONS

Definition of specific learning disabilities

The definition of SLD must to consider the international concept that include what is SLD (using the inclusive criteria); and what SLD is not (using the exclusion criteria) (Hammil, 1990; Kavale & Forness, 2000; NJCLD, 1998). To achieve these, more dynamic approaches to assessment and evaluation are necessary. Psycho-educational assessment which is very limitedly used yet important for identification of LD/SLD should be developed for local use. Professionals involved in this field should receive adequate training to achieve diagnostic competency.

The lack of agreement on the definition of SLD among policy makers and services providers from different agencies may be due to social and political reasons, pressures and needs, and not from empirical and

scientific database (Fonseca, 1996; Keogh, 1986; Lam, 2009). Nevertheless, Fonseca (1996) urged professions involved in this field to take up a professionally honest and accurate definition of SLD for better development of services for this group of people.

Identification of children with learning disabilities

A multidisciplinary team and an inter-sectoral assessment approach are necessary for identification of children with SLD. We need to have effective, efficient and quality screening and assessment services. Professionals involved should equip themselves with the most recent knowledge and information on SLD so that timely and accurate counselling and support can be given to persons with SLD and their families (Chan, 2008).

Research based approach to definition and identification of SLD need to be adopted. The current approach of identifying SLD such as use of RTI needs to be considered for students who are having similar learning problems in our country. However, to apply such approach, Malaysia should ensure the education services provide intense and quality educational instruction and interventions to students who have difficulty in learning or are at risk of such difficulty. Looking at our current educational system and practices, applying the conventional approach of identification of SLD is more reasonable since even in developed countries such as the U.S., where identification and educational and training services for persons

with SLD are mandated by the country's national acts, their educational services require further improvement in its resources and facilities to ensure the validity of the RTI approach (Gerber, 2005; Harr-Robins *et al.*, 2009; Samuels, 2008). However, in line with such moves, more resources should be allocated for research on new modalities for children with SLD in our local contexts.

Assessment for SLD should start early before school entrance. Services should focus on identification at the pre-school level so that early intervention can be initiated focusing on those at risk. For school children suspected of having SLD, diagnosis can be early if made in the schools by educational psychologists using standardized validated tools. The current practice of using clinical psychologists who are limited in numbers, and at hospitals, will further delay diagnosis. Ong *et al.* (2009) estimated the prevalence of SLD (dyslexia) among undergraduate students in Malaysia as 4.66%. Thus, assessment at tertiary level is also necessary to identify students in colleges/universities who are not earlier diagnosed as having SLD. This move will facilitate support services for such students in our local colleges and universities. Ong *et al.* (2009) also recommended that the Ministry of Higher Education as well as universities/colleges draw disability statements or policies for training staff as well as providing support services and accommodations to assist students with SLD to better cope and manage their learning obstacles (Ong *et al.*, 2009).

Research on SLD

Little is known about the characteristics and needs of people with SLD in this country. The number of people having this type of disability is unknown (Gomez, 2004). Accurate and comprehensive data on number of children with disabilities and their characteristics is crucial for planning and improving services (Mooney *et al.*, 2008). Government ministerial report also concurred that "lack of a comprehensive database on disability in the Malaysian context pose the greatest challenge to effective intervention and successful monitoring of policies and programmes regarding real achievements of targeted goals" (Malaysia, 2007). We also need to consider the systematic and scientific way of defining and identifying persons with SLD in Malaysia that reflect the global understanding of the field. Research funds must be provided to study and test new or other concepts and models for providing services to this group.

CONCLUSION

Malaysia has used the generic term LD to describe all persons with 'learning disabilities' and in so doing misclassify SLD and made them 'invisible'. This classification led to inadequate and inappropriate services for this group. Policy makers and services providers need to recognize the problem to better advocate, support and provide appropriate services and interventions for persons with SLD in the country.

ACKNOWLEDGEMENTS

We thank Eria Ping-Ying Li, PhD for her insightful comments.

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