香港特殊學習障礙協會
Hong Kong Association for Specific Learning Disabilities

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Dear Dr Chow,

Access of Students with Specific Learning Disabilities to Tertiary Education in Hong Kong

Specific learning disabilities (SLD) can have significant impact on the social and psychological health of children suffering from it as well as health of their parents. Most oversea studies in juvenile institutions and adult prisons had found that about half of their inmates had dyslexia/ SLD. Other juvenile problems, including early dropout from school, unemployment, delinquency and substance abuse, are associated with SLD (see Appendix 1). There were very few local studies on the impact of SLD on our society. The few local studies had shown similar impacts (see Appendix 2):

- 56% to 67% of students in special schools for maladjusted children have dyslexia.
- More than 25% of youths not engaged in education or employment have dyslexia/ SLD.

Though we (parents) are not researchers or academics, we have personally known many real-life examples of such adverse social and psychological outcomes in Hong Kong. Even among parents of children with SLD, some of them show symptoms of unidentified SLD and have suffered similar adverse outcomes as a result of a lack of support over the years.

Though there has been increasing awareness of SLD in the past 15 years in Hong Kong, educational support for students with SLD is still grossly inadequate. Despite the normal/ superior intelligence (and possibly talents in certain areas) in students with SLD, it is still rare for them to enter into tertiary institutions in Hong Kong. The current prevalence rate of students with SLD in local tertiary institutions is very low, likely <0.1% (based on very crude calculation from Annex VIII of the document “Support Service to Students with Specific Learning Disabilities in Hong Kong Tertiary Institutions: Proposed Guidelines” June 2011). Only a small fraction of students with disabilities in 10 tertiary institutions of Hong Kong are students with SLD (slightly more than 10% of students with disabilities in these tertiary institutions).

If necessary, the current exact figures could be obtained easily by EOC via the respective student affair office of local tertiary institutions on the followings:

- the percentages of students in a tertiary institution suffering from documented SLD (not just any disability/ disabilities in general)
- the proportion of these students suffering from documented SLD admitted through the JUPAS system as compared with those through the non-JUPAS system

EOC could probably obtain these data from all local tertiary institutions in a matter of weeks. Our guess is the results will show that the latest prevalence of students with documented SLD in local tertiary institutions is still very low and that a large proportion of these students actually came from the non-JUPAS admissions (mainly oversea students with known diagnosis of SLD).

Searching through the internet and existing literatures, we have got the following percentages for students with disabilities in oversea universities/ tertiary institutions:

- 18.5% in Germany 2006 (Reference 1)
- 10.8% in USA 2007 (Reference 4)
- 8.6% in UK 2011 (Reference 5)
- 5% in New Zealand 2003 (Reference 6)
- 4.6% in Ireland 2012 (Reference 2)
- 4% in Australia 2006 (Reference 6)

Majority/ a large proportion of students with disabilities in oversea tertiary institutions are students with SLD. SLD contributes to the following percentages of all disabilities in these institutions:

- 66.0% in Denmark 2006 (Reference 1)
- 54% in Ireland 2012 (Reference 2)
- 52.9% in UK 2011 (Reference 5)
- 18.4% in USA 2003 (Reference 3)

Calculating from the above oversea figures, the prevalence of students with SLD in oversea tertiary institutions are appromixately:

- 4.5% in UK 2011 (8.6% x 52.9%)
- 2.5% in Ireland 2012 (4.6% x 54%)
- 2.0% in USA 2003-2007, a bit outdated (10.8% x 18.4%)

These percentages are certainly much higher than our current prevalence of students with SLD in local tertiary institutions (likely <0.1%).

Primary prevention of the occurrence of SLD is not yet possible at the present state of sciences and medical care. Secondary prevention aiming at early detection and reducing secondary handicaps is more cost-effective in the long run. “The hidden cost of dyslexia to a nation” (Appendix 3) highlights the price paid by societies unable or unwilling to deal with these young persons in a timely and effective manner. It is difficult to change factors like broken families, criminality in family, lower socio-economic class status of family etc, but it is much easier to alter the path of a child with SLD with evidence-based early educational support. (Appendix 4). Access to higher education is likely to be protective against the development of these adverse social and psychological outcomes related to SLD.

Our concern is: What are the obstacles in the current local education system which prevent equal opportunities to students with SLD and severely limit the access of these students to tertiary education? We hope that EOC will look into the matter and make it a priority to improve access of students with SLD to local tertiary education.

Please feel free to contact Ms Yip Leung Ching or Ms Gladys Hung at (M) 96682576 or changladys1@netvigator.com.

Yours faithfully,

Ms Yip Leung Ching
(Chairperson of HKASLD)

References

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2. Number of students with disabilities studying in higher education in Ireland 2012-2013, AHEAD, http://www.ahead.ie/userfiles/files/shop/free/PARTICIPATION%20RATES%20REPORT%202012-13.pdf
3. Profile of Undergraduates in U.S. Postsecondary Education Institutions 2003–04, http://files.eric.ed.gov/fulltext/ED491908.pdf
4. Wagner et al, 2005; National Center for Education Statistics, 2009
5. Appendix 2 - Equality and Diversity Student Monitoring Data, Strategic Equality Plan (SEP), Cardiff University, 2013, http://www.cardiff.ac.uk/govrn/cocom/equalityanddiversity/stratequalplan/index.html
6. OECD Reviews of Tertiary Education Tertiary Education for the Knowledge Society Volume 1 and Volume 2, 2008.

List of Appendices

Appendix 1

Oversea Studies on the Relationship between Specific Learning Disabilities (SLD) and Adverse Social Outcomes

Specific Learning Disabilities (SLD) are linked to a variety of social problems in adolescence and young adulthood, including academic under-achievement, school discipline problems, school dropouts, delinquency, substance abuse and unemployment.

1. National Institute of Juvenile Justice & Delinquency Prevention of the U.S. Department of Justice commissioned a 12 year large-scale research project to Creighton University & Association for Children with Learning Disabilities, assisted by Educational Testing Service (Crawford D, 1982) (Reference 1)

   The odds of being **adjudicated delinquent** were 220% greater for adolescents with Learning Disabilities (LD) than their peers without LD. The incidence of LD in the adjudicated delinquents was 36%. There were higher frequencies of **violent acts**, **drug & alcohol use** and **school discipline problems**.

   Individualized intervention programs resulted in dramatic decrease in delinquency and significant improvement in academic achievement.

2. National Longitudinal Transition Study of Special Education conducted in 1987-1993 for the Office of Special Education Programs, U.S. Department of Education (Wagner, Newman et al 1991) (Reference 2)

   35% students with Learning Disabilities (LD) **dropped out of high school**, twice the rate of their peers without disabilities (students with unidentified LD was not included in this figure). 62% students with LD were **unemployed** 1 year after graduating from high school. Within 3-5 years of leaving high school, 31% adolescents with LD will be **arrested** and 50% females with LD will be **mothers (many of them single)**.

3. Learning Disabilities and Substance Abuse are **the most common impediments to the employment of welfare clients** (office of the Inspector General, 1992) (Reference 3)

4. SLD were associated with higher rates of **substance abuse** (Karacostas, Fisher, 1993; Ralph, Barr, 1989; Maag, Irvin, Reid, Vasa, 1994) (References 4-6).

5. Studies of **prevalence of Dyslexia in prison inmates** revealed:

Polmont Young Offenders Institution, Edinburgh, U.K: 50% (Kirk & Reid, 2001) (Reference 7)
Swedish Juvenile Institutions: >70% (Svensson, Lundberg , Jacobson, 2001) (Reference 8)
Swedish Adult Prison: 41% (Jensen, Lindgren, Meurling, Ingvar, Levander, 1999) (Reference 9)
Texas Prison: 48% (Moody, Holzer, roman, Paulsen, Freeman, Haynes, James, 2000) (Reference 10)

A lot of them were unidentified & unassisted previously.

Another research by Dyslexia Institute of UK in 8 prisons across Yorkshire and Humberside (Rack J, 2005) (Reference 11) detected that 20% of these prison population have hidden disabilities (mostly dyslexia comorbid with attention deficit disorder and dyspraxia). A further 32% has literacy difficulties.

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2. Wagner M., Newman L. et al (1991): Youth with disabilities: How are they doing? Report from the National Longitudinal Transition Study of Special Education Students: Menlo Park, CA: SRI International.

3. Office of the Inspector General (1992); functional impairments of AFDC clients; Washington, DC: U.S. Government Printing Office.

4. Karacostas DD, Fisher GL. (1993); Chemical dependency in students with and without learning disabilities; J Learn Disabil. Aug-Sep;26(7):491-5**.**

5. Ralph N, Barr MA (1989); Diagnosing attention-deficit hyperactivity disorder and learning disabilities with chemically dependent adolescents**;** J Psychoactive Drugs. Apr-Jun;21(2):203-15.

6. Maag JW, Irvin DM, Reid R, Vasa SF.(1994); Prevalence and predictors of substance use: a comparison between adolescents with and without learning disabilities**;** J Learn Disabil. Apr;27(4):223-34.

7. Kirk J, Reid G. (2001); An examination of the relationship between dyslexia and offending in young people and the implications for the training system; Dyslexia, Apr-Jun;7(2):77-84.

8. Svensson I, Lundberg I, Jacobson C.(2001); The prevalence of reading and spelling difficulties among inmates of institutions for compulsory care of juvenile delinquents**;** Dyslexia. Apr-Jun;7(2):62-76.

9. Jensen J, Lindgren M, Meurling AW, Ingvar DH, Levander S.(1999); Dyslexia among Swedish prison inmates in relation to neuropsychology and personality**;** J Int Neuropsychol Soc. Jul;5(5):452-61.

10. Moody KC, Holzer CE 3rd, Roman MJ, Paulsen KA, Freeman DH, Haynes M, James TN.(2000); Prevalence of dyslexia among Texas prison inmates**;** Tex Med. Jun;96(6):69-75.

11. Rack J (2005); The Incidence of Hidden Disabilities in the Prison Population: Yorkshire and Humberside Research, the Dyslexia Institute, March 2005

Appendix 2

Local Studies on the Relationship between Specific Learning Disabilities (SLD) and Adverse Social Outcomes

1. Survey of P.3 – 4 students in 2 schools for maladjusted children (陳 靜 琼, 2003) (Reference 1)

56% & 67%of students in 2 special schools for maladjusted children of the Society of Boys were detected to have **Dyslexia**. 93% of these dyslexia cases were not identified previously. 40% of these dyslexia cases were of severe degree. 20% of these students had co-existing Hyperactive Disorder.

2. 青 少 年 持 續 發 展 及 就 業 相 關 培 訓 專 責 小 組 工 作 報 告 (2008) (Reference 2)

26% of non-engaged youth with neither education nor employment was confirmed to have **dyslexia**. The percentage may be closer to 32% if the large number of youths who refused further confirmatory testing in the screened-in sample were biased towards having dyslexia, in view of the affected youths' tendency to deny the disability.

References

1. 陳靜琼 (2003); (編印中):〈香港扶幼會群育學校讀寫障礙學童鑑別研究〉，載石丹理編《情緒行為適應困難的青少年》：華人社會的院護及特殊教育服務 〔香港：商務印書館〔香港〕有限公司〕

2.青少年持續發展及就業相關培訓專責小組工作報告 (2008), 勞工及福利局;
extracted from LC Paper No. CB(2)2635/07-08(01); Report of the Task Force on Continuing Development and Employment-related Training for Youth

Appendix 3

The Hidden Cost of Dyslexia to the Nation: A waste of £1 billion of public money?
Dyslexia Institute July 2005

The Dyslexia Institute estimates that poor literacy and basic skills, as the result of unrecognised dyslexia, costs the UK economy £1 billion per year, which is a staggering £2.75 million daily. This cost for 2003/4 for an individual taxpayer equates to approximately £34 per annum, which is the equivalent of one family's Child Benefit for two weeks.
It is well documented that there is a higher incidence of dyslexia within the prison and probation populations, those excluded from school and the long term unemployed compared to the population as a whole. The Dyslexia Institute conservatively estimates, based on the population norm for the incidence of dyslexia (10%), that a minimum of £368 million per annum is spent on 'unidentified dyslexics' in these sectors. This cost alone could be substantially reduced if these dyslexic individuals had been identified at an early age and provided with adequate and appropriate support.
Shirley Cramer, Chief Executive of the Dyslexia Institute, comments, "The cost to the taxpayer to train one teacher in every primary school to support children with hidden disabilities, such as dyslexia, would be £36 million. This is a fraction of the cost to the treasury of the long-term problems for adults with dyslexia later in life, not to mention the wasted potential, tax revenues and missed contributions to society. ***Providing the right help early in a child's life can help prevent major difficulties later;*** *we should be* ***investing in these children now*** *which will reap rewards for the individual and the public purse."*

Social and economic benefits of dealing with dyslexia early (the hidden cost of dyslexia to the nation): relevant statistics

1. The Cost of Illiteracy

The Dyslexia Institute estimates that poor literacy and basic skills as the result of undiagnosed dyslexia costs the economy £1 billion per year. In 2004-05 this is £34 for each taxpayer.
The Government's Skills for Life, 2004 Needs and Impact Survey revealed that the number of adults in England with poor literacy skills now stands at 5.2 million and 6.8 million have poor numeracy skills. The Government have estimated that adults with poor literacy and numeracy skills could earn up to £50,000 less over their lifetime and are more likely to have health problems. In the Skills for Life Annual Review 2003/4 it is estimated that poor skills cost the country's economy £10 billion every year (at least £1 billion is accounted for by undiagnosed dyslexics based on the population norm for dyslexia - 10%). During the 2002 spending review, a

further 1.6 billion was announced for adult literacy and numeracy provision across Government to 2006. If good early intervention programmes are implemented this costly problem should vastly reduce. The cost of the Skills for Life programme is a direct result of underinvestment in the early years.

2. A Reduction in the Prison Population

It is well evidenced that individuals with undiagnosed dyslexia/ SpLD and other hidden disabilities are overrepresented in the prison population. The latest Government statistics (HM Prison Service, 2004/5) indicate that there are 68,300 inmates in prison in England and Wales. In 2004/5, the Dyslexia Institute conducted a national research project to find out the numbers of individuals in prison with 'hidden disabilities' (dyslexia and related specific learning difficulties such as dyspraxia) The study revealed that 20% of prisoners have hidden disabilities , some 13,660 individuals.

International figures confirm that 10% of the population is affected by dyslexia and other hidden disabilities, in which case at least 10% of the 68,300 offenders might have been prevented from crime and its costly outcomes by early intervention. The cost of keeping an individual in prison in 2003/4 was £27,320 and accordingly there could have been a potential saving of £186m for the year if these offenders had been identified and helped earlier in their lives. There is no evidence to suggest that dyslexics have a higher propensity to offend than any other group. At the present time there is a reconviction rate of 56%[2] and it is our contention that further savings could arise from early intervention.

3. Reduction in Probation Clients

Similarly there are 190,000[3] in the Probation Service at any given time. Again using the evidence from the prison research some 20%, 38,000 clients will have some specific learning difficulties. As those affected by dyslexia are estimated to be around 10% of the population, there is double the representation in the probation service. We have experience of working with probation clients through our pilot schemes and we know that with identification, special teaching, help and support through job applications, they can successfully become employed. Approximately 19,000 probation clients might have been prevented from offending if they had received a good early intervention programme. The cost to the public purse of an individual on probation is said to be around £4,000 per year. The cost of not intervening early is at these prices around £76 million per year and this does not include the lost income from tax revenues from the many that are not able to gain employment due to poor literacy and numeracy skills.

4. School Excluded

The latest figures (DfES June 2005)[5] show that 9,290 school children are permanently excluded. 64% of these are identified as children with special needs. At least 80%[6] of these children will

have dyslexia/SpLD, so that 5,025, over half the children who are school excluded, might have been in school had their issues been identified in the early years. From a recent study by the National Foundation for Education Research (NFER) the cost of provision for a child who is excluded is £9,900 per annum. The cost of supporting these children is then over £50 million for the year.

5. <u>The Long Term Unemployed 25</u> +

The most recent government figures show that 64,500[7] people have been claiming job seekers allowance for at least 2 years. Research indicates that difficulties getting a job relate to literacy and numeracy problems and hidden disabilities. Conservative estimates indicate that around 12,900 of these individuals (20%) did not receive the educational support they needed to succeed. The cost of not having the requisite skills is detrimental to the individual and to the economy. The cost of providing job seekers allowance and other benefits are estimated to cost £ 8,000 per year. As there is double the number lacking in these skills than the numbers of dyslexics in the general population, there is an extra cost of over £ 52 m per year. This is probably an underestimate as the Government estimates that poor skills cost the country's economy £10 billion every year.

The headline cost per annum of not helping those with dyslexia early - across prison, probation, school exclusion and long term unemployment is £364m

This does not include the current cost of special education, lost revenues to the treasury through poor skills, the cost of the Skills for Life programme

6. <u>Higher Level Skills Essential</u>

By 2010 the Government estimates that 80% of new jobs will be at higher-level occupations, requiring higher-level qualifications. In the future undiagnosed dyslexics are likely to be an even bigger drain on the economy as poor skills mean that they are unlikely to be in employment.

Shirley Cramer, Chief Executive
the Dyslexia Institute, UK
July 2005

Sources

1 Prison Service Annual Report & Accounts 2003/4
2 Probation Statistics England & Wales 2002
3 Probation Service Website

4 Permanent Exclusions from Schools & Exclusion Appeals in England 2002/3 (Provisional) *released May 2004*

5 The Market Value of Generic Skills (Green et al. 1999) DfES

6 JSA Quarterly Statistical Survey February 2004

7 Basic Skills Agency 2000

8 Skills for Life Annual Review 2003 – 2004: Progress in raising standards, provision and learner achievements

9 Inland Review – for 2003/4 there were 29.9 million registered taxpayers

10 The cost of providing an effective early intervention programme hinges on training appropriate staff for primary schools. For the relatively small cost of £36 million each primary school in England could have its own specialist teacher. (There are 18,000 primary schools in England)

Appendix 4

EARLY IDENTIFICATION, PREVENTION, AND EARLY INTERVENTION FOR CHILDREN AT-RISK FOR READING FAILURE

G. Reid Lyon and Jack M. Fletcher (2001)

Dr. Lyon is Chief, Child Development and Behavior Branch at the National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD. Dr. Lyon currently serves as an advisor to President George W. Bush on child development and education research and policies. He is a member of the CDL Professional Advisory Board.

Dr. Fletcher is a professor at the University of Texas Health Science Center-Houston, Center for Academic and Reading Skills, in the Department of Pediatrics.

Good readers understand how print represents the sounds of speech, can apply phonemic and phonics skills in a rapid and fluent manner, and possess sufficient vocabularies and other language abilities to actively connect what they are reading to their background knowledge and experiences. Conversely, children who are most likely to have reading difficulties enter kindergarten lacking sufficient phonological processing skills and fail to develop adequate word reading ability. This "bottleneck" in word reading skills limits their ability to ability to learn how to text in a fluent fashion with good comprehension. Their text reading is typically slow and laborious, which impedes their understanding of what is read.

Among these children the effort exerted in reading is frequently not rewarded by enjoyment and learning. Frustration on the part of the child and a decrease in attempts to read are often observed. Limited reading practice and experience result in weak vocabulary development and difficulties in learning other academic subjects. And the cycle goes on (see Fletcher & Lyon, 1998 and Snow, Burns and Griffin, 1998 for a review of these issues).

Unfortunately, most children who have these early difficulties learning to read continue to have them throughout their school careers primarily because they do not receive quality instruction soon enough. Indeed, most children who display the types of reading difficulties described here do not receive "specialized" instruction until the third grade and beyond. This is far too late.

The long term development of reading skills appears difficult to alter the older a child becomes despite attempts to remediate the problem in later elementary school and beyond (Moody, Vaughn, Hughes, & Fisher, 2000). In a recent analysis, Hanushek and his associates (1998) found that placement in special education for reading difficulties was associated with a gain of only 0.04 standard deviations on reading measures. Unfortunately these gains are so small that children are not closing the gap between their academic performance and the demands of what they must learn. Even the most intensive interventions with older readers improve only a subset of critical reading skills (see Torgesen, 1997).

Because most reading remediation efforts have not been effective, a number of recent studies have examined prevention and early intervention approaches that have the potential to reduce the number of children failing to learn to read (see Lyon, Fletcher, et al., 2001 and Torgesen, 2000 for reviews). Torgesen, for example, summarized five prevention and early interventions, all of which resulted in a reduction in reading difficulties among young children. Specifically, in all of the studies, children were identified as at risk for reading failure in kindergarten and first grade based on assessment results that identified the children in the bottom 12-18 percent of the school population in either phonological processing (kindergarten) and word reading skills (first grade). After intervention, the reading performance of the children in the early intervention groups in each of the studies was well within the average range.

The data strongly indicate that **if the interventions used in these studies were available to all children at risk for reading failure, less than six percent of the population would be in need of specialized interventions**, such as those typically provided through special or compensatory education, for reading difficulties later in school. **This is a massive improvement in the development of reading skills among school aged children where currently anywhere from 18 percent to 38 percent of children are not learning to read in our Nation's classrooms.**

In summary, our ability to design and implement effective early identification and intervention programs is undergoing rapid development. Many states, notably Texas and Virginia, have developed assessments for K-2 reading programs that are based upon the scientific evidence on reading development and reading instruction and are teacher administered. Although the purpose of these instruments is to guide instruction, they also do a good job of identifying children at risk for reading difficulties.

The success of these programs in combination with the results derived from high quality early reading intervention studies (see the Report of the National Reading Panel, 2000) tell us

clearly that we must expand prevention and early intervention programs. Our children deserve no less.

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http://www.cdl.org/resource-library/articles/early_id.php?type=subject&id=10

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