香港特殊學習障礙協會
Hong Kong Association for Specific Learning Disabilities
Rm 1, G/F, Yiu Sin House, Upper Wong Tai Sin Estate, Kln

香港兒童腦科及體智發展學會
Hong Kong Society of Child Neurology and Developmental Paediatrics

The Hon Donald TSANG Yam-kuen, GBS, JP
Chief Executive of Hong Kong Special Administrative Region People's Republic of China
Office of the Chief Executive, Government House, Hong Kong

22 Sep 2009

Dear Mr Tsang,

Specific Learning Disabilities and Juvenile Problem Consequences

Despite the financial controversy related to Christian Zheng Sheng Association, it is widely recognized that the service model provided by Christian Zheng Sheng College has positive impact on juvenile problems. It is because the model not only provides rehabilitation for drug abuse, offending etc, but also provides education for the maladapted children to divert from the deviant path. However it is not widely aware that many of these cases could have been prevented through timely identification and intervention for **specific learning disabilities (SLD)** (Appendix 1: Definition), which **have very significant contribution to juvenile problems**:

- most 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
  (Appendix 2: SLD and serious adverse social outcomes)

Despite increasing awareness of specific learning disabilities (SLD) in the past decade in Hong Kong, identification and support for these individuals are still grossly inadequate. Please note the following data:

- At present, **more than 90%** of these children/ youths with SLD expected from the population prevalence are still **hidden and undiagnosed** (Appendix 3: Local data);
- Despite the normal/ superior intelligence (and possibly talents in selected areas) in students with SLD, it is still **rare for them to enter into universities** in Hong Kong;
- **56% to 67% of students in special schools for maladjusted children** have dyslexia.
- Worse still, **more than 25% of youths not engaged in education or employment** have dyslexia/ SLD (Appendix 2: SLD and serious adverse social outcomes).

There are no obvious external or visible features in these disabilities. When these "invisible" or hidden disabilities are undiagnosed and neglected, misunderstanding, mislabeling (as "lazy", "bad",

"defiant", "stupid" etc) and inappropriate management (often aggravating their difficulties, rather than helping them) are resulted. Frustrated since early school years with their abilities and talents unrecognized in the mainstream education, it is easy to understand that some may become antisocial and some may seek escape from various means (including drug abuse, self-harm acts).

We think that the followings are areas to improve so as to improve the situation in Hong Kong:

1. ensure **early identification in preschool children at risk for SLD** and **comprehensive screening at Primary 1 for learning difficulties**, so as to pick up most of the children affected by these conditions (i.e. identification rate of **0.7%** at present to rapidly catch up with the population prevalence of **10%**), supported by adequate resources
2. provide adequate teacher training: **specialist teachers (preferably language teachers)** competent in providing proper evidence-based educational support for children with SLD (Appendix 4), appropriate **accommodations** for these special need children during day-to-day teaching and tests/ examinations, **awareness training** for all teachers before they enter the teaching career and for all non-specialist teachers (so that they would have a supportive attitude and are able to recognize symptoms of SLD in their students)
3. develop **educational policies which reward schools doing good work for students with SLD**, who are generally slow starters but not necessarily losers (Appendix 5: Famous successful persons with SLD) in the educational marathon, rather than reward schools which select early/ established achievers to pull up their exit examination performance
4. facilitate their **access to higher education**, by allowing them to show their talents in non-language subjects without penalizing their reading and writing difficulties, and by facilitating their entry by into universities. The current requirement of A-Level competencies in TWO written languages - written language being precisely their disability - prevents the vast majority of students with dyslexia from being considered for admission to higher education, even when their abilities on chosen programmes are at par with or superior to non-disabled students admitted to the same programmes. How can our students with SLD who otherwise meet programme requirements and indicators for successful graduation have equal opportunity in accessing higher education?
5. provide **accommodations in universities and post-secondary institutions** according to Code of Practice on Education under the Disability Discrimination Ordinance (such accommodations are comprehensively designed and readily accessible in most universities of developed countries), supported with appropriate **funding** (note 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 as outlined in this letter is **most cost-effective in the long run**. "The hidden cost of dyslexia to a nation" (Appendix 6) highlights the price paid by societies unable or unwilling to deal with these young persons in a timely and effective manner. Tertiary prevention like Christian Zheng Sheng College and juvenile institutions is necessary, but a more expensive alternative in the long run (Appendix 7: Financial cost of social exclusion). 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 8)

What loss to society, and what damage could a person with the mind of Albert Einstein or Lee Kuan Yew make, if instead of producing great achievements, the individual turned antisocial and took on a deviant path? Inclusion and support or exclusion and alienation are two sides of the same coin that a society must choose between.

Please feel free to contact Ms Iris Keung via 2340 0803 or iriskeung1@netvigator.com, or Dr Chan Chok Wan via 2895 5211 or chancwhc@netvigator.com, or Dr Rommel Hung via (pager) 7116 3228 call 6597 or changladys1@netvigator.com.

Wish your administration every success.

Yours faithfully,

Ms Iris Keung
(Chairperson ofHKASLD)

Dr Chan Chok Wan
(President ofHKCNDP)

Note 1: Specific funding for accommodating students with special needs is currently limited for local universities although they are now available in primary and secondary schools. **In overseas universities, over 80% of their students requiring special needs support are those with SLD.** In Hong Kong, where almost all known students with special needs are ones with visible physical and sensory disabilities, the funding needed by universities to support students with SLD is expected to be small in the near future. In view of the inadequate support in primary and secondary schools, added to the lack of a level playing field at university entrance applications at present, a minimal number of students with SLD will succeed in getting into tertiary education. Is this good news for university funders, or bad news for Hong Kong?

C.C.
Mr Henry Tang Ying-yen, GBM, GBS, JP, Chief Secretary for Administration
Mr John Tsang Chun-wah, JP, Financial Secretary
Mr. CHEUNG Kin Chung, Matthew, GBS, JP, Secretary for Labour & Welfare, Labour and Welfare Bureau
Mr. SUEN Ming Yeung, Michael, GBS, JP, Secretary for Education, Education Bureau
Mr. STONE Michael V, JP, Secretary-General, University Grants Committee Secretariat
Mr. NIP Tak Kuen, Patrick, JP, Director of Social Welfare, Social Welfare Department
Mr CHAN Chung-bun, Bunny, SBS, JP, Chairman, Commission on Youth

List of Appendices

Appendix 1

What are Specific Learning Disabilities?

Extract from Chapter 2 of Hong Kong Rehabilitation Programme Plan 2005-2007 of Labour and Welfare Bureau

Specific Learning Difficulties (SpLD)

2.19 SpLD generally refer to difficulties in reading and writing (dyslexia), motor coordination disorder, specific dysphasia, etc., and the most common type is dyslexia. Dyslexia is ***not caused by*** mental deficiency, sensory impairment or the lack of learning opportunities. It is generally regarded as something relating to ***brain dysfunction***. As a result of ***persistent and serious learning difficulties in reading and writing***, persons with SpLD are unable to read and spell/write accurately and fluently.

2.20 As symptoms of SpLD are most noticeable at the formal schooling stage, relevant professionals in this field usually provide assessment and diagnosis on children suspected of suffering from SpLD at this stage. In light of the importance of early intervention, we will also provide these children with appropriate pre-school training.

2.21 In general, dyslexia can be improved through appropriate ***accommodations in teaching methods, tests and assessments***, as well as proper use of ***information technology***. ***The findings of overseas researches indicate that early identification and intervention for children with dyslexia can effectively improve their literacy skills.***

2.22 Major service requirements of persons with SpLD may include:

(a) identification and assessment;
(b) pre-school training; and/or
(c) education services.

Appendix 2

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.

A. LOCAL STUDIES: -

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.

B. OVERSEAS STUDIES: -

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 3)

   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 4)

   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 5)

4. SLD were associated with higher rates of **substance abuse** (Karacostas, Fisher, 1993; Ralph, Barr, 1989; Maag, Irvin, Reid, Vasa, 1994) (References 6-8).

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

   Polmont Young Offenders Institution, Edinburgh, U.K: 50% (Kirk & Reid, 2001) (Reference 9)
   Swedish Juvenile Institutions: >70% (Svensson, Lundberg , Jacobson, 2001) (Reference 10)
   Swedish Adult Prison: 41% (Jensen, Lindgren, Meurling, Ingvar, Levander, 1999) (Reference 11)
   Texas Prison: 48% (Moody, Holzer, roman, Paulsen, Freeman, Haynes, James, 2000) (Reference 12)

   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 13) 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.

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《情緒行爲適應困難的青少年》：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

3.Crawford D (1982), A study investigating the correlation between learning disabilities and juvenile delinquency; Washington, DC: U.S. Government Printing Office.

4. 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.

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

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

7. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

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

Appendix 3

Local population prevalence and update identification rate

In Hong Kong, there is delayed awareness by various organizations, professionals and the general public on the issue of SLD. Local research on SLD have found a population prevalence of 9.7-12.6% in Hong Kong (Chan D, Ho C, Tsang SM, Lee SH, Chung K 2007). At present, **more than 90% of these children/ youths with SLD expected from the population prevalence are still hidden and undiagnosed.**

At 2007/2008 school year using data from EdB:

number of children/ youths from kindergarten to postsecondary education	1,350,000
number of children/ youths with SLD in education expected from the population prevalence (taking 10% during calculation)	135,000
number of children/ adolescents with SLD known to EdB	8,869
Proportion of children/ youths with SLD being identified at present	8,869/ 135,000 = 6.6 %

Alternative method of calculation using data from Central Registry for Rehabilitation (by Census and Statistics Department report in Dec 2008):

number of children/ youths from kindergarten to postsecondary education	1,350,000
number of children/ youths with SLD in education expected from the population prevalence (taking 10% during calculation)	135,000
persons with diagnosis of SLD (including some adults)	9,900
Proportion of children/ youths with SLD being identified at present (rough estimation only)	9,900/ 135,000 = 7.3 %

Reference: Chan, D. W., Ho, C. S., Tsang, S., Lee, S., & Chung, K. K. H. (2007). Prevalence, gender ratio and gender differences in reading-related cognitive abilities among chinese children with dyslexia in Hong Kong. *Educational Studies, 33*(2), 249-265.

Appendix 4

Approved Teacher Status (ATS) of British Dyslexia Association

These are specialist qualifications for working with children and are increasingly being recognised by LEAs and other employers. To request an application pack or for more information please email Katherine Dumas at accreditation@bdadyslexia.org.uk or telephone 0845 251 9003 and select option 1.

Candidates must apply for ATS within five years of successful completion of a BDA accredited course. Any candidate who completed a course more than five years ago should contact the BDA office for further advice. Email Katherine Dumas at accreditation@bdadyslexia.org.uk.

It is expected that an ATS accredited course will enable candidates to achieve the following outcomes:

1. Demonstrate an understanding of the nature of dyslexia and identify children with specific learning difficulties in the classroom.
2. Make a diagnostic appraisal based on observation, assessment of attainment test findings, and demonstrate an understanding of the reports of other professionals.
3. Demonstrate an understanding of structured, sequential, multisensory teaching, and design a teaching programme to meet specific individual needs at a basic level in learning, literacy and numeracy. Social and behavioural difficulties should be taken into account for each of the pupils in their specific teaching.
4. Construct, deliver and evaluate such a programme.
5. Review classroom organisation to facilitate individual learning within the National Curriculum framework or equivalent.
6. Communicate effectively with teachers, parents and other professionals by verbal and written reports on the needs and achievements of learners with dyslexia.
7. Demonstrate an understanding of the contribution of ICT in the screening and teaching of specific learning difficulties/dyslexia and a knowledge of the range of relevant technical aids to teaching.

The course must provide a minimum of:

- 40 hours of lectures plus seminars, tutorials and study time,
- 20 hours evaluated specialist teaching, of which 10 hours must be with the same pupil. The remaining 10 hours may be with two different pupils, one of which could be taught in a group.
- 1 hour of teaching to be observed and assessed by a tutor who holds AMBDA.

Observations

The following are essential points on observation.

Observation of the 1 hour of evaluated specialist teaching is for the purposes of both formative and summative assessment.

Whether by direct observation or video/DVD, this observed specialist teaching must form a significant part of the process of developing the student's specialist skills. The hour should be followed by a written report to the student which should indicate how far that teaching currently meets the criteria.

Teaching should be evaluated by formal and informal means of observation, teaching diaries and the monitoring of pupils' progress. The teaching programme should be discussed and approved by the supervisor or tutor. Progress should be monitored with a final report on the quality of teaching.

All observation must be carried out by a course tutor who holds AMBDA.

This evaluation should take into account the quality of the observed teaching and the progress of the learner(s). The recording of lessons on video or DVD may be offered as a negotiable alternative provided they follow the BDA Video/DVD Guidelines.

Teaching diaries and video/DVD and audio taped lessons should be provided supplementary to the main assessment. The teaching programme should be discussed with, and approved by, the supervisor/tutor and progress monitored by reference to set performance criteria.

The teaching practice must include a minimum of 10 hours with one pupil. The remaining teaching practice could be with two different pupils. One of these could be taught in a small group of no more than three pupils.

Appendix 5

Famous successful persons with SLD

Lee Kuan Yew 李光耀, former Prime Minister of the Republic of Singapore

Albert Einstein, genius scientist of the century

Hans Christian Andersen, world-famous story-writer

Thomas Alva Edison, great inventor

Richard Branson, founder and chairman of London-based Virgin Group

Leonard Da Vinci, inventor, scientists, artist, anatomist and philosopher

George Washington, president of USA

Abbott Lawrence Lowell, president of Harvard University

George S. Patton IV, famous general of World War II

Brooks Adams, historian

Harvey Cushing, eminent brain surgeon

Woodrow Wilson, president of USA, president of Princeton University Auguste Rodin, famous sculptor

Paul Ehrlich, bacteriologist

William James, psychologist & Philosopher

Karl XI, one of Sweden's wisest kings

Nelson Rockefeller, vice-president of USA

Tom Cruise, famous movie star

Sources

1. Language Disabilities in Men of Eminence, Lloyd J. Thompson, 1971, Journal of Learning Disabilities, Vol. 4, No. 1, Jan, p.39 – 50

2. Press reports in which people described their dyslexia

Appendix 6

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. The Long Term Unemployed 25 +

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. Higher Level Skills Essential

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 7

Financial cost of social exclusion: follow up study of antisocial children into adulthood

Stephen Scott, Martin Knapp, Juliet Henderson, Barbara Maughan (2001)
BMJ, 323:28 July 2001.

Abstract

Objectives To compare the cumulative costs of public services used through to adulthood by individuals with three levels of antisocial behaviour in childhood.

Design Costs applied to data of 10 year old children from the inner London longitudinal study selectively followed up to adulthood.

Setting Inner London borough.

Participants 142 individuals divided into three groups in childhood: no problems, conduct problems, and conduct disorder.

Main outcome measures Costs in 1998 prices for public services (excluding private, voluntary agency, indirect, and personal costs) used over and above basic universal provision.

Results By age 28, costs for individuals with conduct disorder were 10.0 times higher than for those with no problems (95% confidence interval of bootstrap ratio 3.6 to 20.9) and 3.5 times higher than for those with conduct problems (1.7 to 6.2). Mean individual total costs were £70 019 for the conduct disorder group (bootstrap mean difference from no problem group £62 898; £22 692 to £117 896) and £24 324 (£16 707; £6594 to £28 149) for the conduct problem group, compared with £7423 for the no problem group. In all groups crime incurred the greatest cost, followed by extra educational provision, foster and residential care, and state benefits; health costs were smaller. Parental social class had a relatively small effect on antisocial behaviour, and although substantial independent contributions came from being male, having a low reading age, and attending more than two primary schools, conduct disorder still predicted the greatest cost.

Conclusions Antisocial behaviour in childhood is a major predictor of how much an individual will cost society. The cost is large and falls on many agencies, yet few agencies contribute to prevention, which could be cost effective.

Appendix 8

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.

This article appears in Basic Education, the monthly publication of the Council for Basic Education, October 15, 2001. It is reprinted with the permission of the authors.

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

References

Fletcher, J.M. & Lyon, G.R. (1998). Reading: A research-based approach. In W.M. Evers (Ed.), *What's gone wrong in America's classrooms* (pp. 49-90)? Stanford, CA: Hoover Institute Press.

Hanushek, E.A., Kain, J.F., & Riukin, S.G. (1998). *Does special education raise academic achievement for students with disabilities?* National Bureau for Economic Research Working Paper, No. 6469.

Lyon, G.R., Fletcher, J.M., Shaywitz, S.E., Shaywitz, B.A., Torgesen, J.K., Wood, F.B., Schulte, A., & Olson, R. (2001). Rethinking learning disabilities. In C.E. Finn, A.J. Rotherman, & C.R. Hokanson (Eds.), *Rethinking special education for a new century* (pp. 259-287). Washington, DC: Thomas B. Fordham Foundation and the Progressive Policy Institute.

Moody, S.W., Vaughn, S.R., Hughes, M.Y., &Fisher, M. (2000). Reading instruction in the resource room: Set up for failure. *Exceptional Children*, 16, 305-316.

National Institute for Child Health and Human Development (2000). *The National Reading Panel: Reports of the Subgroups*. Bethesda, MD: NICHD.

Snow, C., Burns, S., & Griffin, P. (1998). *Preventing Reading Difficulties in Young Children*. Washington, DC: National Academy Press.

Torgesen, J.K. (2000). Individual responses in response to early interventions in reading: The lingering problem of treatment resisters. *Learning Disabilities Research and Practice*, 15, 55-64.

Torgesen, J.K. (1997). The prevention and remediation of reading disabilities: Evaluating what we know from research. *Journal of Academic Language Therapy*, 1, 11-47.