

**Report on the Hong Kong Specific Learning Disabilities Summit 2007, organized by the Hong Kong Society of Child Neurology and Developmental Paediatrics (HKCNDP)**

**Date: 19 November 2007,**

**Time: 08:45-17.30**

**Venue: Lecture Theatre, G/F, Block M, Queen Elizabeth Hospital**

**Introduction**

The long awaited Hong Kong Specific Learning Disabilities(SLD) Summit 2007 has fully realized the concept of multidisciplinary collaboration through fifteen lectures, given by prominent overseas speakers, Professor Doris Johnson and Professor Leong Che Kan, senior government officials heads of Hong Kong's statutory bodies, local academics, as well as heads of charities, non-government organizations and parent support groups. The Summit attracted such overwhelming demand on registration that it had to be simultaneously teleconferenced to a satellite room in M Block of Queen Elizabeth Hospital and the Lecture Theatre of Tseung Kwan O Hospital to accommodate all delegates.

**Programme:**

**Developments in Services for Specific Learning Disabilities in Hong Kong**

**Session 1: Chairperson: Professor Leong Che-kan**

**Overview of SLD Developments in the Last Decade in Hong Kong**

*Dr Chan Chok Wan (President, HKCNDP)*

Dr Chan welcomed all speakers and delegates to the second Summit of Specific Learning Disabilities and reminded us on the first summit on 26 October 2002. To set the stage, objectives of this summit were defined. These included identifying areas for improvement in service and research on SLD in Hong Kong and to seek effective measures for collaborative actions ahead..

Dr Chan highlighted the evolution of SLD in Hong Kong in the past decades. In the early 1990's, SLD was a largely unknown condition with paucity of local statistics and public awareness. Remarkable promotion of the subject was gained through formation of the HKCNDP working group on SLD in 1996, with its organization of scientific meetings and official forums, culminating with the 2002 International Conference on Dyslexia. The inauguration of the Hong Kong Association of Specific Learning Disabilities in 1998 also provided essential momentum to public education and policy changes. In 2006, HKCNDP produced a Position Paper on SLD through a meeting with invited experts in the field, and the Paper was circulated to relevant government bureau and organization heads for their reference. In 2007 with the 2007 Programme Plan Review and the support of The Secretary of Health, Welfare and Food Bureau Dr York Chow, SLD was officially included in the 2007 Rehabilitation Programme Plan as a category of disability.

The Working Party on SLD in Hong Kong was anchored on the essential academic advice and support of the Chairman of Scientific Committee Professor Leong Che Kan, to whom Dr Chan presented a plaque of certification of appreciation on this occasion. Professor Connie Ho and the Education Bureau were also appreciated for their contribution to research on SLD in Hong Kong. Over the years, HKCNDP also promoted public awareness through advocacy, in collaboration with parent groups, legislators, the Department of Health, Education Bureau, and other non-government organizations.

Dr Chan summarized other major milestones in development of SLD in Hong Kong, including the inclusion of SLD in 2000 Code of Practice on Education of the Equal Opportunity Committee, under the Disabilities Discrimination Ordinance ( DDO), research data on local prevalence of SLD, the Read and Write Project sponsored by Jockey Club and the recognition of SLD by higher education institutions.

However, development of SLD is still confronted by problems including inadequate teacher expertise due to lack of training, suboptimal system for access arrangements in high stakes open examinations, limited resource support at school and inappropriate use of funding at schools with lack of transparency. Hong Kong is still deficient in public awareness, public concept of the meaning of equality for individuals with disabilities and lack of specific legislation related to education and employment,, identification of strengths of SLD students, and tertiary education and career opportunities.

### **Dyslexia and Related Disorders in the United States: Issues in Assessment and Intervention**

*Professor Doris Johnson (Professor Emeritus, Department of Communication Sciences and Disorders, Northwestern University, USA)*

Professor Johnson presented the historical perspectives of Learning Disabilities with reference to the USA Legal definition in 1977, the working definition by the Orton Dyslexia Society research committee in 1994, and the DSM IV criteria in 1994 which focused on decoding, accuracy, reading comprehension and interference with academic achievement or activities of daily living.

The dictionary has two basic definitions for reading. The first states that “reading is the process of converting print to speech” whereas the second is “apprehending meaning from print.” Thus, one’s definition of reading influences the selection of tests, the interpretation of results, and plans for intervention. The first definition is related primarily to word recognition and decoding, much like the research definition of dyslexia, whereas the second focuses on meaning which should be the goal of all reading. While word recognition is often the best predictor of reading comprehension in the early grades, this is not the case across the age range. Chall, Jacobs, and Baldwin (1990) reported that children in the fifth and sixth grades (about 10-12 years of age) use context and background knowledge to predict words in context. Thus, their reading of single words is sometimes lower than contextual reading. Many adolescents and adults have significant reading comprehension problems without word recognition difficulty. Both should be considered in the evaluation and intervention.

Dyslexia should be evaluated in the context of the breadth of the problem, the number of symbol systems being involved such as mathematics and music, and the integration of multiple rules of oral language, justifying dyslexia as a communication disorder.

Professor Johnson shared with participants the flow of diagnostic intervention process at Northwestern University. It starts from screening and/or referral, which is immediately followed by pre-referral procedures while the child is waiting for a comprehensive study. Meanwhile, diagnostic teaching, accommodation and remediation take place at school, proceeding in parallel with the referral processes.

Finally Professor Johnson suggested plasticity of the brain as a direction for future research on dyslexia.

### **School systems to support students with SLD**

*Mrs. Fanny LAM (PAS(SAS), School Administration and Support Division, Education Bureau)*

Mrs. Lam summarized the needs of students with SLD, which included good teaching in multisensory approach; experience of success; special exam arrangement and acceptance by teachers, parents and peers. In response to these needs, EDB supports the school to build up an infrastructure to deliver intervention through a whole school approach. In terms of teacher training, EDB has implemented a 3-level teacher professional development framework, which includes a 30-hour basic course, 90-hour advanced course and thematic courses on SLD. In five years' time, 10% of teachers per school are anticipated to have completed level 1, at least three teachers per school will complete level 2 and at least one teacher of Chinese and English subject each will have completed level 3.

For professional development, EDB provides resources for construction of assessment tools including various diagnostic tools and behavioural checklists. EDB also supports schools with additional resources through the New Funding Mode, Intensive Remedial Teaching Program and employing additional teachers for special programs. In terms of professional support to schools, designated Special Education Support Officers (SESO) are assigned to each school, while specialists including Educational Psychologists and Speech Therapists deliver school-based support. EDB also promotes networking of schools for sharing of good practices.

To conclude, Mrs. Lam emphasized the importance of multidisciplinary collaboration. She reiterated that SLD should be perceived as a learning difference rather than a disability, and schools should focus on inclusion, differentiation, and learning to meet these students' different needs.

### **Developmental Surveillance Scheme for Preschool Children**

*Dr Shirley Leung (Principal Medical Officer, Family Health Service, Department of Health)*

Dr Leung introduced the Developmental Surveillance Scheme (DSS), a component of the Integrated Child Health and Development Programme (0-5y). Early identification of health and developmental problems facilitates early intervention, which might improve the child and family outcome. The DSS aimed at enhancing parental awareness, empowering them and addressing their concerns, achieving timely identification of problems as well as tracking developmental profiles of children. To ensure a good outcome, quality assurance through training of doctors and nurses and maintenance programmes were crucial.

Service statistics in 2006 from eighteen Maternal and Child Health Centres (MCHCs), including referral reasons to the Child Assessment Service for comprehensive assessment and diagnosis after referral were presented. In order to fill in the service gaps and enhance coverage of the older age group (preschool children), the Family Health Service also participated in the Comprehensive Child Development Service (CCDS) of the HWFB (subsequently moved to LWB). The CCDS enlisted preschool as a platform to identify and refer young children with developmental problems to MCHCs.

Dr Leung reflected that preschool workers found a lack of support to handle preschool children with SLD/learning problems. She urged for more resources by the education authorities to support children with learning and early reading problems in preschools.

### **Vocational Education and Training Opportunities for students with SLD**

*Ms Annie Ho (Senior Assistant Executive Director, Vocational Training Council)*

Ms Ho shared that the Vocational Training Council (VTC), a major vocational education and training provider in Hong Kong, was currently at the initial stage of understanding SLD and expressed concern on Hong Kong's lack of support for students with SLD to pursue tertiary education. Whilst VTC provides a wide variety of potential courses for students with SLD to select from, a large number of teachers need to be equipped with good knowledge of SLD and related training to effectively support these students if admitted to the course, and this is a big challenge for the VTC.

At VTC, support service for students with SLD started as special admission procedures for applicants with special education needs (SEN). Instead of going through competitive entry, students with SEN could choose to be interviewed by a special panel, which may give direct offers to these students if minimum entry requirements are met and that the panel are satisfied that the student is likely to complete the course successfully. After admission, students are provided with technical aid if needed, counseling by Student Affairs Office, and learning support by subject teachers as far as possible.

The VTC is dedicated to providing training on SLD to staff and to promote sharing of good practices. Currently there are 27 full time students with SLD scattered in different institutions under the VTC. This "scattering" presents another challenge to VTC.

The obstacles in supporting students with SLD include a steep learning curve for VTC staff in understanding the needs of students; difficulty in verifying SLD during admission,

and uncertainty in number of SLD students to be admitted in the future. Despite the challenges, Ms Ho was positive that the VTC would continue to make improvements in helping realize the potential of every student.

### **Open Audience Discussion**

The Chairman acknowledged the continuous support from Legislator, Mr Cheung Chiu Hung, and welcomed him to this meeting. Mr Cheung expressed his concern in the implementation of theoretical models of tiered-systems on intervention, as in reality a child's difficulty can hardly be clearly stratified into tiers, especially at the beginning. He warned against complacency on the inclusion of dyslexia and ADHD into the Rehabilitation Program Plan as he doubted the tangible support that government could provide to support children with Special Educational Needs (SEN). He also demanded a close monitoring on the effect of the upcoming 334-curriculum for secondary students with SEN.

### **Session II- Chairperson: Dr Chan Chok Wan**

#### **Public examinations for students with SLD**

*Dr Francis Cheung Wing Ming (Deputy Secretary General, Hong Kong Examinations and Assessment Authority)*

The HKEAA strives to provide a fair assessment for all so that individual students' attainment could be appropriately certified. In order for Hong Kong's qualifications to be internationally recognised, procedures and regulations have to be clearly stipulated to ensure fairness and maintenance of reasonable standards. Currently special accommodations available to candidates with SLD include but not limited to extended examination time, special format of question papers and the usage of computers for candidates with illegible handwriting or extremely slow handwriting.

In providing these accommodations, major difficulties encountered by HKEAA were the handling of students with marginal dyslexia and of candidates without a definitive diagnosis, implying lack of accommodation in school internal examinations all along. There is often lack of awareness of schools/ parents on SLD, resulting in delayed reporting of SLD to school until close to the date of the public examinations.

The HKEAA also encountered practical problems during application processing, including insufficient supporting documents from schools and insufficient information from psychologists, which may stem from inadequacies of instruments to diagnose dyslexia at higher grades and adulthood.

Dr Cheung anticipated a huge number of undiagnosed students, given the reported research incidence versus the fact that there were only 48 applicants for accommodations in public examinations for SLD in 2007. The expected increase in number of students who will apply for accommodations in the future will impose big resource implications for the HKEAA.

To conclude, Dr Cheung urged for better communication with stakeholders, especially with parents, in order that examination accommodations may match international practices. He also suggested that research be done on stakeholders' view on existing accommodations and respective effectiveness for SLD candidates.

#### *Feedback by the Chairman*

The chairman concurred with Dr Cheung's comments on the problems of uncertain diagnoses, due in part to insensitive tools, in part to professionals who did not have the confidence to make definitive diagnosis, and in part to unclear management plans for these students by various parties. He urged for improvement in these areas.

### **Implications of inclusion of SLD as category of disability in Hong Kong Rehabilitation Policy**

*Dr Ferrick Chu (Head, Policy and Research, Equal Opportunities Commission)*

Dr Chu introduced relevant instruments for enforcing anti-discrimination, namely the Disability Discrimination Ordinance in Hong Kong and Convention on the Rights of the Child (1989) and Convention on the Rights of Persons with Disabilities. Under the DDO, it is unlawful to vilify a person with a disability in public, or discriminate against or harass a person on the ground of disability in areas of activities, including education

The EOC's obligations for students with SLD include elimination of discrimination, harassment and vilification, and assurance of provision of reasonable accommodations and individual support.

The EOC consolidated the obligations through inclusion of SLD as category of disability. Thereafter, in the field of education, it advocates for provision of integrated education program, involvement of stakeholders in the formulation of relevant public policies in education, and resource allocation. In the field of rehabilitation, it advocates for preschool training and vocational rehabilitation. The EOC is active in staff training and public education on understanding of SLD.

However the EOC is of the opinion that Hong Kong faces challenges in this area, including the exceedingly large number of students being unidentified, the need for high quality specialized instruction in a regular school, timely decision regarding eligibility and service need for individual student, and inadequate awareness in government bodies. Dr Chu envisioned that further efforts should be devoted on early identification by further research into screening tools; comprehensive assessment achieved by interdisciplinary collaboration; pre- and in-service training for teacher on evidence based practices and intervention techniques. He was concerned that SLD students were underrepresented in tertiary education and therefore future direction should focus on higher standard examination accommodations to allow SLD students to explore higher education

opportunities. Finally he recommended inclusion of stakeholders' involvement in devising policy and service provisions for SLD in Hong Kong.

### **The Hong Kong Jockey Club's support of SLD development in HK**

*Ms Bonny Wong (Head of charities, The Hong Kong Jockey Club)*

The Hong Kong Jockey Club is a non-profit organization. It supports a diverse range of projects, programmes and recipients with the mission to improve the quality of life of the people of Hong Kong. Ms Wong shared her personal inspiration and reflections in understanding SLD. She expressed that much more public education and awareness are needed. In this regard, she informed that Mr Lo Kwun-ting, noted singer and song-writer, had composed a song for the Read and Write Project. Ms Wong took the opportunity to thank Prof Connie Ho for her involvement in the Read and Write Project.

### **Public awareness, community services & parents support**

*Ms Iris Keung (Chairperson, Hong Kong Association for Specific Learning Disabilities)*

The Hong Kong Association for Specific Learning Disabilities (HKASLD) emerged as a parent sharing group in Tuen Mun in the late -1900's, and was officially inaugurated HKASLD in 1998. It had its first office space at the shared Self Help Development Centre in 2002, and its own office with the opening of Wong Tai Sin centre in 2005. Through years of hard work, the HKASLD contributed to many major breakthroughs in the field of SLD, including inclusion of SLD in the EOC's Code of Practice in Education, specific attention to accommodations by HK's exam and assessment authority in 2002/2003, production of teaching materials by EDB, and support and assessment guidelines to primary school in 2002-2004, and inclusion of SLD in the Rehabilitation Program Plan in 2007.

The HKASLD aims at facilitating self help and mutual aid among parents while promoting understanding and acceptance of SLD among general public. They also encourage research, and advocate for a better learning environment in Hong Kong. These are achieved through public education activities, collaboration with legislators, governmental departments and mass media.

Ms Keung also highlighted results of the recent SLD family research : parents are concerned about long waiting time for assessment, and the significant psychological stress of parents, where half suffered from insomnia or depression and one third had received professional counseling. Parental expectations from services on SLD include effective teaching, accommodation for daily school work and during examination, psychological counseling and financial subsidies for supporting these children's special needs.

Moreover Ms Keung felt that the current problems in service provision of SLDs stemmed from the misunderstanding that money could solve all problems. For example, out-sourced education psychology service could not replace support from school teachers. The HKASLD was also concerned about quality assurance of interventions provided by

NGOs. There was also a lack of support for behavioral problems in secondary school students with SLD.

For future directions, extension of support and attention to secondary schools, vocational training institutes universities and employment should be made. Parents strongly demanded the development of systematic and effective Chinese teaching methods and improvement in professional training for teachers, social workers and psychologists, especially on the standard of assessment.

#### *Feedback by the Chairman*

The message brought out by Ms Keung was powerful. First, inclusion of SLD in RPP is not just a rosy picture but it signifies the beginning of a battle. Second, funding allocation should be more transparent and ought to be audited. Finally, advocacy should involve both a top-down and bottom-up approach and incorporate consumers' needs.

#### **Discussion**

Dr Chan invited dignitaries who have been instrumental in the work of SLD in Hong Kong for further discussion.

##### **1. Mr Raymond Tang, Chairman, EOC:**

SLD is a relatively new topic in the study of societal justice. There is information gap in the society and the privacy issues may lead to disruptions in flow of students' information in education setting.

##### **2. Ms Alice Tai, the Ombudsman:**

A lot of complaints were received from parents on coordination and adequacy of policy and service for students with SLD, which inspired her to start a direct investigation on SLD service. The Ombudsman's Report on SLD served to educate the public on SLD and they will continue to work on this subject.

##### **3. Dr Henrietta Ip, Paediatrician, Chairperson, the Child Health Foundation**

Dyslexics are talented in different ways. Assessment for SLD in adults should be developed. It is important to ascertain the prevalence of dyslexia in inmates of prisons.

#### **Lunch**

#### **Academic & Applied Perspectives**

#### **Session III-Chairperson: Dr Catherine Lam**

#### **Future directions in research on developmental dyslexia and related learning disorders**

*Professor Doris Johnson (Professor Emeritus, Department of Communication Sciences and Disorders, Northwestern University, USA)*



Professor Johnson conceptualized dyslexia as a condition across the life span. In early childhood, early identification may be targeted at the lower socioeconomic class, and efforts should be made to differentiate between poor decoders and poor comprehenders. According to evidence from longitudinal studies, effective intervention has to fulfill the criteria of being intensive, early and explicit. Intensive programs must also last long enough to make a difference. Research has yet to be done on the most effective mode of teaching, and to perform outcome evaluations of inclusion education versus special school placement for students with dyslexia. Professor Johnson remarked that the acquisition of content knowledge in an older child, who missed the chance to learn through print, should not be overlooked. Finally the functional impairment in striving for independence for adults with dyslexia should also be considered.

In provision of service, the issues of who and what degree of severity need special intervention need to be addressed. Intervention should be appraised in the context of the breadth of domains affected and the depth of the severity of problem in each domain, as a problem can be specific or global. In the U.S., intervention includes accommodation, remediation, and tutoring in content areas. However, effectiveness, duration, and long term consequences of the available accommodation are yet to be evaluated.

Professor Johnson elaborated on the cognitive underpinnings of learning, which include perception, working memory, memory, processing speed and linguistic processing. Higher level processes like reasoning, hypothesis testing, inferencing and monitoring are also involved. Furthermore nonlinguistic factors including motivation, self-efficacy, goal setting, risk taking and resilience also contribute to effective learning.

Professor Johnson advised that teacher effectiveness in intervention should be enhanced by pre-professional preparation and mentoring/coaching. Research on intervention should focus on theoretical background; content and curriculum; translation of findings for teacher and ethical issues. Therefore she proposed multi-disciplinary research on etiology, cross-culture studies, bilingualism, teacher-child interaction, brain-behaviour correlation, subgrouping (with or without oral language impairment) of dyslexia, neural plasticity and gender effect. She specifically advocated for collaboration with parent groups and that between professionals from the fields of medicine, psychology and education, academics, private agencies, foundations and philanthropic groups.

## **Secondary school screening for Chinese written language impairment: theoretical underpinnings& application**

### **Developing a battery of test of Chinese reading and writing for secondary one to secondary five students**

*Professor HO Man Koon (Associate Professor, Faculty of Education, The Chinese University of Hong Kong)*

Professor Ho introduced the test tool for Chinese reading and writing for Hong Kong secondary school students, with the objective of differentiating Chinese language ability

of students from Form 1 to Form 5. The theoretical background of language comprehension (decoding, meaning accessing, sentence integration) and writing (planning, organizing, translating, reviewing) was explained.

He elaborated on the content of the Instrument which is now known as the Hong Kong Chinese Language Abilities Assessment for Secondary School Students (CLAAS). There are nine tasks, each with its sub-parts:

1. Essay writing,
2. Morphological processing,
3. Character and word correction,
4. Segmentation of text,
5. Text comprehension,
6. Fluency in text reading,
7. Copying of words and texts,
8. Dictation,
9. Reading aloud.

The test is favorably user-friendly as the same set of test materials can be used on students in Form 1 through Form 5. The test was introduced to secondary Chinese teachers in two seminars, one in November, 2007 and the other in April, 2008. For details of the battery please contact Ms. Lee Suk Han of the Education Bureau. The papers by Leong and Ho (2008a, 2008b) provide the theoretical framework and initial results.

Professor Ho concluded that the test is a scientific and simple way to screen the students with low achievement in Chinese language. He suggested that secondary teachers should refer students scoring one standard deviation below the mean of specific tasks or the battery as whole for further assessment.

*Professor LEONG Che Kan (Professor Emeritus, Department of Educational Psychology & Special Education, University of Saskatchewan, Canada)*

Dyslexia should be studied in the context of components, including text comprehension and lexical knowledge. Professor Leong referred to Perfetti's Blueprint of the Reader as a framework of reading and its difficulties. He explained the cross-linguistic differences between morphological processing and related domains in Chinese and English.

Professor Leong addressed the theoretical basis underlying each task in the screening test with reference to specific domains of Chinese language. He summarized the results of the Promax oblique factor analysis to show the structure of the battery and hierarchical multiple regression analyses to indicate its predictive power of overall internal school Chinese language performance.

Professor Leong recapitulated the changing situation of SLD in HK and commented on the way ahead. He referred to "The Hong Kong Developmental Screening System (0-5)", co-authored by Dr Chan Chok Wan, published in 1982, while congratulating the success of the developmental surveillance program of the Family Health Service. Professor

Leong suggested to explore the strengths of children with SLD, especially their artistic talents, and to promote early reading, dialogic reading, aided reading, bedtime dialogic reading and life-long reading. Finally, he commended on the enthusiasm of the involved professionals in the field of SLD in Hong Kong.

#### References

Leong, C.K., & Ho, M.K. (2008a). The role of lexical knowledge and related linguistic components in typical and poor language comprehenders of Chinese. *Reading and Writing: An Interdisciplinary Journal*, 21(5) (in press).

Leong, C.K., & Ho, M.K. (2008b). Theory-based assessment of reading and its difficulties in the Chinese language system. *Hong Kong Journal of Paediatrics (new series)*, 13 (in press).

#### **Teacher development for students with SpLD**

*Professor Cheng Pui-wan (Associate Professor, Department of Educational Psychology, The Chinese University of Hong Kong)*

Professor Cheng demonstrated the Teacher Development Program as a component of READ and WRITE Project, which aimed at training 5,000 teachers in 5 years, with 30 hours of professional development for Primary school Chinese teachers. Details of the program can be found in the website:

[http://www.fed.cuhk.edu.hk/~tdspld/content/index\\_e.php](http://www.fed.cuhk.edu.hk/~tdspld/content/index_e.php) Professor Cheng explained the theoretical background of the training program from the perspectives of the developing child, specific cognitive impairments in language and reading development, and counseling. She is training teachers to provide intervention in three tiers: tier 1 refers to high quality classroom instruction and tier 2&3 refer to specialized instruction. She commented that intervention was only possible in schools with a culture of acceptance and collaboration.

The connection between oral language and reading should be introduced to teachers. Development of reading involves a child to getting from speech to print and acquisition of knowledge with print, which includes writing, reading comprehension, word decoding and reading fluency. As a child normally acquires vocabulary from speech development, metalinguistic awareness is needed for efficient reading. Children with dyslexia typically have problem with metalinguistic awareness and decoding. Therefore meaning and phonology serve as the link between orthography and speech, and good teaching should provide children with a robust foundation in speech and metalinguistic awareness, through increasing morphological and phonological awareness, before print is introduced.

Professor Cheng suggested a direction for future research: focusing on systematic evaluation of SLD at different developing stages of childhood, and the underlying deficits. Teachers definitely need more scaffolding and good examples, on top of the 30 hours of training. The training program is just the beginning of the story.

## **Session IV- Chairperson: Dr Philomena Tse**

### **Curriculum issues**

*Ms May Chan (Educational Psychologist, Society of Boys' Centres)*

Ms Chan presented a paradigm shift from remediation to response to intervention (RTI) in the field of learning disabilities. RTI is an approach used to identify SLD on the basis of student's response to instruction. Thus, early screening of the at-risks, effective instruction and progress monitoring are deemed important. She then presented the 3-Tier intervention model. In Tier 1, primary prevention is offered in terms of good quality class-wide teaching. Teachers should be proactive in screening out the 15-20% of children who are predisposed to dyslexia and need extra help to catch up with academic performance. Tier 2 intervention, with supplemental instruction (add-on) and small group teaching will then be provided to those at-risk students. Their learning progress is closely monitored. For those do not respond well to the Tier 2 intervention will further be provided a more intensive, add on and individualized support, that is Tier 3 intervention. Weekly or daily progress monitoring is needed to inform the effective of instructions, as well as the needs of the students.

To provide intervention, teachers should be equipped with basic skills of teaching English and Chinese and knowledge on the differences between the two languages. They also need to know that effective instructions for poor readers need to be explicit, cumulative, multisensory, sequential and incremental, systematic and evidence based. The big five in English literacy elements consist of phonemic awareness, phonic and word recognition, reading fluency, vocabulary building and reading comprehension. On the other hand, the important basic skills in Chinese language may include morphological awareness in oral language, vocabulary acquisition, syntax, reading comprehension, fluency and simple writing.

Ms Chan shared the Society of Boys' Centres' experience in July 2003-2005 using Supplemental Curriculum and Resource CD-ROM. She explained the curriculum framework at word, sentence, paragraph levels, and demonstrated some effective strategies in teaching Chinese Language essentials for Primary school dyslexic students. As part of the READ and WRITE Project, the Society of Boys' Centres will focus on designing a supplemental training package on Chinese Language for Junior Secondary school students. In addition, Ms Chan also emphasized the importance of progress monitoring, and suggested to develop more curriculum based measurements to better inform the student's response to instruction.

To conclude, Ms Chan appealed for better collaboration among professionals to establish a comprehensive and evidence-based curriculum.

### **Assessment and School support**

*Ms Lee Suk-han (Educational Psychologist, Education Bureau)*

Ms Lee shared her experience on the importance of a holistic assessment rather than just focusing on scores.. The new funding mode for schools is flexible and funding allocation is based on students' special needs rather than on diagnostic labels. To improve the quality of assessment, she advocated using the responsiveness to intervention approach, and linking assessment to school based support measures. Assessment should take into account the child's learning characteristics, the match between learning and teaching styles, and the learning environment.

Ms Lee shared that Educational Psychologists employ the Hong Kong Test of Specific Learning Difficulties- Primary (HKT-P) to assess students with SLD, and they combine information on areas of cognitive weakness to collateral evidence reported by the child, teacher, parents and the HKSpLD checklist to devise support measure. Support should be tailor made to solicit children's strengths when remediating their deficits.

Ms Lee illustrated multisensory intervention with videos of case example. She emphasized that school and home collaboration is important to eliminate stress and minimize difficulties, and to focus on strengths. To be successful in intervention, teachers should give student adequate time, provide scaffolding for children in learning new tasks, explicitly teach organizational skills and study skills, and give students experience of success.

Miss Lee explained the key components of the Whole School Approach in creating a supportive environment for students with special needs at school.

**Understanding reading disability in Chinese: from basic research to intervention**  
*Professor Connie Ho ( Professor, Department of Psychology, The University of Hong Kong)*

Professor Ho advocated combining expertise in basic and applied research to accomplish evidence-based intervention. She addressed the characteristics of Chinese language and a model of Chinese word recognition. Her research in the field of SLD was highlighted, including the cognitive profile of Chinese dyslexia in HK, cross-regional comparison between the cognitive profiles of children in Beijing and Hong Kong, and research on the Specific Learning Disabilities Behaviour Checklist for preschool, primary school and adults. She is currently performing a research to develop a behavioural checklist for secondary school students. According to her research, prevalence rate of dyslexia in HK is around 10% of the school population, with 1.4% being severely affected.

Professor Ho also presented the major components of effective reading instruction in Chinese with reference to her own and others' research findings in Chinese. There was evidence to support effectiveness of tiered intervention program, including positive gain in words, in student performance in experimental and standardized literacy-related measures, and better placement outcome.

Concerning evidence-based intervention, the READ & WRITE Project was started in 2006 and had been focusing on development of Tier 1 curriculum in last year. Professor

Ho shared her experience from studying three schools that joined the program in which Tier 1 was focused on oral language, word level and passage level processing in text. She demonstrated a video showing class observation of school-based curriculum support through the Tiered Intervention Model. Preliminary results showed that the three schools had significant increase in word reading in first term with more pervasive improvement in all components of outcome after second term.

Finally Professor Ho introduced her new research on twin studies in SLD and announced the recruitment of participants.

## **Discussion**

Dr Chan concluded that the Summit is powerful and representative, being a result of contribution from all areas of disciplines in SLD management. Important messages from the Summit were summarized as follows:

1. SLD is a global problem for a child and therefore a multi-sectoral involvement is indicated and is critical for holistic management.
2. Development of assessment tool for older students after Form 3 should be pursued. Evaluation of inmates in prison for SLD could be considered.
3. Early diagnosis and early intervention should be consolidated as every minute in a child counts, especially in the first years of reading. Specific Language Impairment, as an early indicator of SLD, should be identified in preschool children.
4. Quality assurance of intervention programs implemented by NGOs and private sectors should be performed to ensure evidence based practice.
5. As an obligation to utilize resource judiciously and effectively, professionals must seek to promote the standard of research.