

Screening & Diagnosing Learning Disabilities

Amar-Singh HSS (Dato' Dr)

MBBS (Mal), MRCP (UK), FRCP (Glasg), MSc Community Paeds (Lond)

Senior Consultant Community Paediatrician, Head Paediatric Department HRPB Ipoh

Head Clinical Research Centre at Perak

President, National Early Childhood Intervention Council

(amarhss@gmail.com)

Introduction

Developmental, behavioural and psychosocial screening to identify early developmental impairment, cerebral palsy, mental disability, hearing impairment, vision impairment, Autism, ADHD, mental health problems, and other problems have become more important in recent years. It is important to detect these early as data strongly supports that early detection and intervention offers better long term outcomes. It also allows for better family well being. Unlike screening for "organic" diseases, with a specific blood test, developmental screening is challenging. Data suggests that between 12-17% of all children have developmental problems and that the rate detected increases with age and time²⁸.

Some Definitions

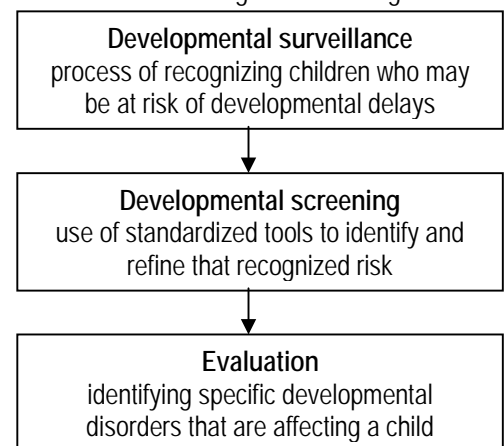
Developmental surveillance

"A flexible, continuous process whereby knowledgeable professionals perform skilled observations of children during the provision of health care. The components of developmental surveillance include eliciting and attending to parental concerns, obtaining a relevant developmental history, making accurate and informative observations of children, and sharing opinions and concerns with other relevant professionals." (Dworkin 1999)¹.

Developmental "surveillance, the process of recognizing children who may be at risk of developmental delays"². Health care professional often use age-appropriate developmental checklists to record milestones during child care visits as part of developmental surveillance.

Developmental screening

Screening is a "brief assessment procedure designed to identify children who should receive more intensive diagnosis or assessment." (Meisels et al 1989)¹. Developmental screening is aimed at identifying children who may need more comprehensive evaluation. It communicates the pediatrician's interest in the child's development, not just his or her physical health. (Kaminer et al 1982)¹. Developmental "screening, the use of standardized tools to identify and refine that recognized risk. It targets the area of concern whenever a problem is identified during developmental surveillance"². The purpose for screening is to identify any developmental problems early and provide intervention to minimise disability. It must be recognised that a positive screening result does not imply that a child has a disability but that a detailed assessment (an evaluation) is required by a trained individual.



Developmental delay: "the condition in which a child is not developing and/or achieving skills according to the expected time frame". "Delayed development," "disordered development," and "developmental abnormality" are used synonymously.²

Developmental disorder/disability: "a childhood mental or physical impairment or combination of mental and physical impairments that result in substantial functional limitations in major life activities".²

Learning disabilities (LDs): LDs are actually a group of disorders, not a single disorder. There is much confusion as to how to classify them. For the purposes of this paper I have chose to classify them as children that have barriers to learning but do not have severe disabilities (examples of severe disability: Cerebral palsy, severe Autism, Down Syndrome, Moderate-severe intellectual disability, deafness, etc). Hence these are children that have milder disabilities or problems (examples of milder disability: ADHD, High function Autism, Specific learning disorders e.g. Dyslexia, Dyscalculia, mild intellectual disability, etc). They are often identified at pre-school or school entry. They have a gap between their level of expected achievement and their performance.

Size of Problem

The table shows the frequency of various childhood disabilities with a special focus on developmental disabilities presenting in the pre-school period. The rates varies according to the data source, definition used, community surveyed. Of these disabilities, the rate of Autism is growing.

Table: Frequency of various childhood disabilities detected in the pre-school age groups^{3,4,5,6,7,25,28}

Type of Disability		Rate
Intellectual/Learning disability		
	Intellectual Handicap (Mental retardation – includes Mild, Moderate, Severe, Profound)	10-30 per 1000
	Attention Deficit Hyperactivity Disorder	School Going: 50-100 per 1000 US estimates 20-50 per 1000 UK estimates
	Pervasive Developmental Disorders (Autism, ASD, Asperger)	10 per 1000
	Learning Disability (eg. Dyslexia)	50-100 per 1000
Physical disability		
	Cerebral palsy	3-4 per 1000
Sensory disability		
	Hearing Impairment	1-2 per 1000
	Visual Impairment	1-2 per 1000
	Visual disorders (squint, amblyopia, refractive error)	20-50 per 1000
Overall Rates of Disability/Behavioural Problems		12-17% of all children

Value of Routine Child Health Surveillance by Health Professionals

An important question to ask is whether developmental delay & disability in childhood is missed by health professional. Parents often have concerns and, at times, these are not adequately addressed by health professionals or may be falsely reassured. Of course there are also parents who may not recognise that their child has developmental problem, and some who may not attend routine health surveillance.

One recent survey by the American Academy of Pediatrics showed that “nearly all paediatricians (96%) who provide health supervision, to children birth through 35 months of age, assess for developmental risk. Pediatricians estimate an average of 9% of their patients have been identified with a possible developmental problem. Most pediatricians (75%) use more than one method to identify children birth through 35 months of age at risk for developmental delay or problems. 7 out of 10 pediatricians always identify potential problems via clinical assessment without the use of a screening instrument or checklist.”⁸ The American Academy of Pediatrics has recently extensively revised its 2001 policy¹ on the area and clearly stated “We recommend that developmental surveillance... be incorporated at every well-child visit. Any concerns raised during surveillance should be promptly addressed. In addition, standardized developmental screening tests should be administered regularly at the 9-, 18-, and 30-month visits.”²

A recent retrospective review in the UK showed that routine child health surveillance contribute to the early detection of children with pervasive developmental disorders. In 63.2% of cases concerns (mainly speech & language) had been documented by 2 years and 94% by 3 years.⁹ Routine child health surveillance remains an integral part of the child health programme in the UK & Northern Ireland: “There should be ongoing surveillance of the general health and development of the child. Health professionals should listen to parents and take on board any concerns they may have, responding as appropriate.”¹²

The National Health and Medical Research Council (NHMRC) in Australia^{10,11} recently published an extensive review on the issue and suggested that “Given the complex and interrelated nature of child health and development, there is a good case for a system of prevention and early detection that encompasses and goes beyond screening and surveillance for improving child health outcomes. For many early childhood risk factors it may not be possible to have simple screening tests or well defined surveillance....” While recognising surveillance is important they suggest that “Ideally, there should be an integrated system that incorporates prevention, screening, surveillance and early detection with effective interventions to improve outcomes”

The Centers for Disease Control and Prevention (Child Development & Developmental Screening) suggest that less than 50% of children with developmental delay or problems are not being identified early (before starting school) in the US.¹³

In summary routine surveillance is important as it offers parents an opportunity to discuss concerns with a professional. It however will not pick up every child with a problem and there are some concerns with the ability of professionals to take the next step once a problem is identified.

Screening Tests Available & Do They Work

There has been no attempt in this paper to discuss the ideal criteria for a screening test or discuss the justification for screening in a particular condition (see Wilson & Junger). Developmental screening does not result in a diagnosis but identifies a child who has development problem when compared with her/his peers. Standardised screening instruments recommended for use must have validity, reliability, and accuracy (good sensitivity & specificity). A summary of some screening tools currently used are in the table below. This is not an exhaustive list – two good reviews on this issue are AAP policy document see Pediatrics 2006 118: 405-420 and a write up by Rydz et al in J Child Neurol 2005;20:4-21.

Table: Selected Developmental Screening Tools for Comparison^{2,6}

Screening Test	Description	Age Range	Administration Time	Sensitivity (%) [*]	Specificity (%) [*]	Comments
Parents-complete Questionnaires						
Parents' Evaluation of Developmental Status (PEDS)	Parent-interview form designed to screen for developmental & behavioral problems	0–8 yrs	2–10 min	74–79	70–80	Useful as a surveillance tool. Payment based. Available in Malay & Chinese.
Ages & Stages Questionnaires (ASQ)	Parent-completed questionnaire screening communication, gross motor, fine motor, problem-solving, and personal adaptive skills	4–60 months	10–15 min	70–90	76–90	Payment based.
Child Development Inventory (CDI)	Parent-completed questionnaire; Measures social, self-help, motor, language & general development skills	18 months to 6 yrs	30–50 min	80–100	94–96	Suitable for more in depth evaluation
Modified Checklist for Autism in Toddlers (M-CHAT)	Parent-completed questionnaire designed to identify children at risk of autism	16–48 months	5–10 min	85–87	93–99	Tested locally. In current MOH Child Health Record. Available in Chinese & Malay.
Screening by health professionals						
Denver-II Developmental Screening Test	Designed to screen expressive & receptive language, gross motor, fine motor, & personal social skills	0–6 yrs	10–20 min	56–83	43–80	Widely used locally. Built into MOH Child Health Record – modified version.
Brigance Screens-II	9 forms screening articulation, expressive & receptive language, gross & fine motor, general knowledge & personal social skills & preacademic skills	0–90 months	10–15 min	70–80	70–80	Payment based.
Bayley Infant Neurodevelopmental Screen (BINS)	Screens basic neurologic, receptive (visual, auditory, tactile) & expressive functions (oral, fine, & gross motor skills); & cognitive processes	3–24 months	10 min	75–86	75–86	

^{*}Sensitivity is the accuracy of the test in identifying delayed development.. Specificity is the accuracy of the test in identifying individuals who are not delayed. Sensitivity and specificity were categorized as follows: low 69 or below; moderate 70 to 89; high 90 or above. ²

Programmes in place in industrialised countries

Programmes to detect developmental concerns in children vary in industrialised countries. The current recommendation appears to be routine surveillance with routine standardised developmental and behavioural screenings at periodic intervals in a child's life. The table below summarises the issue and compares it with the revised Ministry of Health child health programme in Malaysia

Table: Summary Comparison of Pre-school Visits/Services in Selected Countries – Focus on Developmental Surveillance & Screening^{14,19,25}

Age of Child	United Kingdom Health Check Guidelines	Australian Health Check Guidelines	USA	Hong Kong ¹⁵	Revised Malaysian
Newborn	Universal newborn hearing screening (< first 7 days) replaces distraction test at 8-9 mths			1 month Universal hearing screening (OAE)	Targeted (high risk) hearing screening
6 weeks	Parental concerns	Parental concerns			
2 months	Parental concerns				
3 months	Parental concerns			Development assessment	Child development checklist (Parental concerns & staff questions)
4-5 months	Parental concerns				Child development checklist (Parental concerns & staff questions)
8-9 months	Distraction hearing test (to be phased out) Respond to parents concerns	6-8 months Development assessment Discuss behaviour, vision/hearing concerns, social interaction	9 months Parental concerns General develop. screening test – focus on motor skills, visual & hearing abilities, early communication	6 months Development assessment Distraction hearing test	
12-15 months	Take opportunity to discuss injury prevention.	12 months 1st MMR	18 months Parental concerns General develop. screening test & Autism-specific tool	18 months Autism screen (M-CHAT)	12 months Child development checklist (Parental concerns & staff questions) 18 months - Autism screen (M-CHAT)
2 years	Discuss concerns about behaviour growth and development	18 month Develop. assessment Discuss: behaviour, discipline, learning & behaving, vision, hearing concerns		1 – 3 years Language skill test	
3-4 years	Discuss parents concerns	2½ to 3½ years Check eyes, gait. Discuss: development, behaviour, speech, hearing & vision	30-month Parental concerns Develop. screening test to identify most motor, language, & cognitive delays	3 years STYCAR Letters Speech discrimination test	36 months - Autism screen (M-CHAT)
4-5 years	Pre-school vision check by orthoptist is likely to be phased in.	School entry (school nurse or health clinic) Development assessment Discuss: behaviour			Child development checklist (Parental concerns & staff questions)
5 years	School entry (school nurse) 'Sweep' hearing test Vision test (likely to be phased out as pre-school vision check by orthoptist in place)				
6-7 years					Vision acuity screening Dyslexia screening (ISD) LINUS screening

A recent comment by the Joint Working Party on Child Health Surveillance UK & UK NHS on health check states "8 month, 2 year, and 3-4 year developmental and health reviews are no longer recommended as a routine part of the core programme for all children. It is thought that primary health care teams will take a flexible approach and offer health reviews and health promotion advice for children and families most in need, or most 'at risk'. Also, to respond to parents who have concerns about their child's development." "..... remember, there are no screening tests for many speech, language, developmental, and congenital disorders. If a parent suspects a problem with their child, they are often right. Take their views and concerns seriously. If in doubt, refer."^{3,16,18} Hence in the UK no formal universal screening is recommended at 8 month, 2 year, and 3-4 years.

This is very different from the American Academy of Pediatrics policy which recommends standardised developmental screening tests at the 9, 18, and 30-month visits."²

Of importance is evidence that suggest that more visits for health surveillance do not improve pick up of problems and that there are no good screening test for many speech, language, developmental problems. Often a discussion on the concerns of parents is most useful. **Listening to parental concerns is the single most important and useful mechanism to identify a child with learning disability.**

The Australian NHMRC evidence based review on screening tests, suggest that there are few test that are reliable for developmental problems.

Table: Summary of Child Health Screening and Surveillance: A Critical Review of the Evidence NHMRC¹⁰

Screening Test	Recommendation
Universal Newborn Hearing Screening	Fair evidence to recommend universal neonatal hearing screening Good evidence for high risk screening
Distraction hearing testing	Good evidence to recommend against distraction testing
Conductive hearing loss	Good evidence to recommend against screening
Vision	Fair evidence to recommend against screening for risk factors for amblyopia Insufficient evidence to make a recommendation for or against preschool visual acuity screening Fair evidence to recommend against colour vision screening
Developmental screening	Insufficient evidence to make a recommendation for or against developmental screening
Language delay	Insufficient evidence to make a recommendation for or against screening

What ever the screening test used it is important to continue with periodic surveillance. Children found to have problems by a screening test require formal evaluation and, if confirmed to have a problem, a referral for therapy.

Barriers to Using Screening Tests & Current Problems with Detection

"The barrier to screening for developmental delay or problems most frequently named by pediatricians is the lack of time in their current practice (82%). Nearly half of pediatricians say lack of medical office staff to perform screenings is a barrier (48%)..."⁸

Beside the duration of the tests, other reasons for limited use of screening tests include unfamiliarity, difficulty with their administration, obtaining cooperation of children in a short time, lack of validation in a local setting or language/culture, problems with parental ability to do self administered tests, problems with the child being assessed by a stranger in an unfamiliar setting, and the cost of purchasing some tests.

The table below summarises the Malaysian Child Health Programme (MOH Child Health Record)¹⁹

Age	Child activities		Responsibility
Birth	Immunisation	BCG 1 st Hepatitis B (including IM Vitamin K)	Nurses/Midwives
	Health Surveillance	Weight/Height/Head circumference	Nurses
		Newborn physical examination	Doctors
	Newborn screening	G6PD deficiency screening Hypothyroidism screening Targeted hearing impairment screening	Nurses/Doctors
Day 2, 4, 6 and 10 of life	Anticipatory guidance	Breast feeding, NNJ Family Planning	Nurses/Doctors
	Health Surveillance	NNJ, Cord care	Home visits by Health Nurses
1 month	Anticipatory guidance	Breast feeding	Nurses
	Immunisation	2 nd dose Hepatitis B	Nurses
	Health Surveillance	Weight/Length/Head circumference	Nurses
2 months	Health Surveillance	Newborn physical examination	Doctors
			Nurses/Doctors
	Anticipatory guidance		Nurses/Doctors
3 months	Immunisation	1 st DPT/OPV/Hib	Nurses
	Health Surveillance	Weight/Head circumference	Nurses
	Anticipatory guidance		Nurses
5 months	Immunisation	2 nd DPT/OPV/Hib BCG scar check	Nurses
	Health Surveillance	Weight/Head circumference	Nurses
	Screening	Child development checklist	Nurses
	Anticipatory guidance	Weaning, Injury prevention	Nurses
12 months	Immunisation	3 rd DPT/OPV/Hib 3 rd Hepatitis B	Nurses
	Health Surveillance	Weight/Length/Head circumference	Nurses
	Screening	Child development checklist	Nurses
	Anticipatory guidance	Weaning, Injury prevention Positive parenting skills	Nurses
18 months	Immunisation	MMR	Nurses
	Health Surveillance	Weight/Length/Head circumference	Nurses
	Screening	Child development checklist	Nurses
	Anticipatory guidance	Positive parenting skills Injury prevention	Nurses
4 years	Immunisation	1 st Booster DPT/OPV/Hib	Nurses
	Health Surveillance	Weight/Height	Nurses
	Screening	Physical examination	Doctors
	Anticipatory guidance	Child development checklist Autism screen (M-CHAT)	Nurses/Doctors
Standard 1 (6-7 years)	Immunisation		Nurses/Doctors
	Immunisation	2 nd MMR (<i>proposed</i>)	Nurses
	Health Surveillance	Weight/Height	Nurses
	Screening	Child development checklist 36 months - Autism screen (M-CHAT)	Nurses/Doctors
Standard 1 (6-7 years)	Immunisation	2 nd Booster DT/OPV BCG scar check (Current 2 nd MMR here)	Nurses
	Health Surveillance	Weight/Height	Nurses
	Screening	Vision acuity screening Dyslexia screening (ISD) LINUS screening	Nurses/Teachers Teachers
	Anticipatory guidance	Nutrition, Healthy lifestyle Injury prevention	Nurses

Need for Evaluation (Diagnosis)

It is import to remember that screening identifies children at risk of learning disability. They still require a formal assessment and evaluation to reach a firm diagnosis (i.e. confirm the learning disability) and identify the cause of problem. It is not the scope of this paper to discuss the useful tests available but important to stress that it should be conducted by competent individuals. A number of professional are capable of doing this including Developmental Paediatricians, Community Paediatricians, Paediatricians with an interested in disability (General Paediatrics & Child Health specialists), Child Psychiatrists and Educational Psychologists. We require many more of these trained individuals if we want to screen all children as it is pointless to screen if we cannot provide support in terms of diagnosis. A note of caution in this area is the growing number of individuals that use unconventional testing methods, examples include urine & hair samples for heavy metals, reading the finger pulps' striae, extensive medical tests (25 for an average child), etc. These require to be monitored and evaluated as to their value, as these are conducted by expensive, paid services.

Value of Early Intervention Programmes

Although it is not the scope of this paper to discuss intervention and therapy it is import to stress that any child identified to have a learning disability requires an Early Intervention Programme (EIP). These have been found effective in supporting children's learning and preparing them for school. Hence because EIP works, we need to screen for these children with learning disability early. At present the bulk of quality EIP services are provided by NGOs. CBRs from Welfare try to offer services but most lack expertise.

Some Words of Caution & Suggestions²⁶

It is important, as we move into an era when screening is used routinely, that we do not label children too quickly as "abnormal" or different as this may unnecessarily damage children and their parents. In addition any developmental screening for disability must involve parents in the assessment and be conducted in an environment familiar to the child. Recent work by the "Zero to 3 Work Group"²¹ suggest a new way forward.

Table: "New Vision" of Assessment as suggested by the Zero to 3 Work Group²²

Concept	"Traditional" Screening Approach	New Vision" of Assessment
Object of assessment	Child	Child in relationship with family
Context of testing	Formal "testing environment"	Familiar environment
Methods of assessment	Specialised procedure	Use everyday activities
Personnel	Tester alone	A team including parents
Use	Label or categorize child	Formulate hypothesis about intervention plan
Degree of linkage of testing with intervention	Separate	Fusion of assessment and intervention
Processes and skills assessed	Static assessment; may be limited to cognitive, motor, language	Dynamic portrait and changes over time; includes family goals, social and emotional
Role of cultural variation	May not vary by culture or may categorize children by cultural group	Awareness of cultural differences between assessor and child, differences within groups
View of child	Deficient	How to give the child what he/she needs?

See <http://www.zerotothree.com> & <http://www.dbpeds.org/>

While we often think in terms of detecting illness or an area of concern, it is important to also remember that health promotion for this age group is of equal importance. In recent years professional have argued that more energy, resources and focus should be placed on promoting healthy social-emotional development in infants and toddlers, rather than detecting delay. See initiatives by Frank Oberklaid (Promotive Strategies through Community Child Health, Melbourne, Australia), and others www.reachoutandread.org & www.surestart.gov.uk.

While we aim to support children with developmental problems lets also take initiatives that to push for prevention or a reduction in the severity of theses problems.

Role of Government Agencies in Learning Disabilities²⁷

The role of each ministry and agency to provide services to children with learning disabilities, especially education is outlined below:

Ministry of Health (MOH)

The primary role of the Ministry of Health is to screen all children at child health visits as well as at the request of parents and other professionals (referrals). MOH assists Ministry of Education in identifying the child as having special needs. The Ministry of Education would be advised on the appropriate service for the child according to the impairment and level of disabilities. Ministry of Health provides further advice through its role as a part of interdisciplinary team in special needs programmes. Placement of special needs child in a preschool or at any level of education depends on the certification by a medical personnel before any placement can be made.

Ministry Of Education (MOE)

MOE provides education for special needs from the age of 4 to post secondary education. Trained and qualified teachers as well as other educational resources in the form of audio-visual aids, educational television and books are being provided, along with financial assistance.

Ministry of Women, Family and Community

The Welfare Department plays a role in providing services for the special needs child through Community Based Centre (CBR) services. MWFC provides education for special needs preschoolers who are not being accepted in government preschools or have severe disabilities.

Types of Children with Disability Requiring Support

There are a large proportion of children which have special education needs.

Data and experience show that, if children who reach the primary school going age (6 years) are not school-ready, they enter school with problems and are difficult for schools and teachers to handle. The gap than continues to widen as they grow. Children can be roughly divided into three groups in terms of their education ability/needs.

1. 70-80% of children usually do not have not much barrier to learning. These are however the children who received most of the educational resources in our country.
2. 3-5% of children have a major disability and are identified early by health professionals, usually at birth or before the age of 5 years (example: Cerebral palsy, severe Autism, Down Syndrome, Moderate-severe intellectual disability, deafness, etc). These include children with multiple or severe disabilities who would need specific special education. Generally there is some provision for them in our education system, although the quality and distribution (access) of the services is questionable.
3. 10-15% of children have more subtle problems. These children have milder disabilities or problems specific learning disorders (example: ADHD, high function Autism, specific learning disorders like Dyslexia, Dyscalculia, mild intellectual disability, etc). They are children with a normal or near normal intelligence with many barriers to education. They are often identified at school entry or a little later. They often present as behaviour problems, poor school performance, school failure, etc. Early and meaningful help and educational support for this group of children is limited.

Concerns for Children with Learning Disabilities Limitations & Weakness of Current Services

1. The **assessment** of children with learning disabilities is poor.
 - a. Medical student's training curriculum for learning disabilities is almost non-existent in some universities and extremely limited in most.
 - b. Most qualified doctors, whether in MOH or private, are not able to identify correctly children with learning disabilities, often dismissing parental concerns.
 - c. Many specialists, including Paediatricians, also lack skills to assess adequately the milder learning disabilities (example: dyslexia, high functioning autism, dyspraxia, etc).
 - d. There is a serious lack of Educational Psychologists, Developmental Paediatricians, Community Paediatricians, and other trained professional to aid in the assessment (diagnosis) of these children both in MOH & MOE.
 - e. There has been a significant unhealthy rise in commercial-base (financially motivated) professionals who run private practices and organisations that charge exorbitant sums for assessment.
 - f. There is a vital need to introduce learning disability screening at 4-5 years of age.
2. **Registering children** with learning disabilities as disabled
 - a. The currently process appears to victimise than rather than support children with learning disabilities.
 - b. If registered as "OKU" they are often stigmatised by law as "uneducable" in main stream education.
 - c. Recent literacy MOE KPIs linked to career advancements has resulted in teachers in the main stream education system "unloading" (getting rid of) children with learning disabilities to special education.
3. **Education Services**
 - a. Our current education programme and is failing these children with learning disabilities. MOE services are better for children with severe disabilities in special education classes. MOE has no serious commitment to inclusive education for children with learning disabilities. As well as a reluctance to institute a teacher aid programme to support children in main stream education.
 - b. Despite enormous growth in education services for the disabled the MOE has not been able to offer a uniform service with good access national wide (difficult to access in smaller towns in Sarawak, Sabah, and interior Peninsular).
 - c. Special education classes are not suitable for children with learning disabilities. These form the bulk of children with special needs whose needs are not currently met.
 - d. The quality of special education teachers varies enormously, even within the same school. . Frequent complaints from parents about the lack of a focused education plan, no baseline assessment, no target skills/objectives and no review to see if objectives have been met. There is a need to implement an Individual Education Plan (IEP) for every child.
 - e. Some teachers choose the special education field for monetary reasons.
 - f. The training syllabus for special education teachers needs a review of its content & style of training (too much lecture based training).
 - g. Teachers are unable to deal with these children in the large main stream classes. With the KPI of teachers (key performance index linked to promotion) being full literacy at Standard 3, there has been a large move by teachers all over the country to send these children for a medical assessment and push for them to be registered as OKU. This is inappropriate as we cannot be labelling 15% or more of our children as disabled.
 - h. Extremely limited availability of Speech & Language Therapist and Educational Psychologist in MOE schools.
 - i. Some of new graduate teachers are not experienced in class room management and have no exposure to disabilities and behavioural management. Need to review teachers' training colleges syllabus.

- j. Due to the failure of MOE, NGOs & private professional services have mushroomed. Some of these private organisations ("home school services") are excellent and compassionate. Others are unhealthy and financially motivated individuals/organisation feed into the fear of parents for their child's future and charge exorbitant sums for therapy.
- k. The current education syllabus has been revamped so much so that there are now too many subjects and too difficult for the average children (too packed). Hence creating a group of "apparent" learning disability and behavioural problems. The time allocated for physical exercise, art & music, is used for catching up with academic work instead.

Key Strategies for Improvement

The experience from other countries has shown that have also struggled with similar problems. Their approach has been to include all children within main-stream education and not segregate them to a disability syllabus. Can we please emulate the models/ideas from these countries which include (also see Memorandum on Inclusive Education):

1. A serious need to review medical school curriculum to include identification & assessment of children with learning disabilities.
2. Revamp the Education Blueprint to have a firm commitment to inclusive education for children with learning disabilities with organise support in the form of a teacher aid programme.
3. Recruit the best school students to enter the teaching professionals to produce quality teachers.
4. Providing the best teachers for educationally challenged children.
5. Offering better school environments for children with education needs with smaller class in main stream.
6. Not registering children with learning problems as disabled but recognising that they have special needs.

The quality of an education system cannot exceed the quality of its teachers.

We need to advocate for our best teachers and the education system to support our weakest children so that a nation we all move forward without leaving any behind.

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Executive Summary of the Memorandum on Early Childhood Intervention

Adopted At The 1st National Early Childhood Intervention Conference, 18 – 20 November 2006, Penang
(Full document available at: <http://www.necicmalaysia.org/newsmaster.cfm?&menuid=6&action=view&retrieveid=4>)

This Memorandum focuses on the critical role of Early Intervention for Children with Disabilities, Impairments, Developmental Delays or Special Needs in Malaysia (henceforth Children with Disabilities or Special Needs). It is based on the universal rights of all children; the affirmation of additional and specific rights of children with disabilities; the ideal of equal access and opportunities to education for all children; and the objective of attaining an appropriately inclusive, barrier-free, safe, secure and rights-based society for all Persons with Disabilities or Special Needs.

These values, principles and objectives are enshrined within the following international agreements which Malaysia has ratified or endorsed:-

- The UN Convention on the Rights of the Child (1989)
- The Salamanca Statement on Principles, Policy and Practice in Special Needs Education (1994)
- The UNESCAP Biwako Millennium Framework for Action (2003)

1. Early Childhood Intervention is critical to optimizing the learning & development of Children with Disabilities or Special Needs

- The early childhood years (from 0-8) lay the foundation for all areas of development. They are of special importance to Children with Disabilities or Special Needs;
- Early intervention results in greatest benefits for the child, helps families to adapt to and learn to support the child's special needs, and facilitates successful transitions to pre-school and primary education;
- Delay in providing intervention leads to poor results for the child and higher costs to the family and society.

2. Crucial components of Effective Early Childhood Intervention

a. Early detection and prompt diagnosis

- **Routine developmental surveillance/screening for ALL children from 0-8 years;**
- **Multi-disciplinary assessments for EVERY child with a disability or at risk of developmental delay, conducted in a child-friendly environment, in close partnership with parents or carers.**

b. Effective, Integrated, and Conveniently Located Intervention Services

- Immediate access to early intervention programmes for ALL children identified with a disability or special need - no child to be denied access;
- Early Childhood Intervention units providing comprehensive therapies to meet specific needs and covering all major areas of development;
- Conveniently located and well-integrated intervention services with co-located multi-disciplinary therapies for convenient access;
- Delivery by well trained and highly skilled personnel committed to evidence based best practice;
- Regular and consistent services with reviews and modifications to meet changing needs.

c. Families as Focal Point of Positive Partnerships

- Empower parents, carers, and families as positive partners at every stage of screening, diagnosis, and intervention;
- Enable families to play effective roles in prevention and early detection through more information and education;
- Give special attention to disadvantaged and vulnerable families;
- Provide more financial support through disability allowance, increased tax relief benefits, and subsidies for intervention and rehabilitation needs of children.

d. Well trained, highly skilled, intensely motivated professionals

- Create more posts in Ministries of Health, Education, Rural Development and Welfare Department for necessary staff to provide intervention services;
- Recruit highly trained staff, motivated by commensurate salaries and professional recognition;
- Increase budgets for Pre-service and In-service training;
- Include modules on early childhood, disabilities and special needs in basic training of all relevant health professionals.

3. Meet Diverse Educational Needs of all Children

- All Children with Disabilities or Special Needs have the same right to basic formal education, including pre-school education, as their non-disabled peers;

- Mainstreaming should be the first option. Children with Disabilities or Special Needs should be granted the right to additional resources to enable and support them to access basic formal education;
- Every Child with a Disability or Special Need should have an Individualised Education Plan (IEP) to meet his/her specific needs, and should have access to all the necessary supporting specialist skills specified in the IEP;
- All early childhood teachers should be trained to detect disabilities or special needs and be equipped with basic skills to meet the learning needs of different children;
- Teachers of Special Classes should be trained to provide the highest standards of education to meet the varied learning needs of Children with Disabilities or Special Needs.

4. Create and Maintain a National Data Base – to provide reliable and accurate information for systematic analysis of the needs of the target population and enable effective policy formulation, budget allocations, and programme implementation.

5. Budget for the Needs of Children with Disabilities – special provisions in the annual budgets of all relevant government ministries to meet the objective of providing for the needs of ALL children with disabilities or special needs, from 0 to 8 years of age.

6. Formation of National Council on Early Childhood Intervention - to act as a forum to discuss, monitor and review all policies and actions related to Early Childhood Intervention.

When ALL families caring for a Child with a Disability or Special Needs are able to access appropriate, affordable, and responsive specialist intervention services, enabling each and every child to achieve their full physical, intellectual, social and emotional potential, we will have reached an important milestone in our journey towards becoming a fully developed and truly caring nation.

Memorandum on Inclusive Education as National Policy for Children with Special Needs

National Early Childhood Intervention Council, April 2012

(Full document available at:

<http://www.necicmalaysia.org/newsmaster.cfm?&menuid=6&action=view&retrieveid=5>)

Summary Points:

The two strong beliefs underlying the principle of Inclusive Education are:

1. ALL children are educable although they may learn at different rates and levels, and
2. ALL children will benefit from an inclusive program regardless of their differences.

Recommendations (selected)

1. Clear and Committed Policy Directions - Inculcate an Inclusive Culture - Our education system should focus on building an inclusive culture in ALL schools, where diversity is embraced, respected and valued.
2. Caring as an Index - In line with this clear policy direction, the key performance index (KPI) for schools should include a "caring" index as a measure of the school's efforts to embrace, respect and value differences among its students.
3. Class Size - Reduce class size in primary schools to not more than 25 children in each class.
4. Pre-service and In-service Teacher Training
 - a. Disability Awareness - ALL teaching staff must be trained in disability awareness and the basic fundamentals of Special Needs Education.
 - b. Emphasis on Inclusion - Training of all teachers should place strong emphasis on inclusion. Teachers must be trained on how to detect and meet the learning needs of students with special needs in mainstream classrooms.
 - c. Training Modules - Training modules must include some simple screening measures to detect different kinds of special needs, designing of proper Individualized Education Plans (IEPs) and lesson modification within the scope of the regular school curriculum, collaboration between teachers and with other professionals involved in supporting the child with special needs, fostering peer relations and peer support for the child with special needs in the classroom.
 - d. Emphasis on Collaboration with Families – Families, particularly parents of children with special needs, are vital partners. They can share crucial information on 'what works' for their child with teachers, as well as carry over teaching from school to home.
5. Provision for Additional Resources
 - a. SENCO - Create the post of a Special Education Needs Coordinator (SENCO) for schools with student populations above 800. The SENCO's function is to ensure that every child with a special need in the school has an IEP and has access to other specialist resources he or she may need.
 - b. Teacher Aide - Allow for the employment of teacher aides and/or student support, whether full-time or part-time, to assist in the implementation of IEPs in mainstream classes and to support the inclusion of children with special needs, especially in the initial stages of adjustment to mainstream classes.
 - c. Allied Health Professional Service Provision – Allow for budgetary considerations for the employment of speech-language pathologists, audiologists, physiotherapists, occupational therapists and/or other such professionals to provide screening measures, direct/indirect intervention and support services to teachers and students alike.
6. Child-centred - Empower teachers to adapt general curriculum guidelines to suit children with different learning styles so that different children may learn in different ways even within the same classroom.
7. Reduce Special Education Classes - Cease the opening of more special education classes and gradually reduce the number of special education classes while at the same time increase the enrolment of special needs children in mainstream schools.

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