CHAPTER 3

Early Intervention and Education for Children with Special Needs

VISION

Children with special needs shall receive a quality education that will maximise their potential at home, in the workplace and in the community. A quality early intervention and education programme will lay a strong foundation for the child's adult years and maximise his/her ability to:

a. Live independently in the community
b. Become gainfully employed
c. Engage in lifelong learning
d. Possess a quality of life in the areas of socialisation, recreation, leisure and healthcare (this includes quality of care for those with high support needs)
e. Contribute to others at home and in the community

INTRODUCTION

1. Education is the passport to greater opportunities in life. For the child with special needs, the prognosis of his adult life is highly dependent on the quality of education in his pre-school and ensuing school years.

2. Early identification and intervention are pivotal to the prognosis of the child with special needs. Many professionals believe that the first seven years of a child’s life are critical windows for his development intellectually, socially and emotionally. Findings support the commonly-held view that early services to young children with special needs will enhance their abilities to develop to their maximum potential, reduce later education costs to society, and improve their chances of both economic and living independence.

3. Similarly, the quality of education during the child’s formal school years (beyond age 6) and the ensuing transition planning are believed to have a direct impact on whether he achieves maximal economic and living independence. Students with special needs are at much higher risk to be significantly unemployed and underemployed upon leaving school compared to their peers who do not have disabilities.

4. Several critical success factors are important to achieving excellence in the early intervention and education of children with special needs:

   a. Timely and Appropriate Placement for Child – There needs to be early identification, coupled with proper assessment and placement, so that the child can have access to learning as early as
possible. A sample of a systematic roadmap is illustrated in Annex 3-1.

b. **Quality Curriculum and Pedagogy** *(what' and 'how' to teach)* – A successful education programme requires a sound evidence-based curriculum and pedagogy.

c. **Trained Professionals** – Professionals who are systematically trained and coached are integral to success especially in an industry dependent primarily on human resources.

d. **Funding of Enabling Services** – Programmes need adequate resources to run successfully.

e. **Active Family Caregiver Involvement** – The learning received by the child with special needs in schools must be reinforced and continued at home.

f. **Transition Planning/Community Acceptance** – Planned transition from one school year to another; from one school setting to another and from school to employment; is critical. Planned Integration must start early.

g. **Strategic Leadership with Strong Execution Discipline** – As with all initiatives, there must be strong strategic and accountable leadership at all levels in order for programmes to be executed successfully.

**EFFORTS AND ISSUES IN THE LAST FIVE YEARS**

**Current Situation: Across All Age Groups**

5. In response to the increasing number of children identified with special needs in Singapore, several key initiatives have been launched by MCYS, MOH, MOE and NCSS in the last five years. Efforts had been primarily directed to addressing the critical issue of capacity shortfall in the sector – specifically, the reduction of waitlists for services.

6. Whilst the number of centres and schools and therefore children has increased significantly, its impact on the quality of education of the children served is unclear.

7. In the area of education, a Compulsory Education Act was passed in 2003 to legislate that all children born after 1 January 1996 must attend a national primary school. Although one of the key rationales is the maximisation of the children’s full potential, the Act has excluded some groups of children, including children with special needs. This has resulted in sentiments amongst parents and some advocates that children with special needs are not equally regarded as their non-disabled peers.
8. In terms of governance, a key feature of the current landscape is the tripartite arrangement under the ‘many helping hands’ approach. A tripartite relationship amongst VWOs, NCSS and MOE/MCYS forms the basis of how these services are provided (refer to Figure 3.1).

**Figure 3.1: Tripartite Governance of EIPICs and Special Schools**

Current Governance System of Early Intervention and Special Schools

- Service Operators: VWOs
- Early Intervention and Special Education Child in Singapore
- Management of VWOs in Fund Allocation & Service Development: NCSS
- Fund Provider: MCYS, MOE, NCSS Donors

9. NCSS is the primary overseer of VWOs in children disability services, managing the Early Intervention Programmes for Infants and Children (EIPICs) and special schools with its Programme Evaluation System. It receives support from two key ministries, namely MCYS and MOE especially in funding matters for early intervention and SPED respectively. In addition, donors also provide funding through the NCSS’ fundraising mechanism.

10. Most key initiatives related to the early intervention and education of special needs children, except for those in mainstream schools, are run by VWOs. These initiatives include the Disability Information and Referral Centre (DIRC), EIPICs, therapy hubs and all special schools. All VWOs are led by management committees who hold executive powers and are subject to regular elections. VWO management committees running EIPICs and VWO-appointed school boards have full authority to make all decisions, including finance, human resource hiring and employment and overall operations.

**Current Situation: Birth to Six Years**

11. The current landscape of government-involved services which provide early detection and intervention for children with special needs covers the following known programmes (refer to Table 3.1).
<table>
<thead>
<tr>
<th>Pivotal Service and Purpose</th>
<th>Government-Funded Service Providers (excluding private sector providers)</th>
</tr>
</thead>
</table>
| Assessment & Diagnosis for Early Identification | • CDU @ KKH (KK Women’s and Children Hospital)  
• CDU @ NUH (National University Hospital)  
• Child Guidance Clinic @ IMH (Institute of Mental Health)  
• Various VWOs  
Note: 1,400 per year (Based on CDU figures)  
Other nos. not available |
| Therapy and Parent Training Services Supporting Children Awaiting EIPIC Services | • CDU @ KKH  
• CDU @ NUH |
| Information and Referral Services | • DIRC by Society of Moral Charities |
| EIPIC Centres Providing Social, Educational and Rehabilitative Services for Special-Needs Children | • Society of Moral Charities EIPIC  
• Rainbow Centre (Margaret Drive)  
• Rainbow Centre (Balestier)  
• Autism Association of Singapore (Clementi)  
• Autism Association of Singapore (Simei)  
• Autism Resource Centre  
• AWWA Early Years Centre  
• Spastic Children’s Association of Singapore (SCAS) EIPIC  
• Fei Yue Community Services EIPIC  
Note: 727 children served as of November 2006 |
| Integrated Childcare Programmes (ICCP) Supporting Children with Special Needs in Childcare Centres. | • 17 VWO-run centres serving 114 children as of November 2006 |
| Therapy Hubs to Provide Therapy Services to VWOs | • Society of Moral Charities  
• Society for the Physically Disabled |

12. Means testing was introduced in phases starting from April 2006 to direct funding for EIPIC services to families who are deemed needier. In effect, families with per capita income of more than $1,000 will not qualify for government subsidy from 2010.
Current Situation: Children Aged Six Years and Older in Mainstream Settings

13. Upon reaching the typical schooling age of six, children with special needs can opt for education in a mainstream or specialised setting. Final placement decisions are made by parents. Children, whose parents opt for a mainstream school setting, have a list of schools, as indicated in Table 3.2, which are considered as disability-friendly. There is currently no provision for these children to undergo any formal assessment for school and class placements before their entry into mainstream schools. In 2006 there are about 4,000 students with special needs in mainstream schools.

14. MOE has dedicated $15 million for the deployment of Special Needs Officers (SNOs) into mainstream schools to support children with dyslexia and ASD from 2005 to 2010.

Table 3.2: List of Designated Mainstream Schools Supporting the Various Disability Types

<table>
<thead>
<tr>
<th>Disability</th>
<th>No. of Designated Mainstream Schools Supporting the Disability</th>
</tr>
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<tbody>
<tr>
<td>Hearing Impairment</td>
<td>2 secondary schools</td>
</tr>
<tr>
<td>Visual Impairment</td>
<td>4 secondary schools</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>59 primary and secondary schools</td>
</tr>
<tr>
<td>Dyslexia</td>
<td>By Year 2010: All primary schools and 20 secondary schools</td>
</tr>
<tr>
<td>Autism Spectrum Disorder</td>
<td>By Year 2010: 20 primary schools and 12 secondary schools</td>
</tr>
</tbody>
</table>

15. In addition, 10% of mainstream primary and secondary teachers will also be trained in special needs, through a part-time 108-hour Certificate in Special Needs Support that is offered by the NIE.

16. If the student subsequently graduates to the local tertiary institutions, provision for support in these institutions will be made by the individual institutions. The level of actual support varies. Most of the current accommodations relate to students with physical or sensory disabilities. Most higher institutions of learning are not equipped to support students with learning difficulties such as dyslexia or autism.

Current Situation: Children Aged Six Years and Older in Special School Settings

17. For children attending SPED schools, there are currently a total of 21 special schools in Singapore, all operated by VWOs. Out of these, four offer mainstream academics subjects similar to that of typical mainstream schools in Singapore.
18. As highlighted earlier, NCSS leads in both the development of the special schools’ Programme Evaluation System and in conducting on-site assessments of these schools. MOE plays a supportive role and in the last two years, has supported NCSS in organising principal and teacher training programmes. The SPED system remains relatively separate from the MOE mainstream system.

19. The 21 special schools cater to a wide range of disabilities from intellectual to learning and physical disabilities. In December 2006, MOE published its perspective of the education ‘pathways’ for children educated in the various special schools (refer to Figure 3.2).
Figure 3.2: Education Pathways for Children with Special Needs
20. Prime Minister Lee Hsien Loong’s inaugural call for a more inclusive Singapore with no one left behind in 2004 is followed by increased funding for students educated in the SPED system. The Government is committed to provide recurrent funding of up to four times the level of funding per primary student in mainstream schools. MOE has also increased its support for development costs of special school buildings from 90% to 95% for projects approved after September 2004.

21. The 2006 Education Statistics Digest published by MOE reported government recurrent expenditures on SPED to be close to $54 million in FY2005/06 (preliminary figures). This does not include the additional development and redevelopment costs of special schools. It is obvious that the Government is willing to back its support for SPED with finances and it now remains for the SPED sector to level up and focus on ensuring these significant investments are put to good use.

22. Integration efforts of special school students with their mainstream peers are piecemeal and largely based on voluntary and Community Involvement Programme (CIP) initiatives of mainstream schools. Recently, there has been a shift in thinking of educating children with special needs in more integrated settings, with the development of the Canossian Eduplex and Pathlight’s satellite model in Chong Boon Secondary School. These integration models depart from the traditional dichotomy of mainstream versus special schools.

CONSULTATION WITH VARIOUS STAKEHOLDERS

23. To gather ground inputs on the current landscape, 12 focus group discussions, involving 261 participants were conducted. The participants included parents of children with special needs or PWDs themselves in either mainstream or specialised settings (57%); and professionals including special school principals, teachers, therapists and social workers (41%). (Refer to Annex 3-2 for a sample of the focus group discussion guide and Annex 3-4 for typical verbatim responses captured). In addition, additional views from experts in the field were sought. Field visits were also made to some VWOs and special schools.

24. The findings from the focus group discussions, field visits and experts were reinforced with a simple written survey (refer to Annex 3-3), designed to extract further data from the participants on their views towards early intervention and SPED.

25. Integrating the information from these multi-level ground consultations, five key findings were derived (refer to Table 3.3):
<table>
<thead>
<tr>
<th>Key Findings</th>
<th>Example of Feedback</th>
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<tbody>
<tr>
<td>1. Call for changes in leadership configuration in the early intervention and education sector</td>
<td>“(There should be a) Centralised body to oversee early intervention initiative rather than current MOH, MOE, MCYS, VWOs with rather independent initiatives... (there is a) lack of committed social ‘architects’ to actualise the plan.” (EIPIC Programme Head)</td>
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<td></td>
<td>“Stop leaving the provision of special needs education to the voluntary sector. Government needs to take ownership of it...” (Consultant)</td>
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<td></td>
<td>“…Ministries should stop trying to pass the buck to each other due to their own limitations. Same energy would be better spent on objectively identifying the Ministry most suited for the role ...focus on finding viable and sustainable solutions for the families.” (Head of Unit in public sector)</td>
</tr>
<tr>
<td>2. Need for clarity of options and education pathways</td>
<td>“A parent of a normal child would know clearly the roadmap for their child. Primary School Level Examination (PSLE) ... O Levels... A Levels... etc... Yet for a Special Needs child, I can’t see past 2 to 3 years. Every stage is a struggle. There should be a clear route for Special Needs cases. Early Intervention... Special Education... Job Placement... Career Counselling... in the absence of such advice, parents will just make their own plans...” (Principal)</td>
</tr>
<tr>
<td>3. Inconsistent quality of programmes and staff</td>
<td>“Differing and inconsistent performance standards... lack of consistency of a basic framework, process of needs assessment up to outcome recording and tracking... Support at pre-schools outside is also inconsistent with little agreed upon standards...” (VWO Head of Services)</td>
</tr>
<tr>
<td>4. Call for more structured integration with mainstream peers</td>
<td>“…need a sense of inclusiveness. Other kids and adults don’t understand children with special needs. Awareness could be created such that special kids can participate in mainstream programmes e.g. art and sports. Mainstream programmes are currently not ready to open up to special kids.” (Parent)</td>
</tr>
<tr>
<td>5. Appreciation for Government’s greater focus on special needs</td>
<td>“Individualised Learning. Complimentary and focused training provided by the Steering Committee of Learning and Teaching...” (SPED professional)</td>
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</tbody>
</table>
Key Finding 1: Call for Changes in Leadership Configuration in the Early Intervention and Education Sector

26. The early intervention and education of children with special needs in non-mainstream settings have been traditionally led by the social service sector. There are strong ground sentiments from parents and professionals alike to reform the leadership structure with greater ownership by the relevant government ministries.

27. There is a perceived lack of coordination and leadership in the sector, largely due to the tripartite sharing of responsibility and the low public profile of any inter-ministry workgroups. Some service providers and professionals have questioned why NCSS, with its social service core mission, was tasked with the leadership of setting performance standards including therapy standards and conducting on-site assessments for the special schools.

28. There was a general call for MOE to ‘take over’ early intervention and SPED. Many felt that SPED should be viewed as education. It should not be left primarily in the hands of VWOs and social service agencies. For example, one medical head had suggested for a central body to be set up ‘if MOE is not taking over’.

29. On the other hand, there is also a group of professionals and VWO heads who felt that government ministries like MOE and MOH do not yet have the full expertise and paradigms to completely take over early intervention and SPED. The ministries appear to share the root problems of lack of skilled manpower and staff retention in the sector. Nonetheless, the dominant view on the ground is that relevant government ministries should take ownership and at least lead in service integration instead of adopting an “arms-length approach” by working through the NCSS.

30. Quality of VWO management was also a concern amongst some respondents. The Committee observes that the effectiveness and pace of each early intervention centre and special school are very dependent on individual VWO leadership, culture and preferences.

Key Finding 2: Need for Clarity of Options and Education Pathways Available for Students with Special Needs

31. The DIRC was set up in Mar 2005 to provide a one-stop information and referral body for parents of especially newly diagnosed children. Feedback shows there appears to be a gap between what DIRC clients expect, versus what DIRC can realistically deliver at the moment. Some parents want information on education options to be more comprehensive and transparent. This will help them to make better informed decisions for their children’s placements.
32. Experts on the ground also highlighted there are no specific intervention services for children who are diagnosed with speech & language problems, learning problems/disabilities and Attention Deficit Hyperactivity Disorder (ADHD) every year (refer to Annex 3-5) at the Child Development Units (CDUs).

33. Many parents of children in special schools were also unaware of the education pathway set out for their children with special needs. Some special school principals expressed the same concerns. Parents were concerned about the options available for their child upon graduation. They called for the need for a visible link of special school programmes to post-18-year-old education or employment options.

34. Some parents highlighted the need for mainstream academics resources to be made available and taught in all special schools according to the pace of the child, rather than focusing only on learning life skills. They also emphasised the need to recognise and nurture the special talents of children with special needs, and not be too rigid to focus on academics as the only measure of success.

35. The Committee also heard the feedback to extend SPED up to age 21 in view that many of these children are developmentally delayed and need an extra leg up to acquire independence in employment and adult living. As for those who move on to further studies in the Institute of Technical Education (ITE) and higher institutions of learning, there is a need for a hierarchy of planned professional support for those who need them.

**Key Finding 3: Inconsistent Quality of Programmes and Staff**

36. Concerns were expressed over the lack of shared quality standards for programmes, and the inconsistent quality of teachers, therapists and programme heads in both early intervention centres and special schools.

37. In early intervention, NCSS has attempted through its engagement of Dr Christine Clarke, an overseas expert on early intervention, to develop a model and framework for service delivery and curriculum framework for Early Intervention in Singapore. Efforts are still underway.

38. In special schools, the MOE SPED Unit, with NCSS, has stepped up coordination in teacher/principal training and curriculum development and visible efforts were observed in 2006. While the impact is still unclear, this involvement is welcome by the sector.

39. There are no widely shared frameworks for assessment, admissions, service delivery and curriculum amongst special schools. An example is the development of the “life skills” curriculum widely viewed to be essential to all special school students. Evidence showed that VWOs are developing their own
life skills training curriculum, with varying degrees of depth, breadth and teaching resources. The NCSS’ Social Service Training Institute conducts training needs analysis and run training workshops. The impact is again unclear.

40. In mainstream schools, the playing field is similarly uneven. The full roll-out of the SNO scheme by MOE will only be achieved in 2010. The MCYS and the NCSS are also involved in the support of special needs students through their CIS program for physically disabled and deaf students. The level of moral and professional support a special needs student and family receive varies across schools. There does not appear to be much evidence of consistent application of best practices like individual education planning and transition planning.

41. Most mainstream higher institutions of learning are more familiar with supporting students with physical and sensory impairments such as visual and hearing disabilities. Few, if any, are able to support students with learning disabilities, hence limiting the latter’s options for further studies.

**Key Finding 4: Call for More Structured Integration with Mainstream Peers**

42. It is heartening to note the increasing call by leaders and people alike to build a more inclusive Singapore. This call is echoed in the special needs community but in more tangible ways.

43. The Committee observes that integration initiatives in education of special needs children remain fairly uncoordinated. There is no shared framework amongst the different ministries, agencies and VWOs on planned and purposeful integration to effectively transit these children to mainstream activities. There is much parallel play and little planned synergy between:

   a. Early intervention and education for older children (special or mainstream schools); and

   b. MOE’s Mainstream Schools and VWO-run special schools.

44. It is important to systematically transit students with special needs into employment or further studies. Research findings in more developed countries report that “students with disabilities are (often) significantly unemployed and underemployed upon leaving school compared to their peers who do not have disabilities” (Ref: Trupin, Sebesta, Yelin & Laplante, 1997; National Organisation on Disability, 2000; Semsky & Odell, 1994; McNeil, 2000). Without better planned integration strategies, it is predicted that many special needs students will be ill-prepared to live and work independently in mainstream society.
45. Nevertheless, many felt that the potential for improvement in the education landscape for children with special needs is high, due to the assurance of political leaders and the more visible efforts made in recent years. Specifically, appreciation is expressed for the funds invested in physical infrastructure for special schools; training of teachers in both special and mainstream schools; and increased public awareness. More proactive and visible involvements from the MOE special education department and MCYS policy team are witnessed in the last two years.

46. The Committee applauds the Government’s allocation of increased financial resources to educate children with special needs in Singapore. It appreciates the individual efforts put in by the many agencies to educate them. Although it does not support the exclusion of children with special needs in the Compulsory Education Act, it recommends that this be reviewed in the future when the SPED sector is more developed to cater to every child with special needs.

47. The Committee believes it is now apt to turn the focus from building capacity to building quality and aspire toward excellence in the education of these children.

48. The Committee has identified six strategic thrusts underlying the suite of recommendations presented for more effective early intervention and education of children with special needs. These are: leadership revamp; planned and purposeful integration; quality programme and staff; empowerment of family caregivers; transition management and funding of enabling services.

49. The Committee believes that the education of special needs children requires stronger partnership amongst stakeholders than non-disabled children, due to its more complex nature. It hence supports the ‘Many Helping Hands’ approach.

50. However, it is of the view that the country must undergo a fundamental paradigm shift on who should drive the education of these children. It recommends that the current tripartite service configuration (Figure 3.1) be revamped to ensure better results and accountability for the significant resources invested yearly.
51. It supports the strong ground notion that education of such children should not be viewed as charity and that Government should take more direct ownership instead of the social service sector through NCSS. It advises that each player in the current 'many helping hands' configuration rises above traditional boundaries and re-examine objectively what is best done by whom for the best results. A value chain of early intervention and education services must be developed to achieve greater clarity in roles, deliverables and accountability amongst the different stakeholders.

52. The above aspirations can be best achieved by the setting up of a government-led Panel for Early Intervention and Education of children with special needs. This can be positioned under the ambit of the proposed office on disability in Chapter 2.

53. The proposed governing Panel for Early Intervention and Education should comprise senior leaders of MOE and MOH who will take ownership and lead in integrating services in education and therapy support for children with special needs. Its other members should include the MCYS, NCSS, key VWOs and users of the services. There should be local and overseas disability experts to help the panel develop effective and scalable early intervention and special education models for the best achievable outcomes. In addition, the Panel must have the influence to move students and resources across the hitherto perceived ‘silos’ of hospitals, preschools, mainstream and special schools.

54. To ensure effective reforms, the selection of all members of the Panel must be rigorous. Care must be taken to overcome potential skepticism that the proposed governing Panel is a mere repackaging of ‘old wine in new wine skins’ with little change in attitudes toward ownership and quality. One special needs consultant opined that the ‘who’ and ‘how’ are just as critical to identifying ‘what’ has to be done in early intervention and SPED. The Committee recommends that a profile of members and selection criteria be clearly spelled out. The ability to think strategically, and value-add in tangible ways toward excellence are some desired attributes.

55. The proposed Panel should be made accountable for the significant amount of government resources invested annually in early intervention and education of special needs children. It should be given the authority to allocate funds for approved programmes. It should also be tasked to develop a clear value chain of services, based on identified and expected core competencies of each key player as suggested in the matrix (refer to Annex 3-6).

56. Greater clarity in roles and deliverables of key stakeholders in the value chain should lead to a streamlining of services and reduction in duplication and wastage. Key players can then be held accountable to the proposed office on
disability through specific performance indicators for the service areas agreed upon.

57. **In cases where VWOs are called upon to participate in the service provision, due diligence measures must be installed.** This will include, and not be limited to, vigilant selection and feedback measures to ensure quality and value-add of VWO leaders and school board members involved with the programmes. Where appropriate, **private sector providers** who are creditable should be welcome into the sector.

**Strategic Thrust 2: Planned and Purposeful Integration**

58. Not every child with a special need needs to be in a special class. A case in mind is the student with a physical disability who essentially needs a barrier-free physical environment and an inclusive whole-school culture. Each child’s individual education plan (IEP) should seek to determine the settings that are most appropriate for the education of that child. For those who need special support, research has shown best education results in integrated models where these students reap the best of both mainstream and specialised settings.

59. The Committee challenges the traditional dichotomy of mainstream and special schools. If an inclusive Singapore remains a national goal, the Committee believes there is a need to step out of the traditional “either-or” where children with special needs are educated either in a special school (run by charities) or mainstream school (run by the Government). The Committee firmly believes that it is critical for non-disabled children to regularly interact with peers who are different than them. This will maximise the chances for these children to develop to adult Singaporeans with inclusive mindsets. **It hence recommends that MOE formally adopts a Continuum of Education Models, like that already tried and tested in the Canossian and Pathlight special schools, that encourages optimal physical, social and academic integration.**

60. Experiences from countries more progressive in SPED show that integration can operate at three different levels – physical, social and academic integrations:

   a. **Physical Integration** – where provision for children with SPED needs are made on the same physical site as their mainstream peers. Even if special needs children cannot cope with the pace and intensity of mainstream academic subjects, they can be housed within the same physical environment as their mainstream peers, sharing physical facilities such as canteens and sports facilities.

   b. **Academic Integration** – where children with special needs and mainstream children attend academic classes together, pursuing the same set of curriculum goals and activities.
c. **Social Integration** – where children share social and living spaces, in the playground or in non-academic subjects such as music and movement and extra-curricular activities.

61. **The Committee recommends that a systematic framework of assessment and placement** be set up so that children with special needs can be appropriately placed in the right integration setting. Figure 3.3 presents a continuum of how the education needs of children with special needs can be addressed through various integration models in the education landscape.

62. The continuum essentially covers three broad categories of education models:
   a. SPED classes based outside a mainstream setting;
   b. SPED classes (special school satellites) co-locating with mainstream classes; and
   c. Mainstream classes with professional therapy and/or teacher support

63. To ensure student achievements, children with special needs served in mainstream settings must have access to not only barrier-free physical school environments but also structured and accessible direct services by therapists, psychologists and specialist teachers. The Committee recommends that MOE takes the lead in extending these support services to all major disability groups including the NCSS and MCYS-funded CIS programme for the physically disabled and deaf students in mainstream schools. It also proposes an outreach service **to provide direct intervention in selected mainstream preschools, which include kindergartens and nurseries**. It recommends that an approved **panel of specialist service providers be set up for preschools**. The panel can comprise in-house government providers or outsourced professionals from VWOs, special schools or the private sector.

64. **Formal partnership agreements** between mainstream and special schools to target specific integration areas should form a regular feature in the education scene. **SPED students and staff need to be considered and included in the formulation of national education policies impacting their mainstream peers**. There should be **official recognition and tangible support** for mainstream schools which undertake sustained inclusive efforts in partnering SPED schools.
<table>
<thead>
<tr>
<th>Description of Services</th>
<th>Examples</th>
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<tbody>
<tr>
<td><strong>Homebound or Hospital</strong></td>
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<tr>
<td>Student receives SPED and related services at home or in a hospital programme.</td>
<td></td>
</tr>
<tr>
<td><strong>Separate School (Co-Location or as Proximate to a Mainstream School as Possible)</strong></td>
<td>E.g. Rainbow Centre Schools</td>
</tr>
<tr>
<td>Student receives SPED and related services under the direction of a specially trained</td>
<td></td>
</tr>
<tr>
<td>staff in a specially designed facility.</td>
<td></td>
</tr>
<tr>
<td><strong>Separate Classroom (Satellite Model or Co-Location Model)</strong></td>
<td>E.g. Canossian Special School in Eduplex / Pathlight Satellite @ Chong</td>
</tr>
<tr>
<td>Student attends a special class located within mainstream school facility for most or</td>
<td>Boon Sec School / WeCAN Early Intervention @ PCF Kindergartens</td>
</tr>
<tr>
<td>all of the school day and receives:</td>
<td></td>
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<tr>
<td>• SPED and related services by SPED teachers and</td>
<td></td>
</tr>
<tr>
<td>• Instruction by mainstream teacher with support of SPED teacher (if found suitable</td>
<td></td>
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<tr>
<td>to join some mainstream academic or non-academic classes)</td>
<td></td>
</tr>
<tr>
<td>**Regular Classroom with (a) Supplementary Instruction and Services and (b) Specialist</td>
<td>E.g. SNO Scheme At Mainstream Schools plus DAS and ARC Outreach-</td>
</tr>
<tr>
<td>Support**</td>
<td>supported students</td>
</tr>
<tr>
<td>Student receives education under the direction of the mainstream teacher plus:</td>
<td></td>
</tr>
<tr>
<td>• Additional instruction and support within the regular classroom from SNO</td>
<td></td>
</tr>
<tr>
<td>• Ongoing consultation from MOE Specialists</td>
<td></td>
</tr>
<tr>
<td>• Specialised remediation and outreach from DAS and ARC</td>
<td></td>
</tr>
<tr>
<td><strong>Mainstream Classroom with Specialist Support Services</strong></td>
<td>E.g. SNO Scheme at Mainstream Schools</td>
</tr>
<tr>
<td>Student receives education under the direction of the regular classroom teacher, who</td>
<td></td>
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<tr>
<td>is supported by:</td>
<td></td>
</tr>
<tr>
<td>▪ Teachers trained in fundamentals of special needs</td>
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<tr>
<td>▪ Special Needs Officers</td>
<td></td>
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<tr>
<td>▪ Ongoing consultation from MOE Specialist(s)</td>
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<tr>
<td><strong>Regular Mainstream Classroom</strong></td>
<td></td>
</tr>
<tr>
<td>Student receives education under the direction of the regular classroom teacher.</td>
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Strategic Thrust 3: Quality of Programmes and Professionals

65. To achieve the full potential of students with special needs and professionals within the system, steps must be taken to ensure they do not ‘under-perform’. The system must aspire for excellence - install and perform to quality standards; press for performance indicators for the resources expended; support and enhance teacher quality; and develop curricula that are of similar quality as in mainstream schools.

66. The Committee recommends the development of a Shared Framework for Programme/School Excellence with quality assurance measures incorporated at several levels:

   a. At start-up – **Government should exercise due diligence in granting VWOs or other agencies the licence to operate any service in early intervention and education.** Due diligence should be systematic and evidence produced on manpower expertise and track record for results in past services managed, and programme content.

   b. On-going service – **Performance of on-going services should be evaluated by applying both process indicators (such as the use of IEPs and transition plans) as well as outcome indicators (such as number of graduates successfully transitioned to further education or employment).**

67. In addition, any service provider who aspires for recognition of service excellence can apply to undergo a **system of accreditation** to achieve a trademark of excellence. Such as system should be open to VWOs as well as private sector providers.

68. **Quality audits** can be conducted at three levels: self, peer reviews and external accreditation by an appointed assessment team of experts and stakeholders from various disciplines.

69. Special priority ought to be given to the development of curricula in both early intervention and the ensuing school years. The Committee strongly recommends the setting up and funding of Curriculum Units led by (a) appointed experts in the major disability groups and special educators; and (b) MOE’s curriculum planning and development specialists. These Curriculum teams should look into the development of curriculum frameworks and enhance the quality of curricula in both academic and non-academic subjects with inputs from separately funded SPED teachers. They must ensure that learning resources and the required training in pedagogy from the MOE mainstream system are made available in the SPED system.
70. Students with special needs will still not learn well unless strategic efforts are made to recruit, train, reward and mentor their teachers and therapists well. This will be addressed in Chapter 7 on Manpower Management and Training.

71. The Committee believes there is a need for more scalable and innovative solutions to address the chronic shortage of skilled therapists and teachers. A training and consulting network of local and overseas special educators and disability experts who have been identified as “best in their profession” can be organised to develop a Competency and Training Roadmap and Learning Solutions for key professions in the sector, with special focus on skills acquisition.

72. The Committee suggests that centres of excellence in the major disability groups (e.g. autism, dyslexia and other learning difficulties) be identified and sponsored to hasten the pace of teacher and therapist enskilling. These centres should be led by recognised experts in the disability group, complete with a ‘laboratory school’ to provide practicum opportunities to enskill trainees in service delivery models, quality standards, curricula and integration with general preschool education. Such centres will not only benefit our PWDs. There can also be potential economic benefits. Singapore has become known regionally for its healthcare and education. We can potentially reap economic benefits if we are positioned to serve the region in disability services if we can show high standards and effective outcomes.

73. The Committee also recognises that there is insufficient leveraging of resources between the SPED and MOE mainstream education systems. It recommends the identification and deployment of a matrix of specific leverage areas in mainstream education and SPED that can benefit both students and teachers in the two hitherto separate systems. It feels strongly that both systems must be strategically linked so that students and teachers in special schools are not treated as ‘afterthoughts’ and are systematically and equally considered when initiatives for their mainstream counterparts are developed.

74. Cross-training schemes should be implemented to allow both mainstream and SPED teachers to increase their effectiveness in teaching children with special needs in both mainstream and SPED schools.

75. In addition, this professional development can be further strengthened by staff exchange programmes between teachers in the mainstream and special class settings.

76. The capability building of teachers and therapists should be the task of the proposed ministries and expert consultancy panels in each major disability group.
Strategic Thrust 4: Funding of Enabling Services

77. In view of the critical nature of early intervention services, the Committee strongly advocates the review of funding of EIPIC services which are means-tested since April 2006. Although it supports the principle of means-testing which provides more help for more needy families, the Committee recommends a review for two reasons:

a. To acknowledge that every Singaporean child with special needs should be given some form of basic support in early intervention which is typically very expensive compared to normal preschool education; and

b. To relieve the VWO-run EIPIC service providers who now face difficulty in financial planning due to the uncertain financial profile of its client base.

78. The Committee hence recommends a ‘hybrid’ funding formula that comprises:

a. **Fixed Subsidy** for all Singaporean children in need of EIPIC services; plus

b. An additional **means-tested subsidy** for families earning below a per-capita income of $1,000.

79. It is recommended that the fixed EIPIC subsidy be put on par with children receiving MOE and NCSS-funded special school services from the ages of 6-18. Similar to special schools, the said fixed EIPIC subsidy component can be capped at four times the average cost of preschool education of a child who is non-disabled. With adequate funding, VWOs can focus more on improving direct service to the children and fund-raise only for non-government supported special programmes and facilities, or to provide more assistance to needy families.

80. The Committee also recommends the extension of SPED schooling up to the age of 21 for students who can benefit from additional pre-vocational and vocational skills training, before releasing the students to the job market. It also recommends the funding of outreach support services for special needs students who further their studies in the mainstream ITE and other higher institutions of learning.

81. In view of the caution issued by professionals in the sector, steps should be put in place, such as providing pre-launch set-up funds, to ensure that new EIPIC centres or special schools will be adequately prepared to provide services.
Strategic Thrust 5: Empowerment of Family Caregivers

82. The Committee views family empowerment as essential to excellence in the education of children with special needs. Empowerment can come in two ways – one, through helping parents make informed decisions about their children with special needs; and two, through training parents and other family caregivers (e.g. grandparents and domestic helpers) to reinforce what is taught to the children.

83. **Families must have easy access to comprehensive and relevant information at the point of diagnosis, early intervention and throughout the school years of the children.** Parents’ ability to make informed decisions and choices about their children’s education options is an important check on the quality of services in the sector. The options and information especially that provided by the one-stop D IRC should be transparent and easily understood, similar to what MOH has done with hospital services and charges. The information should also be widely available on the internet and other key touch points like the family service centres, so that parents and professionals can access such information directly. **Regular Information Needs Analyses and User Feedback Surveys** should be conducted to ensure client needs are effectively met.

84. In addition to the one-stop D IRC headquarters, additional helpdesks should be located at the hospitals’ CDUs to provide just-in-time and easily accessible information to families with newly diagnosed children.

85. **Family caregiver training with a systematic roadmap** should be provided as a compulsory component in all government-funded early intervention and SPED services. Evidence of quality and impact of family caregiver training should form part of the evaluation system leading to the accreditation of centres of excellence.

Strategic Thrust 6: Planned Transition Management

86. Proper transition planning and management is critical. There is a need to install transition management best practices at critical points within both the SPED and mainstream school settings. These key points include transitions:
   a. Across school grades;
   b. Across different school settings; and
   c. Upon graduation to work or tertiary learning institutions.

87. Transition management best practices can range from sharing of simple mobile Student Profile Briefs to structured IEP meetings with transition service
goals. Parents must fully participate in the transition of their children at these critical points.

88. Research overseas have revealed that many students with special needs leave school without the necessary skills to gain and maintain employment and are not prepared for the demands of adulthood (Burnham & Houseley, 1992; Hasazi, Gordon, & Roe, 1985; Pollaway, Patton, Epstein, & Smith, 1989). It is imperative that this be avoided in the local SPED scene. Besides academics, there is need for a strong reality-based Life Skills Curriculum that includes the development of effective self-management, good work habits, social skills, and community living skills. These efforts should be intensified during the transition years in the form of a 'Bridging Programme' to transit students smoothly upon leaving formal schooling.

CONCLUSION

89. Children with special needs are those who are most at risk of being left behind in Singapore. We must review the outdated paradigm of viewing SPED as social services for ‘less fortunate’ children and re-organise the leadership configuration and financial resources provided by the Government and donors for better results.

90. The Committee has heard from parents and professionals alike and the message is clear. It is not enough to spend more. It is important to spend wisely and aggressively focus on the strategic thrusts for swifter and more impactful educational results for the children. ‘Many Helping Hands’ are needed but better results will only be achieved when the right hands with the right expertise and commitment are deployed. The time has come to aspire for excellence in the business of educating children with special needs.