



## SPECIALISED EDUCATIONAL SERVICES

Specialised Educational Services (SES) is a division of the Dyslexia Association of Singapore which aims to uncover the true strengths of individuals with learning differences and empowering them with the necessary skills and strategies to succeed.

We are a team of professionals who are committed to deliver quality services focusing on the needs of the individual.

All our professionals are highly qualified and specially trained to help persons with learning differences who may be struggling in the different areas of their lives.

We have a good understanding of the school curriculum and the demands that today's education system place on the individual. We strive to bring out the best in every one that comes through our doors.

### OUR VISION

Nurturing persons with learning differences to achieve success and impact society positively.

### OUR MISSION

Unlocking the potential of individuals with learning differences.

## Specialised Educational Services

UNLOCKING POTENTIAL

# CHINESE PROGRAMME

The aim of the programme is to help students with dyslexia become independent, inquisitive learners in the Chinese language.

There are many difficulties a child with dyslexia can face when learning Chinese such as being confused with characters that look similar like 犬 'dog' and 太 'more', characters that sound alike such as 身 'body' and 生 'grow' and characters that are related in meaning such as 校 with 学 where the two put together is the word school (学校).

## OUR APPROACH

The SES Chinese programme helps to foster a child's interest in the language through thematic-based teaching. In this way, vocabulary covered is relatable and can be used on a daily basis, allowing them to express themselves better in the language. Students are taught interactively with the use of stories, educational games and hands-on activities to make language learning a fun and memorable experience for them. This also helps to minimise the child's stigma towards the language and build up their confidence and motivation to learn the language. Lessons are also structured in a way to increase efficiency in learning the language through the instruction of character structure, radicals, stroke pattern, word recognition strategies and understanding how words are combined together.

Components covered in a typical lesson:

1. Word Recognition
2. Vocabulary Instruction
3. Teaching of Sentence Structures

Comprehension and writing activities are also carried out for students who have developed good oracy skills.

# Specialised Educational Services Chinese Programme

**Kong Yun Rui**

*Chinese Programme Manager*

*Dyslexia Association of Singapore*

## **BACKGROUND OF PROGRAMME**

Chinese is a pictorial and symbolic language with meanings and sounds represented by strokes and stroke patterns. As such, in carrying out remediation, it is vital that students are brought to greater awareness of the orthographical structures and position of radicals within the characters. It is also necessary to help them understand how each component relates to the meaning and pronunciation of the character.

In our pilot study conducted from 2010 to 2011, children with dyslexia were weaker on measures of literacy skills such as visual-orthographic, morphological awareness and visual-motor integration skills as compared to students who were not at risk of dyslexia. Other aspects of Chinese language processing requiring visual memory were also found to be weaker. Visual-orthographic skills refer to the strategic attempt of breaking Chinese words into parts to help them read and write. It is required to allow students to recognise Chinese characters and read them as accurately as possible. The DAS Chinese Research team has observed that dyslexics were found to make more errors that are visually similar, i.e. words that have the same radicals (也, 他, 地). Another feature of the language that presents itself as a difficulty to language learning is the presence of the large number of homophones. In other words, there are many words that share the same pronunciation but have very different meanings. This makes it harder for tasks requiring word retrieval. Poorer visual-motor integration skills also results in difficulty in producing Chinese character with strokes that are in correct direction, stroke sequence and proportion of the parts of the characters.

## PROGRAMME DESCRIPTION

The programme was started in January 2013 for primary school students who have been diagnosed with dyslexia. The programme has been shaped to address the identified areas of weaknesses in the pilot study by providing students with strategies. The aim of the programme is to help students become independent and inquisitive learners in the Chinese language. This is achieved by building students' interest in the language, increasing their efficiency in learning the language and increasing their verbal expressiveness through oracy.

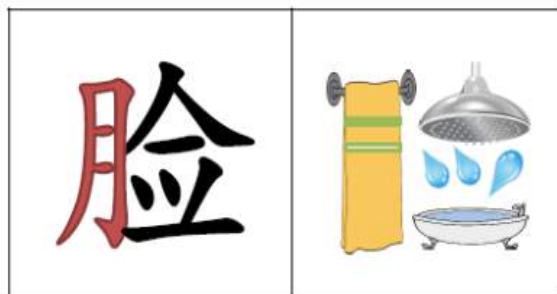
Each lesson covers common vocabulary, sentence structures and word recognition strategies. Students who have developed competency in their oral skills would then be introduced to writing and comprehension skills and strategies. Orton-Gillingham approach and principles are adopted and applied in the delivery of lessons.

Learning is pegged at the learner's level of learning to help develop feelings of competency and success. In teaching sentence structures, teachers adopt a multisensory approach to allow students to understand the different parts that constitute a sentence and how to manipulate them into a sentence. Teachers would first present a sentence structure with examples. Next, students are required to produce sentences with the help of images. Lastly, they are then expected to form sentences on their own with the structure.



*Sentence structure card*

Word recognition strategies taught are intended to make character learning more memorable and engaging for the students. Generalisations are also taught to help them analyse what they have learnt and synthesise new information to apply into their learning. Some of the strategies taught include identifying semantic radicals, the picture method and coming up with short stories to remember characters. An example is illustrated in teaching the character for face. This helps students to associate the written character with its meaning.



*Pictorial representation of the character for face*

Students are also taught interactively through hands-on activities, educational games and storytelling to help them relate what is taught in class to their daily lives. Other

teaching resources are developed internally by the teachers and revised regularly. Reference is made to the MOE Chinese syllabus word list for the selection of words and radicals to teach. The curriculum has also extended to the development of other literacy skills such as reading comprehension and writing. Scaffolding and explicit instruction are critical in literacy instruction in the classroom.

## **HOLISTIC DEVELOPMENT OF STUDENTS**

The Chinese team has conducted two terms of reading programme for our students with the help of students from Nanyang Girls and Hwa Chong Institution. The programme garnered much support from parents and was also well-received by the students who came on a weekly basis. There was also a Chinese day camp organised by the volunteers for the students where the students gained exposure to the Chinese culture in the premises of Hwa Chong Institution.

## **PLACEMENT OF STUDENTS**

Prior to placement, the students are profiled using the Battery of Chinese Literacy Tests adapted from Hong Kong and Taiwan by the DAS Chinese Research Team in 2012. The Battery profiles students' awareness of character structure and shape, knowledge of strokes and stroke order, vocabulary, morphological awareness, and spelling. The assessment tools from Hong Kong and Taiwan cannot be applied directly in Singapore as Chinese is a second language here while it is a first language in Hongkong and Taiwan. In addition, the phonetic and script systems used in these countries are different from what is used in Singapore.

The profiling tool allows for students with comparable language ability to be grouped in the same class. The purpose of doing so is for remediation to be better targeted and effective. The areas investigated are Chinese character orthographic awareness, Chinese character reading and writing, picture sequencing and verbal expression.

After using the tool for the last two years, while it is effective in dealing with class placements, the team feels that it is lacking in providing information on the child's ability in reading passages, comprehension and writing. We will need to develop additions to the existing battery to provide more comprehensive insights on the difficulties a child faces in learning the language. Revisions also need to be made to the multiple-choice spelling task so that we can better understand the nature of errors committed.

## STUDENT ENROLMENT

As of end 2014, there are a total of 68 students. Out of the 68 students, more than 80% of them were still taking up Chinese lessons (Higher Chinese, Chinese and Foundation Chinese) in school. For those that are exempted from Chinese, parents enrolled or are continuing their child on the programme for exposure and to help them acquire conversational skills. Even though exemption from Chinese remains as an option, we see that parents are keen for their child to continue learning Chinese in a school setting and not be exempted. This is evidence of parents being motivated for their child to gain continued exposure to the language and hope for their child to master the language.

### BURSARY FOR STUDENTS

A budget of \$63,558 was set aside to provide bursary for our Chinese students and \$30,109.80 was utilised. Of the 68 students enrolled, 26 of them are receiving bursary support for their lessons at the DAS. The breakdown of amount of bursary given to the students are as follows:

Bursary Percentage	No. of Students
100%	1
90%	7
75%	6
50%	6
33%	6

### WIDENING OUR REACH

In 2014, we conducted a talk entitled “Things I can do to Provide Support for my child (TIPS)” at our Jurong Point and Bishan Learning Centres. The talk illustrated the current education landscape for learning of Chinese and shared with parents practical tips to help their children learn Chinese at home. The talks were well-received by parents and gave them ideas and strategies to work on Chinese at home. Feedback gathered indicated that parents are looking forward to more of such talks.

We have also opened up Parkway Parade as a centre offering the Chinese programme so as to support students who need help with Chinese in the east. We now have a total of 6 centres offering Chinese language support within the DAS.

The team also presented a poster session at the International Dyslexia Association Annual Conference in San Diego in 2014. This poster was based on the research

paper published in the Asia Pacific Journal of Developmental Differences titled " Chinese Language and Remediation Support for Children with Dyslexia in Singapore". There was much interest in the work done at the DAS by the Chinese programme and schools are looking at the provision of training in this area.

## TEACHER TRAINING

The teachers on the programme are effectively bilingual to facilitate teaching. This allows for the teachers to be able to tap into their English vocabulary to help students understand and express themselves in Chinese. All teachers have a Chinese language proficiency at HSK Level 6 or an equivalent accreditation. This is also a requirement for all new teachers.

We also conducted our first professional certification course in Chinese Language Support and trained up 3 new teachers, boosting the teaching capacity to reach more students at more locations. The Chinese team is able to see up to 160 students weekly.

To further develop our teachers, as of date, an additional teacher has been awarded an Advanced Diploma in Chinese Language Teaching and another two teachers will be pursuing a similar qualification in 2015.



Dr Tan Ah Hong has also joined the team in June 2014 as a consultant and sessional teacher. Dr Tan was previously a lecturer at NIE and Curriculum Specialist at MOE. She was later appointed in 2008 as the Head of Secondary Chinese Language Unit before retiring in March 2014. She has since conducted training for the team on word recognition, reading comprehension and writing. In addition, she is also constantly providing feedback on quality assurance and curriculum development. In the coming year, we will be looking at providing teacher support and enhancing teachers' competency in providing intervention.

## CURRICULUM DEVELOPMENT

The Chinese Language Teaching Framework (CLTF) and Chinese Language Ability Scales (CLAS) were completed. The former serves as a guide of the sub-skills to be taught to students to enhance their language competency and is a framework for the development of the curriculum. CLAS works in tandem with CLTF as a measure for class placements.

Revisions to the existing Oracy Pack has also been made after trialling in the classrooms. Following findings of its effectiveness, the Oracy Pack will be printed as a teacher resource in centres offering the Chinese programme. Supporting tools such as the semantic card deck, sentence card deck and sight work deck will also be printed. Literacy resources such as the word recognition manual, reading comprehension and writing pack will also be trialled.

In the classroom, teachers have been making a concerted effort to choose teaching content that is aligned with the school syllabus in terms of teaching of semantic radicals, characters and sentence structures.

## **EVALUATION OF EFFECTIVENESS**

### **Participants**

Two groups of students were used in this evaluation study. The first group of students have been on the programme since 2013. They formed part of the group that underwent the post-test for the evaluation study for 2013 and has continued receiving intervention on the programme. There are only seven participants in this group. The second group of students are students that has started to receive intervention between January to March 2014. There are a total of nine students in this group. Both groups underwent the post-test in November 2014.

### **Data Collection Tool**

The evaluation study investigates the effectiveness of intervention in four main areas - reading, morphology, spelling and copying. On the reading task, students were expected to read single characters and form words with them. This measured their ability to read single characters and their morphological awareness through word formation. The assessor noted down any incorrect pronunciation and words formed with the characters for further analyses. On the spelling tasks, students were asked to write the missing character in a word. Students' answers were then recorded for analyses. Lastly, for the copying tasks, students were asked to copy a reading passage within five minutes. The assessor would then ask the student if they could remember what they had copied.

The same set of tests was used during the initial profiling of the students prior to placement for intervention. The results of that initial testing forms the baseline of their ability. The test items in both the reading and spelling tasks are the same on both the pre-and post-test. However, they were reordered in the post-test.



## Method

The performance on the four areas of the first batch of students (Batch 1) who underwent the programme in 2013 were compared to students who continued into the second year of intervention and those that started to receive intervention in the first quarter of 2014 (Batch 2). A separate analysis was also performed to evaluate the impact and benefits of intervention received beyond the first year of intervention.

## Results and Analysis

The programme was designed to help students in their reading and to increase morphological awareness. While gains in morphology have consistently shown significant improvement across all time points (post-test in 2013 and post-test in 2014), the same was not observed for word reading when we look at the students has been on the programme for two years. The reason for this observation has to be further investigated both in the classroom and in an evaluative setting. The non-significant result for morphological gains could also be due to variability in data as

Batch 1	Batch 2	Students on the programme for 2 years
N=16	N=13	N=7
<b>Improvement in Performance</b>		
<ul style="list-style-type: none"> <li>Paired samples t-test revealed that Reading (<math>p=.001</math>) &amp; Morphology (<math>p=.007</math>) significantly improved</li> </ul>	<ul style="list-style-type: none"> <li>Paired samples t-test revealed Reading (<math>p=.042</math>) &amp; Copying Speed (<math>p=.024</math>) significantly improved</li> </ul>	<ul style="list-style-type: none"> <li>One-way ANOVA revealed Morphology (<math>p=.025</math>) and Copying speed (<math>p=.044</math>) improved significantly over all time points</li> </ul>
<b>Error Analysis</b>		
<ul style="list-style-type: none"> <li>Lesser visual-phonetic-semantic error when reading (<math>p=.015</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Committed more phonetic reading errors (<math>p=.01</math>)</li> <li>Committed more semantic reading errors (<math>p=.02</math>)</li> <li>Made lesser visual-phonetic-semantic when writing (<math>p=.001</math>)</li> </ul>	<ul style="list-style-type: none"> <li>Lesser visual-phonetic-semantic error confusion when reading (<math>p=.048</math>) - consistent with pre-post test</li> <li>Lesser errors when writing (<math>p=.038</math>)</li> <li>When writing, lesser VPS errors are made (<math>p=.000</math>)</li> </ul>

a child dropped from a score of 74 to 44. With the reading scores for students who has been on the programme for two years, no significant difference could be found due to variability in data as another child has a decrease in reading scores while the rest showed improvement. This is also due to low numbers in this group.

The observed increase in phonetic and semantic errors when reading for Batch 2 could be due to the shift of the programme to include literacy components such as reading comprehension. It is probable that students are committing the errors as part of a learning process. Post-testing on these students at the end of 2015 could provide clues if these contribute to gains eventually.

The significant improvement in copying speed could also be related to the increased writing activities in class and teaching of strokes, stroke order and semantic radicals. However, the accuracy of strokes were not taken into consideration and is an area that could be further investigated to show a more explicit correlation between mastery of stroke and stroke order and copying.

When interpreting the findings of this study, caution must be exercised due to the small sample size. A consideration that was taken is also the possibility of age being a confounding factor in the study. When a child goes through the academic year, the child would have learnt more from school. The progress could have been due to the additional input from school instead of intervention. Future studies will need to compare students on the programme with those that are not on the programme with the constant that they are still attending Chinese lessons in school. In this study, all students were still attending Chinese lesson in school.

In addition, due to the limited class time and differences in learning needs of students, there was variability in the input of the various teaching components. This may have contributed to differences in results and may not show as statistically significant. Continued evaluation needs to be carried out for more conclusive findings.

## **FEEDBACK FROM DAS TEACHERS**

While teachers are unanimous in noting an increased interest for learning the language and verbal expressiveness, they have raised concerns of whether all students are applying the skills and strategies learnt at the DAS in the school setting. Nevertheless, it has been reported by parents that students that are more motivated have applied these skills, helping them to perform in weekly spelling tests. As the programme progresses to provide literacy support for our students, the classroom teaching duration of an hour is insufficient to cover essential skills students

require to help them cope with reading and writing tasks. This has been reflected by teachers on classroom teaching. The duration of an hour for class is too short to complete a writing or reading comprehension task. This sentiment is also shared by parents who have voiced their request for longer classroom teaching duration.

## FEEDBACK FROM PARENTS

To find out parents' view on their child's progress, all parents were asked to rate their progress and provide feedback on the programme. The results of the rating is as follows:

- ◆ 19 out of 26 parents were either very pleased or pleased with their child's progress in learning at the DAS.
- ◆ 5 out of 26 parents were satisfied with their child's learning at the DAS.
- ◆ 2 out of 26 parents were not able to give an opinion about their child's progress in learning at the DAS.

In summary, 92% of parents were satisfied, pleased or very pleased with their child's learning in the DAS. This is a possible indicator of the objectives of intervention being met.

Feedback on child's progress includes being able to recognise and write more characters, speak more confidently and showed some form of progress. Parents also reported increased interest and motivation to learn Chinese and that students enjoyed coming for lessons at the DAS.

Some other feedback includes:

- ◆ "他会开始借华文书，这是好的。老师有耐心，孩子喜欢老师及DAS课."  
Mr Chan, whose child is in Primary 3
- ◆ "*He does learn new things and is showing interest in the subject and will tell me what he learns after class!*"  
Mrs Chua, whose child is in Primary 3
- ◆ "*Teacher Lay Yen is able to make my child want to borrow Chinese storybooks which he would never want to in the past.*"  
Mrs Tan, whose child is in Primary 2

- ◆ *"I am pleased that my son isn't resistant to learning Chinese in DAS and can now speak simple Chinese when necessary but needs more practice. I hope he can become more fluent in Chinese."*  
Mr Lam, whose child is in Primary 5
  
- ◆ *"My child enjoys coming for classes and even though I wanted him to stop Chinese classes at the DAS, he wanted to continue. He is motivated to attend the Chinese class and is interested to learn Chinese and now does his homework without reminders."*  
Mrs Lee, whose child is in Primary 3
  
- ◆ *"I observe that my child is able to recognise and write more words. The teacher also shares weekly progress on what is being taught and that she makes special arrangement to meet me when I was unable to make it during the designated time for the parent-teacher meeting."*  
Madam Lai, whose child is in Primary 4

We observed more students borrowing and reading Chinese books. Parents also gave positive feedback on the professionalism of teachers and their patience. They also highlighted communication with the teacher being key. However, parents also voiced concerns on the rate of progress and some students are still having difficulty in learning Chinese characters.

## **FUTURE DEVELOPMENT**

With regard to the limited classroom teaching duration, the team should also look at the impact of parental support to a child's improvement in the language. A survey should also be conducted with parents to determine the need and demand for longer class duration and the perceived effectiveness of doing so.

In terms of curriculum and classroom teaching, the team would need to explore how to create more concrete links between reading and development of literacy skills. This could be done through more storybook reading and an integrative approach in teaching. Card drills should also be done on a weekly basis rather than fortnightly for the purpose of reinforcement.

From the evaluation study, no significant difference was seen in spelling. This should be an area that is further investigated as writing is a critical area of literacy. Developing structured literacy and evaluating the effectiveness of such intervention could serve to inform of the improvements students are making.

Future areas of research could include comparing effectiveness of intervention at the DAS with those of enrichment centres and private tutors. This could mitigate the improvement made due to instruction in school. We could also investigate the effectiveness of intervention for students who are not diagnosed with dyslexia in Chinese but showing persistent difficulties in learning the language.

Lastly, there have been an increased request for students who have not been diagnosed with dyslexia in English for intervention in Chinese. These students have been persistently failing in Chinese in school. This gives rise to the question of whether existing assessment tools are adequate in diagnosing students with dyslexia in affecting all language learning and if a standardised tool for Chinese is then required to be accessed by these students.

## ABOUT THE AUTHOR



### **KONG YUN RUI**

*Chinese Programme Manager*

*Kong Yun Rui is also a Senior Educational Therapist at DAS. She graduated with a BA (Hons) in Linguistics and Multilingual Studies from Nanyang Technological University. In addition, she has also completed her post-graduation certificate in Special Education Needs with University of South Wales and has an advanced diploma in Chinese Language teaching with KLC. Her area of research interest is in bilingualism and language acquisition in children, believing that language learning opens up the horizon of a child.*

## Specialised Educational Services

UNLOCKING POTENTIAL

# PRESCHOOL EARLY INTERVENTION

The aim of the programme is to help preschoolers who are potentially at risk of dyslexia, or has a developmental delay in early literacy, develop skills and strategies to become confident achievers when they enter primary school.

### Our Approach

The SES Preschool programme helps preschoolers acquire a good foundation in alphabet knowledge and phonograms, leading up to learning sight words essential for reading. These abilities gear them towards reading and spelling readiness. In class, your child will be taught rules, facts and generalisations about the English language, enabling them to read and spell more effectively. They will also be taught strategies to cope with letter reversals. The programme follows a prescribed scope and sequence for systematic, sequential and cumulative teaching.

### Components covered in a typical lesson

- ◆ Alphabet Knowledge
- ◆ Phonograms
- ◆ Learned Word Knowledge (e.g. said)
- ◆ Reading
- ◆ Spelling

Preschoolers will be advised to go for a Full Aged Psychological Assessment when they turn six. Children diagnosed with dyslexia has the option to continue with the MOE-aided DAS Literacy Programme.

# Specialised Educational Services

## Preschool Early Intervention

**Wong Kah Lai**

*Preschool Programme Manager*

*Dyslexia Association of Singapore*

### **BACKGROUND OF PROGRAMME**

The Preschool Programme was conceptualised and set up in 2006 in the interest of providing early literacy intervention to 6 year olds identified as being at risk of dyslexia. In 2014, the Preschool Programme extended to admit Kindergarten Year 1 (K1, 5 year olds) students. The programme had since reached out to over 600 children in Singapore. It gained the support of NTUC Income in 2012 as part of their corporate social responsibility (CSR) initiative. NTUC Income OrangeAid Fund continues to offer bursaries to children from low income families receiving Preschool Programme services.

The Preschool Programme works in close collaboration with Child Development Units (CDUs) of hospitals KK Women's and Children's Hospital (KKH) and National University Hospital (NUH). It complements the services of the PAP Community Foundation (PCF) SEN team in offering support to children with special learning needs. In July 2014, DAS Preschool Programme established literacy intervention services on-site at Joyful Juniors PCF Ulu Pandan Ghim Moh Link with the support of Member of Parliament Mr. Christopher De Souza.

### **PROGRAMME DESCRIPTION**

#### **Introduction - who it is meant for**

Dyslexia impacts on literacy learning. The Preschool Programme offers 2 hour-weekly early literacy intervention to K1 and K2 children (5 to 6 year olds) from mainstream

childcare centres and kindergartens. Parents may enrol their children direct, or through hospital and school referrals. Enrolment is open year round to avoid disadvantaging children and families seeking help.

### **Curriculum synopsis - what it covers**

The Preschool Programme follows its own unique Early Language Learning and Intervention Framework that covers Listening, Speaking, Reading and Writing, the key cornerstones of language learning. Development being a continuum, our early intervention practices are therefore, developmentally appropriate and holistic in nature. Our skills and learning strategies imparted during intervention is directly transferable by the student independently, immediate from our classroom setting to that of his/her regular (mainstream) classroom.

Listening and Speaking skills with comprehension, are essential to grasping literacy concepts taught by teachers/Educational Therapists. This is an area of particular weakness with children coming from non-English speaking families/background joining our early intervention classes. DAS Preschool Programme designed and developed its own Oracy Pack in 2014, to address this gap. Consisting of three independent grab-and-use packs filled with activities and games, this tool enables teachers to carefully scaffold student's receptive and expressive language learning and vocabulary acquisition. Oracy Pack is used concurrent to our main literacy and it can stop once children had picked up sufficient communicative language to benefit fully from our comprehensive intervention sessions.

Reading is one of the important avenues to gaining knowledge. Reading is not just decoding, it refers to the process of gaining meaning from print (Rayner, Foorman, Perfetti, Pesetsky and Seidenberg, 2001). Bradley and Bryant (1983), noted that "Children who are backward in reading are strikingly insensitive to rhyme and alliteration<sup>1</sup>. They are at a disadvantage when categorising words on the basis of common sounds even in comparison with younger children who read no better than they do". Preschool Programme targets this area explicitly through engagement in multi-sensorial instruction in letter knowledge, phonemic awareness, sight words and practice to reading extensively.

Writing is a necessary tool in academic learning and communication. Having adequate fine motor skills coupled with relevant eye-hand coordination is key to writing readiness. Not all children entering Preschool Programme came with these much needed ability. Preschool Programme addresses this gap with its own Fine Motor Skills Pack designed and developed in 2013.

Embedded into Preschool Programme literacy instruction, is Social-Emotional Literacy



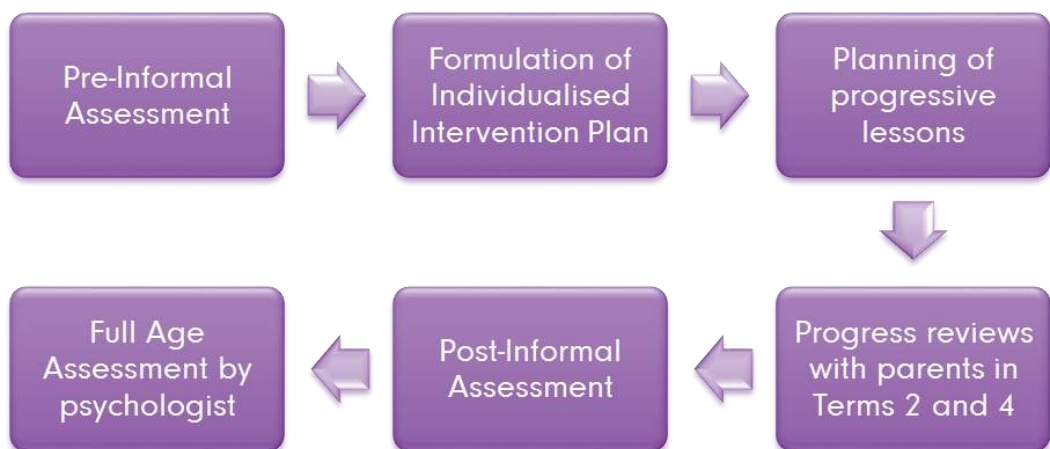
(SEL), a specially designed and developed (2015) component targeting the social and emotional well-being and development of at risk kindergarten children in our programme.

### **Lesson overview - what happens in a typical session**

A typical intervention lesson includes story (literacy) appreciation, letter knowledge, phonemic awareness, comprehension, sight words and fine motor skills acquisition within a suggested pre-school scope and sequence.

### **Measurement of student attainment - and what happens next**

Student progress is carefully monitored through observation made during each intervention session as appropriate. The process of measuring student attainment is summarised as follows.



Pre-school early intervention teachers and education therapists formulate and devise Individualised Intervention Plan (IIP) for students based on his/her specific learning needs obtained from Informal Early Literacy Assessment (Pre-test) at the beginning of the first remediation session with the therapist.

Parents are kept abreast of students' progress twice yearly during Parent-Therapist-Conference (PTC). Post-test is carried out at the end of the year to measure student achievement. This is documented with the overall evaluation results published (see Evaluation of effectiveness below). K2 students, exiting the programme as they head towards Primary One, are eligible for Full Age Psychological Assessment by our

qualified DAS psychologists. Children who are diagnosed as dyslexic may continue on with DAS in its main literacy programme at Primary One.

## **ENROLMENT**

The programme has reached out to an increasing number of students.

- ◆ 2011 - 82 students
- ◆ 2012 - 117 students - 46 being NTUC OrangeAid bursary students
- ◆ 2013 - 135 students - 40 being NTUC OrangeAid bursary students
- ◆ 2014 - 268 students - 63 being NTUC OrangeAid bursary students, 29 on DAS bursaries

## **TEACHERS TRAINING**

The Preschool Programme conducted two rounds of Professional Certificate Course (PCC) in 2014 to meet its sudden increase in student enrolment. In total seven new teachers were trained. Five being dual Specialists and two newly hired dedicated preschool teachers.

A member of the core team and the Programme manager undertook and completed the Advance Certificate in Training Adult learners (ACTA).

The Preschool Programme trained five DAS Centre Managers in the use of the Preschool Placement Checklist and how to do concluding sessions during public screening exercises. The Preschool Programme extended an internship to four Ngee Ann Polytechnic students on their final year studies, mentoring them from September 2014 to January 2015.

## **CURRICULUM DEVELOPMENT**

Several challenges, with implication to curriculum and resource development, were highlighted in 2013 year-end programme report. These were in the areas of executive functioning, fine motor skills development, oracy and social-emotional development of the holistic student contributing towards school readiness for Primary One.

In response,

1. An Oracy Pack has been designed and developed. It consist of a teacher's

resource guide book, complete with picture cards and suggested activities that busy educational therapists can simply grab-and-use with students. The teacher's resource guide book is in the print-queue with Publicity & Publications team, awaiting publication for our internal circulation/use.

2. A Fine Motor Skills Activity Resource Kit is ready. Consisting of a user guide, along with ready-made resource packs, this has been distributed into Learning Centres offering preschool classes. Additional resources have been put in to further complement and supplement this existing kit.
3. The design and development of a Social-Emotional-Learning/Literacy (SEL) Kit has kick-started. The concept encapsulates the integration of social emotional literacy with the learning of alphabetic knowledge, phonogram and sight words through fun based explicit instruction. The kit will comprise of board game(s), puppet(s), charts, resource files, user guide and so on.

## **WIDENING OUR REACH**

Year 2014 was a busy and bountiful year. Preschool Programme conducted two sharing sessions at hospitals, NUH and Khoo Teck Puat (KTP Hospital, and 14 outreach and awareness talks for parents and mainly teachers from:

- ◆ Ansar Mosque, Medaki HQ
- ◆ PCF centres - Ghim Moh Link, Chua Chu Kang, Ayer Rajar, Teck Whye, Nanyang, Nee Soon, Hong Kah North
- ◆ Private kindergartens - Bethesda Kindergarten (Ang Mio Kio)
- ◆ Private childcare centres - PatSchool House, The Children's Place, Ilham Childcare

The Preschool Programme participated in four public preschool screenings at two DAS Learning Centres (Chinatown Point and Chua Chu Kang) and two at National Regional Libraries - Tampines and Woodlands.

The Preschool Programme extended its programme reach to Yishun and Chua Chu Kang Learning Centres. Yishun centre is now "Baby Bonus" registered. A Memorandum of Understanding was signed between SES Division Director, Mr. Nor Ashraf Samsudin, and MP Mr. Christopher de Souza, for off-site intervention service offered at Joyful Juniors Ulu Pandan PCF at Ghim Moh Link.

The Preschool Annual Seminar 2014 was a 220 seat sold-out event reaching out to parents, educators and various stakeholders.

The Preschool Programme was featured on TV with Frontline, a weekly Chinese current affairs/documentary programme.

Preschool Programme team members presented its programme evaluations in a poster presentation at International Dyslexia Association (IDA) Annual Reading Conference in San Diego, US. It was well received and garnered some interest. Professor Hugh Catts, whom we met at the conference, agreed to be our guest speaker in 2015 Preschool Seminar.

Members of the Preschool Programme wrote and published a paper - Effectiveness of an early intervention programme for preschool children at risk of dyslexia in Singapore - in the Asia Pacific Journal of Developmental Differences (Volume 2, Number 1, January 2015).

## EVALUATION OF EFFECTIVENESS

Success indicators are based on bursary students' improvement in one of five categories:

- ◆ Alphabet knowledge
- ◆ Phonogram
- ◆ Learnt word knowledge
- ◆ Reading
- ◆ Spelling

Results from the pre and post-assessment worksheets were used as basis for comparison. A child is considered to have made an improvement if he/she achieves their Individualised Intervention Plan (IIP) or shows an improvement in their weak areas as listed above. Figure 1 below showed students improvement made in each aspect.

There was a significant improvement in Overall Literacy Ability from pre-test ( $M = 26.44$ ,  $SD = 16.90$ ) to post-test ( $M = 51.16$ ,  $SD = 19.77$ ),  $t(55) = 12.79$   $p < .001$ , 1 Cohen's  $d = 1.34$ .

Student improvement was seen in the following areas:

- ◆ **Alphabet knowledge**  
There was a significant improvement in Alphabetic Knowledge from pre-test ( $M = 56.04$ ,  $SD = 31.34$ ) to post-test ( $M = 80.43$ ,  $SD = 21.35$ ),  $t(55) = 7.52$ ,  $p < .001$ , Cohen's  $d = 0.91$ .

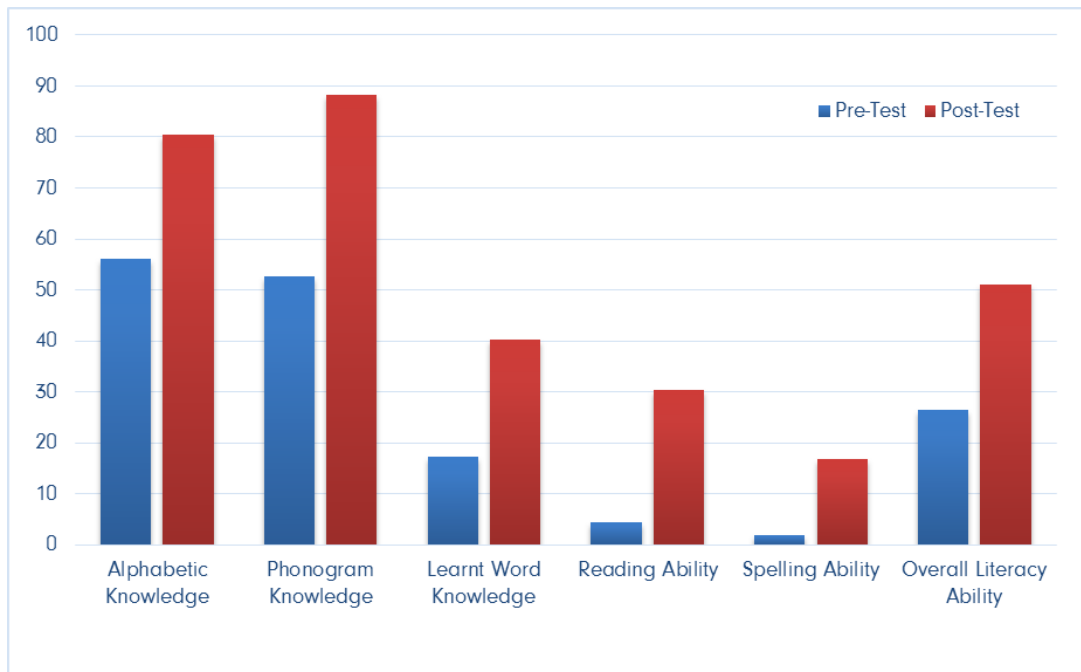


Figure 1 – Overview of Student Improvement from DAS Preschool Programme

- ◆ **Phonogram knowledge**  
There was a significant improvement in Phonogram Knowledge from pre-test (M = 52.68, SD = 34.43) to post-test (M = 88.19, SD = 20.47),  $t(55) = 8.66$ ,  $p < .001$ , Cohen's  $d = 1.25$ .
- ◆ **Learnt word knowledge**  
There was a significant improvement in Learnt Word Knowledge from pre-test (M = 17.32, SD = 22.69) to post-test (M = 40.14, SD = 30.95),  $t(55) = 8.37$ ,  $p < .001$ , Cohen's  $d = 0.84$ .
- ◆ **Reading**  
There was a significant improvement in Reading Ability from pre-test (M = 4.38, SD = 11.60) to post-test (M = 30.27, SD = 31.28),  $t(55) = 6.71$ ,  $p < .001$ , Cohen's  $d = 1.10$
- ◆ **Spelling**  
There was a significant improvement in Spelling Ability from pre-test (M = 1.79, SD = 5.17) to post-test (M = 16.79, SD = 25.05),  $t(55) = 4.79$ ,  $p < .001$ , Cohen's  $d = 0.83$ .

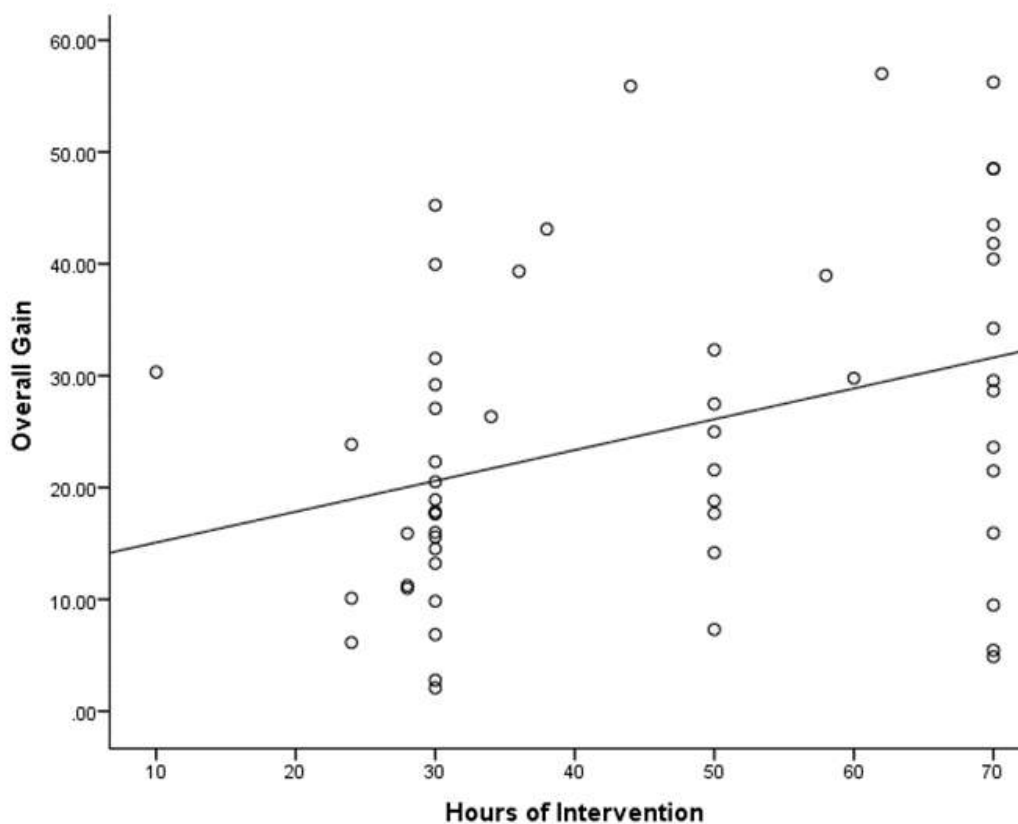


Figure 2 – Correlation of Overall Early Literacy Gains of Students attending DAS Preschool Programme

Footnote: 1 Cohen's *d* is 2 an effect size used to indicate the standardised difference between two means ([https://en.wikiversity.org/wiki/Cohen's\\_d](https://en.wikiversity.org/wiki/Cohen's_d) viewed 8 July 2015).

Footnote: 2 An effect size is a statistic used to estimate improvements in intervention studies. This allows for comparisons to be made between different studies, and to assess the magnitudes of improvements resulting from different interventions. An effect size of 0 means that there was no improvement. An effect size of 1 means an improvement of 1 standard deviation. In terms of the statistical significance of effects sizes (expressed as *d*), *d* = 0.20 is considered low, *d* = 0.50 is moderate and *d* = 0.80 is high (Cohen, 1988). The NRP's (2001) meta-analysis showed that effect sizes greater than 0.80 were found in only 32% of studies and effect sizes of 2.0 and above were rare (6%). (Sim, Wong, Samsudin and Bunn, 2015)

According to NRP's (2001) meta-analysis (Sim, Wong, Samsudin and Bunn, 2015), effect sizes greater than 0.8 were only found in 32% of studies. It is notable that all five areas of intervention –alphabet knowledge, phonogram knowledge, learnt word knowledge, reading and spelling–showed strong effect sizes of more than 0.8. Thereby validating the effectiveness of Preschool Programme

There is also significant direct correlation shown in Figure 2 between Hours of Intervention and Overall Literacy Ability Gains,  $r(54) = .347, p=.009$ . In short, more intervention hours means more literacy gains.

Knowledge is progression based, with alphabet knowledge and phonogram being one of the cornerstones of early literacy, leading up to proficiency in reading and spelling. In early childhood education, development is viewed as a spectrum and the focus is always on the process and the gains along the journey of learning, not the product which is usually represented in a form of an assessment at the end. It is through the process that young children gain the tools and skills necessary to decipher printed text and craft writing at later stages.

As such, findings represented in Figures 1 and 2 suggested that most students had acquired a good foundation in alphabet knowledge and phonogram, leading up to learning sight words essential for reading, building a foundation towards reading and spelling readiness.

### **FEEDBACK FROM TEACHERS**

Teachers are passionate and unanimous in their eagerness to work with preschoolers. In their words, "The younger the better, the sooner (they come into the programme) the best".

Most find the accompanied administrative work (mandatory) and work processes, a chore. At times, a source of stress. For example, Record keeping, programme evaluation, full age assessment.

Collectively, teachers are appreciative of the teaching resources given to them for their classrooms.

### **FEEDBACK FROM PARENTS/STUDENTS**

Most find the programme helpful. Some expressed an interest and desire to do more, in partnership with the teachers, if only they can know what's being taught in

class during every lesson. Several parents highlighted concerns in their children's inability to read. They would like to play a more active part in their children's learning if only they knew how.

A large number of children felt happy coming to Preschool Programme for lessons. Individuals highlighted areas, through colouring sad and/or angry faces on their feedback forms, that they struggle more than most such as reading, spelling, writing.

## **FUTURE DEVELOPMENT**

Children are at the heart of what we do. As such, there are three upcoming tasks in 2015 and three on-going tasks (not to be neglected) for ensuring the programme's continued welling being and sustainability.

The first task, looking into better integration of various curriculum components within a lesson plan to ensure effective and holistic literacy intervention. This may entail revision to the existing lesson plan format, including pre-and-post tests and adjustments to programme evaluation, if any.

The second task examines the teacher's delivery of the programme and its components to ensure quality teaching and effective intervention. This may entail a classroom observation made by the programme manager and/or member of her core team. A short feedback debrief to follow. Monthly team meetings cum inset sessions to provide opportunities for teachers to raise issues/concerns, creating a platform for mediated learning and peer support.

The third task looks into addressing a gap in the curriculum. Its reading component presently lacks a structured and consistent reading programme/ framework that deliberately create opportunities for students to practice reading widely and with comprehension. Consequently, the gap in reading age and reading achievement is quite wide as compared to the norm with same age peers.

Preschool Programme's new online reading programme, launched recently, may potentially address this gap. This new reading programme, with its virtual classroom, allows teachers to monitor students' reading achievement through completed tasks such as comprehension quizzes, self-recording of individual's reading of structured, levelled readers and so on. Students can choose to read on their own or have the book read to them. Parents are able to participate in shared or paired reading with their children and listening to it played back. The extensive library of age appropriate books on a wide tempting range of topics can be accessed via ipads and mobile devices, too.



For continued sustainability, the Preschool Programme needs to:

1. Continue refining its internal processes to reduce administrative lag time between enrolment and actual placement as student population grows
2. Work on administrative processes to minimise stress and bottlenecks
3. Engage more kindergarten and childcare teachers and parents, in varied settings, through Preschool Awareness talks, educating them towards understanding dyslexia and ways of supporting students (young children) with different learning needs

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## ABOUT THE AUTHOR



### **WONG KAH LAI**

*Preschool Programme Manager*

*Wong Kah Lai is the Preschool Programme Manager at DAS. An enthusiastic and passionate educator with more than twenty years' experience in the field of early childhood education, Kah Lai taught young children, mentored teachers, supported parents and caregivers in a wide range of setting, from within the classroom to community outreach, while juggling her Diploma in Early Childhood Education from Wheelock College, and subsequent Bachelor of Education in ECCE from the University of South Australia. She completed her Masters in Teaching English to Young Learners from the University of York through distance learning whilst working full time as head teacher of a bilingual kindergarten in China.*



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NTUC Income continues to stay true to its social purpose of helping the less privileged live better lives. OrangeAid hopes to level the playing field for children and youth from disadvantaged circumstances.

We give 1% of our profits to children in need through OrangeAid.

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## **NTUC INCOME ORANGEAID FUND**

*Supporter of SES Preschool Programme*

*Through the support of NTUC Income OrangeAid Fund, DAS has been providing preschool bursaries to families in need of financial assistance since 2011. Unlike bursaries for other programmes, the OrangeAid bursary ensures that your child receives all of the necessary support at the preschool level in preparation for Primary One.*

## PRESCHOOL PROGRAMME

**Specialised  
Educational  
Services**  
UNLOCKING POTENTIAL



The aim of the SES Preschool Programme is to help preschoolers who are potentially at risk of dyslexia, or have developmental delay in early literacy, develop skills and strategies to become confident achievers when they enter primary school.

**RECOMMENDED FOR**

Preschoolers in Kindergarten One and Two who are at risk of dyslexia or having difficulties with reading, spelling and/or writing.

**OUR APPROACH**

Our programme helps preschoolers acquire a good foundation in alphabet knowledge and phonograms, leading up to learning sight words essential for reading. These abilities gear them towards reading and spelling readiness.

In class, your child will be taught rules, facts and generalisations about the English language, enabling them to read and spell more effectively. They will also be taught strategies to cope with letter reversals. The programme follows a prescribed scope and sequence for systematic, sequential and cumulative teaching.

Components covered in a typical lesson:

- Alphabet Knowledge
- Phonograms
- Learned Word Knowledge (e.g. said)
- Reading
- Spelling

Preschoolers will be advised to go for a Full Aged Psychological Assessment when they turn six. Children diagnosed with dyslexia have the option to continue with the MOE-aided DAS Literacy Programme.



Find out more at [www.ses.org.sg](http://www.ses.org.sg) or 6444 5700

*Specialised Educational Services (SES) is a division of the Dyslexia Association of Singapore.*

# Specialised Educational Services

UNLOCKING POTENTIAL

## ENGLISH EXAM SKILLS PROGRAMME

The aim of the programme is to provide students with direct support to better equip them with the knowledge, skills, strategies and attitudes to cope with the demands of the English language syllabus in school.

### OUR APPROACH

The SES English Exam Skills Programme (EESP) provides an extension to what students have been taught in the MOE-aided Literacy Programme (MAP) and helps to put the skills learnt into practical use in their examinations. In class, students will be exposed to various language related knowledge and strategies to determine their needs in learning the language. Skills covered in a lesson will be reinforced in subsequent lessons to ensure reinforcement of concepts taught.

Components covered in the programme include:

1. Grammar
2. Comprehension
3. Editing
4. Synthesis & Transformation

# Specialised Educational Services

## English Exam Skills Programme

Edmen Leong

*English Exam Skills Programme Manager*

*Dyslexia Association of Singapore*

### **BACKGROUND OF PROGRAMME**

The English Exam Skills Programme (EESP) is offered to primary school students at DAS. These students, similar to the rest of the Singaporean children population, have to sit for their PSLE (Primary School Leaving Examinations). Considering the strong emphasis on performing well in the PSLE, limited access to good secondary schools, and the known struggles of a dyslexic learner, the EESP aims to reinforce and teach skills these students need in their PSLE.

The EESP team started off by evaluating the examination needs of a typical Singaporean child with dyslexia. Team members started looking at school exam papers and analysed the various components of the PSLE paper, and realised that students at DAS tend to struggle with similar components of their examination, such as the Grammar, Editing, Synthesis and Transformation, Cloze Passage, and Comprehension. As such, the EESP team started working on these students' weaknesses. The team has since developed a set of curriculum addressing some of these challenging components.

The EESP curriculum designed aims to maintain and adhere to the structured and sequential schema of the OG principles (Gillingham and Stillman, 1997) while addressing the examination needs of the students. Lessons were also designed to be partially multisensory to ensure that students are given activities closest to examination conditions as possible, but also given opportunities to experience several possible pathways to learning, increasing the chances of retention of concepts learnt. (Gillingham and Stillman, 1997).

## PROGRAMME DESCRIPTION

The development of the EESP started in late 2013, where team members who were teachers at DAS started designing a 10-week programme consisting of the four exam components (Grammar, Editing, Synthesis and Transformation, and Comprehension). The development of the EESP curriculum had since been ongoing, and several terms' worth of the programme had been designed and implemented.

As of today, the EESP programme covers curriculum catered to students as young as Primary 3. This is to give our students opportunities to start understanding and grasping the skills, techniques, and foundations they will require for their PSLE at a young age.

With the addition of our P3 and P4 curriculum, the EESP now runs 3 concurrent programmes to cater to the following group of students:

- a) Primary 3 and 4
- b) Primary 5 and 6 in the Standard stream
- c) Primary 5 and 6 in the Foundation stream.

The new curriculum focus and breakdown of teaching and learning hours are as follows with effect from Term 4 2014.

Primary 3 and Primary 4	No. of hours	Primary 5 and Primary 6	No. of hours
Grammar	4	Comprehension	3.5
Editing and Spelling Rules	2	Synthesis Transformation	3
Study Skills - Annotation to understand text - Organisational	3	Editing	2.5
Milestone Activities	1	Pre/Post Tests	1
<b>Total hours</b>	<b>10</b>	<b>Total hours</b>	<b>10</b>

## **ENROLMENT**

Enrolment of students in the EESP programme has gradually increased across the terms. However, several of our students leave the programme when they sit for their PSLE paper at the end of Term 3 each year. The EESP team attempted to build up on our student numbers by opening our programme to Primary 4s in Term 4 2014. With this implementation, a total of 66 students were enrolled in Term 4 2014.

\*The number of students increased after the implementation of Primary 3 and Primary 4 curriculum in Term 1 2015. Of the 128 students enrolled by Term 1 2015, 55 were Primary 3 and Primary 4 students.

## **TEACHERS' TRAINING**

With a similar goal in helping our students achieve academically especially in school examinations, several Educational Therapists have shared their interest in joining the EESP team. Careful considerations were taken into account before we selected a total of eight Educational Therapists to join our EESP team. We ensured that all Educational Therapists have been teaching in DAS for at least a year, and are familiar with the primary school syllabus. Teachers were also selected based on the demand for EESP classes in the various centres.

Our teacher training conducted for these eight Educational Therapists took place in July 2014, where a two day workshop was used as a platform for the new EESP teachers to understand and learn the rationale, teaching methodology, and procedures in place within the EESP.

All of the eight Educational Therapists were very keen to learn, and grasp concepts they needed to know very quickly. By the end of the workshop, these teachers were confident in conducting EESP lessons on their own with our shared lesson plans and worksheets.

Term meetings have also been conducted since the workshop with these Educational Therapists. This provides these Educational Therapists opportunities to review what they have learnt, share their experiences in teaching the EESP, and provide the EESP team with feedback at the end of every term.

## **CURRICULUM DEVELOPMENT**

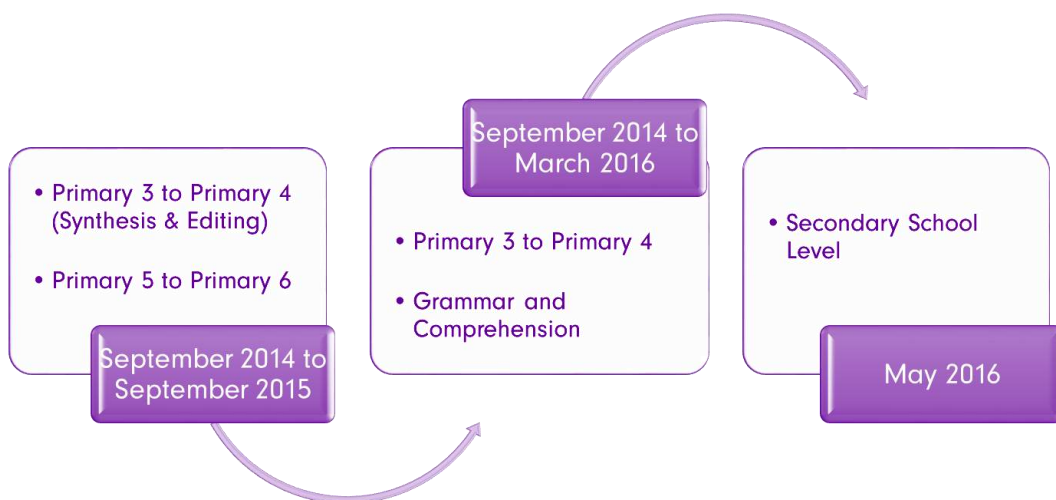
The curriculum development processes references Nation & Macalister (2010), and

Richards (2001), who suggested a systematic and cyclical curriculum development process, involving the analysis of needs and situation, goal and learning outcome planning, syllabus, assessment and evaluation. Adhering to these processes, the developers were able to consistently analyse, review, assess, and evaluate the designed curriculum from the feedback acquired from teachers, and students, as well as the pre-tests and post-tests conducted at the start and end of each term.

The consistent review of the curriculum not only ensures the quality of the designed intervention; it also enables teachers and developers to consistently modify the EESP to suit the changing demands of a student with dyslexia. These also enable teachers to track the progress of students attending the programme.

Adhering to the curriculum development frameworks, the team have successfully completed one and a half years worth of syllabus for both the Standard and Foundation stream for Primary 5s and Primary 6s. The team is currently working on completing 6 more months' worth of syllabus for the Standard and Foundation stream for Primary 5s and Primary 6s, as well as a new set of curriculum for the Primary 3s and Primary 4s.

The diagram below summarises our projected plans for our curriculum development across the levels:





**STRENGTHS, CHALLENGES & AREAS FOR IMPROVEMENT: PRIMARY 3 AND 4**

The team understood the need to design resources that are appropriate for the age group. As such, the resources created consist of more pictures to ensure the younger children are able to learn and grasp concepts taught more easily.

Constant feedback gathered from the Exam Skills teachers on the students' responses as well as their personal feedback with regards to the resources were crucial for the developers. In Term 1 2015, most of the teachers reported that the Primary 3 and 4 scope and sequence for the term was overwhelming for the students. For instance, feedback was given that introducing all the parts of speech in one Comprehension lesson was too overwhelming for both therapists and students. As such, the team has seriously considered the feedback given and enhanced the scope and sequence as well as the teaching resources accordingly. Besides having more pictures, the team decided to review previous terms' topics. Teaching of new concepts were to be taught in a more gradual manner per term.


Sample 1: Term 1 2015 Comprehension

Name: \_\_\_\_\_ Date: \_\_\_\_\_


**Comprehension 1**

**I will learn that :**

- ☉ parts of speech make up sentences in a text.
- ☉ nouns, verbs, pronouns, adjectives and adverbs are some examples of parts of speech.



Almost all words have a "part of speech." Which part of speech a word has depends on how it is used in a sentence.



**Nouns** are words used to refer to a person , place , object (living and non-living), feeling (eg. sadness , fear) or idea.

Example :

Maria waters the plants before going to school in the morning.

David screamed in excitement when the soccer player scored a goal.

**Activity 1 :** Highlight the nouns that you see in the following sentences:

All parts of speech have to be covered in one lesson.

The enhancements to the worksheets are shown from the samples below :

Sample 2: Term 2 2015 Comprehension

Only one or two concepts are to be taught. More visuals provided to aid students' understanding on the technical terms.


English Exam Skills (Term 2 2015) – Primary 3 & 4

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Comprehension 1**

**I will learn that :**

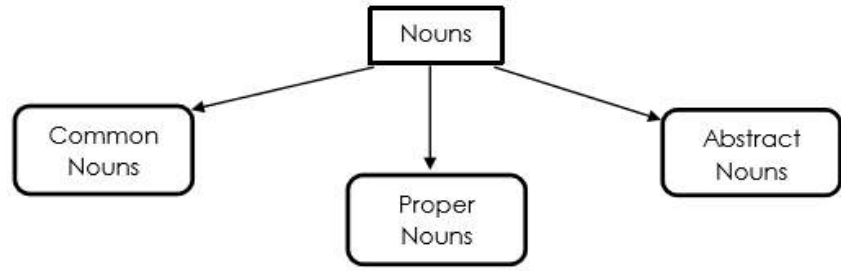
😊 nouns are words that are used to name people, places, things and ideas.  
😊 verbs are words that are used to show an action or state of being.



**Nouns** are words that are used to name a person , place, object (living and non-living), feeling (eg. sadness, fear) or idea.

Draw other examples of nouns that you know in this box.

There are different types of nouns namely :



```
graph TD; Nouns --> CommonNouns[Common Nouns]; Nouns --> ProperNouns[Proper Nouns]; Nouns --> AbstractNouns[Abstract Nouns];
```

We will be covering **common** nouns and **proper** nouns this term.

Sample 3: Comprehension

More pictures were provided in the worksheets to capture students' attention and aid in their understanding of concepts taught.

**Activity 1** : Highlight **ALL** the **nouns** that you see in the following sentences:

1. My uncle, Logan, won a free ticket to watch a movie.
2. Jess had Nasi Lemak for lunch at Changi Village last Sunday.
3. Her grandparents came from Indonesia to see her newborn baby.

**Verbs** are words used to show an action or a state of being.

		
The man <b>walks</b> with a stick.	The girl <b>is eating</b> a slice of watermelon.	The girl <b>is</b> a cyclist.
verb	verb phrase	state of being

Verbs may also be expressed in more than one (1) word, especially if it is used together with a helping verb such as '**is**'. It is known as a verb phrase.

**Example :**

Sam **is running** to the bus stop.  
(verb phrase)

Jenny **is thinking** how to **solve** the Math problem.  
(verb phrase)                      (verb)

Sample 4: Grammar

More pictures were provided in the worksheets to capture students' attention and aid in their understanding of concepts taught.

**Activity 2.** Possessive noun phrases.

Change the underlined words to the appropriate possessive noun phrase. The first example has been done for you.

1. The spots of the Dalmatians are very unique.



Circle the Dalmatians' spots.

2. The petal of the flower is missing.



Draw the missing \_\_\_\_\_.

Another struggle with the execution of the P3 and P4 curriculum was brought up by several teachers. Teachers found that Primary 3 and Primary 4 classes in particular consist of students with a differentiated range of abilities. Discussions with the team with regards to this matter suggest that a possible reason to this differentiated profiles is because these students have not been streamed into standard or foundation classes in their schools. The EESP team is currently working out possible strategies to overcome this difficulty.

## STRENGTHS, CHALLENGES & AREAS FOR IMPROVEMENT: PRIMARY 5 AND 6

Development of resources for Primary 5 and 6 continue to progress and feedback given among EESP teachers had been positive. This may be because the curriculum development for these levels had been worked on for several years since we first started the programme. We will continue to develop and complete the remaining cycles of resources as planned.

It was also heartening to note that, the team had the help from interns majoring in Linguistics from Nanyang Technological University (NTU) and National University of Singapore (NUS) to work on editing the completed packs of resources to ensure greater accuracy and value. The interns were working alongside our team from May to July 2015 and made an impact to the progress of our curriculum.

## EVALUATION OF EFFECTIVENESS

The effectiveness of the EESP is evaluated by termly pre-tests and post-tests conducted at the start and end of each term. Results of these tests throughout 2014 were summarised in the tables below showing the progress of our Standard and Foundation students in 2014. The progress was evaluated by calculating the percentage of students who improved in their test scores over each term (Leong, 2015).

Observations of scores in each of the pre-tests and post-tests revealed that large numbers of students had improved after each term. The percentage of students who improved across the four terms were also generally increasing across the terms. It was also observable that students in the Standard stream performed slightly better than students in the Foundation stream. A detailed breakdown of the percentage of students who improved in both streams were recorded in the tables below.

### Standard curriculum progress over 2014

Term	T1 2014	T2 2014	T3 2014	T4 2014
% Improvement	89.5	89	100	96.5
P value	p <.05*	p <.05*	p <.05*	p <.05*

## Foundation curriculum progress over 2014

Term	T1 2014	T2 2014	T3 2014	T4 2014
% Improvement	78	75	86	85
P value	p >.05	p >.05	p <.05*	p <.05*

The data recorded in the tables extracted from Leong, (2015) reveals a significant percentage of students who have improved in the standard stream across the four terms, with 100% improvements in Term 3. Significant percentages of students who improved in the Foundation stream however were only observable in the later two terms (Term 3 and Term 4).

Results from both the Standard and Foundation classes from the EESP clearly indicate that there is constant progress and improvements in not only the students results, but also the development of the programme.

Further evaluation of the components within the pre-tests and post-tests will be similarly conducted to evaluate and enhance the EESP curriculum.

## FEEDBACK FROM TEACHERS

The EESP Educational Therapists were given opportunities to give the EESP team members feedback on the curriculum on a term basis. At the end of 2014, all of the EESP Educational Therapists submitted feedback on their experiences with the EESP curriculum, training, and lessons.

All of the Educational Therapists were very happy and satisfied with the consistent training and updates on the curriculum since it helps them teach and learn easily. Several commented that the lessons we designed were structured, organised, and cumulative and thus makes it easy for both students and teachers to grasp. Some also commented on how lessons were very engaging and productive, and they were able to easily scaffold activities using worksheets to cater to the skills students need to learn.

## FEEDBACK FROM PARENTS/STUDENTS

2014/15 has been a successful milestone for the EESP. This was evident after the release of the PSLE results towards the end of 2014. EESP students who took their PSLE in 2014 were our first batch of students who completed at least a year's cycle of our programme before sitting for the paper. The EESP team and teachers were overjoyed after hearing successful stories from students and parents. Here are some examples of these success stories:

Over a phone conversation.

*"Hello teacher. I got my PSLE results already. Thank you so much. I can get into Secondary School!"*

- Student A.

By SMS

*"Hi Teacher A, Student B's PSLE result is 239. She got As for all 4 subjects. She said she promised to inform you"*

- Parent B

By SMS

*"Student C did well for PSLE. I am happy. Thank you for all your help."*

- Parent C.

Other conversations with parents recorded in Leong's, (2015) paper also revealed that parents are satisfied with the results of the EESP. These comments are recorded below.

*"I am impressed that Jack's English Exam has improved from a low grade C during prelims to achieving a B in PSLE. His Comprehension has shown great improvement. I hope he will continue to apply the skills throughout his learning journey. Thank you DAS! "*

*"I am very happy that Ken has passed his English for PSLE. He has never passed his English before."*

*"Thank you for your coaching. John has shown such significant improvement that he will be receiving his Edusave Good Progress award. We are very glad that he has applied his skills on his exam, especially English"*

## **WIDENING OUR REACH**

Several activities were planned in order to widen the reach of the EESP. One of the opportunities we had was during the DAS open day in June 2014. The EESP team had the opportunity to open several booths across different learning centres to share with prospective parents about the EESP.

A couple of Tips Talk sessions were also organised in 2014, where parents were invited to attend sessions with our team members to understand the changes in the PSLE syllabus that will take place in 2015. These sessions not only provide parents with opportunities to understand what kinds of skills and information their children will need to learn and grasp for their PSLE paper, but also provides an opportunity for the EESP team to share with parents what we can do to help their children.

Our EESP core members have also been making several informal visits to various learning centres to share our programme with the Centre Managers and Educational Therapists throughout 2014.

## **FUTURE DEVELOPMENT**

The EESP team have been very excited in expanding our programme for the younger primary students. This is because we realised how the programme will be very beneficial if students are given opportunities to start grasping concepts and skills at a younger age. As such, the team has embarked on our journey in developing a curriculum for the Primary 3 and Primary 4 students since early 2015.

The EESP will continue to consistently develop and enhance the curriculum for our students, with the primary focus on completing the syllabus for the Primary 3s and Primary 4s. Meanwhile, we will also look into expanding into the secondary school curriculum in the future.



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## ABOUT THE AUTHOR



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*Edmen joined DAS as an Educational Therapist in 2010 after completing his degree in Psychology and Linguistics in the University of Western Australia. He has since completed his Post-Graduate Certificate in Specific Learning Differences with London Metropolitan University. He is currently pursuing his Masters of Arts in Applied Linguistics with the National Institute of Education Singapore. He is also an Associate Fellow with the Register of Educational Therapists (Asia).*

*In addition to his role in teaching students in the MOE-aided Literacy Programme and the English Exam Skills Programme in DAS, Edmen actively contributes to the Exam Skills team as a core member by developing the curriculum and resources used in the programme. His interest in research also benefited the team especially in their programme evaluation and adaptation. Edmen's strong interest for languages and research, and love for children fuels his passion in contributing in the DAS, as well as in the field of language and special education.*

## **Specialised Educational Services**

**UNLOCKING POTENTIAL**

# ESSENTIAL MATHS PROGRAMME

## OUR APPROACH

SES Essential Maths Programme helps to bridge the gap between your child's ability and the mainstream syllabus by addressing areas they are weaker in. This is done through a C-R-A (Concrete-Representational-Abstract) approach. Every stage of learning ensures that the child links mathematical ideas in a progressive and cumulative way. The methodology applied constantly keeps in touch with the mainstream school math syllabus, with the aim of bridging the gap between the student's ability and mainstream syllabus.

## RECOMMENDED FOR

Students with dyslexia have specific areas of difficulty that can affect their mathematical performance such as poor short term and working memory, reversals in words and numbers, problem with sequencing and difficulty with reading word problems. These difficulties can impede a child's ability to understand concepts, do calculations and apply to what they have learnt to word problems. Some of the more common difficulties include counting forward and backward, understanding of number relationships, place value, times table facts and following multi-step calculations.

# Specialised Educational Services Essential Maths Programme

Anaberta Oehlers-Jaen

*Programme Director of SES Maths, Assessments and Specialist Tutoring and  
Head of DAS International  
Dyslexia Association of Singapore*

## **BACKGROUND OF SES MATHS PROGRAMME**

The aim of the SES Maths Programme since its inception in 2009 is to effectively support students with dyslexia who have persistent difficulties in mathematics, particularly with maths word problems.

The SES Maths Programme, is recommended for students with dyslexia who have specific areas of difficulty that can affect their mathematical performance such as poor short term and working memory, reversals in words and numbers, problem with sequencing and difficulty with reading word problems.

## **OVERVIEW OF SES MATHS PROGRAMME**

These difficulties can impede a child's ability to understand concepts, do calculations and apply what they have learnt to processes such as counting on and counting back, understanding number relationships, place value, times table facts and following multi-step calculations. Research by the British Dyslexia Association (BDA) has found that 60% of dyslexics also require support in Mathematics.

The SES Math Programme caters to this need and as at December 2014 is supporting 209 dyslexic children to cope with their learning difficulties and to maximise their true potential.

## PROGRAMME DESCRIPTION

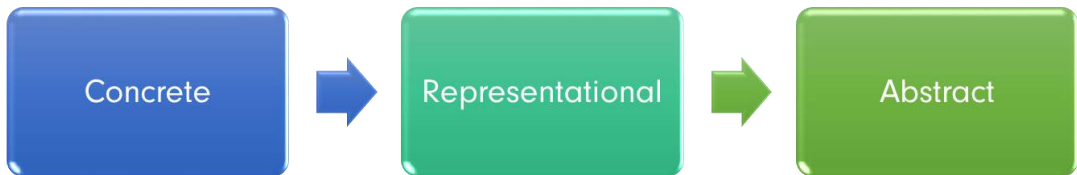
The methodology applied, constantly keeps in touch with the mainstream school maths syllabus, with the aim of bridging the gap between the student's ability and mainstream syllabus by addressing areas they are weaker in.

The teaching methodology is based on the needs of the child, with a strong emphasis on concept-building, addressing areas of skill deficit. The teaching methodology also incorporates the following research based principles which is language based, cognitive, structured, sequential and cumulative, simultaneously multisensory, diagnostic-prescriptive and emotionally sound. These principles have been shown to be effective in helping students with dyslexia understand maths concepts.

## THEORETICAL FRAMEWORK

Teaching progresses in developmental stages:

1. Concrete Stage – use of tangible manipulatives
2. Representation Stage – use of pictures and 2D drawings
3. Abstract Reasoning Stage – use of symbols and word problems



Every stage of learning ensures that the student links mathematical ideas in a progressive and cumulative way. The teaching methodology is multisensory in its delivery and allows students to gain hands on experience with maths concepts. It is imperative that a student is equipped with foundational maths skills, such as basic computation, in order to progress toward higher order mathematical thinking.

Through the approach adopted at SES Maths, we aim to strengthen their foundations for confidence in higher-level maths, and thereby bridge the gap between the student's maths abilities and the demands of the school mathematics syllabus. Our students are also taught to solve problems using Polya's Four Step Process approach - understand the problem, plan a strategy, solve the sum and check the workings.

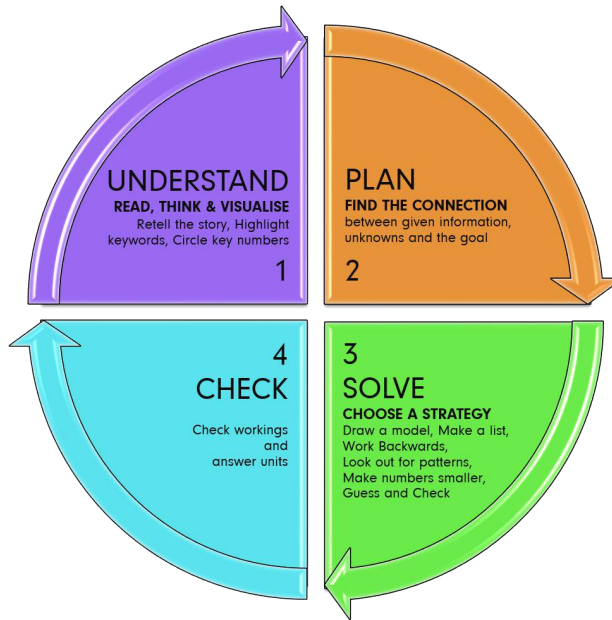


Figure 1. Polya’s Four step process approach (1945)

**ENTRY CRITERIA**

During the first years of the programme, entry was restricted to those students who had been on the literacy programme for a year, with reading age no more than a year below chronological age.

1. Primary School students (P1 to P6).
2. Current or ex-student of DAS, other DAS Programmes with a diagnosis of Dyslexia.
3. Students scoring the following grade on their most recent exam paper.
  - P1 to P3 Band 4 (Below 50%)
  - P4 to P6 (Standard): E Grade (Below 34%)
  - P5 to P6 (Foundation): E Grade (below 49%)

**RECOMMENDATIONS**

The Maths Core team are currently reviewing the entry criteria, as we had noticed that patterns of results fluctuate throughout the academic year and grade level. We are aiming to move towards a more inclusive and simplified entry criteria for 2016.

### **Revised Entry Criteria for 2016**

1. Primary School students (P1 to P6)
2. Current or ex-student of DAS or other DAS programmes with a diagnosis of Dyslexia.
3. Students scoring the following grade on their most recent exam paper.

P1 to P4: (Below 50%)

P5 to P6: (Standard): (Below 59%)

P5 to P6: (Foundation): Open to all foundation students.

### **EXIT CRITERIA**

Students should be expected to:

- ◆ Score at least 80% on the programme's annual performance test. This figure will need to be monitored.
- ◆ Consistently achieve at least 60% in school exams for at least 3 consecutive terms.
- ◆ Currently, the exit criteria has not been put in place. Students would leave the programme when they have completed P6.

### **RECOMMENDATIONS**

For students who have made good progress in their Maths performance, we may need to consider graduating them using the two exit criteria.

### **ENROLMENT**

The SES Maths Programme in 2014 saw an increase in student enrolment from 94 students in January 2014, to 209 students in December 2014, who received support for their Maths difficulties, in addition to receiving DAS MAP remediation classes for Dyslexia. This suggests continued growth and expansion for 2015.

Table 1. Statistical Information on the SES Maths Programme

	January 2013	January 2014	December 2014
Number of students	74	94	209
Number of students on the waitlist	58	68	30
Number of trained therapists	12	18	34
Number of currently practicing therapists	12	12	27
Number of Learning Centres with Maths resource provision	6	12	12
Number of Workshops	0	5	
Number of Maths Insets for Dual Specialists	0	3	
Number of TIPS Talks Conducted	0	4	

## BURSARY FOR STUDENTS

### Report on utilisation of the StarHub Bursary

StarHub is the official sponsor of the SES Maths Programme for 2014 with a donation of \$160,500 in April 2014. The fund helps to support students who require further financial assistance. Due to financial constraints these families are unable to afford the non-subsidised Maths Programme, even though they require support additional support in Maths.

SES Maths is pleased with the results for 2014 which has shown that 48% of students which is 100 of the 209 students on the SES Maths programme have benefitted from receiving up to 100% bursary. 71% of the funds have been utilised. Students and parents have shown their appreciation and good progress through thank you letters to the Maths team of Specialists.

DAS through its fundraising effects will continue in 2015 to raise funds for the SES Maths programme so that more students are able to benefit from form Maths remediation. Table 2 reflects information about the current bursary utilisation.

Table 2 Statistics on the SES Maths Bursary 2014

<b>STATISTICS ON SES MATHS BURSARY 2014 (STARHUB)</b>						
Enrolment as at Term 4 Week 10, 2014	209					
No. of students on StarHub Bursary	100					
Percentage of students on StarHub Bursary	48%					
<b>Breakdown of Bursary Distribution 2014</b>						
	<b>Term 1</b>	<b>Term 2</b>	<b>Term 3</b>	<b>Term 4</b>		
Funds Utilised	<b>\$ 17,398.20</b>	<b>\$ 21,084.35</b>	<b>\$ 34,544.95</b>	<b>\$ 40,975.65</b>		
Total	\$ 114,003.15					
StarHub Budget	\$ 160,500.00					
Utilised	71%					
Bursary %	100%	90%	75%	50%	33%	<b>Total Students</b>
<b>No of Students</b>	<b>38</b>	<b>17</b>	<b>16</b>	<b>16</b>	<b>13</b>	<b>100</b>

## WIDENING OUR REACH

In 2014, we conducted five student workshops that were conducted in June and December 2014. The team also delivered four interactive TIPS Talks for parents over the various DAS Learning Centres in order to share practical and hands-on tips for parents in support of their students who attend our SES Maths classes. We received excellent feedback from parents especially for the talks on Word Problems. The Maths team in 2015 will continue to engage with both students and teachers.



## **TEACHER TRAINING**

In 2014/15 (Term 1) we had three insets for the Math's Dual Specialists:

- ◆ Annual Testing
- ◆ Parent Teacher conference
- ◆ Lesson planning and usage of math manipulative

### **Teacher Training: MATHS PRACTICUM - 2014 (PCC)**

A total of 19 DAS Educational Therapists were trained to become Maths Dual Specialists.

#### **Objective**

To train the selected, confirmed Educational Therapists with at least one year experience in teaching MAP to become Maths Dual Specialists to facilitate the increasing number of students who had been enrolled to be placed into classes and be provided with the right instruction so as to benefit effectively from our remediation programme.

To equip the EdTs with practical hands-on skills to plan and teach essential maths concepts to students with numeracy difficulties integrating the ELA principles and the CRA approach.

#### **Procedure**

Each Trainee EdT is assigned to an experienced Maths supervisor EdT preferably at the same centre. Training is for a period of 5 weeks.

### **Quality Assurance: MATHS 2014**

#### **Objective**

To ensure that teaching follows the scope and sequence and teaching approaches as outlined in the DAS Maths Curriculum and meets the standards as defined by the Quality Assurance Marking Rubric, there are observations which are conducted once a year. In 2014, Quality Assurance observations were conducted for the Maths Dual Specialists. The observers comprised of at least two Maths Core Team members so as to have inter-rater reliability. This is to ensure consistent ratings and to minimise any bias that may be present.

## Curriculum Development

In 2014, the Maths Core team looked at the reaching out to the weaker students on the Maths programme. The diagram below reflects the key curriculum developments for 2014 which were trialled throughout the year over 4 terms with the exception of the Advanced Maths.

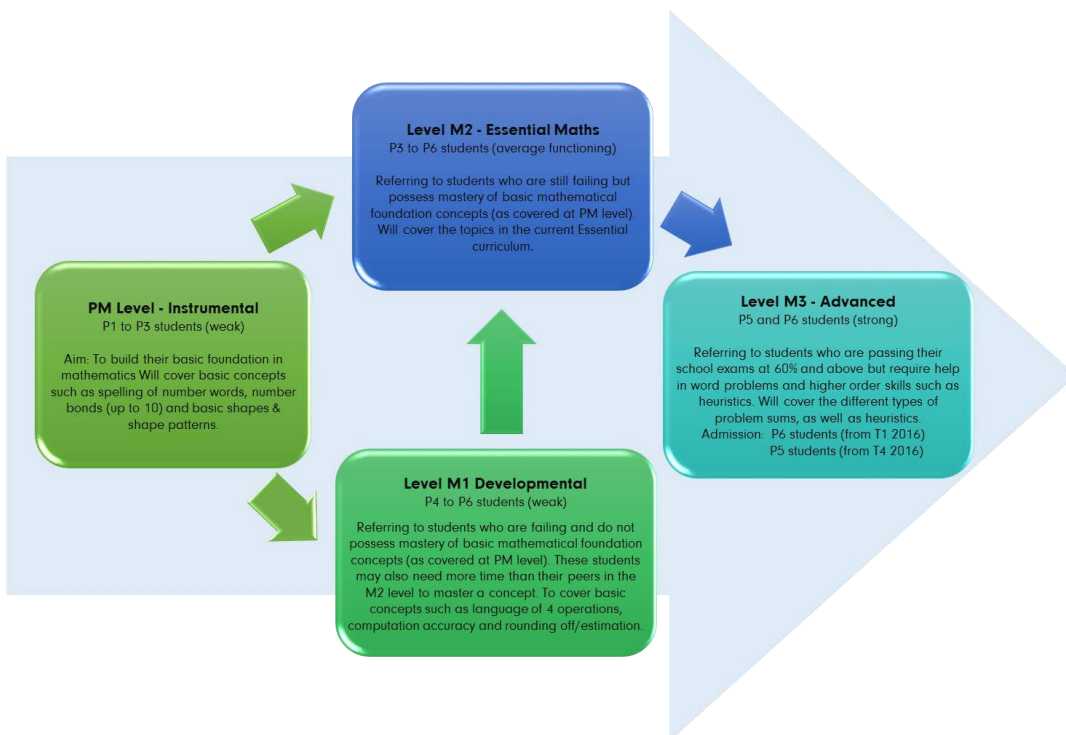


Figure 1. SES Maths Curriculum Development

## Recommendations

Upon analysis and feedback from the trials of the proposed Maths grouping, which have been carried out in Term 1 2015, we have decided to integrate within the existing Essential Maths framework.

This would then allow for better differentiation at the classroom level and not at the placement level which would not be feasible due to manpower and logistical constraints. This integration allows for flexibility for the Maths teachers to incorporate elements that are relevant and developmentally appropriate for the students, supporting them in the mainstream curriculum. This enhances the current Essential

Maths Programme in terms of scope, reliability and expertise. Teachers will be given In-service training on the components that have been identified to support the weaker students.

The Level M3 (Advanced Maths), will however be offered to P6 students in Term 1, 2017 and P5 Standard students in Term 4, 2016.

## **MATHS PROGRAMME DEVELOPMENT FOR 2016: THE ADVANCED MATHS PROGRAMME**

### **What is the Advanced Maths Programme?**

The Advanced Maths Programme is a programme catered to address the learning needs of the P5 and P6 students who are struggling with the more complex word problems by teaching them appropriate problem-solving heuristics.

### **Who are the target group?**

The programme is for students in P5 and P6, who have good computational skills and demonstrate good conceptual understanding of Maths topics at the Paper 1 Multiple Choice Questions and Short questions level but have difficulty comprehending the language of the complex word problems and applying appropriate strategies to work out the sums systematically and logically.

### **What are our objectives and rationale?**

The Advanced Maths Programme focuses on promoting higher level thinking skills through the exposure to routine and non-routine word problems. It is hoped that students will come to discover the most appropriate solution using problem-solving heuristics. The Advanced Maths Programme is not a preparation course for the Primary School Leaving Exam (PSLE).

## **SES MATHS ANNUAL PROGRESS REPORT 2014**

*By Rebecca Yeo, Senior Educational Therapist*

The following is an extract from an article published in the Asia Pacific Journal of Developmental Differences 2015 describing the research conducted by the DAS Maths team (Yeo et al., 2015, pp 147 -157)

DAS Maths wanted to develop a broadly focused maths test whose main purpose would be to evaluate how much learning had taken place topic by topic and stage by stage. The aim was not to differentiate between maths learners or to look for patterns of strengths and difficulties. The test, it was hoped, would both measure progress reliably and be a guide to teaching priorities across topics. The test was evaluated in a short pilot study in 2013 (reported in Bunn, Yeo, Siti Aisha and Abdullah, 2014, p 85-93). The results suggested that the students were making progress (Bunn et al., 2014, p 86). However, the team wanted to evaluate the test more thoroughly, and a study was carried out to examine the strengths and weaknesses of the test.

### **METHOD**

#### **PARTICIPANTS**

A total of 39 students took part in this study. The participants were Primary 2 (between the ages of 7.5 to 8 years old) to Primary 5 (between the ages of 10.5 to 11 years old) students who were already on the DAS Maths programme at least 6 months at the time of the first testing. All students who did not meet this criterion were excluded from the sample. This is to ensure that all students have had sufficient time to benefit from the programme before we evaluate their performance. The students were from the centres where the DAS Math programme was available at the point of assessment. As of November 2013, the DAS Math programme was only available at six learning centres.

The breakdown of the sample by grade levels is as follows: 2 students at Primary 2 (P2) level, 11 students at Primary 3 (P3) level, 14 students at Primary 4 (P4) level, 5 students at Primary 5 foundation (P5F) level and 7 students at P5 standard (P5S) level (refer to Figure 1). The grade levels of the students were based on the students' chronological school level at the beginning of the study.

In all primary schools in Singapore, all students would undergo a streaming examination for all subjects at the end of the Primary 4 year (i.e. when an average child is between the ages of 9.5 to 10 years old). The papers for this exam are prepared by the school, with the purpose of evaluating the students' strengths and

abilities based on their performance in each subject.

The results of this streaming exercise will then be used to guide students' placement into the types of subjects they would take in the remaining two years of their primary school education: Standard or Foundation. Students who have passed at least 3 subjects are allowed to take 4 Standard subjects, while students who have passed 2 subjects or less are given the flexibility to decide whether they would like to take 4 Standard subjects, 3 Standard subjects with 1 other Foundation subject, 2 Standard subjects with 2 other Foundation subjects, 1 Standard subject with 3 other Foundation subjects or 4 Foundation subjects (MOE Communication and Engagement Group, 2014).

However, these subject combinations are not set in stone. If a student performs well in one of the Foundation subjects at the P5 level, the school may allow for the student to upgrade one or two subjects to the Standard level if the school believes that the student can cope. On the other hand, for students who seem to be struggling with Standard subjects at the P5 level, the school may also allow for the student to change that subject to that at the Foundation level.

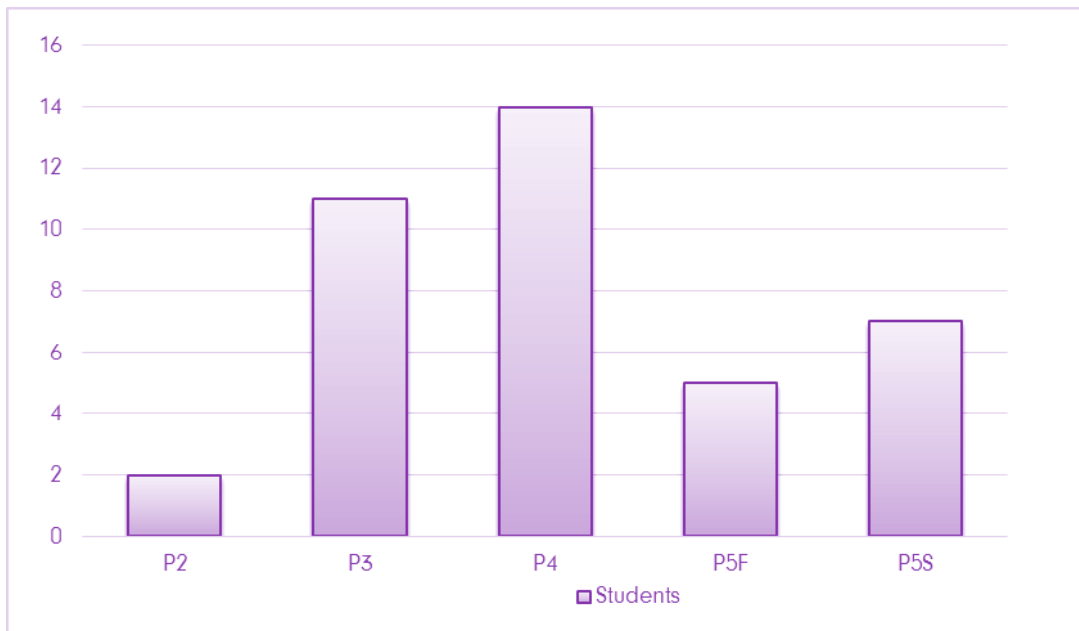


Figure 1. Breakdown of the students by grade levels.

## **MATERIALS**

The students' mathematical conceptual knowledge was assessed using a comprehensive set of topical tests that were previously developed by the maths team, with some guidance from Professor Angela Fawcett and Dr Tim Bunn. The items in this instrument were created with reference to the 2007 Primary Mathematics Syllabus developed by the Curriculum and Planning Development Division of the Ministry of Education, Singapore (2006). We decided to use our in-house test because published maths tests do not cover the Singapore maths syllabus fully, and do not reflect the balance of computational and word problems that Singaporean students face. Moreover, we wanted to be able to identify topic by topic what concepts students had learned and still needed to work on. This collection of tests, known as the Annual Testing papers, assesses ten topics (addition, subtraction, multiplication, division, time, fractions, geometry, decimals, percentage, ratio) and covers calculations and word problems separately within each area.

The test was broken down by grade level (i.e. Primary 1 to Primary 6) such that students only need to attempt the items for their grade level and one grade below. Based on the Singapore mathematics curriculum, certain topics were only introduced from a certain grade level onwards (e.g. Decimals is only introduced from Primary 4) and thus were not tested for students who had not yet learned the topic because of the grade level they were in (e.g. Primary 3). In addition, students were assumed to have attempted the items that are two grades or more below their grade level correctly, and thus these items were not included in their test paper. For example, a Primary 5 student would be assumed to have attempted the items at the Primary 1, Primary 2 and Primary 3 levels correctly even though he did not do the questions. The test provides measures of learning on each concept. It also guides teaching as it enables therapists to show which grade level their students are working on within each topic and whether there is more to do at that level.

## **PROCEDURE**

Students were administered the first test in November 2013 and then a copy of the same test six months later (May 2014). The tests were administered during one of the Math lessons within the school term so as to reduce the logistics problems related to data collection. The test was not timed but students were allowed a maximum of two hourly sessions to complete the test. While students were doing the test, the teachers in charge had to walk around to check the final answers of each question. If the final answer was correct, the student could proceed forwards to attempt the next question. However, if the final answer was incorrect, the teacher had to direct the student to try the question before. The testing on a topic will be discontinued if the student has 3 consecutive questions incorrect or if they have reached the end of the

section. At the end of the entire test, teachers will mark the students' responses using the answer scheme that has been provided and input the number of errors the student has made into a Microsoft Excel file. A percentage score would be calculated automatically by the Excel document that can be used for statistical analysis.

## **RESULTS**

Before the data was analysed, it was first cleaned by checking for scores that fell outside the range of possible scores. The range of possible scores is defined as the scores between the lowest possible score for each grade and topic and the highest possible score for each grade and topic. Calculation of the range depended on the total number of items that the students were assumed to have attempted, and the total marks allocated for these items. A total of 27 scores were found to have fallen below the range of possible scores. These scores were adjusted to the lowest possible score as per the grade level of the student. Using the clean data, the students' pre-test and post-test scores were compared using a one-tailed matched samples t-test. The data was evaluated on two levels: (a) by topic, and (b) by level.

### **STUDENTS' PROGRESS ACROSS THE TOPICS**

On the whole, regardless of the grade levels students were in, the results showed that there was significant improvement across all ten topics. Table 1 summarises the students' performance across the topics.

### **STUDENTS' PROGRESS ACROSS GRADE LEVEL**

#### **STUDENTS' PROGRESS AT THE P2 LEVEL**

The Primary 2 students were only required to attempt a total of 7 topics, based on the school curriculum. These topics include addition, subtraction, multiplication, division, time, fractions and geometry. The analysis also revealed that there was no significant improvement in their scores when the topics were looked at as a whole ( $t(6) = .003, p = .50$ ).

The comparison of their scores across topics is documented in Table 2. No significant differences were observed in any of the topics at the  $p < .05$  level. However, scores improved or remained steady on 4 out of 7 topics, with the greatest improvement in division.

Table 1 Students' progress across the topics

Topic	Pre-test scores		Post-test scores		<i>t</i> -score	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Addition	83.60	14.11	88.44	11.20	<i>t</i> (38) = 2.29	.01*
Subtraction	75.86	22.33	83.58	17.85	<i>t</i> (38) = 1.92	.03*
Multiplication	79.82	16.56	89.75	11.51	<i>t</i> (38) = 4.07	<.001***
Division	66.55	23.09	84.48	17.51	<i>t</i> (38) = 5.67	<.001***
Time	72.36	18.41	81.32	19.21	<i>t</i> (38) = 3.48	<.001***
Fractions	58.79	23.47	77.62	22.85	<i>t</i> (38) = 4.35	<.001***
Geometry	72.25	25.41	81.88	24.82	<i>t</i> (38) = 2.84	.003**
Decimals	45.46	13.36	65.93	34.04	<i>t</i> (25) = 3.61	<.001***
Percentage	36.00	35.93	70.86	20.39	<i>t</i> (6) = 2.66	.002**
Ratio	57.80	42.12	92.81	3.38	<i>t</i> (6) = 2.23	.03*

Note. \**p* < .05. \*\**p* < .01. \*\*\* *p* < .001

Table 2 Progress of P2 students across the topics

Topic	Pre-test scores		Post-test scores		<i>t</i> (1)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Addition	90.90	0	95.45	6.43	1.00	.25
Subtraction	75.00	7.07	80.00	0	1.00	.25
Multiplication	100.00	0	100.00	0	N.A.	N.A.
Division	57.80	42.00	93.75	8.84	1.53	.18
Time	77.80	15.70	72.25	7.85	1.00	.25
Fractions	83.35	23.55	47.20	66.75	0.06	.34
Geometry	100.00	0	96.00	5.66	1.00	.25

Note. \**p* < .05. \*\**p* < .01. \*\*\* *p* < .001



### STUDENTS' PROGRESS AT THE P3 LEVEL

The P3 students showed significant progress in all topics at the post-test level except for addition ( $t(10) = 0.85$ ,  $p = .21$ ) and subtraction ( $t(10) = 0.87$ ,  $p = .20$ ). Table 3 summarises the results of the students at the P3 level. A significant improvement was also observed when all the topics were studied collectively ( $t(6) = 5.15$ ,  $p < .01$ ).

Table 3 Progress of P3 students across the topics

Topic	Pre-test scores		Post-test scores		$t(10)$	$p$
	$M$	$SD$	$M$	$SD$		
Addition	87.88	11.85	91.65	10.55	0.85	.21
Subtraction	76.02	22.74	81.81	23.00	0.87	.20
Multiplication	77.91	23.01	93.35	9.40	2.38	.02*
Division	59.70	33.58	80.99	26.79	2.95	.007**
Time	60.91	21.89	77.27	23.49	2.21	.03*
Fractions	51.64	30.62	75.19	26.06	2.99	.007**
Geometry	72.1	21.92	86.00	20.59	1.90	.04*

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

### STUDENTS' PROGRESS AT THE P4 LEVEL

At the P4 level, decimals is introduced as a new topic. Thus, a total of eight topics were assessed at the P4 level. Significant improvements were only observed for four topics: multiplication ( $t(13) = 1.81$ ,  $p < .05$ ), division ( $t(13) = 4.17$ ,  $p < .001$ ), fractions ( $t(13) = 5.08$ ,  $p < .001$ ) and decimals ( $t(13) = 2.12$ ,  $p < .05$ ). As a whole, a significant improvement was observed in the post-test ( $t(7) = 4.17$ ,  $p < .001$ ). Table 4 summarises the results of the students at the P4 level.

Table 4—Progress of P4 students across the topics

Topic	Pre-test scores		Post-test scores		$t(13)$	$p$
	$M$	$SD$	$M$	$SD$		
Addition	80.11	17.52	84.18	11.63	1.11	.14
Subtraction	70.42	23.79	77.26	18.43	0.84	.21
Multiplication	76.07	14.76	82.39	12.94	1.81	.046*
Division	63.51	14.73	80.94	13.24	4.17	<.001***
Time	68.54	14.36	72.17	16.80	1.43	.09
Fractions	50.36	18.38	73.68	16.52	5.08	<.001***
Geometry	54.06	25.96	62.91	28.11	1.22	.12
Decimals	26.94	23.39	46.04	35.48	2.12	.03*

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

Table 5 Progress of P5F students across the topics

Topic	Pre-test scores		Post-test scores		$t(4)$	$p$
	$M$	$SD$	$M$	$SD$		
Addition	78.54	16.02	82.86	14.82	0.59	.29
Subtraction	90.00	6.74	89.08	7.61	0.30	.39
Multiplication	87.60	11.61	98.66	3.00	2.61	.03*
Division	79.98	13.95	89.98	9.15	1.18	.15
Time	86.66	11.18	94.16	5.59	1.50	.10
Fractions	70.46	13.61	92.52	10.24	2.82	.02*
Geometry	89.98	12.09	98.46	3.44	1.83	.07
Decimals	60.90	21.92	88.66	3.43	2.85	.02*

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

### STUDENTS' PROGRESS AT THE P5F LEVEL

Students in the P5F level were assessed on the same topics as the P4 students. Students in the P5F level are considered to require more help with their mathematics foundation as compared to their peers in the P5S level. Therefore, in the Singapore Mathematics curriculum, P5F students are exempted from two new topics that are introduced at the P5S level, namely Percentage and Ratio. Data analyses show that the P5F students improved significantly in three topics: multiplication ( $t(4) = 2.61, p < .05$ ), fractions ( $t(4) = 2.82, p < .05$ ) and decimals ( $t(4) = 2.85, p < .05$ ). When all the topics were considered as a whole, a significant improvement was observed at the post-test level ( $t(7) = 3.42, p < .01$ ). Table 5 summarises the results of the students at the P5F level.

### STUDENTS' PROGRESS AT THE P5S LEVEL

Students in the P5S level were assessed on the greatest number of topics. Data analyses show that the P5S students showed significant progress in their scores in all topics except for subtraction ( $t(6) = 1.70, p = .07$ ) and decimals ( $t(6) = 1.87, p = .055$ ). When all the topics were considered as a whole, a significant improvement was observed at the post-test level ( $t(9) = 5.90, p < .001$ ). Table 6 summarises the results of the students at the P5F level.

Table 6 Progress of P5S students across topics

Topic	Pre-test scores		Post-test scores		$t(6)$	$p$
	$M$	$SD$	$M$	$SD$		
Addition	85.37	9.28	93.90	4.93	2.01	.046*
Subtraction	76.63	28.18	96.10	7.16	1.70	.07
Multiplication	78.97	8.06	89.53	8.48	2.26	.03*
Division	76.31	14.45	90.47	12.20	1.96	.049*
Time	86.24	9.91	99.40	1.59	3.67	.005**
Fractions	71.56	14.65	87.39	10.96	3.30	.008**
Geometry	88.29	11.82	97.46	4.47	2.70	.02*
Decimals	71.49	30.57	89.47	34.04	1.87	.055
Percentage	36.00	35.93	70.86	20.39	2.66	.02*
Ratio	57.80	42.11	92.81	3.38	2.23	.03*

Note. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$

## DISCUSSION

The objective of this study was to objectively measure the progress of the students in the DAS Maths programme to see if our programme is effective in improving the mathematical knowledge of our students. The results showed that students generally made significant improvements in their knowledge of all the topics that we have assessed them on. However, when we scrutinise the results by grade level, we find that the amount of progress the students made varied by topic, as well as across levels. There appears to be a steady decline in the number of topics where improvements are observed from P3 to P5F. One factor that could account for this decline is the increase in difficulty of the topics as one progresses through the school system. While our programme aims to help students to understand concepts within their zone of proximal development and at their learning pace, schools are teaching students concepts that are getting increasingly complex. Therefore, we find that although they do show some improvement, the students are still not matching up to their expected school standards.

There are also some unexpected trends in the results that are worthy of mention. First is the finding that the P2 students did not make any significant progress in any of the topics. There are several reasons to account for this. First and foremost, the sample size is too small for the results to be valid in explaining trends in a population. A bigger sample is needed to test if our intervention is effective at the P2 level. Secondly, due to the small sample size, a change in one of the participants' scores is likely to affect the overall mean and standard deviation of the scores significantly, which was what happened in the dataset. However, we also noticed that there was an anomaly in one of the students' scores. In this case, the student was observed to have regressed in his performance in the topic of Fractions. We approached the teacher of this student to try and investigate why this was so. We learned that the most probable explanation for this is due to a long time lapse of more than 6 months between the time he had learned Fractions in P2 (pre-test) and the time that his school had covered Fractions again in P3. This finding highlights the difficulties that some of our students with dyslexia encounter in schools which follow a spiral curriculum. One of the characteristics of dyslexia is a difficulty of retrieving information from long-term memory. By the time of the post-test, the student had already forgotten what he had learned about Fractions at the P2 level and his school had only just began to teach Fractions at the P3 level. This was probably why he did not perform as well as he did during the post-test 6 months ago.

There were also limitations to the design of the study and areas we could improve on. Firstly, we did not check which topics were already covered by our teachers at each testing. Matching the topics teachers had already covered with the progress of students would give us a more accurate picture of the effectiveness of our program.

This could also explain why students improve in certain topics not in others. Second, we were unable to form a control group in this design because we did not have ready access to students not on our maths programme. Nor did we control for other extraneous and mediating variables such as the number of hours students receive other forms of mathematics remediation (e.g. tuition) outside of our programme. Therefore, we were unable to determine if the results were entirely due to our programme or due to other factors. If we had controlled for other factors, we would perhaps be able to conduct a factor analysis to identify the main contributors to our students' improvements. Finally, the test was not being timed even though students could take a maximum of two hours to complete it. Thus, their results may not be an accurate reflection of their performance in school-based examinations where they have to complete their paper within a stipulated time limit. In future research it would be useful to check how much they could complete within a fixed time period, as well as allowing them as much time as they need to complete the test.

## **CONCLUSIONS**

The main aim of the study was to evaluate the use of a comprehensive test of Singaporean primary maths as a measure of progress for dyslexic students on the DAS small group Maths intervention programme. The study shows that students made significant improvement across all topics covered by the test. Analysis grade by grade shows that at each grade level some topics show much greater improvement than others, with fewer topics showing progress at higher grades. This may be a result of harder topics being introduced later in the primary phase, and there may also have been less progress because of poor retention when topics were taught a longer time before the test.

The test is considered to be a useful instrument, but the DAS Maths team may need to consider alternative test designs to see if other ways of testing would be equally or more efficient. We may also need to consider ways to recruit non-intervention children as controls to measure the unique contribution of the programme. The team would also like to look into incorporating an attitudes test to track changes in students' attitudes towards Mathematics as a subject, math computations and word problems before the start of the programme and after every year of being on the program. This attitudes test would be administered together with the Annual Testing papers.

## **FUTURE DIRECTIONS**

To help our very weak students who are struggling with basic math concepts, the team is currently compiling a set of differentiated lesson plans and strategies that are catered towards helping our weaker students with their number sense, a

fundamental skill for grasping mathematical concepts. This will be integrated into the current Essential Maths programme to help our teachers reach out to students with diverse math abilities.

Currently, our annual assessment of students' progress takes approximately one to two hours to complete. In the team's opinion, this is too long a duration, and students do report feeling unmotivated to finish the paper. Some have even displayed task avoidance. Based on the feedback, the team will look into how to shorten the test without affecting its psychometric properties. The Maths curriculum team is developing the Advanced Maths Curriculum to cater to the learning needs of students who are struggling with the more complex word problems by teaching them appropriate problem-solving heuristics.

We will continue to uphold the high standards in teaching quality as well as the professional development of our dual specialists through in-house training (insets) and workshops. The teaching standards of our existing dual specialists will be monitored by a peer dual specialist and one of the core team members using video observations of a lesson, once every year.

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## **POSITIVE FEEDBACK FROM PARENTS AND STUDENTS**

Bursary recipient: Lisa Lam

Saturday, November 22, 2014 at 5:08 PM

To: samunn@das.org.sg

*Dear Mr Samunn,*

*Thank you very much for helping my daughter in her 1st and only year of Primary School Maths class tuition. She has never passed her maths before and I am very thankful for DAS to have maths tuition for child like her. Next year she will be in Secondary 1 and DAS does not have Maths tuition for Secondary 1. I personally feel that my daughter Lisa Lam had not had even exposure to learning Maths the correct way. Could I request for DAS to teach her 1 more year in P6 tuition? I am also hoping for STARHUB sponsorship for the course as I do not have money.*

*Best regards*

*Lydia Lam Mother of Lisa Lam*

Non Bursary Student: Harold Ngoh

*Dear Teacher Albel*

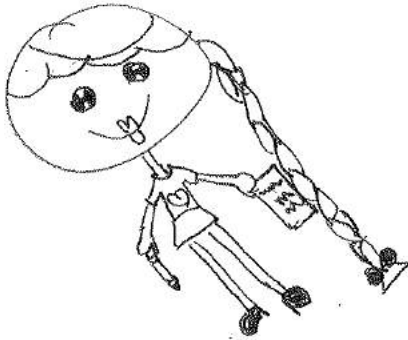
*The DAS Math Programme has met my expectations in building a firm foundation for my son. The programme is able to simplify and using more hands-on approach to make mathematical concepts concrete for the children to understand. The worksheets are also not intimidating for him and he enjoys attending the classes.*

*Ms Albel is also extremely patient and understanding to empathise the kids' challenges and difficulty in grasping the computation and perception.*

*Thank you. It will be ideal if there's a programme for Secondary School.*

*Thanks for your effort and confidence in Harold*

**DAS MATHS STUDENTS PRAISES FOR THE SES MATHS PROGRAMME**



I am interested in Math  
because when i was in P1, I was not  
good in math. After I  
learn math with DAS, I became more  
smarter than before, I can even <sup>pass</sup> ~~pass~~ Math  
in my school Math Exam.



EnJoyable  
I learn Other ways to work  
Out the sums  
Sums are Simple  
I work Hard  
I Understand the working  
I pay Attention  
Maths is so much fun at DAS  
class

I love DAS Maths because Ms Albel uses  
interesting and creative games  
for us to understand better  
in Maths. she also <sup>helps me to</sup> improve  
my maths to a higher grade.

## ACKNOWLEDGEMENTS

The comprehensive SES Maths Evaluation 2014 report would not be possible without the team effort provided by the following persons.

**SES Director:** Nor Ashraf Samsudin

**SES Maths Programme Director:** Anaberta Oehlers-Jaen

**Core Team Members:** Aishah Abdullah, Rebecca Yeo, Siti Aishah Binte Shukri

**Maths Evaluation Report:** Rebecca Yeo: Analysis of the Pre-Post Test analysis & collation of data and report on the Pre and post tests.

**Contributions to SES Maths:** Dr. Tim Bunn: Input for the 2014 Annual Testing pre-post data collection Excel spreadsheet, and discussion points. Adaptation of the Steve Chinn 15 minute test and Attitudes test.

## ABOUT THE AUTHOR



### ANABERTA OEHLERS-JAEN

*Programme Director of SES Maths, Assessments and Specialist Tutoring and Head of DAS International*

*Ms Anaberta Oehlers-Jaen made a career switch from the Robinson's group of companies as Group Merchandise Controller to join the DAS in 2005 as an Educational Therapist. She holds a Masters Degree in Special Needs from NTU, BA (English Language and Literature) from SIM, a Postgraduate Certificate in Teaching and Learning in Higher Education from the London Metropolitan University as well as a Cambridge International Diploma for Teachers and Trainers (Dyslexia), along with Early Childhood Diplomas. She has Fellow status at RETA Registrar of Educational Therapists (Asia) and is also a Senior Educational Therapist.*

*For 4 years, she was the Preschool Manager of the DAS Preschool Service actively involved with children at risk of literacy delay. Anaberta who is also actively involved in research has also delivered at conferences in Singapore and Hong Kong. Her recent paper in 2014 was on the Programme Evaluation for Specialist tutoring as well as actively, overseeing the development of the Maths Programme.*

*Her background of more than 15 years in the retail service line, has translated her into adopting a high level of professional service for both the students and parents through Specialist support and Assessments. She hopes to share the same philosophy which she has embraced at the DAS as her personal ethos in helping all children achieve in her current portfolio both in Singapore and the region.*

## ESSENTIAL MATHS PROGRAMME

The aim of the SES Essential Maths Programme is to effectively support students with dyslexia who have persistent difficulties in mathematics, particularly in maths word problems.

**Specialised Educational Services**  
UNLOCKING POTENTIAL



### OUR APPROACH

The programme helps to bridge the gap between your child's ability and the mainstream syllabus by addressing areas they are weaker in. This is done through C-R-A (Concrete-Representational-Abstract) approach. Every stage of learning ensures that the child links mathematical ideas in a progressive and cumulative way, bridging the gap between the student's ability and mainstream syllabus.

### RECOMMENDED FOR

Students with dyslexia who have specific areas of difficulty that can affect their mathematical performance such as poor short term and working memory, reversals in words and numbers, problem with sequencing and difficulty with reading word problems.



#### CONCRETE

- Counters to add and subtract
- Fraction pies



#### REPRESENTATIONAL

- Number line
- Use of drawing



#### ABSTRACT

- Numbers notation, maths symbols
- Problem solving



Find out more at [www.ses.org.sg](http://www.ses.org.sg) or 6444 5700

*Specialised Educational Services (SES) is a division of the Dyslexia Association of Singapore.*

## Specialised Educational Services

UNLOCKING POTENTIAL

# PSYCHO-EDUCATIONAL ASSESSMENTS

Educational Psychology assessments usually consist of 1-3 sessions with the psychologist working with the child. What is done and how much is needed depends on the age of the child, the purposes of the assessment and the kinds of strengths and weaknesses the child has. The aim is to start with the concerns about learning or behaviour expressed by parents, teachers or sometimes the child and to try to provide sympathetic but objective information about the child's background abilities and current academic skills, and then evaluate whether there are serious difficulties and how great are the problems for the child, the parents and any teachers and tutors involved. Psychologists try to provide advice about the best curriculum options (if there are any) and then about how teachers, tutors, parents and the child themselves can help the child most effectively. Usually this is a "snapshot" at a particular time, but the psychologist will learn more about the history of help to the child from parents and teachers, and in some cases future goals can be set (for tutors, for example) which can then be monitored to see if progress is at the expected rate.

## WE CAN ASSESS FOR:

- ◆ Specific Learning Differences
- ◆ Dyslexia and Dyspraxia
- ◆ Dyscalculia and Dysgraphia
- ◆ Attention Deficit (Hyperactivity) Disorder
- ◆ Asperger's Syndrome
- ◆ Psychological and Behavioural concerns
- ◆ Childhood Development issues
- ◆ Autism Spectrum Disorders
- ◆ Non-Verbal difficulties
- ◆ Auditory and Sensory issues

# Specialised Educational Services Psycho–Educational Assessments

Anaberta Oehlers-Jaen

*Programme Director of SES Maths, Assessments and Specialist Tutoring and  
Head of DAS International  
Dyslexia Association of Singapore*

The SES Assessment Service has changed substantially since it began as DAS International in 2011. The main aim of this annual report 2014/15, is to provide information on the profile of students assessed, the demand patterns and to describe the work of an SES Educational psychologist as well as the quality assurance process. In order to understand SES Assessments as it currently functions, a brief summary of DAS International Services Ltd (a subsidiary of the Dyslexia Association of Singapore) needs to accompany this report.

Since April 2014, all psycho-educational assessments conducted in Singapore came under the purview of SES Assessments (Specialised Educational Services division) which is aimed at supporting both Dyslexic and the non-dyslexic population through providing a comprehensive range of psycho-educational assessments. DAS International is now involved in overseas activities and the active promotion of Dyslexia and Specific Learning Differences in the South East Asian region and continues to respond to requests for assessments through SES Assessments.

The period April 2014 - March 2015 was marked by change and efforts to realign and reintroduce the services of SES Assessments that was formerly under DAS International. Organisational, structural and staff changes, along with resignations particularly in the third and fourth financial quarters of FY2013-2014 had significant impact on the revenue for DAS International's Assessment services. Nevertheless, through deliberate networking and information sharing with International schools in Singapore the client perception of assessment services provided for by SES Assessments has been re-aligned.

Development of the SES Website, helped to introduce a new brand identity for SES Assessments. Although limited initially as a result of the restructuring and staffing changes, SES Assessments has started to see a significant pickup in referrals for assessments.

Initially there were two fully qualified UK Educational psychologists, that were hired to conduct psycho-educational assessments that demanded more than a diagnosis of Dyslexia as provided by the Dyslexia Association of Singapore as a criteria for entry onto the MAP Literacy Programme.

SES Educational registered psychologists in their professional capacity are able to diagnose a range of Specific Learning Differences such as:

- ◆ Dyslexia and Dyspraxia
- ◆ Dyscalculia and Dysgraphia
- ◆ Attention Deficit (Hyperactivity) Disorder
- ◆ Asperger's Syndrome
- ◆ Psychological and Behavioural concerns
- ◆ Childhood Development issues
- ◆ Autism Spectrum Disorders
- ◆ Non-Verbal difficulties
- ◆ Auditory and Sensory issues

## **WHY PSYCHO-EDUCATIONAL ASSESSMENTS?**

Psycho-Educational assessments have a number of important functions: a comprehensive assessment report will contain detailed practical recommendations for parents and educators involved in supporting the child's education. Early identification and early intervention of learning differences is vital for the child's well-being and educational progress.

However, not all assessment work is best seen as diagnostic. The aim is often to evaluate progress or to pinpoint in what areas (if any) further interventions are needed. A very important aim is always to provide a positive experience for the child: this means leaving the child with a realistic but hopeful view of what they can do to help themselves further improve in learning. Among the recommendations are often those for exam accommodations. There are a range of guidelines on exam accommodations internationally, and many universities now have their own guidelines. The psychologist needs to check the specific guidelines required for each assessment.

SES Educational Psychologists produce professional, comprehensive and easy to understand reports for parents. The reports are recognised and accepted by institutions and educators world-wide. SES Educational psychologists are professionals who have extensive experience assessing people with behavioural, developmental and psychological issues that lead to learning differences.

As of March 2015, SES has one Educational Psychologist Dr Tim Bunn as the manpower had reduced earlier due to resignation by our other two psychologists. We plan to integrate and expand the number of psychologists who provide this service, so as to include registered psychologists from the DAS Admissions division who conduct psychological assessment predominantly for Singaporean students attending the MOE schools who require a diagnosis of Dyslexia for eligibility onto the main MAP Literacy programme.

## MAIN TARGET GROUP AND STATISTICS

The market which SES Psycho-educational assessments serve are primarily students from the International schools both in Singapore and the region, at the same time Singaporeans who are looking for a comprehensive psycho-educational assessment. Most recently and interestingly in 2015 there have been requests from adults requesting for full psychological assessment. This will be discussed later.

## PROFILE OF SES ASSESSMENTS: APRIL 2014 TO MARCH 2015

International Schools	MOE Schools	Coming in from Overseas	Adult Assessments
30	30	6	17

## BREAKDOWN OF ASSESSMENTS FROM OVERSEAS CITIES

Breakdown of assessments from overseas cities					
Malaysia Johor	Indonesia Bandung	China Shanghai	Sri Lanka Colombo	Mauritius	Total
2	1	1	1	1	6

## STATISTICS

SES Psychological Assessments		
Assessment Period	2013/14	2014/15
No Psychological Assessments	142	83
Assessments for International Students	92%	50%
Assessments for Singaporean Students	17%	50%

## ANALYSIS OF REFERRALS

For the period April to March 2015, we saw students from the following schools coming through for psychological assessments for various reasons. Some being for exam accommodations, ADHD, ADD, Dyslexia, Literacy issues, Dyscalculia, Autism etc.

Referrals for our psycho-assessment coming from the International and Private schools mainly were from, ACS International, ACS Barker Road, Tanglin School, Nexus International School, Chatsworth International, Global Indian, NPS International, Canadian International, Australian International, Overseas Family School and Marlborough College (Malaysia). Referrals also came through from Ministry of Education (MOE) schools from students who were wanting a more complete diagnosis and cases whereby parents had other concerns apart from Dyslexia. We have seen some students with greater special needs from more specialised schools recently, including some intellectually disabled and autistic students. We also see some students where parents are specifically seeking maths/dyscalculia assessment. Occasionally we also see children with a specific focus on attention issues, where a diagnosis of ADHD may be needed, and where a previous assessment by the DAS MAP Admissions psychologists, has suggested such a possibility but had not been able to confirm the suggestion.

## OVERSEAS CLIENTS

Referrals for SES assessments conducted in Singapore from overseas clients have seen an increase with clients coming in from India, Indonesia, China and Vietnam. Parents would normally have the assessments conducted over the weekend.



## **ADULT ASSESSMENTS**

Over the period 2014/15, the number of post-17 Adults who were assessed have increased. This comprised of a mixed group of clients who were seeking a psycho-educational assessments. We saw a total of 17 Adults.

### **Profile of post-17 Adults**

They are generally of two major categories of clients.

1. Students in Further Education (FE) and in Higher Education (HE)
2. Working Adults

The profile within these two groups comprised of young adults who were undergoing FE at the polytechnics, junior colleges, IB schools and HE students who were in university undergoing degrees or post graduate qualifications. This also included some mature adults who are re-embarking on study after working for a while, and some (usually men) who have just completed military service. The main reason for the referrals for the Adult assessments which were in FE / HE was due to requests for an update assessment for exam accommodations.

The second group of Adult assessments are wanting to gain a better understanding of their psychological profile and which may be helpful for their current or future employers. Gaining insight into the nature the difficulties they might have been experiencing. Adult assessments are aimed to:

- ◆ Diagnosing Specific Learning differences such as Dyslexia
- ◆ Identifying the areas of strength and weaknesses
- ◆ Maximising the potential and improving the quality of life

We believe that the Embrace Dyslexia campaign which launched in 2014 has played a part in raising awareness and educating adults to come forward to better understand their learning through a comprehensive psychological assessment.

## **QUALITY ASSURANCE**

Quality Assurance with only one psychologist under SES Assessments is both harder and easier than usual. SES Consulting Educational psychologist Dr Tim Bunn comes to SES Assessments with extensive experience from Local Authority work in the UK (the most common location of educational psychology assessment practice in the UK until recently) suggests that QA is always difficult. The UK, Dr Bunn notes, has had guidelines for many years, which statutory assessments are obliged to follow. But the

actual quality is not well specified by lists of headings of what to include. Most UK educational psychologists can obtain supervision from their team leaders, and in contentious cases they will usually consult with their team leader and often with fellow colleagues. This kind of consultation is very much about comparing the focus case with similar cases, and especially about clarifying what kinds of provision might be required. The psychologist's employer, the Local Authority, may have to pay for what the psychologist recommends; if an expensive private school is a possibility, this naturally causes a lot of careful analysis.

However with only one SES psychologist in the team as the other resident psychologist had resigned, this kind of peer consultation is not possible. External supervision has not been considered for lack of appropriate supervisors. Internal consultation (peer discussion) within DAS might be considered but has not been at this stage. However, by taking advantage of the wide experience of Professor Angela Fawcett, Research Consultant to DAS, and as a psychologist, some "arm's length" internal quality assurance has been possible. She has reviewed a sample of Dr Tim Bunn's assessment reports and concluded that they are of very high quality ("outstanding").

There are two other QA options. The current educational psychologist Dr Tim Bunn devised a very simple feedback questionnaire which he sends out with some final reports, and which some parents respond to (see appendix). The ratings and comments are positive and encouraging.

There is also a list of qualities of good psychological assessment that provide a reference point and (if there were opportunities for dialogue) a basis for discussion about the quality of the assessments.

The current psychologist uses a system in which a draft report is handed to the parents/young adult at the concluding interview, and they are encouraged to provide feedback and comments shortly after. This opportunity occasionally leads to substantial revisions but usually leads only to minor typo and biographical corrections. Nevertheless parents scrutiny helps to improve the quality of the final output, albeit at the cost of some extra time before completion.

## **CHANGES IN ASSESSMENT AND REPORTING METHODOLOGY**

*By Dr Tim Bunn (SES Consulting Educational Psychologist)*

At a talk by a leading US neuropsychologist at SENIA 2015 only one significant change in interview and reporting techniques seemed to emerge, the inclusion of a section of Risk Assessment for the child without new interventions. The psychologist described the likely results over time of lack of action, and found this to be a powerful way to clarify the importance of any changes suggested. I have tried using this approach, but in most cases it seemed an unnecessary and perhaps alarmist feature, because in Singapore there is no option for state funded additional resource provision contingent on assessment (as from IEPs in the US). It may be worth using occasionally where insufficient awareness of the severity of a problem may be a concern.

The arrival of a new edition of the Wechsler Intelligence test series (now the 5th edition) has meant this test has been the most commonly used instrument. It is not very different from its predecessor WISC-IV but the fact that its norms are 10+ years more up to date makes it essential to prefer it. It is in fact more like the Adult test, WAIS-IV than its WISC-IV predecessor, and this is helpful given the increasing number of adults requiring assessment.

WISC-V has a considerably wider variety of optional tests, which has proven helpful. This to a large extent offsets a slight disadvantage - the crucial verbal ability measure is based now on only two tests, in the interests of avoiding over-long assessment time. But it is possible to use one or two supplementary measures if verbal ability seems to be a potential area of concern. There is also more flexibility in measuring the vitally important working memory (4 tests available, so two types of WM can be measured). And a new Quantitative Reasoning scale is available. WIAT-III continues to be the preferred achievement test series, because it is up to date and very comprehensive. There are some weaker parts to WIAT-III, so it may be helpful to purchase at least one high quality alternative (eg Woodcock-Johnson-V or the Kaufman series). Two more intensive tests in crucial areas (reading comprehension and written language) have been purchased and used where these skills are a main focus, as second stage assessments.

In line with reported developments in assessment practice in the UK, the psychologist has made more use of questionnaires to clarify students' views and strengths and weaknesses at the emotional level of learning. The Southampton Emotional Literacy scales have continued to prove helpful, not least because they can be reported using charts, which add interest to the early stage of the report. A primary stage questionnaire giving a very short but useful balance of feelings about school, your own abilities, literacy, numeracy, oral work and inclusion has also been

very helpful. Possibly this could be trialled in Singapore mainstream schools as a way of obtaining broad Singapore norms. A secondary version has been written and is being trialled. The well-established BRIEF and Conners3 questionnaires have also been used frequently. Both seem to suggest unexpectedly high scores in some cases, so further collaborative work to check their validity or adaptations in a Singapore context may be helpful. In general, one of the key principles the current psychologist works to is making the student feel that the assessment is not a "judgement" on them but a way of making clearer how they learn and what needs to be done to help them learn better. Asking informal opinions about what they have experienced during the assessment contributes to this important goal.

Some use has been made in literacy assessments of home-made materials and trial-teaching. Further work to develop such materials is ongoing.

More has been done to develop materials for maths assessments. Sets of Singapore maths problems have been devised for most grades. This helps to Singaporeanise maths assessments where the only normative materials are from the US. Generally speaking it has proved helpful to use two parallel sets of questions, in multi-choice and straight answer form. This not only suggests which form the child finds more difficult but also provides a useful measure of how consistent they are.

Recently it has also been very useful to compare calculation efficiency with word problem efficiency. Two parallel sets of materials are again used, usually 20 items for each, so that the word problems involve almost the same calculation as the calculation itself, but of course the student has to understand what calculation they need to use. Results again provide some measure of consistency but also how much harder word form is for the student. It is hoped to develop materials which can be trialled in schools from which norms can be derived, as a way of having better Singapore based measurement tools.

Another area for development is in writing assessment. For all ages, writing is important. It is suggested that the Singapore Writing Fluency test (SWIFT) be expanded and updated. The norms of the WIAT3 writing tests must also be ascertained to be suitable for Singapore." So this is another area where further development of materials would be very valuable. It is not difficult to envisage better materials - but efforts to trial and norm them will be time-consuming.

## **SUMMARY**

As SES Assessments have started to recover from the initial lull in assessment numbers during April to September 2014 as a result of restructuring of DAS International, the integration appears to have stabilised. Meeting the needs of

parents for a one stop assessment and remediation services under the SES Division has resulted in deliberate initiatives for SES Assessments for 2015/16 namely:

1. Stepping up interaction through planned direct meetings with International schools such as United World College (UWCSEA), Marlborough College, Global Indian, ACS International, Overseas Family School, Australian International School and Tanglin Trust, have already commenced.
2. Direct recommendations for SES Assessments coming through from these schools to parents is an important step, as this means that the schools value our reports. This has placed us in a good position to be on the list of preferred assessment service for their students we are hence able to build better relationships and consistency in revenue.
3. Through the four SES TIPS talks conducted by SES Educational Psychologists Dr Tim Bunn and Marinda Grimbeek over October & November 2014, awareness of the range of assessments our SES Educational Psychologists have increased.
4. Direct talks at International schools have started with four talks given at Marlborough College & Global Indian International School, Anglo-Chinese School (International) given by Educational psychologist Dr Tim Bunn and Anaberta Oehlers-Jaen (Programme Director for SES Assessments)

#### **FUTURE DEVELOPMENTS:**

In 2016, there are plans through the integration of a one stop assessment services administratively at the DAS with SES Assessment for current registered psychologists from the DAS to carry out wider range of psycho-educational assessments required by SES assessments. We would then be in a better position to provide support to a larger and wider group of preschoolers, students and post-17 adults who have specific learning differences from both the International and the Singaporean school communities.

Another development we will be working on as adult assessments have increased would be outreach and engagement with FE and HE institutions. This is an untapped and potential market so that provision can be provided to students with Specific Learning Differences who could benefit from accommodations during examinations through a comprehensive SES Psycho-educational assessment.

Through professional development, attendance at relevant conferences, research, current test kits we will continue to maintain the gold standard which we have

established for our comprehensive and recognised SES psycho-educational assessment.

## ACKNOWLEDGEMENTS

I would to acknowledge the following colleague who has contributed to the SES Assessments Annual Evaluation Report:

Dr Tim Bunn: SES Consulting Educational Psychologist

Providing information for:

- ◆ Changes in assessment and reporting methodology
- ◆ How did you find our Assessment Service client questionnaire
- ◆ Quality Assurance: Educational Psychology within the DAS SES team
- ◆ Principles of Psychological Assessment which should inform the development of SES Assessments

## APPENDICES

### How did you find our Assessment Service?

We asked parents to rate our service using the following 5 questions. Responses over a small sample have been very positive:

Questions on Assessments Services	YES %
How well did we listen to your concerns about your child?	96.6%
How efficient were we in receiving your referral, arranging appointments, completing reports and arranging feedback and any other outcomes?	88.3%
Were the conclusions we reached and any recommendations made appropriate, sensible and useful?	95.0%
Did the feedback you received (via a meeting and a draft report) help to answer the questions you came with?	98.3%
Was the final report you received helpful?	98.3%

Some additional comments were...

*"The report is very technical and specific and I hope with the recommended / additional support from home as well as his teachers, it will be helpful."*

*"Thank you [for] your patience, kindness and ability to listen were very much appreciated by myself and A. It was good to know that you understood my concerns and took them seriously. A really enjoyed her time with you which is a feat considering some of the tests you requested of her! She felt confident enough to have a go fearlessly. Thank you to everyone at DAS!"*

*"Dr Tim Bunn was sensitive to L's reactions with regards to the various tests and assessments and adjusted to the sessions to his needs which we are most grateful for. We have found the whole process very useful and educational as both my husband and I are not dyslexic. Therefore we had many questions which we feel have been answered appropriately."*

*"Thank you for making time and helping in this area where many struggles to help their child to reach their potential."*

### **Quality Assurance: Educational Psychology within the DAS SES team**

1. Feedback form from parents; 0-100 ratings on 5 key questions about our service.
2. Monitor and report on speeds of arranging appointments and finalising reports to parents.
3. Peer discussion about casework to ensure the boundaries of comprehensive high-quality psychological assessment are continually being pushed onwards.

### **Principles of Psychological Assessment which should inform the development of SES Assessment:**

Psychologists should explain and write reports that answer the questions posed by the referral;

They should use the widest possible background information, reports from teachers and others, parents' accounts of development and of the problems they see to "tell a story" of the child that makes sense.

They should clarify both strengths and weaknesses; as far as possible, set positive expectations, but they should avoid false reassurance;

They should separate evidence and conclusions unobtrusively (without giving the appearance of writing a scientific paper); use appendices for details that don't help to tell the story clearly. Explain the evidence, don't try to "blind them with science."

Make recommendations focusing on the problems and weaknesses that have emerged. Avoid a "scattergun" approach to recommendations (i.e. giving many recommendations "just in case" to impress the client). Try to build up evidence about the effectiveness of recommendations.

They should use clear language that is professional but not over technical; ask clients if what we say is understandable. Occasionally they may want a simplified version. It may sometimes be ok to bring yourself into the report, when reporting interactions and impressions and feelings; use first person language for this: rather than "the psychologist found John's appearance disconcerting at first" say, "initially I found John's appearance disconcerting.."

Psychologists should use all the information that is available: use error analysis even though the sample is small, use trial teaching so long as you are careful to say how practical it is to translate into daily practice; use the child's views on how they feel they can learn best; use the experience from previous teaching to infer what approaches work well or not so well with the child.

The psychologists should use the most appropriate and up to date tests available, and try out new tests whenever possible; it is important to base work on the assumption that it's the psychologist not the test that offers the assessment.

The psychologist should aim to provide as comprehensive a picture of the child as possible to answer the referral question(s), and sometimes answer the unspoken questions too.

The psychologists should aim to develop the quality of SES psychological assessments through reading, discussion, listening to clients, teachers and students and receiving feedback on what was valued about the assessment. They should also aim as far as possible to give the student a positive experience of assessment.



## ABOUT THE AUTHOR



### **ANABERTA OEHLERS-JAEN**

*Programme Director of SES Maths, Assessments and Specialist Tutoring and Head of DAS International*

*Ms Anaberta Oehlers-Jaen made a career switch from the Robinson's group of companies as Group Merchandise Controller to join the DAS in 2005 as an Educational Therapist. She holds a Masters Degree in Special Needs from NTU, BA (English Language and Literature) from SIM, a Postgraduate Certificate in Teaching and Learning in Higher Education from the London Metropolitan University as well as a Cambridge International Diploma for Teachers and Trainers (Dyslexia), along with Early Childhood Diplomas. She has Fellow status at RETA Registrar of Educational Therapists (Asia) and is also a Senior Educational Therapist.*

*For 4 years, she was the Preschool Manager of the DAS Preschool Service actively involved with children at risk of literacy delay. Anaberta who is also actively involved in research has also delivered at conferences in Singapore and Hong Kong. Her recent paper in 2014 was on the Programme Evaluation for Specialist tutoring as well as actively, overseeing the development of the Maths Programme.*

*Her background of more than 15 years in the retail service line, has translated her into adopting a high level of professional service for both the students and parents through Specialist support and Assessments. She hopes to share the same philosophy which she has embraced at the DAS as her personal ethos in helping all children achieve in her current portfolio both in Singapore and the region.*



## SPECIALIST TUTORING

### OUR APPROACH

Specialised Educational Services (SES) has a team of specialist tutors who have extensive experience in supporting students with specific learning differences and other learning needs.

Specialist Tutoring is tailored based on the profile of the child obtained from our multi-disciplinary team of educational psychologists, speech and language therapists, occupational therapist, and in consultation with parents and educators. Tutoring has an individualised problem solving approach where skills focused include:

- Literacy, Numeracy, Oracy, & Writing Skills
- Individual Curriculum support
- Study skills and Exam preparation
- Behaviour and Social support

Our tutors are experienced in the international, private and public school systems; they have an understanding of the curriculum and the demands that today's education systems place on your child. They listen with sensitivity to the concerns that parents have and provide a total solution with an Individualised Education Plan to support their child's needs. Regular verbal feedback is provided at the end of each tuition session. Informal assessments on progress is made to monitor and track your child's progress. We strive to empower successful learning and nurture each individual child to achieve their full potential.

# Specialised Educational Services

## Specialist Tutoring

Anaberta Oehlers-Jaen

*Programme Director of SES Maths, Assessments and Specialist Tutoring and  
Head of DAS International  
Dyslexia Association of Singapore*

### **OVERVIEW OF THE SES SPECIALIST TUTORING PROGRAMME**

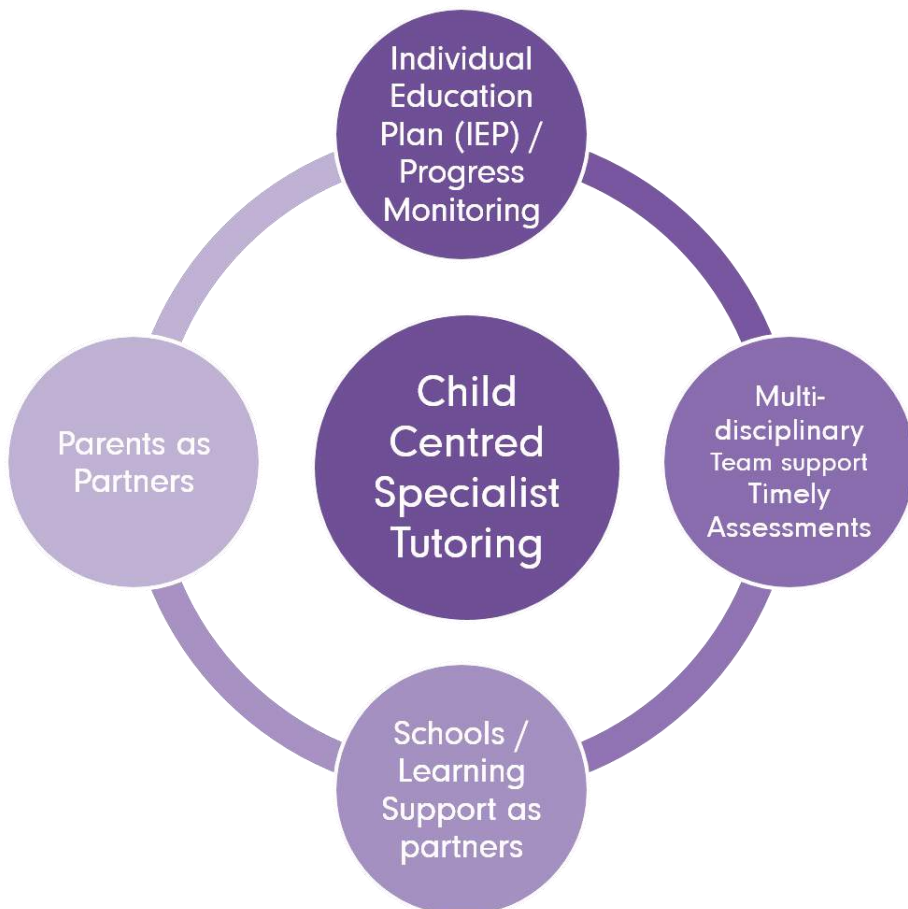
SES Specialist Tutoring is an individualised programme offered by SES (Specialised Education Services) a division of the Dyslexia Association of Singapore. SES Specialist Tutoring aims to support both the International and Ministry of Education students, under the one to one programme. To complement the annual report, SES Specialist Tutoring sought parent views on the effectiveness and satisfaction of the programme through surveys. At the same time, background information on the demographics and student profile on the services provided by SES Specialist Tutoring was important in the understanding of the range of students supported by Specialist Tutoring who have Specific Learning Differences (SpLD). Case studies of selected students for both Specialist Tutoring and the Bridging Programme aimed to describe and give insights into the programme. Through the Individualised Education Plans and Progress monitoring, for these students, we are able to evaluate the effectiveness of Specialist Tutoring. Recommendation for improving the overall quality and level of service and outreach for our students and stakeholders is ultimately the aim of the annual report.

### **PROGRAMME DESCRIPTION**

Specialist Tutoring adopts a problem solving approach through the development of an individualised programme that aims to bridge the gaps in the child's learning. At the same time, Specialist Tutoring believes in working closely with schools and parents thereby creating a loop and an open channel for communication, whereby the schools and parents know there is support for their child in the area of Specialist Tutoring and intervention. Specialist Tutoring also provides educational programmes and other individual support services for individuals with specific learning

differences. The aim of Specialist Tutoring is to effectively support the development of each child. Each child is seen as an active, competent learner, especially children who have Specific learning differences (SpLD), wanting and in need of a value added programme / specialist support.

Specialist Tutoring is individually tailored, based on the profile of the child obtained from our multi disciplinary team of educational psychologists, speech and language therapists, and in consultation with parents and educators. In order to further support the learning needs of our more challenged students who may have difficulty entering International schools in Singapore, SES Specialist Tutoring also offers the Bridging programme (now renamed Intensive Specialist Tutoring) which is an intensive remediation programme for children who are experiencing difficulties and gaps in learning.



*Adapted from Bronfenbrenners' Ecological Framework (1970)*

Programme Description: Specialist Tutoring  
Ages taught: 4 to 18 years  
Instruction in: English in the following areas:

Educational Therapy

- ◆ Literacy
- ◆ Numeracy
- ◆ Writing Skills & Creative Writing
- ◆ Curriculum support
- ◆ Study skills and Exam preparation

## MEASUREMENT OF PROGRESS

A student's progress for Specialist Tutoring is measured in the following ways:

1. Formative and Summative informal assessments to determine progress from topic to topic.
2. An Individual Education Plan (IEP) based on a 10 week cycle is developed and results from the Formative Assessment form the basis for the IEP.
3. An informal Summative Assessment at the end of the 10 week cycle is again carried out.
4. This would then form the basis of the Summative Assessment and the next set of IEP's.
5. Standardised assessments, such as the YARC, TOWRE and the WRAT are administered every 6 months to determine overall progress.

## SPECIALIST TUTORING

Reasons for Students to attend Specialist Tutoring

- ◆ It is a challenge for some students to find a place, particularly in the International schools.
- ◆ Specialist Tutoring provides an interim as well as continued support for students.
- ◆ Some schools have no provision for students with learning differences.
- ◆ Students are unable to keep up with the curriculum.
- ◆ Students require additional support for Literacy, Maths, and Exam Skills.

## PROFILE OF SPECIALIST TEACHERS

The Specialist teachers are experienced in the international, private and public school systems. At the same time the team of specialist teachers also have extensive experience in supporting students with specific learning difficulties. All Specialists Teachers are highly trained in their area of expertise with a formal degree and professional qualifications. They have an understanding of the curriculum and the demands that today's education systems place on the child. They aim to provide a total solution with an Individualised Education Plan (IEP) to support each child's needs.

Their job scope within Specialist Tutoring requires:

1. Regular verbal feedback is provided at the end of each tuition session.
2. Conducting informal assessments on progress.
3. Monitoring and tracking of child's progress.
4. The tuition is skills focused.
5. Developing an Individualised Education Plan. (IEP)
6. Teachers are required to adopt a problem solving approach.
7. Initial consultations and ongoing verbal or via email / telephone feedback.
8. Progress reports are provided for parents.

## APPROACH TO TEACHING

The teaching approaches in the Specialist Tutoring Literacy Programme are influenced by the DAS remediation programme, and have adopted the "The Essential Literacy Approach (ELA)" as a guide in supporting students particularly those with dyslexia who struggle with reading, spelling, and/or writing, in a multi-lingual Singapore and within the International School community.

The areas which are covered include:

- ◆ Phonics Instruction
- ◆ Reading Comprehension
- ◆ Reading Fluency
- ◆ Vocabulary

Originally based, on the principles of the Orton-Gillingham approach, which are language based, cognitive, structured, sequential and cumulative, simultaneously multisensory, diagnostic-prescriptive and emotionally sound. ELA is a multisensory structured language approach that teaches the structure of the English language at

the level of sounds, syllables, meaningful word parts, sentences and paragraph organisation. It contains the critical building blocks of literacy that have been identified by the National Institute of Child Health and Human Development.

### Manpower: Headcount of Specialist Teachers as at March 2015

- 1 Full-time Specialist Teacher
- 3 Sessional Teachers : (Teaching and paid per hour)
- 2 DAS Academy Senior Educational Therapists & Lecturers
- 3 DAS Senior Educational Specialists with the Dyslexia Association of Singapore

<b>Distribution of Specialist Tutoring 2014/15</b>	
<b>Learning Centre</b>	<b>Total No of Students placed for Specialist Tutoring</b>
Chinatown Point (CTP)	20
Parkway Parade (PWP)	19
Jurong Point (JPT)	3
Rex House (REX)	10
Tampines (TPN)	1
Bishan (BJ8)	2
<b>Total</b>	<b>55</b>

### SPECIALIST TUTORING STUDENT PROFILE

#### ENROLMENT FIGURES

<b>SES Specialist Tutoring</b>	<b>March 2013/14</b>	<b>March 2014/15</b>
Average Number of Students	51	55
Number of Tutoring Hours	1964	2096
International School Students	44%	60%
Singaporean MOE Students	56%	40%

The average enrolment in 2014/15, was at 55 students. The composition of students who attended Specialist Tutoring in 2014/15 are as follows: 60% Singaporean (MOE) Students and 40% International School Students.

Although Specialist Tutoring has not increased significantly in terms of student numbers it is important to note that the numbers of tutoring hours has actually gone up year on year. This suggests that parents are signing up for more than 1 hour of Specialist Tutoring and for more than 1 subject (English and Maths) over the previous year. Interestingly, the number of International students attending Specialist Tutoring has increased year on year. This is due to more outreach efforts with the International school community, through direct engagement with the Learning Support staff and as well as direct parent referrals which have increased significantly from 13% to 35%. This indicates word of mouth referrals from satisfied parents have grown.

<b>Source of Referrals for Specialist Tutoring</b>			
<b>April 2013 to March 2014</b>		<b>April 2014 to March 2015</b>	
<b>Source of Referrals</b>	<b>% of No's Referred</b>	<b>Source of Referrals</b>	<b>% of No's Referred</b>
Media / Internet	21%	Media / Internet	9%
Teachers	49%	Teachers	30%
Friends, Relatives & Parents	13%	Friends / Relatives/ parents	35%
Awareness Talk	3%	Awareness Talk	1 %
Private Clinics	11%	Private Clinics	5%
Internal Referral DAS	3%	Internal Referral DAS	20%
<b>Total Referrals</b>	<b>100%</b>	<b>Total Referrals</b>	<b>100%</b>

The information on the referrals for Specialist Tutoring suggests that 'Friends, Relatives and Parents' and 'Teachers' are the primary sources who are recommending students for Specialist Tutoring. This is a good trend as compared to 13% for 2013 as this indicates that there is word of mouth through satisfied clients. Internal referrals have also increased to 20% where parents are opting for a one-to-one approach for their child's support after diagnosis provided by the DAS.



Outreach efforts into the International Schools through ongoing meetings and sharing with the heads of department and learning support has helped to initiate referrals for Specialist Tutoring. Singaporeans have also increased in their referrals for Specialist Tutoring. Currently nearly half of the enrolment comes from MOE students. These outreach efforts will continue for 2015/16.

<b>Listing of Schools of students attending Specialist Tutoring</b>	
<b>International Schools</b>	<b>MOE (Ministry of Education Schools)</b>
Singapore American School	Anglo Chinese School (ACS) (Barker/ Junior / Primary & Secondary)
Canadian International School (East & West Campus)	Singapore Chinese Girls School (SCGS)
Dulwich College	Henry Park Primary School
Stamford American School	Nanyang Primary School
Tanglin Trust School	St Josephs Institution
United World College (UWCSEA) (East & West Campus)	St Margaret's School
Australian International School	Nan Hua Primary School
Nexus International School	Raffles Girls Primary School
Global Indian School	
Overseas Family School	

### **SPECIALIST TUTORING: QUALITY ASSURANCE**

Since its inception in 2011, Specialist Tutoring has received very positive feedback from parents / teachers and students on the improvement, flexibility, quality of service and enjoyment of ST classes (ST Evaluation report 2013/2014). We have

been quick to respond and adapt to our students. This has created for us a niche in this highly competitive arena. SES employs highly qualified and trained Specialists to support most of the students who are having learning difficulties with:

- ◆ Individualised Programme
- ◆ Individual Education Plans
- ◆ Progress Reports

At the same time, SES Assessments/ Specialist Tutoring, believes in working closely with schools and parents thereby creating a loop and an open channel for communication, whereby the schools and parents, know there is support for their child from the initial full comprehensive psychological assessment, to Specialist Tutoring.

## **ANALYSIS OF THE PARENT SURVEY ON SPECIALIST TUTORING 2015**

### **HIGHLIGHTS OF PARENTS' VIEWS**

As it's important to keep in touch with parent's views and needs for their children, every year we conduct a parent survey. For the 2014/15 parent survey we had 18/55 parents who responded to the survey (32%). Of them, 89% were very pleased or were pleased, about their child's progress at DAS. This year's survey saw an overall increase of satisfaction on parent's views by 19% as compared to 70% of parents who were very pleased or pleased with the progress of their child in the 2013/14 survey.

This is encouraging as emphasis on attention to progress is one of the main areas of focus for Specialist Tutoring. Only two people were just about or not quite satisfied. The same two parents shared similar views throughout the survey. We will be speaking with the Specialist Teachers to understand the concerns of these two parents better.

All the parents received feedback from their child's specialist teacher, of which 66.7% of respondents felt that they received feedback extremely often or very often and 22.2% moderately 11% slightly often. We would have preferred to see a higher response on teacher feedback to parents. This is however an area to develop.

94% of parents felt that their children enjoyed their Specialist Tutoring classes with one parent (5.6%) answering just about enjoys Specialist Tutoring. At this year's survey 72% of parents reported that SES Specialist Tutoring professionals listened to them. It is encouraging to see that this year's survey 88% of parents said they were happy with their child's IEP (Individual Education Plan) as compared to 80% last year.

This suggests that parents are better engaged with the Specialist Teacher and more informed on the work that will be conducted.

This year we felt that it would be interesting to look at the recommendation rate for Specialist Tutoring. We found an increase in satisfaction in this year's survey, with 88% of parents stating that 72% of parents "extremely likely" and "very likely" to recommend others for Specialist Tutoring, 16% "moderately likely" and 2 (the same parents), 11% "slightly unlikely".

Sample responses on open ended questions:

Q9: Do you have any other comments, questions, or concerns?

*"Very happy that we located this professional service that is suited to our son. If the cost can be lower, then it is not so taxing for the people. I would have used them a few years ago, then the effect would be better. Gladys is doing a really good job with Tim"*

With further reference to:

Q8: How likely are you to recommend Specialist Tutoring to others?

*"...it is too costly else it is a good programme but most parents will be put off by the cost. However, the teacher - Ms Tam Shuyi is an extremely committed teacher with lots of love and passion for her job. She is a real asset for this DAS programme."*

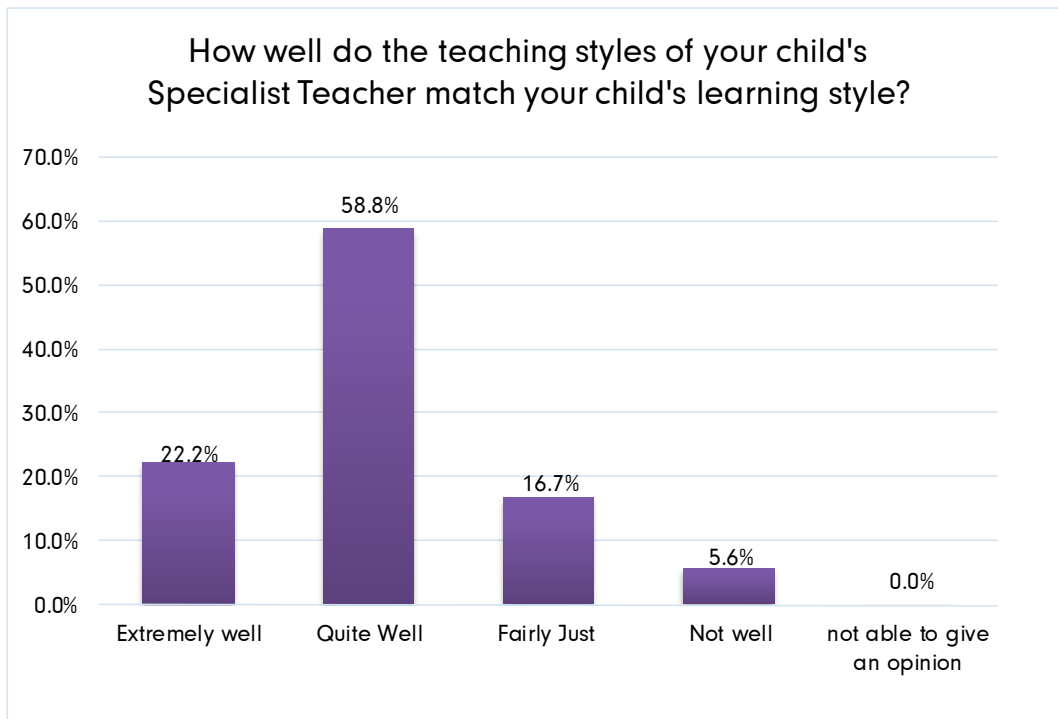
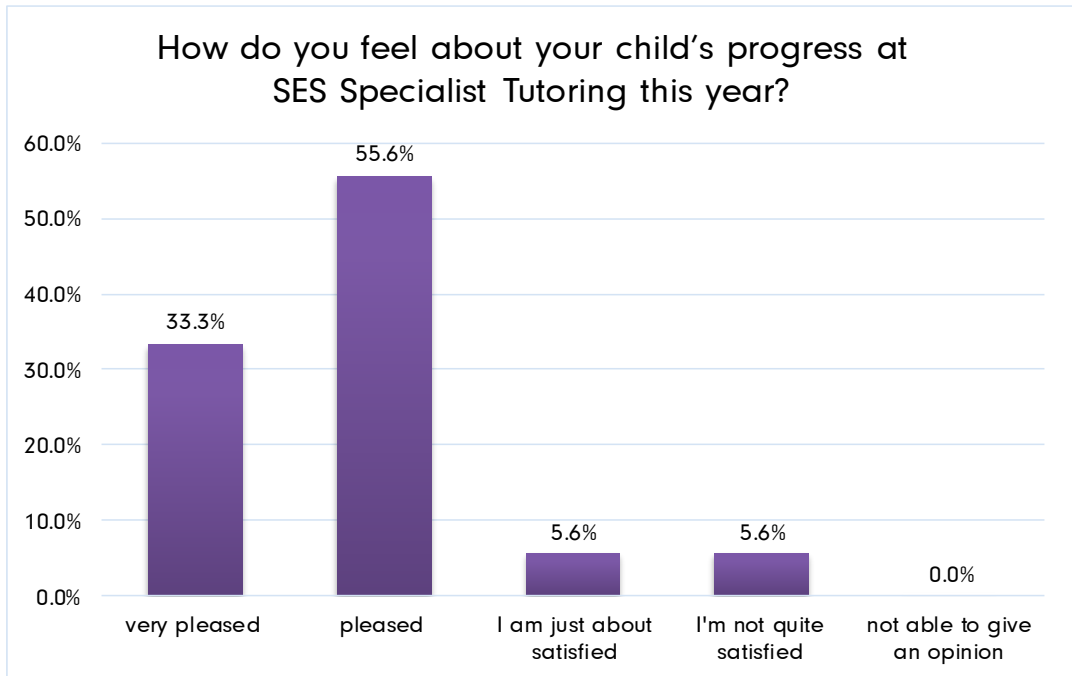
## **CONCLUSIONS**

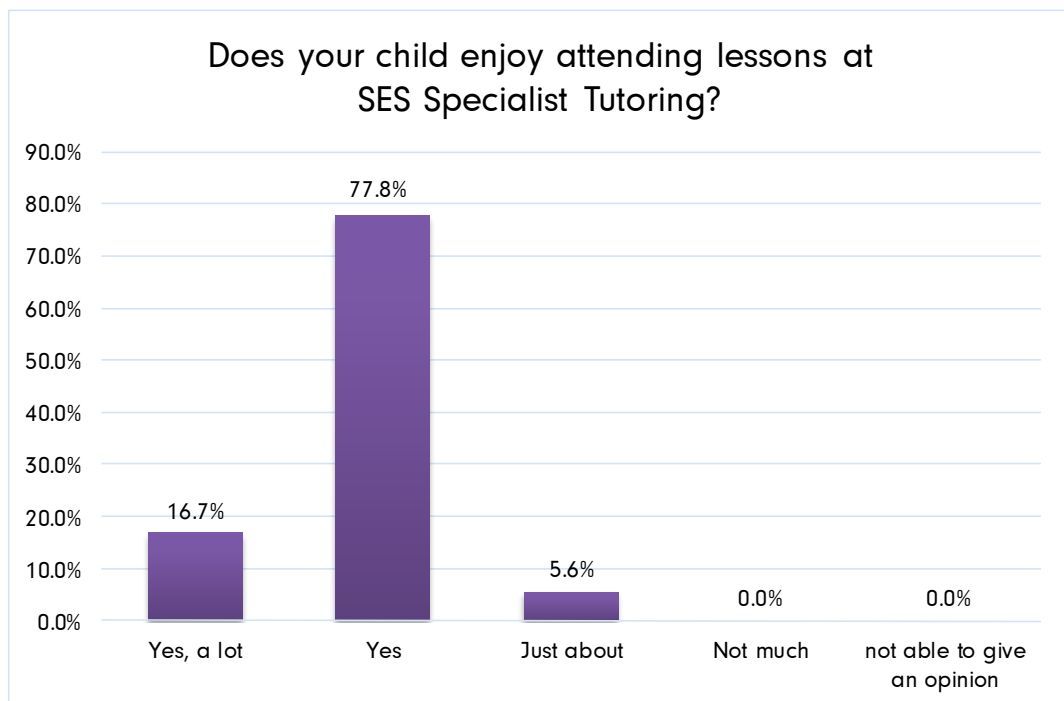
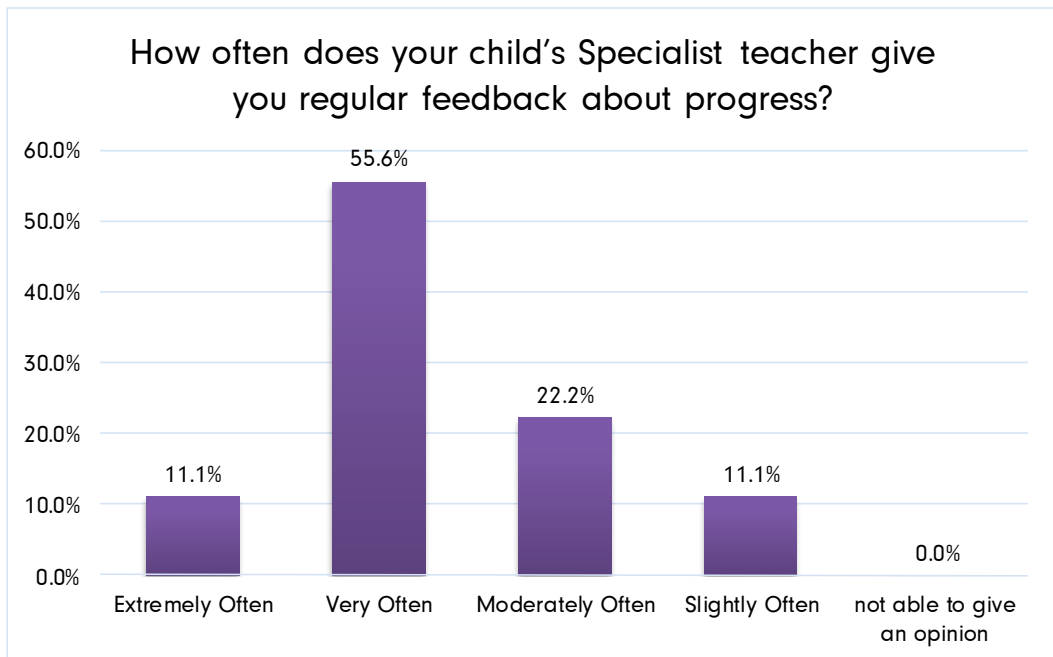
The response rates from these surveys are not high but in line with data from other surveys internationally, but there were very few negative responses or comments. It is also interesting to note that these comments tend to be related to the cost and not the quality of the service. It is therefore, extremely unlikely there were many dissatisfied parents. They could have responded if they wanted to make their views known.

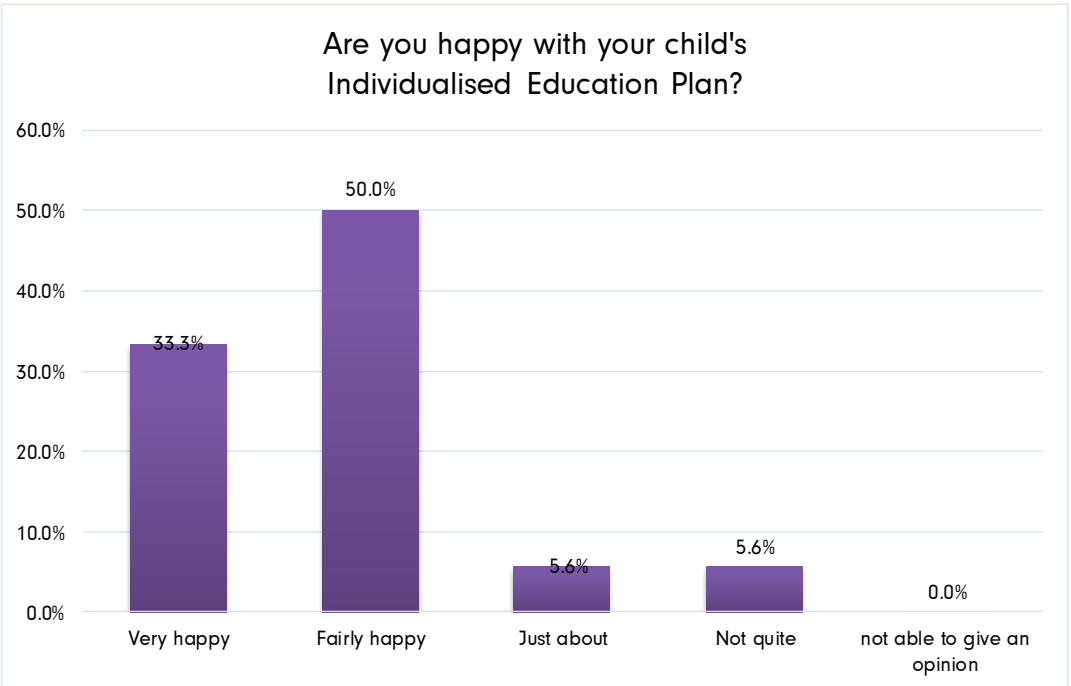
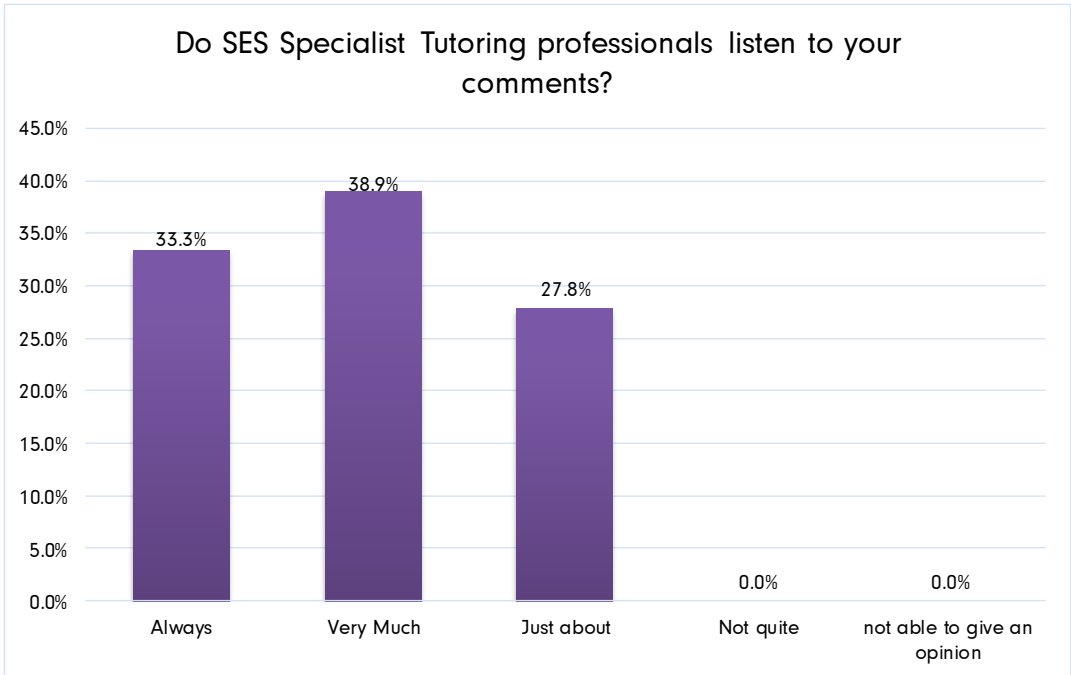
All feedback is important and taken seriously, so as to improve the level of service to our SES Specialist Tutoring clients.

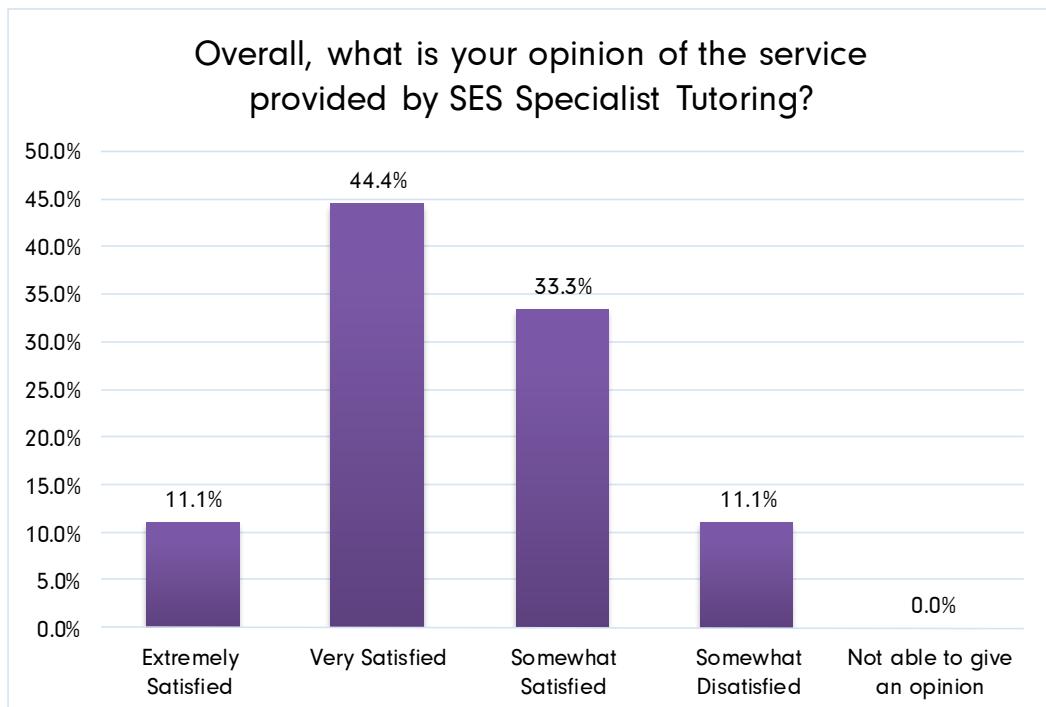
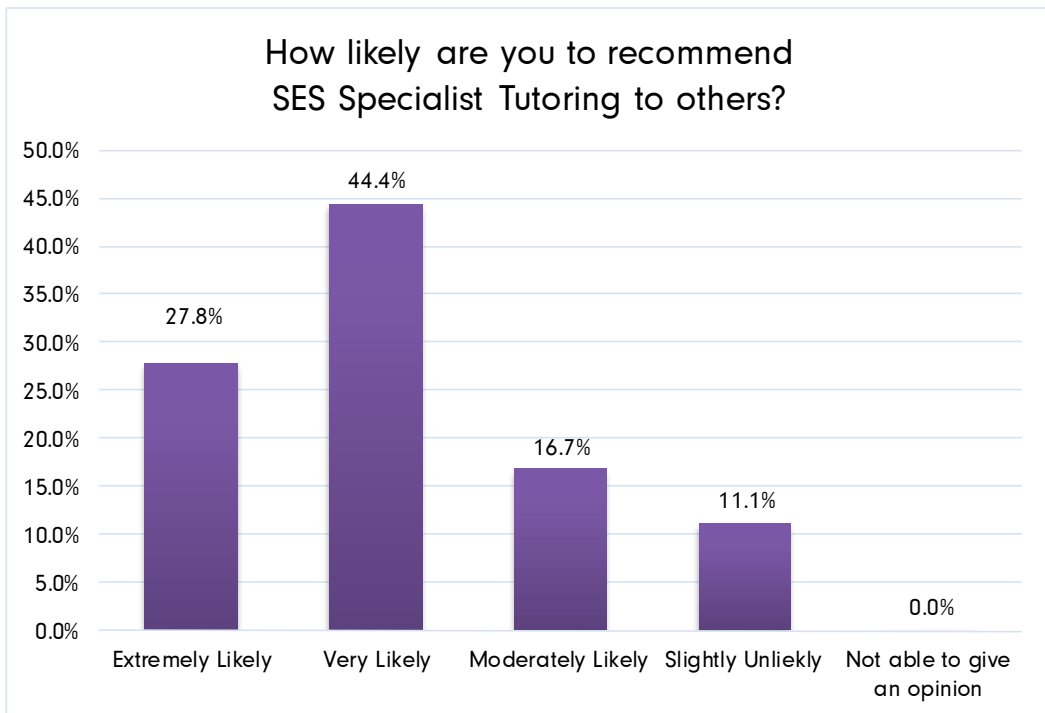
## **RESULTS OF PARENTS SURVEY**

A total of 18 participants out of 56 responded to the survey; the responses and results are detailed in the following graphs.









## **PARENTS' POSITIVE VIEWS FOR THEIR CHILD'S SPECIALIST TEACHERS**

*(Names of the students and parents have been anonymised)*

### **Student: Olson (Grade 5)**

Specialist Teacher: Shilpa Madane

*Dear Sir/Madame,*

*Olson was referred to DAS Spring 2013, and has had weekly tutoring sessions with Mrs Shilpa since then. She has been of tremendous help for him first and foremost with reading and writing abilities, but later also with grasping the basic concepts in math. He has a very trusting relationship with her and finds their sessions educational and fun! He has come so far with the help from her and we are very grateful for being assigned her as his tutor. Looking forward to continue working with her for as long as necessary!*

*If you need further information, please do not hesitate to contact me!*

*Best regards*

*Vanessa (Mother of Olson)*

### **Student: Adrienne (Grade 3)**

Specialist Teacher: Brenda Horner

*Yes –Adrienne will definitely continue with Brenda & we are sad that Brenda has decided to leave.*

*She has helped us so much & identified areas which needed specialised attention/support which we would never have been able to do so without Brenda's experience, passion & involvement. THANK YOU BRENDA!*

*Best Regards*

*Alice (Mother of Adrienne)*



**Student: John (Grade 2)**

Specialist Teacher: Brenda Horner

*Dear Ms. Oehlers-Jaen,*

*Apologies for the very late reply. Just to say that it's been brilliant having Brenda tutoring John, he adores her and he has learnt so much from her patience and firm encouragement. John has developed a lot in the last year, both academically and in his own confidence, and Brenda's been key to this. As parents, we're very happy with the support received so far. We are so sad Brenda is leaving!*

*Best wishes*

*Johnson Wilson (John's father)*

**Student: Jade (Primary 6)**

Specialist Teacher: Malini Menon

*Malini has worked with Melissa for the past two years on a 1 to 1 basis. Melissa has not only improved academically she has also received tremendous support emotionally. Malini has set Jade tough but achievable I.E.P's and this has broadened Melissa's thinking. Malini has a very nurturing way of teaching and this has been a great asset as Jade never thought of her lesson as a chore. She was first in class in her recent English exam, which we are delighted with and we are sure that Melissa will succeed in her PSLE. I can't thank you enough for getting Melissa to where she is today.*

*Warm Regards*

*Janine (Mother of Melissa)*

**Student: Andreas (Grade 4)**

Specialist Teacher: Rajalakshmi Sivarama Krishnan

*Two mornings a week my daughter looks forward to seeing Raji Siva at DAS at Chinatown Point for tuition. On these two days my daughter jumps out of bed and is joyfully ready to go. As a matter of fact, I would say my daughter is impatient for these classes. She walks out of them feeling confident in*

*herself and her abilities to be successful at her school. Boosting her self-esteem is no small feat either since she just cannot seem to catch up to her peers at school.*

*I felt utter despair for her academic future even though there are countless numbers of successful dyslexics. The despair came from the fact that I did not know how to help her or even where to begin finding help. Now my initial panic has subsided and it has been replaced with hope. If my daughter was lucky enough to find one excellent teacher, Raji, then maybe she will find more along her academic journey.*

*Joanne Churchill (Mother of Andreas)*

## **SPECIALIST TEACHERS VIEWS ON STUDENTS' PROGRESS**

For this year's annual report on Specialist Tutoring I would like to highlight some of the students who have been recommended by our Specialist Teachers on their overall excellent progress they have made under their charge. These students have been selected for the SES 2015 Special Achievement Awards which will be given out the annual DAS Graduation day. An award that is not only based on academic achievement, but also on the students attitude, determination toward their own learning, which their teachers and school have noticed improvement.

### **SPECIALIST TEACHER: MS BRENDA HORNER**

*(All the names have been anonymised)*

Student: Angela: Primary P1

*Angela began with DAS at the end of her K1 year and was really struggling with all areas of literacy and was far behind her peers at school. Since Sept 2013 she has worked with both Ms Raji and extensively with Miss Sue Lyn and lately with me. She has progressed so well that she is now able to read level six ORT books as well as well level I/J of reading a-z with 95% accuracy. Her sight words for reading continue to grow as she works really hard to master new words and apply them to her reading. She is able to learn her spelling words for school spelling and get 10/10 most weeks now for these words. She is able to apply the phonics she is learning to her written work and is getting better at making more accurate phonic choices for words when writing. Angela has grit and determination along with a cheerful and sunny disposition which make her a pleasure to teach as she works really hard to master the literacy skills she is being taught."*

Student: Agnes Primary 5

*Agnes began working his lesson at DAS in 2012 in his P2 year. He has worked super hard to get his head around problem solving in Mathematics and model drawing in particular. Agnes has become self motivated and self driven when it comes to his mathematics work. He has gone from getting none of his bar model sums correct to getting more than 60% and even as much as 90% of these questions correct now. He has moved gradually from scoring only one or two questions correct to being able to score on average more than 70% of the questions correct now. Agnes has a quick an enquiring mind and a keen sense of humour, both of which make his lesson a fun adventure each week as he grapples with getting his head around new topics as well as reinforcing concepts he has learned. Agnes has grown in patience with himself and is able to work slower and less impulsively, leaving himself time and space to check his work and go back to find and correct his errors.*

Student: Anton Grade 5

*Anton began at DAS in 2012, in his grade 2 year. He has made great strides in overcoming his reading challenges and is reading more independently now, as he remembers and applies the rules and skills he has learned. He has made the switch from learning to read to reading to learn, and while this is still hard work for him, Anton is determined and conscientious in practicing and applying what he has learned. He is aware of the added demands he faces as he progresses into Grade 5 now, and is working hard at learning and applying the rules he is learning for spelling, so that he can produce work which he can feel proud of and his teachers are proud of too. Anton is able to boast 'rock star' status at school as he captains the cricket team and joined many of them on an international tour representing both his school and Singapore.*

### **SPECIALIST TEACHER: MICHELLE-LYNN YAP**

Student: Darlyn

*Darlyn is very hardworking and bright. She has been attending Specialist Tutoring since 2013. She recently participated in Asia's Got Talent and showed much perseverance through practice sessions with her dance troupe. Darlyn has managed despite her rigorous schedule to maintain her improve on her comprehension and pass her paper*

*She may have many other activities, especially being busy with dance but she knows how to give it all her best to catch up and will try her best to focus despite her being tired. She is a fast learner and her retention is pretty good especially when the new concept is attached to interesting bits of information.*

*Due to her achievements she has also received the DAS Special Achievement Award and was featured in FACETS. She has made excellent progress and if she was still on the MAP programme, she would likely be ready for graduation. "Darlyn is a joy to teach"*

### **SPECIALIST TEACHER: SAMUNN ABDUL CAFFOOR**

Student: Brandon Secondary 1

*Brandon (S1) joined Specialist Tutoring in 2014 in preparation for his PSLE. He had passed his PSLE and entered the express stream. A conscientious pupil Brandon has an enthusiastic and inquiring attitude, and his determination to do well is commendable and grows from strength to strength as his report cards at school reflect his academic performance. Positive feedback from his school teachers share that Bryan is willing to shoulder responsibility and is a team player.*

### **SPECIALIST TEACHER: GLADYS WEE**

Student: Trevor (Grade 3)

*Trevor started attending Specialist Tutoring in August 2014. He has made significant progress in his Literacy School. Despite coming from a Spanish speaking background Trevor's perseverance in understanding and applying what has been taught in our ST classes has been transferred into his mainstream school at an international school he attends. There has been much improvement noticed at school as well as his attitude towards his learning which has shown in his confidence. Well done Trevor.*

## **THE BRIDGING PROGRAMME**

### **INTRODUCTION**

Up till March 2014, DAS International Services offered an intensive remediation programme under The Bridging Programme, for children who were experiencing difficulties in learning, which impact on their ability to independently access a mainstream curriculum. For the purposes of the discussion of the case studies the name Bridging Programme will be used. Since April 2014 since DAS International operations in Singapore have come under the Specialised Educational Services Division (SES) The name Bridging Programme has since been changed to Intensive Specialist Tutoring.

### **RATIONALE TO THE BRIDGING PROGRAMME**

Expatriate families face pressures when trying to secure educational provision for their children in International schools in Singapore, especially where their children are not 'typical' learners and are experiencing difficulties with acquiring literacy or Maths skills. The Bridging Programme, was therefore created and aimed at supporting children who are unable to secure a place in an international school, or are struggling in an international mainstream school.

### **KEY PURPOSE AND AIMS**

The key purpose of the programme is to provide an intensive remediation programme delivered in small class groups and individually by specialist teachers, supported by a multi-disciplinary team where necessary which might include, Specialist Teachers, Occupational Therapists, Speech and Language Therapists and Chartered Educational Psychologists, in order to bridge the learning gap between the child and his or her mainstream peers. The aim is to ensure that the programme can support the development of essential literacy and numeracy skills that are required to access the academic curriculum in a mainstream school. This may enable the child to enter a mainstream school at a later date, with greater confidence, self-esteem and academic competence.

### **FEATURES OF THE BRIDGING PROGRAMME**

- ◆ Maximum teacher to child ratio of 1:4.
- ◆ At least one individual session per day.
- ◆ Curriculum is designed around the needs and levels of the group.
- ◆ Ongoing review of IEP and cross curriculum targets.

- ◆ Integrated curriculum – consultation from our multi-disciplinary team comprising a Speech and Language Therapist, Chartered Educational Psychologist and Occupational Therapist integrated into their IEP.
- ◆ Support from Chartered Educational Psychologists in terms of ongoing assessment, IEP planning, teacher mentoring and a report to support your application for exam access arrangements in school
- ◆ Access to evidence based assistive technology programmes to support literacy and numeracy development e.g. Nessy Fingers©, Nessy Learning©, WordShark© and NumberShark©

## **BRIDGING PROGRAMME CASE STUDIES**

DAS International Services provided the Bridging Programme under Specialist Tutoring for three students prior to April 2014. 2 students Bradley Rein (Australian) and Caleb Thrush (American) were paired and Johnson Cheng (Malaysian), received the Bridging Programme intervention on his own over a separate time frame.

All the names in the 3 case studies have been anonymised.

### **CASE STUDY 1**

#### **Profile of Student**

**Name :**                **JOHNSON CHENG**  
**Age:**                 8 years 3 months  
**Race:**                Chinese

#### **Background information on individual student**

Johnson Chen was referred to the DAS International due to his parents' concern for his overall academic performance in school in Malaysia. He had been attending a Chinese medium school, but was unable to keep up with the school's academic demands, perhaps because of dyslexia but also because his understanding and use of Chinese was also very limited.

#### **Bridging Period: Block Delivery**

Johnson Cheng commuted weekly from Kuala Lumpur (Malaysia) to DAS International (Singapore) to receive the Block delivery of intensive remediation.

1st Block: 16th September to 26th September 2014

2nd Block: 8th October to 28th October 2014  
 3rd Block: 19th November to 29th November 2014  
 4th Block: 16th December to 20th December 2014

Total: 10 Hours of Occupational Therapy  
 24 hours of Maths  
 36 hours of Literacy

### Weekly Lesson Schedule for Johnson Cheng

Sample of Block Delivery					
Intervention	Monday 21/10	Tuesday 22/10	Wednesday 23/10	Thursday 24/10	Friday 25/10
Occupational Therapy	2.30 pm to 4.00pm		2.30 pm to 3.30pm		No lessons
Maths		9.30 am to 10.30 am		9.30 am to 10.30 am	
Literacy		10.45 am to 11.45am	1.30 pm to 2.30pm	10.45 am to 11.45am	

### PROGRESS REPORT FOR JOHNSON CHENG

#### Educational Psychologist: Dr Tim Bunn

- The intensive teaching Johnson has received since September would probably have resulted in much faster progress if he had no specific learning difficulties. I think it is now possible to conclude therefore that he is dyslexic, and that a number of associated difficulties may also be slowing his progress in learning: these are probably an attention difficulty with a strong over-active, impulsive aspect, and some degree of fine-motor coordination difficulty. Johnson may also have some problems in understanding non-literal language, which will need more direct teaching than usual (i.e. he can't be relied on to pick up relevant background information and see how it can be used to answer some comprehension questions).

2. Johnson is somewhat avoidant as far as literacy is concerned. But he has accepted the need to attend and work at his lessons at DAS, and has made some encouraging progress. He hasn't yet made enough progress to enable him to feel confident and interested enough to work more independently. He will continue to need a lot of experienced specialist help.
3. He has made better progress in decoding phonically regular words, but his sight vocabulary for whole words remains quite limited. He is now able to use sounds to decode words successfully, across most letters and some letter pairs. He confuses some letters because of their shapes. He has not yet become fast and automatic enough at this to build a larger sight or spelling vocabulary. He copy writes very slowly and forgets to use inter-word spaces.
4. He has made more progress in maths than in literacy, but some aspects of maths (slow addition bonds and weaknesses in problem solving) continue to need attention. I think it is best to see his maths learning difficulties as more a "side-effect" of his dyslexic difficulties than of a specific maths difficulty. He has difficulty remembering bonds and in reasoning about maths concepts; this may be linked to his rapid naming difficulty and to more general language comprehension difficulties. His good progress in computation is encouraging and suggests that with some specialist support he can continue to do better at maths.
5. In general, Johnson is likely to benefit from being taught within a very "dyslexia-friendly" classroom environment, with a substantial amount of 1:1 or very small group help daily, and with support in mainstream lessons where independent reading and writing activities are required of him. He will also need his teachers to manage his relatively short attention and to help him become less impulsive. Some specific help in handwriting is likely to continue to be needed (although this is Johnson's least favourite part of literacy). Although he is likely to become a computer writer in the next few years, writing by hand still has some advantages for learning the "feel" of letters and words at this stage.

**Specialist Teacher: Ms Raji Sivaram (10th April 2014)**

Johnson has made tremendous improvement from being a non-reader to attempting to read single words and sentences. He has grown in confidence with his literacy and math skills and makes every attempt to read using the strategies that was taught to him. He is now able to spell some sight words and able to spell words using his phonic target words. His number skills in math has improved and he is able to do his math computations with much confidence.



## REFLECTION ON THE BRIDGING APPROACH TO JOHNSON CHENG

As Johnson was commuting weekly to Singapore from Kuala Lumpur and parents the programme was designed to focus on his immediate concerns which were Literacy and Numeracy with Occupational Therapy support. The results of Dr Tim Bunn's progress summary as well as the Specialist Teacher's progress reports are positive with significant gains in certain areas. The parents of Johnson had decided to relocate to New Zealand where they felt he could benefit more from a smaller group size and a less academic focused environment.

Email from the parents of Johnson

*Dear Ms. Raji,*

*Thank you for very much for your progress report. We would also like to express our appreciation for your work with Johnson and your dedication in ensuring that he learns to read and write and his mathematical progress*

*Regards,*

*Mrs.Cheng*

## CASE STUDY 2

### PROFILE OF STUDENTS: BRADLEY REIN AND CALEB THRUSH

Background information on individual students:

**STUDENT 1: REIN BRADLEY**

Age: 10 years 2 months.

Race: Australian

Programme 1: Individual Specialist Tutoring

Dates: 5th March 2012 –6th April 2012

Programme 2: DAS International's Bridging Programme

Dates: 9th April 2012 – 22nd June 2012

### Reason for Referral for the Bridging Programme

Bradley's family were based in the UK, during which time Bradley attended a private

school for Dyslexic students for 2 years. The family were then posted to Singapore. However due to Bradley's low test scores and severity of dyslexia he was not able to gain acceptance at mainstream International schools in Singapore. The parents were told that the schools will only accept Bradley once he has shown significant improvement in both his Maths and Literacy scores in order to cope with the demands of the International curriculum . The family then sought consultation with DAS International through myself, Anaberta Oehlers-Jaen as Head of DAS International to look into how the Bridging Programme could support Bradley with the aim of finding a place at an International school by the new academic year in August.

## **PROGRESS REPORT FOR BRADLEY REIN**

### **Educational Psychologist: Dr Louis McCauley**

1. Bradley demonstrated that he has been very successful in learning phonological decoding skills and is applying this newly learnt skill with success when required to read words in isolation. However; when required to decode passages of text Bradley tends to decode only half of the word and then guess what the words might be. This is affecting his reading comprehension. Bradley will continue to require a high level of support to continue to progress with his literacy development. He still has gaps in his learning and now that he has developed his phonological decoding skills to an adequate level his programme needs to focus on 'rules;' for example, putting an 'e' onto the end of a word in order to elongate the middle vowel. These rules will help Bradley to develop his spelling skills.
2. Bradley also needs to develop his reading comprehension as this skill will be essential for him to successfully access the school curriculum without a high level of support. He needs to be reminded to slow down when he is reading and to attempt to accurately decode the words rather than guessing.

#### **Student 2: CALEB THRUSH**

Age: 10 years 4 months  
Race: American

Programme 1: Individual Specialist Tutoring  
Dates: 5th March 2012 –6th April 2012

Programme 2: DAS International's Bridging Programme  
Dates: 9th April 2012 – 22nd June 2012

## **Reason for Referral for the Bridging Programme**

Caleb's family were posted from America to Singapore. Caleb was initially accepted at an International school at the start of the year. However before the end of the first break the family were told that the school was unable to provide appropriate schooling for Caleb due to the significant gap in his academic work as compared to his peers. He was asked to leave the school. The parents then sought the support from DAS International under the Bridging Programme. The family sought consultation with myself as Head of DAS International Anaberta Oehlers-Jaen, who asked the family to provide the necessary previous psychological reports, school reports and relevant background information including samples of Caleb's work. Again the main aim of joining the Bridging programme for Caleb was to be able to secure a place in August at an International school.

## **PROGRESS REPORT FOR CALEB THRUSH**

### **Educational Psychologist: Dr Tim Bunn**

1. Caleb attended DAS International on a daily individual basis February to April 2012, and then joined the Bridging Programme April to June 2012. He has reverted to individual teaching to maintain his skills and confidence prior to starting school in August 2012.
2. Caleb's teachers begun to see significant changes in his approach to learning and in his performance by around early May 2012. In discussion progress seemed to be occurring across all areas, and the team felt this may be because Caleb was no longer feeling worried or uneasy in a 1:1 situation, and was beginning to believe he could make progress if he listened and tried to do as the teachers asked him. His limited short-term (working) memory was felt to be the greatest obstacle to faster progress – he could still forget quite easily what he had recently learned.
3. I worked with him in some spare time before his lessons towards the end of May, expecting to see encouraging changes in his basic literacy and numeracy skills. The results were a surprise and a disappointment: on both the WRAT4 and WIAT-III tests Caleb seemed to have made very little progress, and where one test showed progress the other did not.

On reflection and in discussion with the teaching team, it seemed likely that Caleb had come to the session "cold" and had probably not realised that he should use the strategies he had been working on in reading and writing. The exception was his writing in his own words: he had previously written only a

little very hastily and his words had tended to climb up the page as he wrote. But in June 2012 he was able to write more, to write on the lines for a whole page, and to mainly write in sentences with much better (though not perfect) punctuation.

4. It was agreed that Caleb may respond better after a lesson than before, and that reminders of some of the skills he has learned would be appropriate. I saw him again in August and joined his English teacher for the last part of her lesson so that Caleb would realise that the skills he had just practiced were relevant. The results show that steady progress at the expected rate has occurred in reading and spelling. Faster progress has occurred in non-word reading, and this is probably because of the strong emphasis on phonics training from his teachers.

Some progress has occurred in sentence composition. Caleb's sentences actually look a great deal better but these tests emphasise writing using correct punctuation and grammar, and especially writing sentences using correct conjunctions. Caleb does use "and" but he has not yet learned to use other conjunctions reliably. He does not yet understand the difference between a clause and a complete sentence.

Finally very significant progress has occurred in Reading Comprehension. Caleb read more slowly and took time to think about words; he made quite a number of decoding errors but he was prepared to re-read more than in January and was thus better able to make sense of the passages. His score has gone from 76 to 90 on this test, using the same (grade 3) passages.

5. Thus although his word level skills have progressed but only at a below average expected rate, his text level skills, in writing and reading, have improved significantly during the 6 months he has been supported by the DAS International. He will continue to need support. It will be important for his new teachers to get to know him and learn how to support him effectively so that he maintains and builds his new-found positive attitudes to learning.

## **DAS INTERNATIONAL'S INDIVIDUALISED PROJECT BASED CURRICULUM - SCHOOL BRIDGING PROGRAMME**

The two students Bradley Rein and Caleb Thrush received both paired and individual remediation

Commencing: 16th April till 22nd June 2012

### **Core Areas of Therapy**

- ◆ Literacy
- ◆ Maths
- ◆ Occupational Therapy
- ◆ Speech and Language Therapy

### **Supporting Programmes**

As the students were not attending school and just coming to DAS International for the Bridging Programme, as Head of DAS International and the coordinator of the curriculum, it was important I felt that they had projects and explored their environment, similar to if they were at school. Therefore in addition to the intensive attention on Literacy , Math's, OT, SLT, they had a weekly sessions on Computer Based Assisted Learning, Computerised Literacy Program, Science / Social Science (\*PYP: Primary Years Programme), Personalise Learning for Life using Supportive Strategies (\* PLUSS) and Emotional Literacy Development.

### **Summary on Supporting Programmes**

*(\*Full details of the curriculum can be found in the appendix)*

- ◆ Computer Based Assisted Learning
- ◆ Computerised Literacy Program
- ◆ Science /Social Science (\*PYP: Primary Years Programme)
- ◆ Personalise Learning for Life using Supportive Strategies (\* PLUSS)

### **Field Trips**

There were field trips (parental consent was given and risk factors taken into account) as well as simple cooking based on the science project. At the end of the 10 weeks the boys showcased the project that they have been working on. Please refer to the appendix for the parental consent and risk form.

### Emotional Literacy Development

This was important to include as part of secondary curriculum as the social / emotional aspect of their learning was critical as it was noted on the psychological reports, feedback from parents and previous school reports that improving their attitude toward learning and self-esteem was important. I had included a specific element on Emotional Literacy Development in addition to the other components as a time to explore, understand, share and express ideas and feelings through Literacy texts. It is to be noted that the boys had become "best friends" which saw them seeing each other and hanging out over weekends and each other's homes. Our Specialist teachers and professionals also noted that the boys supported each other whilst they were performing paired tasks or project work. They had spoken positive words of encouragement to each other at various points when one found a task challenging, to not give up.

Sample of SES Bridging Programme Time table for Caleb Thrush and Bradley Rein

SCHOOL BRIDGING PROGRAMME (STEP 1)					
Time	Monday 16/4 & 23/4	Tuesday 18/4 & 24/4	Wednesday 19/4 & 25/4	Thursday 20/4 & 26/4	Friday 20/4 & *27/4
9.00 to 10.00am	SLT Paired	OT Caleb	Literacy Bradley	Maths Caleb	OT Caleb
		SLT Bradley	Literacy Caleb	Maths Bradley	Literacy Bradley
15 min	Break				
10.15 to 11.15am	Assisted Technology Based Learning Paired	OT Bradley	Maths Caleb	Assisted Technology Learning Paired	OT Bradley
		SLT Caleb	Maths Bradley		Literacy Caleb
15 min	Break				
11.30 to 12.30pm	NO LESSON	PYP Science / Social Science 11.30 to 1pm Paired	DAS Computerised Literacy Program Paired	DAS Computerised Literacy Program Paired	Life Skills PLUSS 11.30 to 1pm Paired

## **REFLECTION ON THE BRIDGING APPROACH TO BRADLEY AND CALEB**

It was coincidental that both boys Bradley and Caleb had similar experience and were both unable to secure place in the mainstream International schools in Singapore. Both students also displayed in varying degrees, similar attention, behavioural issues, low self-esteem, dyspraxia, speech articulation and task avoidance issues in addition to their primary learning difficulty which was Dyslexia.

As we were in a position to design a programme based on the social/emotional and learning needs of the students, hence the Bridging Programme for these two students evolved out of similar short term and long term goals and targets.

As they had various learning difficulties I had decided to adopt a multi-disciplinary approach in the delivery of the Bridging Programme for Bradley and Caleb. The professionals involved were:

- 2 Educational Psychologists one for each student
- 2 Educational Therapists for both Literacy and Maths
- 1 Speech and Language Therapist
- 1 Occupational Therapist
- 1 External teacher for life skills, science, project work external outings.
- 1 Specialist Teacher for Assisted Technology

## **INDIVIDUAL EDUCATION PLAN (IEP)**

Once input was received through the various professionals and combined sharing of the student needs the Individual Education Plan was set in place. As the Bridging Programme involved multi-disciplinary professionals, the individual targets within their Education Plan for each student had to take into consideration the overall Education Plan that relied on understanding and knowing each other's targets for the students.

## **MONITORING OF PROGRESS AND THE INDIVIDUAL EDUCATION PLAN**

As the progress for both students was important to monitor closely and targets set needed to be adjusted accordingly weekly meetings were held to review the work conducted the previous week, as well as behaviour and attitudes of the students discussed with suggestions on managing and motivating the students. It was noted that the attitudes of the students started to improve and was noticed that the boys were starting to be engaged more with the lessons and started to understand that the Specialists were there to teach, encourage and take them to reach their potential through bridging the gaps in their learning. It was also noted that the

relationship between the Specialist and the students had developed into one of a good rapport, and the boys were taking shorter breaks in-between.

## **PARENT INVOLVEMENT**

As part of providing a holistic approach and engaging the parents in the student's learning, both Bradley's and Caleb's parents received feedback after each class, along with instruction on what the parents might be able to reinforce at home.

## **CASE STUDIES SUMMARY**

In summary, we are pleased that the Bridging Programme managed to effectively support these three students featured in the case studies who would otherwise have been unable to access mainstream school due to their low literacy and numeracy scores along with accompanying co morbidities. We will continue to aim to support such students bridge the gap to their learning.

## **SPECIALIST TUTORING FOR POST-17 ADULTS**

Reflections by Albert Lee, Senior Educational Therapist

Specialist Tutoring started to receive requests from the post-17 group of young adults, which comprised a mixed group of clients who were referred after undergoing adult assessments under SES Educational psychologists Assessments. Over the period 2014/15, there were 17 young Adults who were assessed. Reassessments for exam accommodation were the main reasons cited for the assessments. Further information can be found on the SES Assessment annual report for 2014.

### **Profile of Learners**

There are generally of two major categories of clients.

- ◆ Students in Further Education (FE) and in Higher Education (HE)
- ◆ Working Adults

Students in Further Education (FE) like junior colleges, IB schools, polytechnics and Higher Education (HE) from universities attended Specialist Tutoring as they needed help with their studies. The focus is on the process of learning and not the content of the curriculum. The support area includes time management, project work communication, examination paper preparation and study skills strategies. What



they hope to achieve through Specialist Tutoring are varied. It varies from intangible areas like confidence building, independent work as well as the measurable academic competency. Assistive Technology like text-to-speech and electronic mind mapping software have also been exposed to them, while taking into account their learning style, in order for them to find a more effective mean of learning.

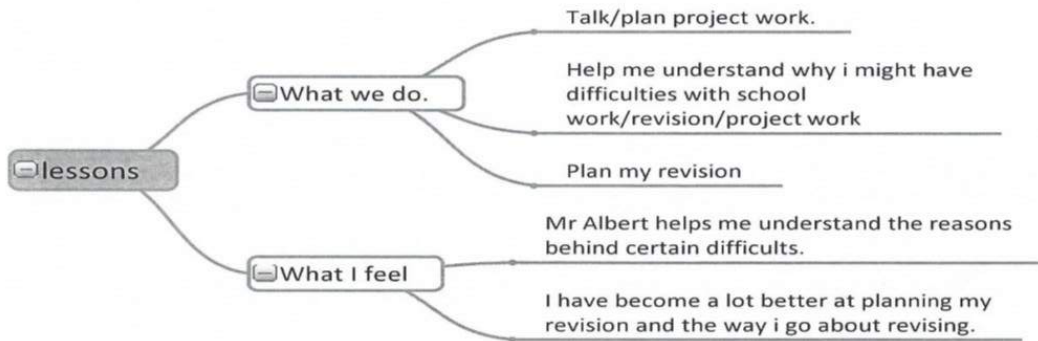
The support provided is usually over 10 to 20 weekly sessions. As it is tailor-made just for the specific learner, the learning objectives are set after the first session of interview and co-created with them. Being young adults, they are motivated to improve themselves and appreciate their role in developing the learning programme. Progress is monitored through direct casual discussion with the client before session commencement or through email or message checks. Generally, feedback has been very positive from both clients and their caregivers as recognitions of what is gained from the Specialist Tutoring programme. Some of the benefits may not be immediately apparent as it could be of a longer term nature where the client will need more time to see the difference. However, I am glad to say that this holistic approach in supporting these young adults has proven to be useful to my students to a large extent.

As for the second group, the working adults, they are those who engaged Specialist Tutoring services to get some help in their specific work nature as well as general life enhancement. The support is specific to their work nature and helping them to reach their individual potential. The support ranges from developing a business plan to finding strategies to remember medical terms that have caused confusion. Technology that are explored include simply utilising the existing functions of the client's devices like Ipad and smart phone. Many a time, the full potential of the devices are not fully met.

The number of sessions are fewer, ranging from 5 to 10 bi-weekly sessions. Being working adults who pay for their own sessions, they are very motivated to work on improving themselves. Correspondences between sessions are positive as it is of the nature of discussions as adults. Progress is monitored through direct casual discussion with the client before session commencement or through email or message checks. Feedback from the adult clients has also been favourable as the short sessions gave them some take away pointers that they can work on in their work and social life. This is a totally new form of support that provides adults with learning difficulties a different avenue to help them reach their full potential.

**Feedback from Post-17 learners**

Interestingly the Individual Education Plan (IEP) was discussed and mapped out by the students themselves. This is to enable them to take responsibility for their own learning and outcomes which they hope to achieve. Please refer to the individual IEP mind maps on their reflection.



**FUTURE DEVELOPMENTS FOR SPECIALIST TUTORING**

Since the formation of DAS International Services in 2011, Specialist Tutoring and Assessments through publicity and marketing has been aimed at the expatriate clientele in Singapore and overseas. However since the reorganisation and incorporation of DAS International Specialist Tutoring and Assessments, under the Specialised Services Division (SES), there have been a process of decentralisation of the administrative for Specialist Tutoring as being similar to the other services under the SES division within the DAS wherein the Learning Centres manage the placement and collection of fees. This has had an impact on the parents who were used to all services under one central administration for Specialist Tutoring. This is an area that is being monitored closely, as Specialist Tutoring has always aimed to provide parents with a close partnership and sharing of information.

The production of new publicity materials and information sharing with both internal and external clients, to reflect the new branding of Specialist tutoring under SES has commenced with a new website for SES as a division which incorporates the individual programmes and services.

As the service adapts and changes however, it is imperative that programme

evaluation and quality control, as part of the programme management is included as a means of improving customer services both to our students, parents and Specialist Teachers.

Trends noticed in 2014 / 15 for Specialist Tutoring includes:

- ◆ Young Adults requesting Specialist Tutoring (short term in preparation for exams or projects)
- ◆ Students with more severe learning difficulties apart from Literacy have started to come through.

## **RECOMMENDATIONS**

- ◆ The age range and skills offered by the Specialist Teachers needs to be continually increased to cater for the demands of the expanding age group. A training pathway for Specialist Teachers will be mapped out that will aim to enhance their delivery skills.
- ◆ A Professional Certificate in Individualised Education Programme (IEP) Planning for an SpLD Learner will be offered in March 2016 by the DAS Academy in consultation with the Programme Director Anaberta Oehlers on the content which would be important for Specialist Tutors.
- ◆ A Professional Certificate in Supporting Further Education (FE) and Higher Education (HE) learners with SpLD will be delivered in April 2016, by the DAS Academy in consultation with the Programme Director Anaberta Oehlers-Jaen on the content which would be relevant to the target group of learners.
- ◆ Further refinement in monitoring students' progress should be considered.
- ◆ Quality Assurance of the delivery through video sessions and feedback.
- ◆ E-Portfolio of Specialist Teachers will be in place for 2016.

## ACKNOWLEDGEMENTS

I would to acknowledge the following colleagues who have contributed to the Specialist Tutoring Report.

Dr. Tim Bunn: Consulting Educational Psychologist

Providing the follow up assessment and summary write for the students in the case studies.

Mr Albert Lim: Senior Educational Therapist

Providing the write up section on the Post 17 whom he has been supporting.

Specialist Teachers: Brenda Horner, Ms Tam Shuyi , Rajalakshmi Sivarama Senior Educational Therapists, Mr Samunn Abdul Caffoor, Michelle-Lynn Yap, Puvanewari Kurusamy, Nicole Chua, and Educational Therapists Ms Gladys Wee, Malini Menon & Shilpa Madane, for all the dedication to your students on Specialist tutoring.

Parents and Students of Specialist Tutoring whom we work for in supporting their families.

## ABOUT THE AUTHOR



### **ANABERTA OEHLERS-JAEN**

*Programme Director of SES Maths, Assessments and Specialist Tutoring and Head of DAS International*

*Ms Anaberta Oehlers-Jaen made a career switch from the Robinson's group of companies as Group Merchandise Controller to join the DAS in 2005 as an Educational Therapist. She holds a Masters Degree in Special Needs from NTU, BA (English Language and Literature) from SIM, a Postgraduate Certificate in Teaching and Learning in Higher Education from the London Metropolitan University as well as a Cambridge International Diploma for Teachers and Trainers (Dyslexia), along with Early Childhood Diplomas. She has Fellow status at RETA Registrar of Educational Therapists (Asia) and is also a Senior Educational Therapist.*

*For 4 years, she was the Preschool Manager of the DAS Preschool Service actively involved with children at risk of literacy delay. Anaberta who is also actively involved in research has also delivered at conferences in Singapore and Hong Kong. Her recent paper in 2014 was on the Programme Evaluation for Specialist tutoring as well as actively, overseeing the development of the Maths Programme.*

*Her background of more than 15 years in the retail service line, has translated her into adopting a high level of professional service for both the students and parents through Specialist support and Assessments. She hopes to share the same philosophy which she has embraced at the DAS as her personal ethos in helping all children achieve in her current portfolio both in Singapore and the region.*

**APPENDIX 1 : SAMPLES OF PROGRESS REPORTS & INDIVIDUAL EDUCATION PLANS****GROUP IEP TARGETS****Name:** REIN, BRADLEY

D.O.B. 30th March 2002

**GROUP IEP OBJECTIVE****Professionals Involved:** Specialist Teachers, Educational Psychologist,  
Occupational Therapist, Speech & Language Therapist

Long Term Aims		Review Date
Occupational Therapy	To increase the speed of writing	
Speech & Language Therapy	Uses strategies to support his word finding difficulties	
Maths	To be able to tell the time	
Literacy	To structure his composition using story frames	
IT	To use AT as an alternative means to writing	
Behaviour	To improve confidence in his own ability. To improve awareness to surroundings to help others.	

Termly IEP Targets		Date Review
1	To reduce the pressure of the pencil	
2.	To identify a story has a beginning, middle and an end	
3.	To respond to 'Can you show me?' when struggling with expressive language	
4.	To understand that he can break down a task to manageable parts and say e.g. "I can do it"	
5.	To Use 'Text to Speech' for 10 sentences and use spell check independently	
6.	To connect science knowledge obtained to real life application.	
7.	To develop skills and confidence to create and complete projects.	

\* I independent S supported E Emerging

**STUDENT LITERACY PROGRESS REPORT (2012)**

Name: Rein, Bradley  
Date of Birth: 30th March 2002  
Date of Sessions: 18th April- 22nd June 2012

Bradley is a cheerful and friendly boy with great imagination and creativity. He displays tremendous enthusiasm once a literacy activity catches his interest. He enjoys depicting his creativeness by way of drawing and colouring. Bradley gets motivated and involved when successful in a task and gets excited to work on similar tasks. He gets disappointed and needs a lot of encouragement to keep going when an activity gets difficult. With continued working and remediation, he is sure to show greater progress in his literacy goals. It has been a pleasure to work with Bradley and I look forward to teaching him during the next term. I wish him all the best in his new school.

**SHORT TERM TARGETS REVIEW****Write A to Z / a to z sequentially**

Bradley can independently sequence letters in the alphabetical order. However, there's confusion in writing the letters: j, q, F, L, M, P, R, Y

**Phonemic blends/substitutions/ deletions (CVC to CCVCC words) & Rhyming Words**

Bradley can handle the blending activity (visual, auditory, kinaesthetic, tactile) with ease.

He is able to give and write rhyming words and use them in verbal sentences and write phrases all by himself.

**Initial & Final Consonant Blends**

We have been working on blending activities all through the term. Bradley is very comfortable in handling his auditory, visual & verbal blending tasks; he is able to write words/phrases without support and form written sentences with intermittent support. When eliciting sounds '/f/ & /th/', Bradley interchanges one for the other in visual/auditory drills and written tasks at word level.

**Consonant Diagraphs/ Short Vowels/ Consonant Letter Combinations/ Spelling Rules**

Bradley has achieved success in learning consonant diagraphs & short vowels; he can use them at word/ sentence level independently. He hesitates to write lengthy sentences and needs a lot of praise to stay focussed on task. Bradley requires

support in consonant letter combinations (-ng, -nk) & spelling rules (floss, /ck/, /tch). He can read and spell words when attentive, but refuses to write when disinterested.

### **Suffix & Syllables**

Bradley has been continuously working on plurals (-s) and can independently handle reading/writing tasks at sentence level. He has a good understanding on syllables and has been exposed to closed syllable words. During reading, he can decode multisyllabic words of familiar phonological sounds and words from the same family.

### **DOLCH: High Frequency Words**

Bradley can read 'Pre-primer, Primer and First' list of words, except 'ate, take'. He is able to apply them to reading texts. He can spell words from Pre-primer list and apply them in writing tasks, in isolation & context.

### **Oxford Reading Tree Books (Stage 5), Identify 'Beginning, Middle, End' of a story, Comprehensions**

On an average, Bradley can read ORT – stage 5 at 75 words per minute (2 corrections) and retell the synopsis, identifying 'beginning, middle & end' of the story. He has been working on picture sequencing/writing, cloze, recount, narrative text types & comprehension. He comprehends age-appropriate text types with support on multisyllabic words and completes activities on cloze comprehensions. He writes a few sentences with a lot of scaffolding and supporting words for spelling.

He has also been exposed to 'Audio Books' wherein he hears a story in parts and answers questions related to the storyline and characters. Bradley needs to work on writing a 6 sentence grammatically correct narrative. This will be one of his main targets during the next term.

### **Recommendations & Future Goals**

Bradley will benefit from a weekly literacy support to work on his long term aims:

- ◆ To develop phonological skills and word attack skills to support reading & comprehension
- ◆ To develop spelling skills in phonic words, high frequency words & multisyllabic words
- ◆ To structure and write grammatically correct short narratives using story frames & graphic organisers

Sailatha Venkatram  
Specialist Tutor

**STUDENT PROGRESS REPORT (2012)**

Name: Rein Bradley Educational Level: Year 4  
Date of Birth: 30 March 2002 Date of Sessions: 16.4.12 – 14.6.12

This brief report will take you through the progress of Bradley through his exposure to the use of Assistive Technology (AT) in his learning and areas to work on in the future.

**The use of Mind mapping software programmes**

The use of Mind Genius and MindMap mind mapping software programmes helped him to plan out his ideas to help him organise his writing better. His weak short-term memory and working memory also results in him not being able to recall information he has just learned. Mind mapping provides an alternative way for him to retain the information more quickly before he forgets it.

**The use of Text-To-Speech (TTS) software programmes:**

The use of ClaroRead and Natural Readers TTS software programmes assisted him in listening to text on websites and listen to his own typed out work. This allows him to demonstrate comprehension ability through his auditory skill instead of simply using his visual reading ability.

He is able to accomplish five sentences, about 50 words, using TTS. This can take up to twenty minutes. This is accomplished within three months. This differs from the previous target set for Bradley of 10 sentences, with independent use of spell checker to assist him. Bradley displayed displeasure after a few weeks using the TTS as he became frustrated with the spelling errors he has made. Instead of recognise the spelling errors and work on getting them right, he chose to give up on the activity. He has to be constantly encouraged to provide his own correction instead of depending on answers to be provided.

**Use of Microsoft Office:**

Bradley has been exposed to the use of a Weekly Planner template on MS Word to better understand time management. This trains him to be aware of his utilisation of time to provide a better sense of control.

He has also used the 'What I have learned & To-Do List' template on MS Word to reflect on what he has learned in his previous class by the other therapists to reinforce his learning across the bridging programme. He also learned to project what that needs to be done, including homework etc.

**Use of Alpha Smart mobile device:**

Whenever Bradley is alone in class, we have the opportunity to use Alpha Smart



3000 as a portable tool for brain storming of ideas on the go. This gives him the opportunity to recognise that learning does not have to be restricted to a classroom environment.

**Behavioural Management:**

Bradley was originally very compliant and engaged during the pair AT learning sessions. However, he started to display behavioural issues as the weeks progressed. This coincided with the period of time when his ear infection was affecting him. The physical discomfort could have increased his irritability and affected his ability to stay on task.

He favours the use of a visual timer during his 15-mins break time as well as his AT lesson time. It provides him with the visual indication of the time left for an activity to provide him with control over the situation.

His imaginative mind can be tapped into to allow him to channel his stories into written work. This may provide him with a mean to positively engage him with verbal stories.

**Recommendations for Bradley:**

- ◆ Bradley will benefit from a structured learning environment at home. This includes instructions that are consistently implemented that can be followed through in school environment.
- ◆ It will be beneficial for Bradley if the intervention at school is pitched at his level so that he can experience success and not be resistant to learning.
- ◆ Instructions on computer have to be put into smaller steps to ensure he comprehends 'step 1' before he moves on to 'step 2'.
- ◆ Breathing exercise and some Brain Gym activity to energise him may be good for him during between lessons.

Lee Albert  
Senior Educational Therapist

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**STUDENT (MATH PROGRESS REPORT)  
TERM 1(30TH APRIL–22ND JUNE) (2012)**

Name: Rein Bradley

Date of Birth: 30th March 2002

**OVERALL REVIEW:**

Bradley has made progress in his numeracy skills. He has achieved all the short term targets that were set for him. When I began the sessions I thought that he had a good sense of numbers and that his concepts as regards to basic number computations were good. After a few sessions I found that he was able to do the tasks as long as the pattern of questioning was similar. A slight variation in the method of questioning would frustrate him and he would give up. He would display anger and frustration at not being able to complete the task and was unwilling to go any further. He would be hard on himself if he made a mistake.

With encouragement and reassurance, that it was OK to make a mistake and that he would not be penalised for it, he is now willing to at least try. With the help of a lot of manipulatives, he has understood concepts better and is able to apply them to computations more effectively.

Great effort Bradley. Keep it up!!

**SKILLS REVIEW**

1. **Sequencing of numbers:**  
Bradley is able to sequence numbers from 1-100 with accuracy
2. **Arranging numbers in ascending and descending order.**  
Bradley is able to arrange random numbers in ascending and descending order and is familiar with the jargon.
3. **Greater than and less than:**  
He has learnt the different terms for greater than and less than and uses the  $>/<$  signs accurately.
4. **Place Value:**  
It seemed that Bradley had worked with manipulatives (base 10 tiles) to get an understanding of place values. Although Bradley had a basic understanding of place values, he was showing inconsistencies when asked to apply them to questions and addition problems. He knew how to solve addition problems with 'regrouping' but was doing it by rote, without

understanding how he got the answer. As a result, a lot of the times, his answers would be incorrect .

We have worked a lot on this concept and tackled it from various angles. He displays a reasonably good understanding now, and knows how and why 'carrying forward' or 'regrouping' is done.

My target was to complete addition with regrouping up to '100'. But he is now able to solve addition problems with regrouping up to '9999' fairly accurately. He no longer relies on the place value template for this, and does it on ruled paper, aligning his numbers with accuracy.

5. **Number names:**

Bradley is able to spell numbers from 'One to twelve'. He still requires practise with 'four' and 'five'.

6. **Reading the clock:**

He is able to read the clock by the hour with confidence. We are currently working on the 'half hour'. He needs practise in alignment of the 'hour' hand.

His next IEP will focus on subtraction and simple word problems in addition and subtraction.

Specialist Tutor

Malini Menon

Date: 17th June 2012

## Specialised Educational Services

UNLOCKING POTENTIAL

# SPEECH AND DRAMA ARTS

The aim of the programme is to develop literacy, communication and presentation skills and boost the self-esteem of learners with dyslexia. Drama can be that powerful tool to help increase the self-esteem and confidence of students with learning differences.

## OUR APPROACH

Using drama activities, students get opportunities to enhance their persuasiveness and confidence in communication. Students are given the freedom to express themselves freely, using their imagination and creativity. Other vital communication skills that are fostered in the class setting includes listening and concentration. Activities ranging from role-playing to stage performances require students to understand the fundamentals of stage directions, character dialogues, music and light cues. To stage a production necessitates the child to understand and interpret the script, process the script in-depth. This allows them to work on the working memory and processing speed.

Class sizes are kept to a maximum of 10 students per class and are conducted once a week, 1.5 hours per session.

The SDA programme consists of 4 different modules catering to 2 age groups

- ◆ Creative Drama Programme (7 - 8 years old)
- ◆ Drama for Performance Programme (9 - 12 years old)

At the end of each module, parents will be invited to watch the progress of the children. This will also help in giving our students the experience and exposure of performance making. A certificate of participation and progress report will be given to students upon completion of each module.

# Specialised Educational Services

## Speech and Drama Arts

**Pushpaa Arumugam**

*Assistant Director, SES Enrichment Programmes  
Dyslexia Association of Singapore*

### **BACKGROUND OF PROGRAMME**

Speech and Drama Arts (SDA) is an effective means of developing our students' talents and self-confidence, which in turn can lead to a more positive self-concept for a student. Our goal is to provide an outlet specifically for DAS students to express themselves, their inner feelings and emotions and to demonstrate their talents in a fun and artistic way.

In our observation, dyslexia does not only affect a child's literacy ability, but their emotional well-being as well. Recognising this, the SDA Programme aims to use drama as a powerful tool for self-development and give dyslexic students the opportunity to improve their self-esteem through our structured drama classes focusing on language development, communication skills and personal development

### **PROGRAMME DESCRIPTION**

Understanding the background and characteristics of our dyslexic students has allowed the team to develop a programme that would enhance their learning journey and discover their potential.

### **OUR OBJECTIVES**

- ◆ Identifying their inner strengths and hidden talents to boost self-esteem
- ◆ Developing literacy skills
- ◆ Develop effective communication and presentation skills
- ◆ Enhancing students' listening and concentration skill

## **DRAMA FOR PERSONAL GROWTH**

We recognise that drama is a powerful tool for building self-confidence, which in turn can lead to a more positive self-concept for our students. They are then able to express themselves, their inner feelings and demonstrate their talents in an entertaining and artistic way without inhibition.

Some of the activities in our drama classes help our students to enunciate words clearly and effectively convey their intended message. For example, activities such as role-play provide stimulation in learning conversational interaction. This is a language-based activity where learners are given the freedom to express themselves freely with the use of language while incorporating imaginative skills.

On top of that, some of our students are shy and do not have the confidence to use English in daily interaction for fear of being ridiculed. At the programme, we provide students with the platform to be able to safely express themselves whilst at the same time develop their language skills in a fun, creative and engaging manner.

Listening and concentration skills are vital for an actor. Classroom lessons targeting these areas range from role plays to stage performances. In these, students are required to understand the fundamentals of stage directions, character dialogues, music and light cues.

## **PERSONAL DEVELOPMENT**

We create opportunities for students to discover their strengths and weaknesses, organise their thoughts, attitudes and their feelings in the light of sharing their experiences with their peers. Furthermore, they also learn to work together, to cooperate, to contribute, and to listen to and accept the viewpoints and contributions of others.

## **CURRICULUM DEVELOPMENT**

The curriculum and lesson methodologies are influenced by the Multiple Intelligence (MI) Theory and Orton-Gillingham (OG) approach. By combining both approaches, we are able to identify and harness on a child's strengths while delivering the lesson in a manner friendly for dyslexics.

When the programme was first launched, we worked on a curriculum that had three stages; namely, Foundation, Intermediate and Advanced.

- ◆ Young Artiste (Foundation 20 sessions)
- ◆ Growing Artiste (Intermediate 20 sessions)
- ◆ Theatre Artiste (Advanced 20 sessions)

## **THE REVISED NEW CURRICULUM**

Moving forward, in 2014, the team revised the curriculum into a modular format. We planned a 1 year programme that will consist of 40 lessons. (Please see below the revised, new curriculum)

### **Rationale for this change**

- ◆ Limitations to student entry:

Previously, students are not able to enter the programme unless we have sufficient numbers to start a class at the foundation level. This change will allow us to accept new students with the existing group and regroup them according to their age groups.

- ◆ Insufficient manpower:

It is challenging to start new classes at the Foundational level as existing teachers are engaged teaching their existing classes and needed to see them through even though class sizes may be small.

## **CURRICULUM DEVELOPMENT PLANS FOR THE YEAR 2015**

### **SPEECH AND DRAMA ARTS & LITERACY THROUGH DRAMA CURRICULUM**

With a whole range of highly interactive and enriching modules, the SDA team plans to develop a new curriculum - "Literacy Through Drama" to meet the changing needs of our students. A description of the various modules are as follows:

## **SPEECH AND DRAMA ARTS CURRICULUM -**

### **DESCRIPTION OF THE 4 MODULES**

#### **Module 1:**

##### **Exploring Voice and Emotions through Coral Reading—Idioms and Phrases**

In this module, students explore the use of idioms and phrases in the English language. Through drama tools such as dialogues, tableaux, story crafting and reader's theatre, students learn to make meaning and apply idioms and phrases in appropriate areas of language usage.

#### **Module 2:**

##### **Dramatic Storytelling—Comprehension**

Comprehension implies understanding a given article. In this module, through the exploration of various stimuli such as posters, articles, poems and story passages, students learn the art of constructing thought processes to read between the lines and make meaning.

#### **Module 3:**

##### **Role Play and Improvisation—Vocabulary and Oral Communication**

In language usage, choosing the right word and using the right tense play an integral part. In this module, students actively learn the nuances of using vocabulary and grammar effectively through drama games and activities.

#### **Module 4:**

##### **Playbuilding Towards Performance—Scripting a Play**

The last module for this year, is a culmination of all the literacy skills acquired through the year. Students apply their language skills to create and deliver an original story through forms of drama.

A Certificate of Participation will be presented to all students upon completion of each module.



## **LITERACY THROUGH DRAMA**

### **DESCRIPTION OF THE 4 MODULES**

#### **Module 1:**

##### **Let Idioms and Phrases do the Talking—Idioms and Phrases**

In this module, students explore the use of idioms and phrases in the English language. Through drama tools such as dialogues, tableaux, story crafting and reader's theatre, students learn to make meaning and apply idioms and phrases in appropriate areas of language usage.

#### **Module 2:**

##### **Between the Lines—Comprehension**

Comprehension implies understanding a given article. In this module, through the exploration of various stimuli such as posters, articles, poems and story passages, students learn the art of constructing thought processes to read between the lines and make meaning.

#### **Module 3:**

##### **Tricks of the Trade—Vocabulary and Oral Communication**

In language usage, choosing the right word and using the right tense play an integral part. In this module, students actively learn the nuances of using vocabulary and grammar effectively through drama games and activities.

#### **Module 4:**

##### **Get the Show on the Road—Scripting a Play**

The last module for this year, is a culmination of all the literacy skills acquired through the year. Students apply their language skills to create and deliver an original story through forms of drama.

A Certificate of Participation will be presented to all students upon completion of each module.

## EVALUATING STUDENTS' PROGRESS

The SDA team has planned to use 2 different methods to evaluate the students.

First Method - overall skills learnt in the specific module

The method is by evaluating the students after each drama component is covered. Students will be evaluated on the last day of the specific lesson/ topics skills. Students will be evaluated on overall skills learnt in the specific level.

For example:

- ◆ Tableaux - on 3rd lesson,
- ◆ Miming - on 2nd lesson,
- ◆ Voice - on 3rd lesson... etc.

A progress report will be given to their parents upon completion of each module.

Students' Evaluation method:

- ◆ The use of a rubrics to evaluate for skills taught by the 10th lesson (1 module)
- ◆ Observations by teachers during class for lesson 1 - 5 and the final performance.
- ◆ Student Evaluation Form (Annex 1)
- ◆ How is the score tabulated? Rubrics (Annex 2)
- ◆ Finally scores are tabulated for individual students (Annex 3)

Second Method - Southampton Emotional Literacy Scale (SELS) Survey

Being a programme which promises to heighten self-esteem and self-confidence level of its students, SDA needs a tool to measure the efficacy of its objectives. The Southampton Emotional Literacy Scale was selected in Term 4 2014 to be the tool to measure our students' emotional literacy level. There is an increased awareness to discover students' strengths and weaknesses in the area of emotional literacy.

SELS touches two components;

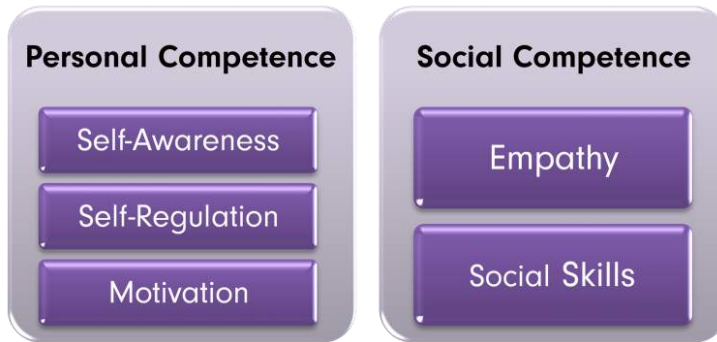
- i) personal competence and
- ii) social competence.

There are 3 types of checklists designed to assess the emotional literacy of our students;

- i) parent's checklist,
- ii) student's checklist and
- iii) teacher's checklist.

The checklists contain statements that seeks the views of the student, parents or care-giver and teacher on the emotional literacy of the student.

Table 1: Components covered in SELS



In Term 4 2014, the SDA team approached 27 parents of our students to participate in SELS but we were not able to carry out the survey with those affected students. As there were few responses and some of the students were almost completing the Speech and Drama Programme, the SDA team decided to collect data from our fresh students in Term 1 2015.

Moving forward, we strive to provide a programme that will improve the social-emotional competencies and the literacy skills of our SDA students. The SDA team is committed towards the continuous improvement of our specialised Drama programme catering to the specific needs of students with dyslexia.

## ENROLMENT

As of end 2014, there are a total of 28 students enrolled on the programme with an estimate of 5 of them receiving bursary support from the DAS.

With expansion in mind, the SDA team aims to increase its total intake to 40 students in the coming year.

### New Initiatives to increase the student enrolment - Trial Classes

To Increase the enrolment the SDA Team conducted trial lessons for prospective students in Bedok, Bishan and Jurong Point Learning Centres. The response from the parents was good. There was a total of 22 sign ups and 18 attendees for the trial lessons. The team intend to continue with this new initiative in the coming year.

## **TEACHERS TRAINING**

To meet the increasing demand for the new year, 5 trainee drama teachers completed a Professional Certification Course (PCC) in Speech and Drama Arts in 2014. With the addition of our new teachers, we are now able to open new classes at other centres like Bedok Learning Centre and also utilise their knowledge and training experiences during drama holiday workshops.

### **About The Training Programme**

The PCC was designed for the EDTs who wish to do their dual-specialisation in Speech and Drama Arts. The course provided the knowledge and skills required to teach Speech and Drama lessons.

Course Duration:

Total of 20 hours over 7 Fridays from 1 Aug 2014 to 23 Sept 2014 (there were breaks in between)

At the end of the course, there was a summative assessment lead to awarding competent learner with a PCC Certificate.

The assessment was based on:

- 1) Teaching Practicum - 25 minutes
- 2) Submission of a 1-hour lesson Plan
- 3) 500 words Written Journal

To further develop our SDA instructors professional qualification in the field, 2 Educational Therapists completed their Diploma in Educational Studies (Speech and Drama) in 2014.

In July 2014, Ms Aishwariyah (Asha), a Drama and Theatre Educator with 10 years experience in the field joined the team as a consultant. She has done extensive work with many cultural, arts and media organisations locally and overseas. Asha is currently working towards a Master of Education (Drama) at Nanyang Technological University (NTU). She has since written lesson plans for 2 modules, planned and executed the above-mentioned PCC for the new SDA teachers. In addition, she also started looking into creating a resource pack for programme.

## **WIDENING OUR REACH**

In term 2, 3 and 4 of 2014, we conducted three "Things I can do to Provide Support for my child (TIPS)" talk at our Tampines, Bishan and Rex Learning Centres. The topic covered "Effective Ways to Read with Your Child to Encourage Literacy Learning" was targeted for the parents of Primary School going children. The interactive and activity based talk was conducted for 90 minutes, ending with the question and answer session. The objectives and outline of the talk is as follows:

### **Objectives**

To enable parents of preschool and primary school going children to use effective storytelling and drama tools at home to address literacy development by improving oral language, reading and comprehension.

### **Outline**

- ◆ Discovering storytelling through drama as a powerful tool for literacy development
- ◆ Techniques to encourage children to appreciate good children's literature
- ◆ Learning how to select stories to interest and empower children
- ◆ Learning how to craft and tell stories using Drama as tool
- ◆ Encouraging children to re-tell stories
- ◆ Learning dramatic storytelling techniques

We have also opened up the SDA programme at our Jurong Point Learning Centre in term 3, 2014, with the intention of catering to our students residing in the west.

### **SDA Newsletter**

The team came up with a new Initiative to reach out to our DAS parents and Internal Staff - The SDA Newsletter.

## **CLOSING THE YEAR 2014**

Closing the year with a bang, SDA Staged an end of Year Performance with a total of 28 SDA students for 'Embrace Dyslexia' on the 20th of November 2014, at the NTUC Auditorium. The performance titled "Castaway" was the original story created by our students in Term 3 through improvisation and story building activities. The performance was then scripted, devised and directed by the SDA team.

After many hours of rehearsal, planning and preparation, our students made the SDA team proud with their wonderful performance. The experience provided our SDA students with a platform to prove their ability and showcase their unique talents.

SDA students then restaged the performance for an intimate audience of family and friends as a term end showcase on 22nd November 2014.

Finally, to conclude the year, the SDA team conducted a 10 hour Drama Holiday Workshop at Bishan Learning Centre, for a total of 18 students from both lower primary and upper primary levels from 24th to 27th November 2014.

## FEEDBACK FROM TEACHERS



**AMRIT KAUR GILL,**  
Educational Therapist & Drama Instructor

*"I am extremely delighted to share that majority of the students in the Speech and Drama Arts programme have shown great improvement in their communication and presentation skills. When they initially step into our program, they experienced difficulties in expressing themselves, managing their emotions and working together as a team. However, over the terms with our active learning approach in classrooms have proven to be beneficial to these students. They now demonstrate better articulation skills, and work well as a team. Credit goes to our teaching methodology that allows the students to express their thoughts and ideas confidently in a safe environment without any inhibitions. This positive change is indeed commendable."*



**MUZDALIFAH HAMZAH,**  
Educational Therapist & Drama Instructor

*"Reminiscing the time when the SDA Team had its first meeting back then in November 2012, our passion and dedication was focused towards building the social-emotional development of our students so that they would be 'bold and courageous' to pursue more successes in life. Today, our programme has developed further and groomed students in line with our initial objectives. Through the non-intimidating nature of Drama, our students experiment with roles and values, while gaining self-awareness and discovering their*

*own voice. Infused with stimulating activities, our programme promotes the active learning of literacy skills which benefits our students in different areas of development.*

*Honing their skills and being able to grade their progression each term is truly a privilege for me. Undeniably, it was not an overnight success story for these children. Our students had put in a lot of effort and hard work every lesson, alongside with their Drama Instructors. Kudos to their parents for being so supportive!"*

### **FEEDBACK FROM PARENTS - TESTIMONIALS**

*"Andie is more confident now. It is fun for the children."*

*"Andrew is more animated at home. Great way to build his self-esteem and confidence."*

*"My children are always excited to come for the Speech & Drama Arts class. Good Job Teachers!"*

*"My son is happy and enthusiastic to attend every drama lesson. He is gaining confidence".*

*"The programme has improved her memory and attention span".*

*"My son can express himself better now".*

*"Saturday is the day he will wake up early all by himself and look forward to the drama class"*

*"Her self-confidence is improving".*

*" He is more expressive now. It shows that the programme has positive improvement in my child".*

*" Alan wants to go for the drama class even if he is sleepy because he is enthusiastic about the programme"*

*" Cheryl is now more confident and better able to take turns"*

*"The programme has helped Albert's reading and pronunciation"*

*"I am impressed that the kids came up with their own 'play' ...so wonderful!!*

*"Andy looks forward to the next term of FUN"*

*"We can see confidence level has improved compared to last time"*

*"My son, attended the Speech and Drama Arts (SDA) programme since it first started in August 2013. He enjoys the interactions with other children, learnt language in creative ways and improved communications. I am pleased that DAS has started the SDA programme last year. Thank you for the initiative."*

*"The stage is Awesome but today's performance is Super Awesome!"*

*"The children have practiced very hard; Despite of the challenges they have, they managed to perform very well with confidence! Love it! "*

*"The teachers' seriousness, passion, patience and dedication are admirable too."*

*So proud of all of you! Salute! Thank you for your hard work and guidance to the children. "*

*"Interestingly, since he started the Drama program, Daniel's school teacher noticed his positive change in his attitude; he has become more cheerful and he is happy to learn. Daniel has since improved extensively in his overall result this year and he will be receiving the Edusave Good Progress Award this year. Thank you very much for all the encouragements and positive notes flown to Daniel."*

*"In 2013 he had the opportunity to act in a Tamil drama aired in the local television creating awareness about dyslexia supported by DAS. Last year he acted in a drama presented at the Embrace Dyslexia Event. These opportunities provided by DAS have definitely boosted his self-esteem and discover his talents."*

## **FUTURE DEVELOPMENT - SDA**

### **1) Building new curriculum for new 'Literacy Through Drama' programme**

The 'Literacy Through Drama' programme is an extension of Speech and Drama programme. This curriculum infuses the learning of the English language such as idioms and phrases, comprehension, vocabulary and writing with drama instruction.

Our Drama Instructors are not only trained to facilitate high energy drama classes but also professionally trained to provide literacy remediation to children with dyslexia. With the knowledge and experience of teaching literacy to dyslexic children, our teachers are actively involved in the building of this new curriculum. Lessons in each module are thought out carefully to meet the diverse group of



students who learn differently.

Objectives:

- ◆ to equip students with essential literacy skills
- ◆ to expand students' vocabulary bank
- ◆ to discover concrete meaning of words or phrases

It is very important not to confuse the Speech and Drama programme with Literacy Through Drama programme. Although both programmes involve the learning of the English language through Drama, the former focuses on drama and theatre skills, reading fluency, building self-confidence and self discovery, while the latter emphasises on the usage of the language using Drama activities as a tool.

## **2) Expanding SDA & LTD programme to more DAS centres.**

Currently, SDA & LTD classes are offered in these centres; Bishan and Jurong Point Learning centres. In the year 2015, we will be offering it in Bedok Learning Centre too.

## **3) Continuing with SELS survey and collation of data**

From parents' feedback, it is clear that SDA programme does bring positive change in our students. That is not sufficient to evaluate how well our students fare in emotional literacy. The team will continue to collect data from parents, students and Drama Instructors. With the data collected, the team hope it would provide purposeful information for us to support, encourage and intervene, where appropriate, in the social and emotional development of our students.

## ABOUT THE AUTHOR



### **PUSHPAA ARUMUGAM**

*Assistant Director, SES Enrichment Programmes*

*Pushpaa is the Assistant Director for SES Enrichment Programmes. She has years of experience conducting enrichment courses for Kindergarten, Primary, Secondary, Junior College and Tertiary students. Pushpaa has obtained her Bachelor of Performing Arts majoring in Drama & Theatre Studies at Monash University, Australia in 2004. She is a National Arts Council Theatre Grant Award Recipient for the years 2001 – 2003. She has also obtained a Diploma in Educational Studies (Enrichment Education), accredited by The College of Teachers, UK.*

*Here at DAS, we recognise Speech and Drama Arts as an effective means of developing our students' talents, and self-confidence. Pushpaa's objective is to provide a channel specifically for our dyslexic students to develop their language skills, express their inner feelings, and demonstrate their talents in a fun and artistic way.*

## SPEECH AND DRAMA ARTS PROGRAMME

### Specialised Educational Services

UNLOCKING POTENTIAL

The aim of the SES Speech and Drama Arts Programme is to develop literacy, communication and presentation skills and boost the self-esteem of learners with dyslexia. Drama can be a powerful tool to help students with learning differences.

#### OUR APPROACH

Using drama activities, students have the opportunity to enhance their persuasiveness and confidence in communication and is designed to help:

- Freedom of expression
- Use of imagination and creativity
- Communication skills
- Role-playing and stage performances
- Learn to understand, interpret and process script
- Exercise their working memory and processing speed

The students will also learn the fundamentals of stage directions, character dialogues, music and light cues. Class sizes are kept to a maximum of 10 students and are conducted once a week in a 1.5 hour session.



Find out more:  
[www.ses.org.sg](http://www.ses.org.sg)  
 6444 5700



#### RECOMMENDED FOR

Students with low self-esteem or low self-confidence, students who have difficulties expressing themselves as well as students who enjoy drama.

#### ENTRY CRITERIA

All primary school students are welcome to enrol.

*Specialised Educational Services (SES) is a division of the Dyslexia Association of Singapore.*



## SPEECH & LANGUAGE THERAPY

Children start to learn language from the day they are born. As they grow and develop, their speech and language skills become increasingly complex. Children with speech and/or language difficulties will find it difficult to express and make others understand what they want to communicate.

Children with dyslexia and other specific learning differences often have associated speech and language difficulties. These include delayed speech and language development, inaccurate articulation and poor language skills. The child may be intelligent but have a speech and language problem. This will slow down his learning and can be very frustrating for the child and his parents

DAS Speech and Language Therapists (SLTs) are qualified professionals who assess, diagnose and provide intervention for speech, language and communication-related difficulties in children. A Speech and Language assessment helps to find out if a child's speech and language ability is age-appropriate. It also identifies individual language strengths and weaknesses. An individual intervention plan is then tailored according to the profile of the child obtained from the assessment.

Depending on the child's needs, Speech and Language therapy is conducted individually or in small groups. SLTs aim to build up the child's fundamental speech and language skills to support his learning in school. Therapy is carried out in a child-friendly, lively and bright environment. Language is aided and enhanced through fun and functional activities.

DAS SLTs also provide awareness talks and workshops in the area of speech and language difficulties.

# Specialised Educational Services

## Speech and Language Therapy

Shuet Lian Ho and Joyce Tan

*Senior Speech and Language Therapist*

*Dyslexia Association of Singapore*

### SES SPEECH AND LANGUAGE THERAPIST TEAM

As of December 2014, there were five Speech and Language Therapists (SLTs) working at the Dyslexia Association of Singapore (DAS). Ms. Elizabeth Lim joined the team in July 2014 and obtained her conditional registration in early January 2015. She has commenced her practice as a newly qualified Speech and Language Therapist under supervision as stipulated by the Allied Health Professions Council (AHPC) in year 2015.

### SPEECH AND LANGUAGE ASSESSMENT

In year 2014, the SLT team had completed a total of thirty six speech and language assessments of which thirty assessments were funded by the Tote Board.

### STUDENTS' PROGRESS EVALUATION

This table shows the number of students who had attended speech and language therapy in year 2014.

Term 1	Term 2	Term 3	Term 4
79	94	98	92

25 students between 7-16 years old were randomly selected for progress evaluation. All of the students were funded by the Tote Board funded recipients. They attended one-hour individual weekly speech and language therapy from term 1 to term 4.

At the beginning of each term, an Individualised Intervention Plan (IIP) consisting of intervention goals (IIP goals) was tailored for each student base on the results obtained from standardised assessments and/or informal observations. Some examples of IIP goals are as follows:

- i. The child will be able to understand and follow two parts simple spoken directions with 80% accuracy in therapy setting
- ii. The child will be able to formulate semantically and grammatically acceptable sentences using connector 'and' in a structured activity with 80% accuracy in therapy setting
- iii. The child will be able to say the regular singular or plural form of pictured nouns with 80% accuracy in therapy setting

Their progress was measured at the end of each term according to the percentage of IIP goals they had achieved at the end of the term. Based on each student's progress and achievement, these IIP goals would be modified accordingly to facilitate learning of new speech and language skills before the new school term started. The table below shows the percentage of students who had achieved a certain percentage of IIP goals at the end of each term. These students had attended speech-language therapy from term 1 to term 4.

<b>% of students achieving</b>	<b>100% of IIP goals</b>	<b>90%-99% of IIP goals</b>	<b>80%-89% of IIP goals</b>	<b>70%-79% of IIP goals</b>	<b>Below 70% of IIP goals</b>	<b>Total</b>
<b>Term 1</b>	44	8	12	16	20	100
<b>Term 2</b>	24	12	20	28	16	100
<b>Term 3</b>	52	4	32	8	4	100
<b>Term 4</b>	8	13	54	21	4	100

The table shows that more than half of the students achieved 80% or higher of the IIP goals set in each term. There is a drop in the number of students who achieved below 70% of IIP goals over the four terms.

4% of the students achieved below 70% of IIP goals in term 3 and 4 due to unexpected slow progress as a result of missing a few therapy sessions. These students did not attend therapy because of medical reason or school.

The SLTs were not only concerned about the students' speech and language skills but also their emotional well-being. At the beginning of term 1, all students were asked to complete a pre intervention assessment of their self-esteem. The same assessment was done at the end of term 4. Findings as follows:

At the end of term 4,

	Higher rating	Same rating	Lower rating	Total
% of students showed	32	24	44	100

More than half of the students rated their self-esteem as either higher or the same at post intervention. On the other hand, after attending speech-language therapy, some students were more aware of their shortcomings in their communication and language skills. This may have contributed to a lower self-rating of self-esteem post intervention.

## WORKSHOPS AND TRAINING EVALUATION

Apart from the regular assessment and therapy, DAS Speech and Language Therapists were also actively involved in providing training and raising public awareness. Training was provided to both DAS staff as well as to the public.

### FOR STUDENTS—SOCIAL SKILLS WORKSHOPS

Looking at the success of the first run of social skills workshop in 2013, the Speech and Language Therapy team decided to conduct the workshop again in 2014. A total of four workshops were conducted. Much effort was put in to publicise the workshops by the workshop team. Flyers were placed on the notice boards of the

learning centres as well as published in the Parents' Newsletter and DAS quarterly magazine, FACETS. The parents and Educational Therapists were also notified via email. The details of the workshops were summarised in the following table:

<b>Speech and Language Workshops 2014</b>		
<b>Date</b>	10-13 June 2014	1-4 December 2014
<b>Location</b>	Parkway Parade Learning Centre	Jurong Point Learning Centre
<b>No of participants</b>	12	12
<b>No of participants who received bursary</b>	1	5
<b>DAS SLTs</b>	Ms. Choo Ling Fong Ms. Sharon Reutens	Ms. Choo Ling Fong Ms. Ho Shuet Lian

### **Contents of workshop**

Participants learnt about social skills that are important for him or her to become more confident in holding a conversation, being a good friend and a good team player, as well as how to manage anger and bullying. The children were engaged through interactive discussions, specially planned games and reflective activities appropriate for their age group.

Summary worksheets were completed by the participants during each session to reinforce concepts learned. Parents were also kept informed of what was covered during the sessions, their child's progress and opportunities for improvement through a comprehensive feedback letter at the close of the workshop.

### **Participant Profiles**

Majority of the participants joined the workshop with a fair sense of social skills knowledge. However, they needed practice and some guidance to apply their social skills knowledge appropriately in social situations. The students particularly enjoyed using the SMART board for hands-on activities.



### **Students' feedback**

- ◆ They enjoyed the games and the videos.
- ◆ They were happy to receive prizes and individualised certificates highlighting their specific strength (e.g., Brave in speaking up, Helpful friend) at the end of the workshop.

### **Parents' Feedback**

- ◆ Parents appreciated the summary of their child's performance because they knew what areas to follow up on after the workshop.
- ◆ One parent was glad that the facilitators also reinforced good sitting (not listed as goals of workshop) as her daughter had difficulties doing so (would fidget or slouch in seat and distract her friends).
- ◆ One parent revealed that her daughter is usually anxious in social situations, especially with new people and settings; but was very glad to see her responding positively in the workshop.

## **FOR DAS STAFF**

### **Mentoring Insets (Overview on Speech and Language Therapy)**

The Mentoring Inset on an Overview on Speech Language Therapy was held on 12 August 2014 at Rex House.

Ms. Sharon Reutens, Speech and Language Therapist shared with 10 new Educational Therapists on Speech and Language development, difficulties that children with speech and language impairment encounter and characteristics of language impairment as compared to children with English as a second language. She also covered administrative procedures on how to make referrals to Speech and Language Therapy and the availability of bursary for eligible children.

All 10 participants agreed that they would recommend a repeat of this mentoring to new staff. Participants appreciated the "referral procedures, warning signs or symptoms of speech/language impairments that should be of concern" and "The sharing of sample work from students in the SLT class". All surveyed participants rated the lecturer as "good" or "very good" across aspects such as knowledge on subject matter, clear communication of ideas and concepts and rapport with participants.

Sharon shared an example of a misunderstanding that happened in a conversation as the child has difficulty discriminating similar sounding words (e.g. fall v's fault):

Teacher: Why are you late for class?

Child: The train (MRT) very slow lah. It said a train **fall** from the railway.

Teacher: You mean the MRT fell off the track?

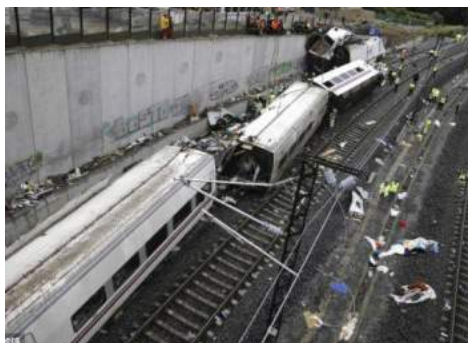
Child's classmate: How can it be? You mean the MRT fell off the railway and hit the cars on the road?

Teacher: This must be a very serious accident.

Child: I don't know lah!

Teacher: Do you mean that the announcement said that there was a train fault?

Child: Yah, I think is a train **fault**.



An important piece of feedback given by the participants who had already attended the Certificate in Speech & Language Impairment Course prior to the mentoring inset, is that, though it was a good review of what was covered in greater detail previously, more emphasis could have been placed on in-house procedures, co-morbidities and practical strategies.

## FOR OTHER PROFESSIONALS AND PARENTS

### Certificate in Specific Learning Differences (SpLD)

The Certificate in Specific Learning Differences (SpLD) is a Professional Certificate Course run by DAS Academy. It comprises 15-hours of in-class lectures, a 4-hour teaching practicum, an individual assessment of live observation and a teaching portfolio.

On 27 November 2014, Ms. Sharon Reutens, Speech and Language Therapist, conducted the module on "Working with the child with speech and language

difficulties”, covering basic intervention strategies to support students with common speech and language issues. Participants were introduced to an understanding of the child’s needs at various levels, classroom accommodations and management and using assistive technology. This was followed by a case study to apply the knowledge learnt.

This inaugural run of the course was attended by 2 participants. Both participants gave favourable feedback on the content of the course, knowledge of all trainers, their ability to communicate ideas and concepts, respond to questions and rapport with participants. One participant commented that the course “helped me to think out-of-box to manage children”.

### **Certificate in Understanding Speech and Language Impairment**

The Certificate in Understanding Speech and Language Impairment is a certificate course run by DAS Academy. It is a 12-hour course conducted over two Saturdays and covers topics such as assessment, intervention for communication difficulties and classroom strategies.

In 2014, Ms. Sharon Reutens and Ms. Choo Ling Fong, Speech and Language Therapists, conducted two runs in May/June (26 participants) and November/December (13 participants) as joint lecturers. The lecture slides were revamped to streamline the content and to include more videos and examples that would be applicable to participants, and the revision of the assignment to a case study instead of a journal review provided participants an opportunity to apply the knowledge learnt and receive constructive feedback from the lecturers.

Based on the November/December run, all 13 participants agreed that they would recommend this course to others. Comments from participants included "Highly educational, engaging and fun", "superbly informative". 90% of surveyed participants rated the lecturers as "good" or "very good" across aspects such as knowledge on subject matter, clear communication of ideas and concepts and rapport with participants. One participant remarked, "I never knew the existence of speech and language impairment until I attended this course. Thankful for Ling Fong and Sharon for being patient and understanding. I really appreciate that you have explained my wrong answer clearly diplomatically and without putting me or anyone down".

Due to the positive collaboration and heartening feedback received in 2014, the DAS Speech and Language Therapy team has been invited by the DAS Academy to be lecturers again in subsequent two runs of this course in 2015 (July/October 2015).

## **PRESCHOOL SEMINAR 2014**

The Preschool Seminar 2014 was held on 5 July 2014, at the Health Promotion Board auditorium from 9:30a.m. to 1:00p.m. The panel of DAS speakers showcased a multi-disciplinary team of preschool educational therapists, speech-language therapists, an educational psychologist and an occupational therapist. The event was met with an exceptional reception as it was sold out with 200 registrants.

Ms. Jessica Drake, Senior Speech and Language Therapist, shared the developmental milestones of a preschooler, with a focus on communication skills, as the first speaker. Ms. Ling Fong, Speech and Language Therapist, concluded the seminar with a talk on speech-language therapy, covering the different aspects of communication, communication difficulties that may be encountered by children, and how speech-language therapy can help.

Of the 112 participants who gave feedback on the seminar, 99% felt that they would recommend this seminar to someone else. 96% of surveyed participants rated Jessica "excellent" or "good" as a speaker. 98% rated Ling Fong as "excellent" or "good". Post-seminar, there were several members of the audience who came forward with questions for Jessica and Ling Fong, suggesting a keen interest in finding out more about speech-language therapy. Two referrals for preschool speech and -language therapy at the DAS were also received after the seminar.

Ms Choo Ling Fong is scheduled to deliver another sharing session on "It takes a village to raise a child: Developing a child's speech & language abilities" during the Preschool Seminar in April 2015.

## **Talk for Allied Educators (AED)**

The AED from North 1 cluster extended an invitation to the DAS Speech and Language Therapists to conduct a talk for their professional development. A professional sharing on reading fluency and comprehension strategies was conducted by Ms. Joyce Tan, Senior Speech and Language Therapist, on 1 August 2014. Feedback from the AEDs was very positive. They felt that the strategies provided were useful, stating the information shared as "clear, insightful and practical". They were encouraged to attend the DAS workshops run by the DAS Academy to further their knowledge.

## **Lecture on Speech and Language Impairment for MA SEN Students**

Once again, the DAS Academy invited the DAS SLTs to share their expertise on Speech and Language Impairment for the students in the Master of Arts in Special

Educational Needs (MA SEN) programme. On 11 September 2014, Ms. Joyce Tan, senior Speech and Language Therapist, conducted a 2-hour lecture, covering typical speech and language development and characteristics of speech and language impairment with some local examples provided. Based on the evaluation form, all the participants rated the speaker with either very good or good on knowledge of the subject matter, practicality and relevance of contents, communication of ideas and responsiveness to questions.

### **Signposts for Building Better Behaviour**

The Signposts programme was conducted at the DAS Academy in October-November 2014. Ms. Ho Shuet Lian, Senior Speech and Language Therapist attended the Signposts Facilitator Training at the Social Service Institute in July-August 2014 so that she is equipped with the skills and knowledge to conduct the in-house Signposts programme. Senior Educational Therapist, Miss Anita Pereira and Shuet Lian worked hand-in-hand to impart behavioural management skills to parents and carers. Sixteen participants were full of enthusiasm to learn and share their experiences and challenges in managing the difficult behaviours of their children. The sessions were interactive and interesting with plenty of discussion amongst the participants and the Signposts facilitators.

The five-week course was a fruitful and rewarding experience for both the facilitators and the learners. It was a successful interdepartmental collaboration between the Educational Therapist team and the Speech and Language Therapist team. In view of the benefits reaped from interdepartmental collaboration, Shuet Lian is scheduled to conduct another run of Signposts programme together with the assistant director, Ms. Lois Lim from the MOE-Aided DAS Literacy Programme (Admissions) in April/May 2015.

### **Speech Therapy Week - Raising Public Awareness**

Speech-Language Therapists all around Singapore celebrate the Speech Therapy Week in the first week of November annually. During this week, various forms of activities to raise the public awareness of what this profession entails were held. This year, The Cerebral Palsy Alliance Singapore (CPAS) invited DAS Speech and Language Therapists to present a talk at a public forum on 1 November 2014. The theme was "Communicate: Join the Conversation", which highlighted the main focus of every SLT's work.

A series of awareness talks by experts in their respective fields were scheduled for the day. Joyce Tan, Senior Speech and Language Therapist, shared on early language and development. The talk was well-received, with a few parents and

teachers coming forward to ask about the programmes available at the DAS.

## **PARENT TESTIMONIAL**

### **1. How was J like before attending SLT at the DAS?**

J could not pronounce the long words and remember what she has heard in the conversation. She didn't understand the meaning of the sentence, especially the content didn't relate to the things she has experienced. She was very poor in grammar and could not form a sentence completely by herself. She lost her attention in every 3-5 minutes.

### **2. What do I like about her SLT class?**

J likes the lessons which conducted by Joyce very much. She likes Joyce draw and wrote things on the paper when Joyce talked to her nicely. She likes the games at end of the class. She likes everything in SLT class.

### **3. How has J changed over the years with SLT intervention in terms of:**

#### **i) Communication?**

J can form a simple sentence with the right grammar now. She can speak more confidently and willing to express herself by language instead of hard actions. She can follow the game rules better than before. She can pay attention on the interesting thing for a long time.

#### **ii) School work?**

J still has the gaps to catch up with the school work. But she tried harder and shows more interest in school work than before. Her English Oral exam is getting better score.

### **4. How have you benefited from the SLT class observation as parents?**

As a mother, I learnt how patient I should be in order to get J to think and study. Also the Technics, e.g. using more pictures and body language to get J's attention and interests on the things. Need to remind myself to take slower path with J instead of rushing.

## **CONCLUSION**

It has been a fruitful and fulfilling year for the SLT team. The team will continue to explore ways to measure the effectiveness and efficiency of the SLT intervention. They also see the importance to educate parents, teachers and other professionals to raise awareness on speech and language impairment as well as the role of oral language in literacy development. The team places a huge emphasis on the quality of their work and will continue to strive to improve their clinical skills through attending relevant training courses and consulting the experts on speech and language issues.

## **ACKNOWLEDGEMENTS**

Special thanks to Ms. Sharon Sandra Reutens and Ms. Choo Ling Fong for their contributions.

This report is written by Ms. Joyce Tan and Ms. Ho Shuet Lian

## ABOUT THE AUTHORS



### **SHUET LIAN HO**

*Senior Specialist Speech and Language Therapist*

*Ho Shuet Lian works at the Dyslexia Association of Singapore (DAS) as a Senior Specialist Speech and Language Therapist. She received her training, an MSc (Speech and Language Pathology) from the National University of Singapore, and has a Master Degree of Business Administration (with Distinction) awarded from the University of Leeds. She is a member of Speech-Language Hearing Association Singapore (SHAS) and is Allied Health Professions Council Registered (AHPC).*

*She provides speech/language/communication assessment and intervention services to children with specific learning differences. Her clinical experience includes working with children between the ages of 5 and 16 years. In addition, she provides advice and clinical support to Educational Therapists and newly qualified Speech and Language Therapists at the DAS. She also gives advice to parents on speech/language/communication issues. She conducts Social Skills workshops as well as give public talks on speech / language / communication difficulties faced by children with specific learning differences.*



### **JOYCE TAN**

*Senior Specialist Speech and Language Therapist*

*Joyce was a Senior Speech-Language Therapist at the Dyslexia Association of Singapore. She has a sincere desire to help children and adolescents communicate more effectively. She believes in a collaborative and holistic approach to maximise the growth and development of each individual she works with. Her warm, patient and compassionate personality allows her sessions to be carried out in a lively and comfortable environment.*

*Her clinical experience includes providing assessment and therapy intervention to children and adolescents with specific learning differences, language impairment, speech disorders and fluency disorders from the age of three to 16 years. Her work involves intervention in an individual as well as group settings. Her previous experience as a Behavioural Therapist complements her current skills to handle difficult behaviour well.*

*Apart from her work with the children, Joyce also values her work with the parents and the other professionals. She has provided supervision to university SLT undergraduates as well as newly qualified speech-language therapists. In addition, she delivers talks and workshops to parents, teachers and other academic professionals. Joyce is a member of SHAS and is registered under AHPC*



**APPENDIX 1 – INDIVIDUALISED INTERVENTION PLAN (IIP)**



**DYSLEXIA ASSOCIATION OF SINGAPORE  
SPEECH AND LANGUAGE THERAPY**  
Individual Therapy - Toteboard Funded

**INDIVIDUAL INTERVENTION PLAN (IIP)**

Student's name:

Student's BC no:

Speech and Language Therapist in-charge:

Learning Centre:

Frequency of intervention:

Period of intervention:

Educational level in school:




Home language:

Date of plan:

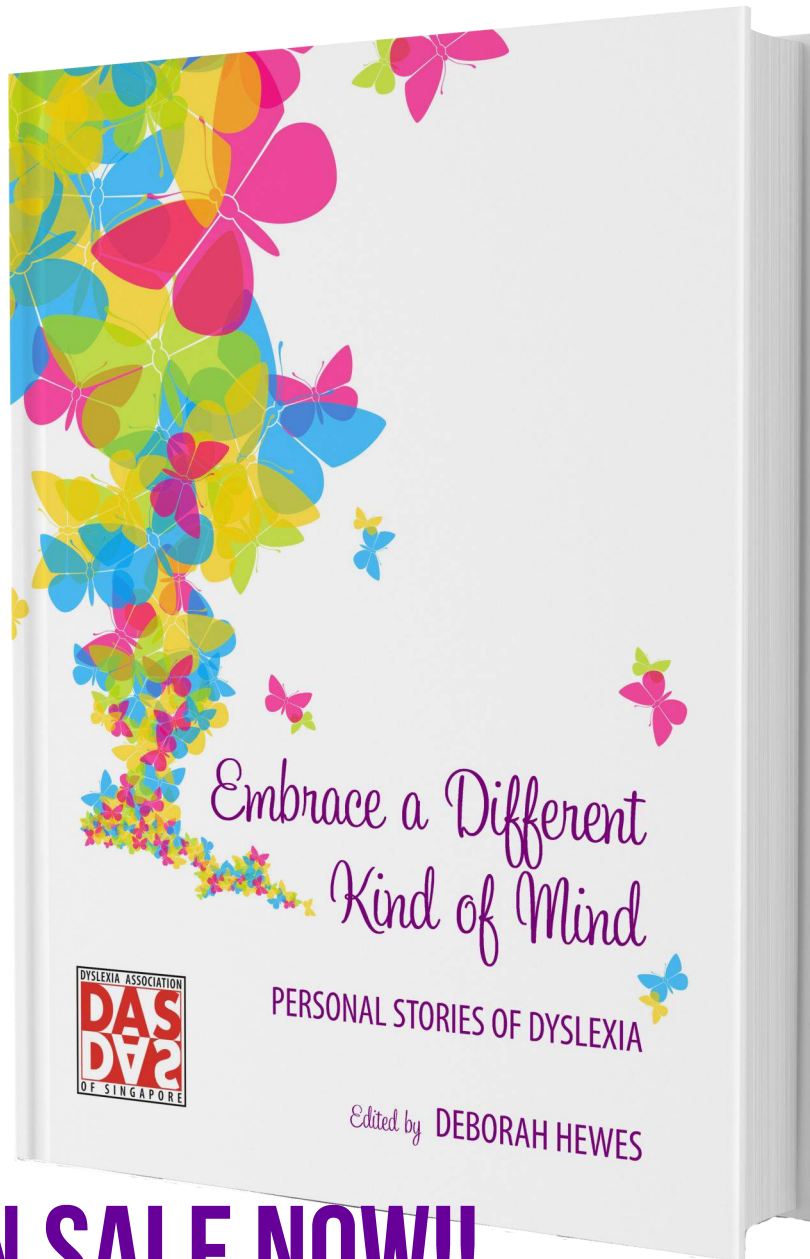
Long Term Goal	Status at the end of funding (1 year)
(Student) will be able to effectively use his speech and language skills to access the MOE-aided Literacy Programme at DAS	
IIP Goals	Term 1
Receptive Language	
Expressive Language	
Grammar	
Vocabulary	

Remarks (e.g., reasons for early discharge)

**APPENDIX 2 – SELF-ESTEEM ASSESSMENT**

Name:			Date:	
BC No.:			Term:	
				
	Yes	Some- times	No	Points
1. I am happy				
2. I am useless at lots of things				
3. I am a good friend				
4. I am lonely				
5. I am good at some things				
6. People listen to me				
7. People like me				
8. I am unhappy being me				
9. I feel bad about myself				
10. I have lots of good points				
Total				

*Adapted from Talkabout Relationship—Building Self Esteem and Relationship skills  
by Alex Kelly pg 34*



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