BILINGUAL EDUCATION
in Singapore

欢迎

நல்வரவு

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WELCOME

Contents

WELCOME

SELAMAT DATANG

நல்வரவு

欢迎

Empowering Every Learner in Their Bilingual Journey

In multilingual Singapore, bilingualism is not just an educational goal but a way of life that connects us to our heritage and the world. However, contrary to conventional wisdom, children do not become bilingual just by being in a bilingual setting. Many continue to face challenges in developing both English and their Mother Tongue Languages (MTLs) in a balanced way, making bilingual education a continuing priority for educators, parents and policymakers. Over the decades, sustained national efforts—from the regular 10-year reviews of both English and MTL curricula to language campaigns and community events—have sought to address these challenges. These initiatives, together with ongoing local research, have greatly deepened our understanding of bilingual teaching and learning. This issue brings together the latest findings and classroom innovations aimed at better supporting the next generation of bilingual learners.

The Research in Action article presents insights and practical implications from the latest findings of the longitudinal GiBBer project, or short for "Growth in Bilingual & Biliteracy Proficiency: Environmental, Individual & Experiential Factors". Led by Dr Beth O'Brien, the study tracks children's bilingual development from Kindergarten to Primary 4, shedding light on key trends in language and literacy growth, individual learning differences and the challenges faced by young learners.

In the People article, Professor Annabel Chen shares what recent neuroscience reveals about bilingualism and the learning brain. Her research shows that bilingualism supports brain health and can benefit children with learning difficulties. This article highlights key findings from brain imaging studies, debunks common myths and offers practical, evidence-based strategies for supporting diverse bilingual learners.

What does bilingual education look like in practice? In the Classroom Perspectives article, Mdm Christine Lee and Mdm Charlotte Sng—Heads of the Mother Tongue Languages and English Language departments at Admiralty Primary School, respectively—share how findings from the GiBBer project have informed their classroom teaching. They describe how evidence-informed strategies, such as targeted vocabulary instruction, phonological awareness support, multimodal activities and intentional questioning help bridge language gaps and build learner confidence. Their stories highlight the power of research-practice partnerships in everyday teaching.

Learning to read is an important milestone for children, and achieving literacy in two languages makes this accomplishment even more remarkable. As educators and researchers, it is essential that we stay attuned to current research and continue exploring various dimensions to provide equitable, engaging and fruitful learning experiences for all learners.

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Rethinking Bilingual Education
in Multilingual Singapore

Supporting bilingual development goes beyond language lessons in school—it requires a strong ecosystem where research guides practice, teachers are attuned to their students' diverse language backgrounds and families actively foster meaningful language experiences. Dr Sun Baoqi, from NIE's Centre for Research in Child Development, Office for Research, and Education Research Funding Programme Office, shares how Singapore's language curriculum is moving beyond exam-focused learning and highlights key strategies that support bilingual development both inside and outside the classroom.

SHIFTING THE FOCUS BEYOND EXAMS

"In recent years, there has been a noticeable shift in the language curricula for both English and the Mother Tongue Languages (MTLs) in Singapore," Dr Sun Baoqi says. "We are moving away from an exam-focused approach towards one that places greater emphasis on holistic language development and lifelong language use."

One key aspect of this shift is the early cultivation of a love for reading. She notes that primary schools are implementing morning reading sessions, in-class guided reading, curated booklists and enrichment activities—all thoughtfully designed to enrich students' reading experiences.

"It is important to make the reading experience engaging and rewarding. When children find joy in reading, they will begin to associate the language with pleasure and discovery, rather than with pressure or rote learning," she explains.

Early reading also builds a strong foundation for later literacy and academic achievement. "I'm especially encouraged by how reading is being used as an early intervention strategy at Admiralty Primary School, as highlighted in the 'Classroom Perspectives' article (page 9 of this issue)," she says.

In addition to traditional methods, schools are also leveraging technology to spark students' interest in language learning. E-platforms such as the *Mother Tongue Language Learning Portal* and *Student Learning Space* have been integrated into classroom practice.

"The digital tools on the e-platforms offer videos, games and quizzes, which are developed in alignment with curriculum content and help reinforce language input," she shares. "Many activities on the e-platforms are also designed to accommodate different learner profiles, support differentiated learning and make language more accessible to all students."

THE CHALLENGES OF TEACHING MOTHER TONGUE IN THE SINGAPORE CONTEXT

However, challenges in MTL learning remains. Baoqi outlines three reasons that account for the decline in students' MTL proficiency as compared to English.

"Firstly, as English becomes the dominant home language in many households, children receive less MTL input outside of school," she shares.

The second reason is that in schools, English typically receives more curriculum time than MTL. "At the preschool level, some children may not even be taught by a teacher who speaks their specific MTL," she adds.

Thirdly, high-quality and engaging MTL materials that match children's proficiency levels are less readily available compared to English. Thus, this makes it harder for students to access suitable content and build confidence.

"Some students may perceive learning MTL as more difficult than English, and in turn, feel less motivated," she comments.

This presents two key challenges for teachers—sustaining students' motivation while also addressing the diversity in their language backgrounds.

"As more children grow up in English-dominant homes, teachers increasingly face wider variation in students' MTL proficiency within the same classroom," she explains. "This poses great pedagogical demands for teachers to design differentiate instructions and materials that cater to a broad spectrum of language abilities."

THE IMPORTANT ROLE OF EDUCATION RESEARCH

Baoqi stresses the importance of keeping up to date with the latest evidence-based and effective pedagogical strategies that enhance teaching efficacy.

"For example, neuroscience research helps us understand how bilingual brains develop and process multiple languages. In the 'People' article, clinical neuropsychologist Professor Annabel Chen shares how neuroscience research has been pivotal in shaping more targeted, evidence-informed strategies that support students with neurodevelopmental conditions (page 12 of this issue)," she elaborates.

She also stresses the need for education research to move beyond monolingual instructional approaches, pointing out that MTL and English instruction have traditionally been delivered in isolation, with little reference to each other.

"While this helps with language-specific development, it overlooks the fact that bilingual children naturally draw cross-language connections as they process and acquire both languages," she remarks.

She cites an ongoing NIE project that explores the effectiveness of a synchronized bilingual reading programme. The project uses thematically matched books in English and MTL to give children rich opportunities to acquire context-specific vocabulary in their two languages concurrently.

"By intentionally drawing connections between the two languages, the programme aims to strengthen vocabulary development, especially in the child's weaker language. Preliminary findings suggest that this approach not only boosts curriculum-related vocabulary knowledge but also promotes greater use of their weaker language," she shares.

Looking ahead, Baoqi expresses the need for more robust and inclusive local research that reflects the realities of Singapore's multilingual context. "To provide evidence that is truly relevant to our learners, more research attention should be given to Malay- and Tamil-speaking children, and studies that include all three MTL groups are especially valuable," she asserts.

SUPPORTING BILINGUALISM AT HOME

Beyond the school and classroom, Baoqi emphasizes that parental involvement is critical in sustaining bilingualism. When parents demonstrate a positive attitude toward a language, children are likely to model that behaviour.

"Parents' beliefs and attitudes towards a language can significantly shape how a child perceives and engages with it," she notes.

To help foster a rich language and literacy environment at home, Baoqi encourages parents to build simple, consistent habits—such as regularly borrowing books from the National Library Board (NLB) and weaving bilingual elements into daily routines.

"For instance, cooking traditional dishes while explaining the process in the MTL can provide practical and contextual learning. Similarly, reading stories or watching shows and films in the MTL can enhance vocabulary and comprehension in a fun and engaging way," she adds.

She also urges parents to be open to learning alongside their children. "There is a Chinese proverb that goes '言传不如身教', which means 'actions speak louder than words'," she remarks. "By actively participating in the learning process and overcoming language barriers themselves, parents not only enhance their own language skills but also serve as powerful role models." ∎

ABOUT THE GUEST EDITOR

Dr Sun Baoqi is Senior Research Scientist from NIE's Centre for Research in Child Development, Office for Research. She is also Deputy Director (Academic) of Research Management at NIE's Education Research Funding Programme Office. Her research encompasses socio-cultural-cognitive and policy perspectives on language learning with particular focus on children's bilingual education and biliteracy development. Her interdisciplinary training enables her to incorporate diverse research approaches into her work, contributing to applied linguistics, literacy studies and general educational research.

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Tracking Bilingual Growth:
What We've Learnt from GiBBer So Far

Now in its fourth year, the longitudinal GiBBer project—short for Growth in Bilingual & Biliteracy Proficiency: Environmental, Individual & Experiential Factor—offers fresh insights into how Singaporean kindergarten to primary school children learn English and their Mother Tongue, and what this means for bilingual education in our classrooms. This article is an extension of *SingTeach's* first coverage of the GiBBer project led by NIE Principal Research Scientist Dr Beth O'Brien that was published in 2023.

A CLOSER LOOK AT BILINGUAL GROWTH

When it comes to bilingual education in Singapore, one question has long lingered in the minds of educators and parents alike: how do children really develop proficiency in two languages over time? To answer this, the *GiBBer* project has been closely tracking the language development of children from Kindergarten 1 to Primary 4 across three different Mother Tongue Language (MTL) groups.

Spearheaded by Dr Beth O'Brien who is also Deputy Director at NIE's Centre for Research in Child Development, the study is now yielding key findings that shed light on the real-world challenges of bilingual learning, and what educators can do to support it more effectively.

HOW CHILDREN'S LANGUAGE SKILLS GROW

Preliminary results from the GiBBer study show that children do make steady progress in both English and their MTL over time. However, across all age groups studied (K1–K2, P1–P2 and P3–P4), a consistent pattern has emerged: children tend to perform better in English than in their MTL.

"Some children show similar growth rates in both languages, but others are progressing faster in English,"

Beth shares. "This reflects what we already suspect—that English is becoming increasingly dominant in children's environments, both at school and at home."

Interestingly, while oral language skills such as vocabulary grow at a steady rate across age groups, the development of literacy skills such as word reading shows a different trend. Primary school children display more consistent progress in literacy than preschoolers, with less variation across the group. "This might be because the primary school setting provides more structured support for developing biliteracy," Beth explains.

WHY SOME CHILDREN LEARN DIFFERENTLY

Beyond overall trends, GiBBer has also uncovered individual differences in how children learn. While some children progress steadily in both languages, others show a noticeable gap in proficiency or diverging rates of growth.

Children who are stronger in English also tend to do better in their MTL, suggesting that some underlying language learning abilities may benefit both languages. However, there are key cognitive differences amongst learners too.

"In our sub-project on low-progress learners, we found that these children showed some similarities with their

peers, for example in working memory skills," Beth explains. "But they showed some weaker cognitive skills in retrieving verbal labels and implicit learning, which are important for language acquisition."

These findings highlight the importance of identifying individual learning profiles—and supporting them with differentiated instruction that meets learners where they are.

THE CHALLENGE OF MOTIVATION AND RESOURCES

So what makes bilingual learning so difficult for some children? One recurring issue is the perceived gap between English and MTL proficiency. "Children are very aware of how they perform in both languages," says Beth. "If they feel that MTL is harder or less useful, they may become less motivated to learn it."

This challenge is compounded by the uneven availability of resources. "There's an abundance of English books, videos and learning apps," Beth notes, "but it's much harder to find engaging and age-appropriate MTL materials, especially outside of the classroom."

This lack of exposure limits children's opportunities to practise their MTL, reinforcing the imbalance in language proficiency.

SUPPORTING CHILDREN IN THE CLASSROOM

Despite these challenges, there are clear ways teachers can help. Beth points out that the current MTL curriculum already places strong emphasis on intrinsic motivation and foundational language skills. Building on this, teachers can keep children engaged through fun, interactive learning and help boost confidence with strategies that target key skills such as phonological and morphological awareness.

"Helping children make cross-linguistic connections is also important," she adds. For instance, narrative writing in both English and MTL tends to follow a similar structure. Teachers can tap into this similarity—allowing children to plan stories in their stronger language before expressing them in their weaker one—to lighten cognitive load and build success.

Teachers can also play a role in curating and sharing high-quality MTL resources with families, ensuring that language exposure continues beyond the classroom.

WHAT'S NEXT FOR BILINGUAL RESEARCH?

As GiBBer continues into its final year of data collection, Beth sees several avenues where more research is urgently needed.

"First, we need more intervention studies," she says. "We're building a good understanding of developmental

trajectories, but now we need to test what kinds of support work best—and for which groups of learners."

She also notes the need to better understand how bilingualism develops across all three MTLs, especially for Malay and Tamil. "Right now, the bulk of research focuses on Chinese, so we don't have a complete picture."

Finally, the home environment deserves closer attention. While it's clear that home use of MTL supports bilingual learning without hindering English development, more work is needed to unpack the role of parental attitudes, quality of language interactions and literacy habits at home.

A LONG GAME WORTH PLAYING

The takeaway? Bilingual learning is a slow and sometimes uneven process—but it's a process worth investing in.

"Children don't all develop in the same way, and different approaches may be needed at different stages," Beth reflects. "What matters is that we stay patient, curious and committed—so we can help every child reach their fullest bilingual potential."

As more findings from GiBBer emerge, one thing is clear: with the right support, Singapore's young learners can grow into confident, capable bilinguals—ready to thrive in an increasingly multilingual world. ∎

Scan the QR code to revisit **our earlier coverage of the GiBBer project, first featured in *SingTeach* in 2023.**

ABOUT THE INTERVIEWEE

Dr Beth O'Brien is Deputy Director, Centre for Research in Child Development (CRCD), Office for Research at the National Institute of Education, Singapore. She is the Principal Investigator of an NIE research project titled Growth in Bilingual & Biliteracy Proficiency: Environmental, Individual & Experiential Factors (GiBBer).

Insights from GiBBer:

Bridging Language Gaps in the Classroom

Despite English being the primary language of instruction, many students in Singapore face challenges with writing and speaking in standard English. At the same time, Mother Tongue (MT) teachers are playing an increasingly vital role in nurturing students' proficiency in their MTs, as these languages are being spoken less at home. To better understand children's growth in English and MT languages, the GiBBer project, short for Growth in Bilingual & Biliteracy Proficiency: Environmental, Individual & Experiential Factors, was launched in 2021. Two teachers from Admiralty Primary School—one of the participating schools in the project—each share their experiences and insights.

INFORMING PRACTICE THROUGH EVIDENCE

One of the key aims of the large-scale longitudinal GiBBer project is to establish a set of benchmarks for Singaporean children's EL and MTL proficiency from Kindergarten 1 to Primary 4, along with the development of a range of measurement tools useful for tracking children's progress in literacy learning.

Mdm Christine Lee, Head of Department of Mother Tongue Languages at Admiralty Primary School, shares that the initial report from the GiBBer project gave her and her colleagues a broader overview of students' language proficiencies across the three MT languages.

"We could actually see where the students differ in language domains, such as phonological awareness or vocabulary skills," she says. "The findings spotlighted areas where students were lagging behind and helped us prioritize addressing them."

Participating in the project has provided the school with clearer insights into the interventions and strategies needed to scaffold student learning in MTLs. "With this evidence in hand, it becomes easier to motivate teachers to adopt evidence-informed approaches that more precisely address the specific learning gaps that students face," she adds.

BRIDGING GAPS IN LANGUAGE LEARNING THROUGH TARGETED INTERVENTIONS

The GiBBer report highlights two language domains that require urgent attention—students' level of phonological awareness and vocabulary skills.

"Findings from the project confirm our observations that some students are facing challenges with the complexity of the Chinese logographic writing system, where characters are represented by symbols rather than letters," she explains.

From left to right: Mdm Christine Lee and Mdm Charlotte Sng.

In Tamil and Malay languages, the spoken and written varieties of the languages differ from one another, thus adding a layer of complexity in early language learning. "Malay language speech sounds can differ from the way it is spelled. This means that some students studying the Malay language do face phonological confusion due to the differing pronunciations, thus affecting their spelling," she remarks.

She also adds: "The GiBBer findings show that foundational Tamil Language learners struggle with phonological awareness, impacting their decoding and reading fluency. This highlights the need for early intervention and explicit oral language support to deepen their engagement with the language."

A helpful strategy is the use of multimedia and multimodal activities on the *Student Learning Space (SLS)*, which allow students to engage with content through a variety of formats such as photos, videos and audio recordings. "These multimodal resources can help bridge the gap between spoken and written forms of the language, and reinforce the correct pronunciation and spelling of words," she shares.

Code-switching, or the practice of switching between two languages or more, has also become an important intervention strategy in the classroom and plays a valuable role in supporting vocabulary development. "By allowing students to draw on their prior knowledge of both English and their MT, it helps students make meaning across languages so that new words are grounded in familiar contexts," she says.

CULTIVATING A POSITIVE LEARNING ENVIRONMENT

One strategy the school has adopted—reinforced by insights from GiBBer's research data—is to better understand students' interests and motivations for learning, and to use that understanding to spark the "joy of learning". This deeper understanding has shaped the way teachers design learning experiences.

"Teachers are creating more opportunities for students to engage in purposeful conversations, storytelling and collaborative discussions," she shares. "Such activities help students process and express their ideas more clearly, while also sharpening their ability to listen actively and respond thoughtfully."

These approaches have been especially beneficial for low-progress students, as they are now more confident to speak up in class.

"It is important to foster an encouraging and inclusive environment where every student can grow in confidence, curiosity and linguistic competence," she affirms.

AN EVIDENCE-INFORMED APPROACH TO LANGUAGE LEARNING

Collaborating with NIE researchers on the GiBBer project has provided Admiralty Primary School with valuable insights into strengthening English Language teaching and learning in the school.

According to Mdm Charlotte Sng, Head of Department of English Language, the project has helped establish a clearer picture of students' baseline abilities, highlighting strengths and areas for improvement.

"Two key findings stood out: the need to build students' vocabulary and improve their reading comprehension skills," she shares. She says that these findings align with the school's PSLE reports and Quality Classroom Survey, which tracks Primary 2 to 6 students' attitudes and motivation in learning.

"Sharing these insights has sparked meaningful dialogue among teachers and prompted the exploration of more effective classroom strategies," she adds.

BUILDING LANGUAGE SKILLS THROUGH INTENTIONAL TEACHING

A limited vocabulary can hinder comprehension and clear expression. In Singapore, language interference—especially from Singlish and direct MT translations—can further complicate language acquisition.

"The challenges that primary school English teachers face include improving students' vocabulary, while at the same time, teaching students the use of English language in both formal and informal situations—how to perform code switching from informal settings to standard English during formal settings," Charlotte notes.

Recognizing that early literacy is critical, the school has introduced targeted interventions at the lower primary levels.

"In lower primary, English teachers often start their lessons with shared reading activities," she shares. To support comprehension, especially when story contexts are unfamiliar, teachers take time to explain the setting and background of the text. They also use the strategy of "word splash"—a visual display of key vocabulary words related to the story.

"By pre-teaching vocabulary words before students engage with the text, we help them connect new words to the story, making the reading experience more accessible and aids in memory retention," she explains.

To aid learners who need more reading support, the school partners with external organizations to run targeted interventions, one of which is a once-a-week buddy reading programme for Primary 1 and 2 students.

"Students who struggle with segmenting sounds and syllables often carry those difficulties into upper primary, where they make common spelling mistakes. The volunteers are tasked to explain words that are unfamiliar to the students and help them pronounce words phonetically," Charlotte explains.

The "word splash" activities also serve as stepping stones to more structured conversations, helping students strengthen their oral communication skills. In early 2025, sentence starters were introduced to help students initiate and sustain classroom discussions, as well as structure their responses according to the PEEL (Point, Evidence, Elaboration, Link) approach.

Meanwhile, e-platforms such the *Student Learning Space (SLS)* allow teachers to capture student responses in real time and facilitate peer critique. "It ensures that every student's voice is heard—not just those who are usually more vocal," Charlotte shares.

A CULTURE OF INTENTIONAL QUESTIONING

Reflecting on what more can be done to support students' language learning, Charlotte urges teachers to strengthen their questioning techniques, emphasizing that effective questioning is key to enhancing classroom discourse and promoting deeper student thinking.

"Teachers can be more intentional in their questioning by reflecting on the types of questions they ask," she advises. "It's also important that they know how to purposefully design and pose questions that align with specific learning goals."

She adds that inference is not a skill that the students are generally strong in but perhaps that may not be due to gaps in the students themselves. "Teachers should be asking the right questions that can elicit inferential responses from students," Charlotte suggests.

Keeping a growth mindset is equally important too, especially when working with low-progress students. "Teachers should embrace the belief that every child can learn and wants to learn," she remarks.

"How we layer support at each level matters, and with thoughtful implementation, it can go a long way in helping our students become more confident and competent learners," she concludes. ∎

Scan the QR code to learn more about **how Admiralty Primary School supports middle- to high-progress learners.**

ABOUT THE INTERVIEWEES

Christine Lee is the Head of Department of Mother Tongue Languages while Charlotte Sng is the Head of Department of English Language at Admiralty Primary School.

What Neuroscience Can Tell Us About the Bilingual Brain

Being bilingual has positive implications for cognitive and educational development, especially in adults and children with diverse learning needs. Professor Annabel Chen, Director of the Centre for Research and Development in Learning (CRADLE) at Nanyang Technological University (NTU), explores the intersection of brain science and bilingual education, shedding light on how the brain's remarkable neuroplasticity supports lifelong language learning. From cognitive reserve in bilingual adults to tailored interventions for children, her findings challenge misconceptions about language acquisition.

LANGUAGE ACQUISITION IN BILINGUAL ADULTS

Being a clinical neuropsychologist, Professor Annabel Chen's work primarily focuses on understanding how brain function impacts cognitive, emotional and behavioural abilities.

"Through my work using neuroimaging techniques such as functional Magnetic Resonance Imaging (fMRI), we observe that the aging brain remains remarkably plastic, meaning it retains the ability to learn and adapt," Annabel shares.

This is called neuroplasticity; even as certain regions of the brain shrink in size (atrophy) or our thinking (cognitive processes) slow down with age, other regions of the brain network compensate—often by recruiting alternative neural networks or increasing activity in other brain areas to maintain function (Chen & Goodwill, 2022).

For example, older adults may rely more heavily on bilateral activation (using both hemispheres) compared to younger individuals who tend to show more left-lateralized language processing (Archer et al., 2016; Chen et al., 2013; Wu et al., 2014).

IMPLICATIONS FOR BILINGUAL EDUCATION

How do these findings impact our understanding of bilingual education? Annabel shares three key implications.

Language Learning Is Lifelong

"Contrary to the myth that only children can learn languages effectively, the aging brain is capable of acquiring and using new languages," Annabel says. Older learners may approach language differently, focusing more on meaning and context than memorization, and benefit from strategies tailored to their cognitive strengths (e.g., using stories or conversation over drills).

Bilingualism Builds Brain Health

Longitudinal and neuroimaging research by other researchers (e.g., Bialystok et al., 2007; Perani et al., 2017) shows that bilingual individuals often show later onset of dementia symptoms, even when brain pathology is present. "This suggests that bilingual experience builds cognitive reserve—protective brain capacity that buffers against age-related decline," Annabel explains.

Engaging Learners of All Ages

For younger students, educators should recognize that supporting bilingualism does not just serve cultural or communicative goals, it also actively supports long-term cognitive resilience. For adult educators, they can consider offering beginner language classes in a community learning programme for seniors or parents in their home languages (e.g., Mandarin, Tamil, Malay). Annabel suggests using visual aids, music and interactive storytelling—techniques that align with how the aging brain best absorbs new information.

"For adult learners, learning through conversation, role-play, or storytelling is often more effective than memorising grammar rules," she adds.

Another method is to consider promoting intergenerational learning programmes, where older adults can learn new languages with children or support children in bilingual

reading. These programmes could utilize multimodal approaches which incorporate music, rhythm, storytelling or community dialogue to enhance language learning, as these tap into preserved procedural and emotional memory systems in aging brains.

DEVELOPING EVIDENCE-BASED INTERVENTIONS FOR BILINGUAL LEARNERS WITH NEURODEVELOPMENTAL CONDITIONS

As educators, we often hear that every child learns differently. But what if we could actually see those differences in the brain? Thanks to advances in neuroimaging, researchers can now observe how children with learning difficulties such as dyslexia and autism process language, and how bilingualism interacts with these processes. "These insights are helping us develop more precise, evidence-based strategies to support students who need them most," Annabel explains.

Looking Inside the Learning Brain

In her recent research at NTU, she studied how children's brains engage during language and memory tasks, especially when they are learning in more than one language. Using brain imaging techniques like fMRI, her research team examined a key brain system called the cerebro-cerebellar network, which connects areas involved in language, attention and motor coordination.

They found that this network plays an important role in verbal working memory—a foundational skill for reading and language learning. Interestingly, children with dyslexia showed differences in how strongly the parts of this network work together, compared to peers without reading difficulties (Kwok et al., 2023). "This tells us that reading challenges are not just about 'trying harder'. They reflect real, measurable differences in how the brain is wired and functions," Annabel notes.

In bilingual learners, these differences can be even more complex as each language they use may rely on different cognitive processes. For example, English (an alphabetic language) and Chinese (a logographic language) place different demands on memory, visual processing and phonological awareness. "This means that intervention strategies need to be script-sensitive and responsive to the learner's overall language profile," Annabel adds.

Why Bilingualism Is Not a Risk—And Might Be an Asset

There's a common concern that exposing children with learning difficulties to two languages might confuse them or slow their development. However, the evidence increasingly shows the opposite.

Studies from around the world have shown that bilingualism does not harm children with dyslexia or autism. In fact, bilingual children on the autism spectrum have been found to develop language and social skills just as well as—sometimes even better than—their monolingual peers (Hambly & Fombonne, 2012; Gilhuber, Raulston, & Galley, 2023; Vender et al., 2019;2021).

Dyslexia is associated with differences in the brain's dorsal and ventral reading pathways, making it harder to link sounds and letters or recognize words quickly. "Bilingual learners with dyslexia may struggle even more when learning a second language with a different writing system (e.g., character-based Chinese vs alphabetic English)," Annabel explains.

However, being bilingual does not contribute to additional difficulties for dyslexia (Vender & Molani, 2021) and provided an advantage in performing better than monolingual learners with dyslexia (Vender et al., 2019). "Bilingual exposure may also enhance metalinguistic awareness—the ability to think about and manipulate language—because they are constantly switching between two systems," Annabel shares.

Annabel's earlier work (Bhattacharjee et al., 2020) also showed that language proficiency influences how the brain responds to interventions, even in typically developing bilingual adults. While this study did not involve children with special needs, it reinforces the idea that learning interventions, whether in the classroom or through more novel techniques like brain stimulation, are more effective when they are tailored to the learner's linguistic and cognitive background. ∎

Scan the QR code to discover **practical tips and strategies for supporting neurodiverse bilingual learners. You'll also find the full list of references cited in this article on the online version of** *SingTeach*.

ABOUT THE INTERVIEWEE

Professor Annabel Chen is a clinical neuropsychologist (licensed in Clinical Psychology, USA; Singapore Registry of Psychologists) and has worked with both adult and child populations. She joined NTU as an associate professor and served as the Associate Chair for Research for the School of Humanities and Social Sciences. She is currently the Director of the Centre of Research and Development in Learning (CRADLE) at NTU, and Director (NTU) of the Centre for Lifelong Learning and Individualised Cognition (CLIC) in collaboration with the University of Cambridge.

More than Just Exams:
KEEPING THE MOTHER TONGUE LANGUAGE AND CULTURE ALIVE

While English is the dominant language in Singapore, being proficient in the Mother Tongue Languages (MTLs) remains an important way for the younger generation to stay connected to their cultural identity and heritage. Three MT teachers from Punggol View Primary School share the challenges they face—and the strategies they use—to keep the languages meaningful and alive, both in and beyond the classroom.

Goh Poh Khim
Lead Teacher, Chinese Language
Punggol View Primary School

HOW DO YOU HELP STUDENTS SEE THE VALUE OF LEARNING CHINESE IN THEIR DAILY LIVES AND BEYOND THE CLASSROOM?

In my teaching journey, I often hear students say, "I don't like Chinese" or "Chinese is so difficult!" Many struggle to relate to the language, which affects their motivation to learn. As most students use English with their peers and family members, their limited exposure to Chinese makes the language feel distant and less relevant. To shift this mindset, it is crucial to help students build an **authentic, relevant and meaningful** connection with the language.

1. Embedding Chinese in Everyday Life

I intentionally create opportunities for authentic language use. In class, I encourage students to speak Mandarin during group discussions and role-play activities. Students are also encouraged to use Mandarin outside the classroom, for example, when navigating around the school. At home, they are encouraged to prepare a simple breakfast for their family using recipes written in Mandarin. These real-life applications help students realize that Chinese is not just a subject—it is a living language they can apply meaningfully in daily interactions.

### 2. Extending Learning Beyond the Classroom

Language learning is more impactful when it is connected to cultural experiences. Learning journeys, festivals and school events immerse students in Chinese culture and values. Visits to local heritage sites and celebrations like Chinese New Year deepen their appreciation, making learning more engaging and meaningful.

3. Leveraging Technology to Spark Interest

Today's learners are digital natives. I harness multimedia, educational apps, games and videos to create fun, accessible Chinese lessons that boost learning and empower students to take ownership of their language development beyond the classroom walls.

4. Preparing Future-Ready Bilingual Learners

Ultimately, my goal is to nurture future-ready bilinguals. By highlighting what Chinese has to offer—from global communication to wider career opportunities—I aim to instill a sense of purpose and empower students to use Chinese meaningfully in their daily life.
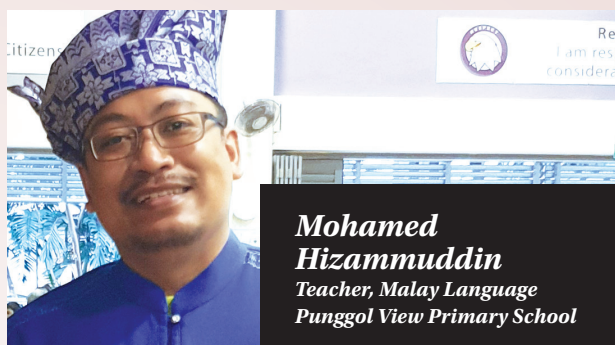
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WHAT'S ONE KEY CHALLENGE YOU FACE WHEN TEACHING STUDENTS WITH LIMITED MALAY LANGUAGE EXPOSURE?

One of the key challenges I encounter when engaging students with limited exposure to the Malay language (ML) is that most of them hardly communicate in Malay, even at home, and they have limited understanding of the language. This is a concern as it stifles the acquisition of bilingualism, a cornerstone of Singapore national identity and education policy.

To overcome this barrier, I have introduced joyful learning techniques to build students' appreciation of ML. The techniques used are: *Sumpah Arif, Kecoh Karaoke, Lipat Lidah, Tutur Hibur* and *Rap Bahas*a. They are designed to develop key language acquisition skills such as listening, speaking and reading. These three domains of language learning are also important for improving students' writing proficiency.

Sumpah Arif is a daily oath recitation that promotes positive values such as promising to strive for excellence. *Kecoh Karaoke* targets lower and middle primary students struggling to read. It uses folk songs to build fluency through fun sing-and-dance battles. *Lipat Lidah* challenges intermediate and advanced students with tongue twisters to improve speaking skills. *Tutur Hibur* encourages students to present a story, sing a song or put up a performance by using only ML. *Rap Bahasa* engages upper primary students who struggle to read; they sing and dance to rap songs, and any unfamiliar words they encounter have to be recorded in their *Buku Ilmu (Book of Knowledge)*. They will then be picked randomly to perform.

While teachers can introduce various techniques to make learning enjoyable and impactful, the fact remains that ML learning in school is limited to just 1.5 hours a day. Moreover, education begins at home; this means that parents also play a crucial role in supporting their child's ML learning. To nurture a culture of bilingualism, parents should balance the use of English and ML.

WHAT IS THE MOST EFFECTIVE STRATEGY YOU USE TO MOTIVATE STUDENTS TO LEARN TAMIL, PARTICULARLY WHEN IT IS NOT THEIR MAIN HOME LANGUAGE?

Many students learning Tamil as a second language have limited exposure to, or feel less confident using the language. This can present significant challenges to their engagement, participation and confidence. I believe establishing a **positive and supportive classroom environment** is essential to their learning of the Tamil language.

I have found humour to be a valuable pedagogical tool that helps create **a safe and inclusive learning atmosphere**. When used appropriately, humour reduces students' anxiety, encourages risk-taking and promotes active participation in lessons. It also helps to humanize me as a teacher, break down language barriers and foster a sense of connection among students.

A light-hearted classroom environment makes learning more enjoyable and accessible, particularly for students who feel self-conscious about their Tamil proficiency. It improves classroom dynamics and helps sustain students' attention and interest over time.

In addition to using humour, I normalize the experience of making mistakes by emphasizing that errors are a natural and expected part of the learning process. This assurance fosters resilience and a growth mindset, builds confidence and empowers learners to engage more freely and take intellectual risks.

Incorporating humour and fostering an inclusive classroom culture that values effort over perfection are essential strategies in supporting students who are struggling with the Tamil language. By prioritizing emotional well-being alongside academic instruction, educators can enhance student outcomes and make learning a more joyful experience. ▪

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20 Years

20 stories

20 Years 20 Stories is a special campaign first launched on Instagram to mark *SingTeach*'s 20th anniversary—a celebration of two decades of bridging education research and classroom practice. In this series, we feature personal reflections from educators, researchers and long-time supporters who have grown with us through the years. Now curated here on our website, these stories that are published every other week offer insights into the evolving landscape of teaching and learning in Singapore, and how research continues to inspire real-world impact in our schools.

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