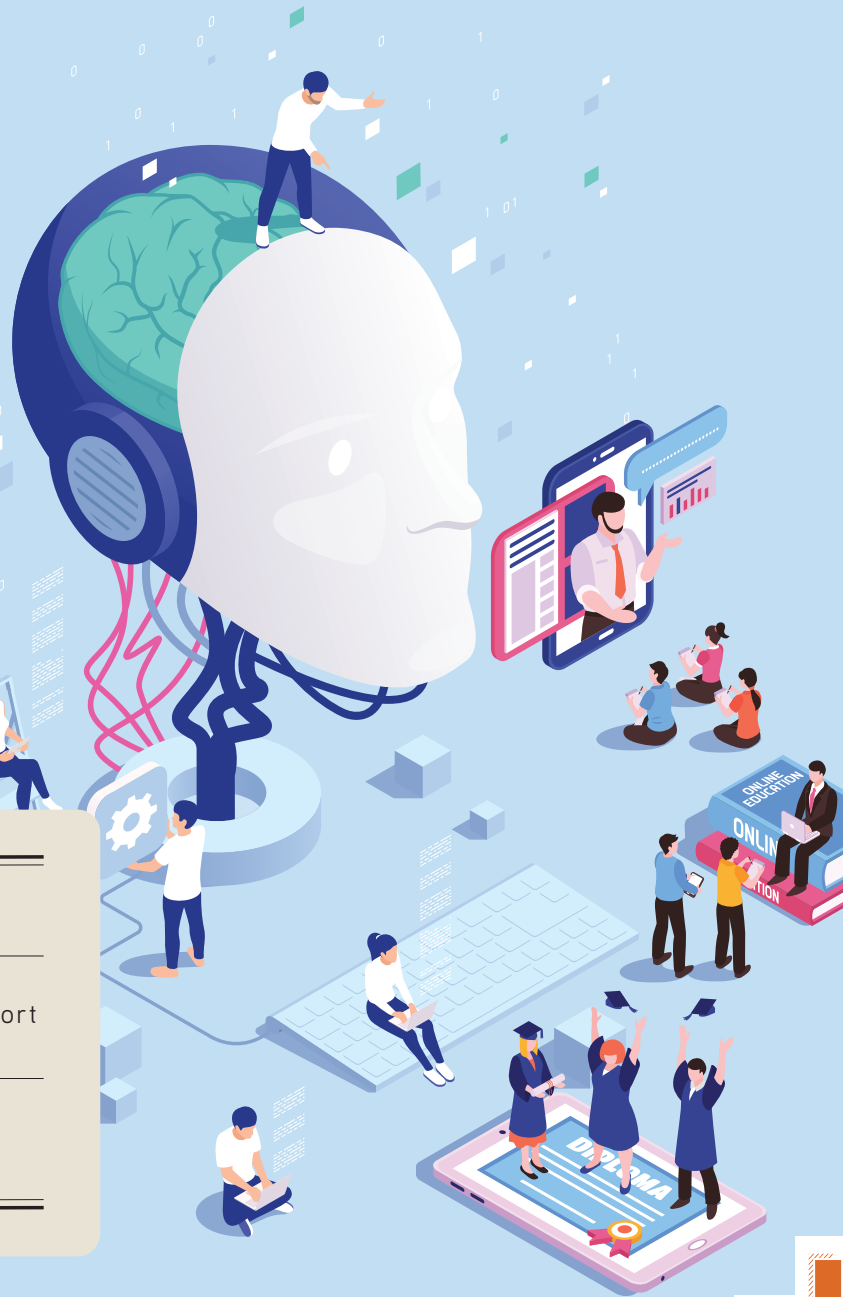


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Ignite
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Ignite Imagination Empower Communities Transform Practice



The 11th edition of Teachers' Conference and ExCEL Fest organized by the Academy of Singapore Teachers in collaboration with the other divisions of Ministry of Education (MOE) saw over 17,000 teacher participants who took the time to attend the conference despite the June school holidays. The three-day conference which was held from 30 May to 1 June 2023 adopted a hybrid format with both onsite and online conference features.

Focused on the theme "Ignite Imagination. Empower Communities. Transform Practice", the conference aims to bring local educators together to learn, connect and engage with thought leaders and practitioners. It also hopes to serve as a platform for like-minded individuals to explore possibilities for the future of teaching and learning.

In this issue of *SingTeach*, MOE Deputy Director-General of Education Mrs Chua-Lim Yen Ching provides some insights into the importance of leveraging international perspectives and how enhancing one's professional practice can positively impact student learning in The Big Idea article "Building a Quality Teaching Force". This issue also features one of the keynote addresses by Professor Diana Laurillard, Professor of Learning with Digital Technologies from the University College London Institute of Education, United Kingdom who shares why it is crucial that teachers take on the role of learning designers who come together to share and test new e-pedagogies in the People article "Teachers as Collaborative Designers of Learning".

The rest of the issue features research in action and classroom stories in various areas including neuroscience, student assessment, differentiated instruction and cultural intelligence. The *SingTeach* team also speaks to two educators on their thoughts about professional development and student beliefs in the In Their Own Words section of the magazine.

We hope that the stories you read in this issue will inspire you to ignite imagination, empower communities and transform practice!

SingTeach Editorial Team
Office of Education Research
National Institute of Education

Online Exclusives

CLASSROOM PERSPECTIVES

Cultural Intelligence: Engaging Students' Voices on Diversity through Gameplay



RESEARCH IN ACTION

Effective Feedback Strategies for English Language & Literature Classrooms

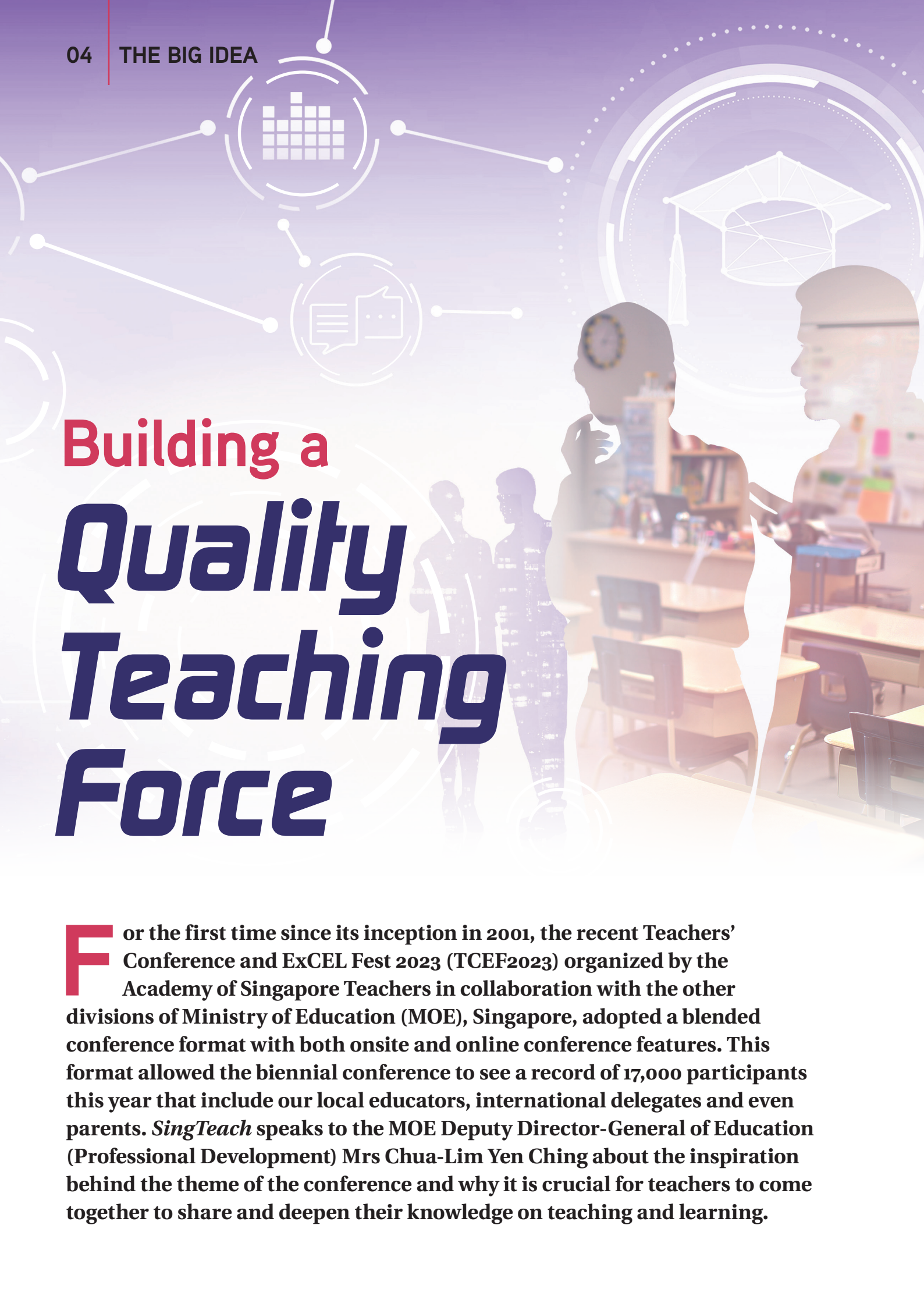


Share with Us

VIRTUAL STAFF LOUNGE

Virtual Staff Lounge (VSL), initially conceived during the COVID-19 outbreak, is a safe platform where education practitioners can share their teaching and learning experiences during and beyond the pandemic. VSL is a collaborative space where you can share innovative teaching methods and practices that you have implemented in classrooms, and/or fresh insights and perspectives that you have on the nature of teaching and learning. If you are interested to submit an article, scan the QR code below.





Building a *Quality Teaching Force*

For the first time since its inception in 2001, the recent Teachers' Conference and ExCEL Fest 2023 (TCEF2023) organized by the Academy of Singapore Teachers in collaboration with the other divisions of Ministry of Education (MOE), Singapore, adopted a blended conference format with both onsite and online conference features. This format allowed the biennial conference to see a record of 17,000 participants this year that include our local educators, international delegates and even parents. *SingTeach* speaks to the MOE Deputy Director-General of Education (Professional Development) Mrs Chua-Lim Yen Ching about the inspiration behind the theme of the conference and why it is crucial for teachers to come together to share and deepen their knowledge on teaching and learning.

ENHANCING PROFESSIONAL PRACTICE TO IMPACT STUDENT LEARNING

“The theme ‘Ignite Imagination. Empower Communities. Transform Practice.’ succinctly reinforces our teaching fraternity’s emphasis on innovation, lifelong learning and supporting one another to nurture future-ready learners,” Mrs Chua shares.

This year’s TCEF retained the same theme from the 2021 edition as part of the ministry’s efforts to provide a consistent anchor for the branding of the conference. Retaining the theme also strengthens the fraternity’s association of these concepts with the key objectives of the conference: to spark new ideas, to bring people together for collaboration, and to support teachers in strengthening their practices for the benefit of their students.

At the opening address of the three-day conference, Guest-of-Honour Minister for Education Mr Chan Chun Sing shares, “I have never come across teachers who are afraid of hard work. Our teachers are only afraid of work that is not meaningful.”

The minister’s statement is indeed a reflection of the 17,000 teacher participants who spared the time to attend the conference despite the school holidays. For teaching to be meaningful, it has to be relevant and there is a need to constantly evolve existing pedagogies and use of technology to further enhance one’s practice to impact the students’ learning.

However, Minister Chan also reminds the teachers against focusing too much on “overly sophisticated” pedagogies. “We just focus on the simple things—do it well, do it consistently and do it together. That is important.”

LEVERAGING INTERNATIONAL PERSPECTIVES

As part of the education ministry’s 10-year Educational Technology (EdTech) Plan which aims to guide the development of the technological ecosystem and key platforms for learning in primary schools to pre-university institutions, TCEF2023 features international keynoters who are experts in technological advancements.

“We want to learn about the future of learning, especially with technological advancement, and how other systems are adjusting to the new normal after the pandemic. Hence, our choice of speakers should inform us of the developments in other countries, the thinking behind some of the policy decisions, and the impact of those decisions,” Mrs Chua shares.

Exposure to international perspectives can help expand teachers’ horizon beyond their local context, and also encourage them to challenge assumptions and consider alternative viewpoints. This diversity of thoughts can also help foster innovation and creativity among our Singapore practitioners—an essential part of the conference in igniting imagination.



“More importantly, we want to refocus on our educational values as a fraternity and be inspired to take on the challenges facing the world,” Mrs Chua affirms.

CONSISTENCY IS THE KEY TO EDUCATIONAL ACHIEVEMENT

The Progress in International Reading Literacy Study (PIRLS) is an international assessment conducted by the International Association for the Evaluation of Educational Achievement (IEA) that is designed to measure reading achievements at Grade 4 (equivalent to Primary 4 in Singapore). Administered every 5 years, the recent PIRLS in 2021 showed that Singapore students have been constantly performing well in reading literacy by international standards.

“What drew me (to the results) most was not the fact that we top the charts across the world,” Minister Chan shares in his address. “But it is the fact that we are one of the three countries that managed to continue to make progress, despite the COVID-19 pandemic. We are the country that has made consistent progress over the last 20 years.”

“Just as we teach our students, our job is not to surpass someone else in an exam; our job is to keep surpassing ourselves throughout life. And there’s no better example of how we exemplify this by our children surpassing themselves in PIRLS.”

Educational success is often a result of sustained effort and consistent engagement. Consistency allows students to make incremental progress over time, leading to long-term success. It also helps them build a solid academic foundation, develop critical thinking skills and acquire a deep understanding of concepts; all of which contribute to their overall educational achievement.

EMBRACING THE 4Cs IN EDUCATION

Due to an avalanche of demands for teachers to do more in today’s technological era, the need for teachers to manage their workload and set clear priorities on what needs to be done is becoming more crucial than ever. “Our students and teachers have finite bandwidth, and we need to judiciously guard this bandwidth,” Minister Chan affirms.

Ultimately, in a fast-changing world, Minister Chan shares that there is only one skill that students should all be equipped with—the ability to learn; to learn fast and to learn on their own. And for that to happen, the quality of teachers is the most important determiner.

“Having quality teachers and establishing quality teacher-student relationships are the hallmarks of an

effective education system. The enablers are pedagogies, technologies and system design. We must, then, embrace the 4Cs,” Mrs Chua explains.

The 4Cs, which Minister Chan shares in his address, are:

- **Consistency** of commitment to produce meaningful resources that preserve the respect for the teaching profession;
- **Coherence** of policies/designs with clear priorities that target the nurturing of self-confident contributors and motivated lifelong learners;
- **Conviction** of teaching profession and policymakers to not over-structure nor over-protect because it will help our young to grow and learn resilience, and be comfortable in dealing with uncertainties and untidiness; and
- **Collaboration** among the policymakers, teachers, community, parents and industry to work toward a common goal—in the best interests of every child.

Through the in-person sessions and online conference features, it is hoped that TCEF2023 provides teachers the opportunities and spaces to share and discuss ideas. On this note, Mrs Chua concludes: “To this end, teachers are key drivers and by participating in TCEF2023, we want to strengthen the spirit of ‘Teacher Ownership, Teacher Leadership’ amongst our educators as the fraternity came together to learn and share readily with the common goal of moulding the future of the nation.” ■



ABOUT THE INTERVIEWEE

Mrs Chua-Lim Yen Ching is Deputy Director-General of Education (Professional Development) at the Ministry of Education (MOE), Singapore, since 2014. She started her teaching career as a science teacher at Dunman Secondary School in 1981. She held various leadership positions in various schools, before assuming the role of Deputy Director, Sciences Branch, Curriculum Planning and Development Division at MOE in 1998. From 2007 to 2011, she was the founding Principal of NorthLight School. Prior to her current position, she was Director, Curriculum Planning and Development Division from December 2011 to 2013; and Executive Director of the Academy of Singapore Teacher from 2014 to 2020.



Using a Neuroscientific Lens to Support Student Learning and Well-Being

How can insights from neuroscience influence the way teachers teach and learners learn? At New Town Primary School, teachers have adopted teaching strategies and practices that are underpinned by brain-based principles. Two teachers from the school share with us their experiences in translating brain-based principles to classroom practices.

Mdm Woon Wei Li and Mdm Siti Mariam, together with their team of teachers from New Town Primary School, were first exposed to brain-based principles in 2021. “Our team attended two workshops organized by the Academy of Singapore Teachers (AST) on brain-based principles. This was where we learnt more about the key areas of brain-based principles such as neuroplasticity, emotions and memory, and how applying them into classroom practices can improve student learning outcomes,” Wei Li, Upper Primary Year Head, shares.

They were then inspired to share their learning experience with other teachers at their school. To get the teachers on board, Wei Li and her team stressed that the adoption of brain-friendly strategies in the classrooms are not new initiatives, but rather provide another lens with which teachers can use to reflect and improve on their own teaching practices.

“The teachers were eager to implement these initiatives after we took the time to emphasize how neuroscience findings can actually improve our understanding of each student profile and their learning needs,” she adds.

A POSITIVE LEARNING ENVIRONMENT

Neuroscience findings show that only 10% of the human brains can be classified as typical. Various factors such as age and gender make our brain unique, and the two most important factors that affect the brain are environment and gene expression, with environment playing a bigger role.

“While it is impossible to change our students’ age, genetics and other factors, we can work on shaping a positive environment for our learners. The fact that the brain continues to create new neural pathways or

alter existing ones in order to adapt to new experiences also underscores the importance of a nurturing environment to learning,” Wei Li remarks.

One crucial factor in creating such an environment is positive teacher-student relationships as well as peer support and relationships. A way to develop such relationships is through a growth mindset, that is the belief that abilities can be developed and improved through effort.

“To nurture a growth mindset in students, teachers at New Town Primary have put in more effort to recognize each student’s strengths, affirm each student’s efforts in learning, encourage them to view mistakes as learning opportunities, and most importantly, role model the growth mindset,” she says.

Siti, Subject Head (Student Well-Being), notes how using positive teacher language in the classroom can help build trust between students and teachers as well as promote positive peer relationships. As part of efforts to build a class identity through a shared vision, New Town Primary has made it mandatory for every class to craft a classroom mission statement that they can refer to throughout the year.

“Co-creating the class mission statements means that the mission statements are unique and tailored to the profile and needs of each class,” she states.

She highlights how these classroom practices align with neuroscience research which shows students learn better when they feel socially connected to their teachers and peers in their learning environments. Furthermore, research has shown that being in a positive emotional state allows for deeper learning during lessons.

GETTING THE BRAIN'S ATTENTION

How does the brain work when it comes to learning? First, we need to know what occurs during the cognitive learning process.

“The cognitive learning process consists of four stages—attention, encoding, storage and retrieval,” Siti explains. “Every day we are exposed to millions of bits of sensory data. However, findings from neuroscience research show that only about 1% of sensory data can get through the brain’s filter each second. The brain constantly processes sensory data, but our attention selects only a small fraction of it for conscious thought. So, how can we ensure that our students are even paying attention in the first place?”

She says that an effective way to capture their attention is to introduce something unexpected during the lesson which can take the form of sounds, colour and/or movement. This is aligned to research showing that the brain seeks novelty and pattern.

New Town Primary has also adopted the “All Learners Learning Every Day (ALL-ED)” framework which is based on differentiated instruction. This framework, she explains, supports teachers in restoring the students’ attention based on teacher observations and the learning needs of each child.

“Teachers are encouraged to move around the classroom, so that they are able to observe what the students are doing or struggling with, and then to respond promptly to the students’ needs.”

FOSTERING EMOTIONAL LITERACY

The amygdala is the major processing centre for emotions, emotional behaviour and motivation. When the amygdala senses dopamine, which is a feel-good hormone, the brain becomes thinking and reflective. However, when the amygdala senses threat, it becomes over activated and new information cannot pass through the brain to allow learning to be processed or stored.

“How can we apply this principle to support students who are in emotional distress?” Wei Li asks. “First, we should acknowledge the emotions of the child; only when their feelings are recognized and regulation skills are applied, will the child be able to follow other instructions.”

She describes how the school has provided each student with a “Zones of Regulation Flipchart” (see Figure 1).

“The flipchart, which comes with different coloured zones to indicate different emotions, allows each student to be in touch with their emotions and express how they are feeling by selecting one of the coloured zones. This way, teachers can identify the well-being and emotions of each child and provide timely intervention and support,” she says.

To further support students in managing their feelings and behaviour, the school has also set up a calm down corner in every classroom. It is designed as a safe space



Figure 1. The Zones of Regulation Flipchart.

that allows the students to take a mental break when feeling overwhelmed and to regulate themselves before joining the lesson.

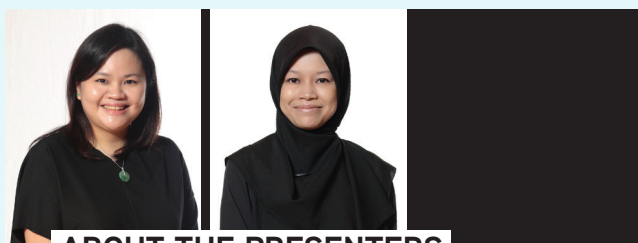
“The calm down corner is equipped with items such as a timer, fidget toys and stress balls,” she notes. “Students can also ask for a timeout whenever they need one.”

ENGAGING PARENTAL SUPPORT

Wei Li and Siti are heartened to receive good feedback from teachers. “Our colleagues have said that the classroom and teaching strategies they have implemented have helped improved learning experiences for students. We hope in the long run this will lead to increased knowledge retention and improved academic performance among students,” Wei Li says.

She adds that New Town Primary has embarked on a tripartite effort to equip their students and parents with knowledge about brain-based principles. “We want to share this knowledge with the students and parents as we recognize the importance of home-school partnership. The support from parents in helping children learn better is invaluable,” she concludes. ■

Scan the QR code to read more about **how the school encourages students to practice mindfulness through deep breathing exercises and brain break routine.**



ABOUT THE PRESENTERS

Woon Wei Li is Year Head (Upper Primary) and **Siti Mariam** is Subject Head (Student Well-being). Both of them are from New Town Primary School. This article is based on their concurrent session at the Teachers’ Conference and ExCEL Fest 2023 titled “Improving Student Learning and Well-Being through Brain-Based Principles”.



Transforming the Classroom with Differentiated Instruction Approach

Designing a learning environment that can effectively accommodate the needs of different learners is a challenge that demands innovative strategies. At Boon Lay Secondary School (BLS), the Mathematics department embrace the transformative approach of Differentiated Instruction (DI) to tackle this challenge head-on. Through DI, they address their students' unique needs, empower them through scaffolded tasks, and personalize their progress based on individual readiness. A group of teachers from BLS share with us how they do it.

DIFFERENTIATION IN THE MATH CLASSROOM

At Boon Lay Secondary School (BLS), the teachers aspire to go beyond just equipping students with academic skills and knowledge; they also aim to cultivate students' ability to learn through guided exploration and foster self-directed learning capabilities.

In addition to that, flexibility is another inherent characteristic of the BLS Mathematics department where teachers continually adjust and refine their teaching practices within the given time and curriculum constraints. This adaptability allows them to effectively address their students' varied and evolving needs, thus fostering an engaging and dynamic learning environment in the Math classroom.

"Designing education around the average student fails to address the needs of all learners effectively," shares Ms Haznita Jaafar, Senior Teacher/Mathematics. "By embracing Differentiated Instruction (DI), we are revolutionizing our classrooms into inclusive spaces where every student's unique learning needs are catered for."

Through personalized instruction, scaffolded tasks and an emphasis on self-directed learning, students are equipped with the skills and knowledge necessary to thrive in their own unique learning journeys.

PERSONALIZED LEARNING EXPERIENCE

Due to time constraints and other factors, some teachers tend to design learning environments based on what is recommended in textbooks. However, it is important to note that students should not be seen as one-dimensional; their learning dimensions typically vary greatly.

Defined as an approach to teaching and learning that acknowledges and embraces the diverse needs, strengths, weaknesses, interests and learning styles of individual students, DI involves tailoring instructions to meet the various needs of each learner.

According to Professor Carol Ann Tomlinson, a renowned thought leader in the education field, DI is a teacher's response to learners' needs, guided by the fundamental principles of differentiation. These principles include providing respectful tasks, implementing flexible grouping strategies, and continuously assessing and adjusting instruction based on student progress.

The core idea behind DI is to recognize that students possess inherent differences in their readiness, interests and learning profiles. It rejects the notion of designing education solely around the average student, as this approach fails to effectively address the needs of all learners.

A DEPARTMENT-WIDE TRANSFORMATIVE JOURNEY

In 2021, the Mathematics Head of Department (HOD) spearheaded a transformative department-wide journey towards implementing DI. "For the past 2.5 years, we have been dedicated to implementing DI, going through a process of unlearning, learning and relearning about this approach," Haznita shares.

The first step taken by the department was to unanimously agree that Algebra was the most challenging topic to address. They recognized the need for a structured framework to guide their instruction, leading to the development of a worksheet template which ensures consistency in the learning experiences offered to all learners. To cater to the varying needs and abilities of students, three levels of questioning strategies were incorporated into the template.

Standardizing teaching resources based on the principles of DI was another crucial initial step in enabling differentiation in every lesson. However, the department encountered gaps and challenges along the way. To address these gaps, they attended the Differentiated Instruction Made Practical (DIMP) course offered by the Harvard Graduate School of Education.

THE FOUR-STEP TEACHER DECISION-MAKING FRAMEWORK

- 1. Teachers need to identify the adjustable parts of the lesson — OSCAR (Objective, Starting Position, Criteria, Action Pattern, and Reflection).** They define the objective/s they want students to achieve, assess the starting position of each student, establish criteria for success, determine the action pattern to be employed, and reflect on the effectiveness of previous decisions.
- 2. Teachers carefully observe, listen and contemplate student learning.** They gather evidence of student progress, identify areas of strengths and weaknesses, and assess the effectiveness of their current instructional strategies. This step allows teachers to gain valuable insights into student needs and informs their decision-making process.
- 3. Teachers employ agile thinking by maintaining a focus on specific objectives.** They analyse situations for evidence of CARR (Clarity, Access, Rigor and Relevance), and brainstorm potential choices for adjusting or differentiating instruction. This step encourages teachers to think critically and creatively, exploring various options to meet the diverse needs of their students.
- 4. Teachers provide solutions through the SHOp (Structure, Help, Options) approach.** To counter student dependence on teachers, they learn to adjust the structure of the lesson or learning environment, provide additional help resources or support, or offer options to students to enhance their learning experience. This step ensures that teachers address student needs effectively, fostering a more inclusive and engaging classroom environment.

The course is based on a four-step teacher decision-making framework which is a structured approach that empowers teachers to make precise and effective instructional decisions. Through this framework, teachers can remove guesswork from differentiation and ensure that adjustments align with measurable outcomes for their students.

BLS Senior Teacher/Computer Applications, Ms Azlina Muslimin highlights, “It requires teachers like us to embrace agile thinking, allowing us to be flexible, adaptable and responsive in our approach to teaching.”

This framework helps teachers to make informed and deliberate instructional decisions, tailored to the unique needs of their students. It promotes a proactive and systematic approach to differentiation, ensuring that adjustments are aligned with student learning outcomes and contribute to their overall success.

“As the course equipped us with the necessary tools and knowledge to adopt a more facilitative approach to teaching, our students at BLS are now guided to solve questions using scaffolding, self-help tools and dashboard signals that assist us in identifying areas where adjustments are needed,” Haznita adds.

INTEGRATING OSCAR INTO SUSTAINABLE AND PRACTICAL RESOURCES

In order to make DI sustainable and practical in every lesson, the Mathematics department has taken deliberate steps to integrate the Four-Step Teacher Decision-Making framework into their teaching resources and materials. “We use OSCAR, along with the SHOp adjustments to enhance the effectiveness of our DI approach and ensure a comprehensive learning experience for our students,” Mathematics Teacher Ms Nur Aida Md Khalid explains.

By integrating OSCAR into their resources, the department ensures that differentiation becomes an embedded and sustainable practice in every lesson. The clear lesson objectives, activation of prior knowledge, action-oriented tasks, clear criteria for success and

reflection opportunities contribute to a comprehensive and effective DI approach. This approach promotes student engagement, autonomy and continuous growth, ultimately leading to improved learning outcomes for all students.

Dr Todd Rose, current CEO of Populace and former Professor and Director of the Laboratory for the Science of Individuality at Harvard, once said, “There is no such thing as an average student.” As students have jagged profiles and vary on many dimensions of learning, it raises the importance and relevance of transforming our classrooms using the DI approach. ■

Scan the QR code to read the steps taken to integrate the OSCAR framework into the Mathematics department’s teaching resources and materials.



ABOUT THE PRESENTERS

Haznita Jaafar is a Mathematics Senior Teacher, Azlina Muslimin is a Computer Applications Senior Teacher, and Nur Aida Md Khalid, Nur Faidah Hassan and Annetta Lim Siew Ching are Mathematics Teachers at Boon Lay Secondary School. This article is based on their presentation titled “Transforming the Classroom with Differentiated Instruction Approach” at the Teachers’ Conference and ExCEL Fest 2023.



Teachers as *Collaborative Designers of Learning*

There is no denying that digital technologies have, and will continue to, revolutionize the way we live, work and learn. Professor Diana Laurillard, Professor of Learning with Digital Technologies from the University College London Institute of Education, United Kingdom, agrees, and opines that with digital technologies becoming a significant part of education, teachers should be given the creative work of designing new digital pedagogies. In her keynote address at the recent Teachers' Conference and ExCEL Fest 2023, she shares with teacher participants the importance of teachers taking on the role of learning designers who come together to share and test new e-pedagogies. Below is an edited transcript of Professor Laurillard's keynote address.

FIVE TYPES OF ACTIVE LEARNING

Let's first consider the five different types of active learning—learning through inquiry, discussion, practice, collaboration and production—and the role e-pedagogies play in improving learning.

Learning through inquiry involves exploring contrasting ideas and ways of representing them. The Internet has provided a fantastic opportunity for teachers to explore the different ways of representing a subject matter, for

instance, scientific concepts. Images, some of which could be interactive, could transform a teacher's presentation, or a student's exploration to improve their understanding.

Learning through discussion usually involves a teacher asking the class to answer certain questions, but how many students normally respond? Perhaps only one or two students will. By using *Menti.com*, an online platform, every student can now be asked to contribute and respond.



In *learning through practice*, digital models can be used by students to explore and understand pedagogic concepts. UCL has developed a “number beads” digital game (see Figure 1), which has also been used in a number of primary schools in Singapore. The aim is to help students with low numeracy skills to understand how numbers make up other numbers. The main task for students is to join a string of number beads to make up a whole number. An important feature of this digital game is that it does not inform students that what they have done is right or wrong; instead, a correct combination would earn them a purple star (of which they have to collect 10). It enables them to learn from the game’s feedback. The process tries to capture the students’ natural way of exploring the world. Learning through practice with meaningful feedback is vital for students to be able to understand the fundamental concepts.

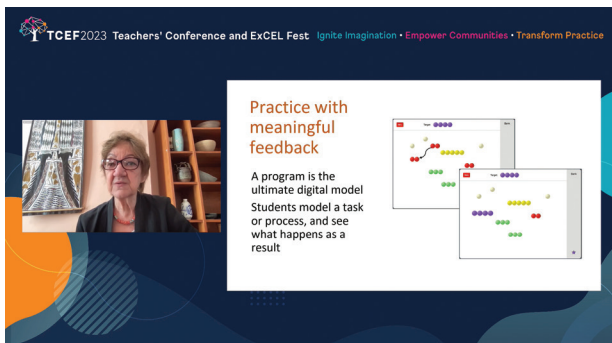


Figure 1. Professor Laurillard shares more about the “number beads” digital game developed by UCL.

Learning through collaboration can be done using a *Padlet* wall. Students can collaborate by sharing and commenting on what they know about a topic while the teachers can use a number of different tools on *Padlet*.

In *learning through production*, teachers find out what students have learned and how they can apply that knowledge whether through a worksheet, essay, or diagram. Whatever technologies the teachers use for their own presentation, for example *PowerPoint*, can also be used by the students as well.

All these are examples in which e-pedagogy supports the different types of active learning. So how can teachers optimize the way they use all these digital methods?

THE LEARNING DESIGNER

Learning design involves analysing the lesson plan from the learners’ point of view and asking: “What is the learner doing to learn?” Learning design is a way of making pedagogic ideas very explicit. It is important because it enables teachers to innovate by designing activities for learning in some detail, building on the teachers’ knowledge, and then applying them to new pedagogies.

The *Learning Designer* (see Figure 2) is a free online design tool developed to support online learning. It provides a structure for developing a sequence of learning activities to achieve the outcomes teachers have defined. It allows teachers to either adapt an existing learning design or create their own.

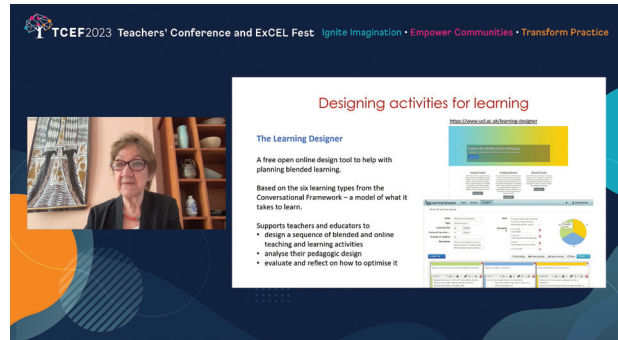


Figure 2. Professor Laurillard talks more about the Learning Designer.

Scan the QR code
to read more about
Learning Designer.



Optimizing The Learning Designer

How can teachers optimize *Learning Designer*? One way to do this is to embed the most useful digital tools within it. For example, teachers can set up *Google Docs* to collect the students’ ideas. To get students to collaborate, they can set up a *Miro Board* so each group of students can present and share their work. A group forum can be set up on *Moodle* so that everyone can view each other’s work, discuss and refine their work further.

Evaluation

The teacher’s *Learning Designer* can be evaluated, either by peers or by the students. For student evaluation, students can be encouraged to comment on the teacher’s learning design. For instance, a student may comment that they need more time to discuss. It is very important for the teacher to know how the learning design has been experienced by the students.

Teacher Collaboration

Teachers can attend courses on massive open online course (MOOC) platforms, such as *FutureLearn* (see Figure 3). *FutureLearn*, available at no cost for teachers, focuses on blended and online learning design. The course exercises are based on using the *Learning Designer* and contributed learning designs from



participants are curated for teachers to explore and exchange ideas for good ways of supporting learners. Teachers can learn how to be involved in the process of contributing, peer reviewing, revising, and then sharing their learning designs. This is how we can gradually build teachers' collective design knowledge on how to design e-pedagogies.



Figure 3. Professor Laurillard shares more about *FutureLearn*, an online learning platform that offers courses on blended and online learning design.

Scan the QR code
to read more about
FutureLearn.



WHY ARE E-PEDAGOGIES IMPORTANT?

So why are e-pedagogies important for teaching and learning? We'll look at two examples of e-pedagogy learning designs that help teachers to improve their own workload as well as understand how they can benefit students.

Peer Learning

Peer learning a significant pedagogy that is very much underrated but works well for students online. In peer learning, the task for each student is to review and give feedback on each other's work according to the teacher's rubric, and then use the feedback he/she has received to work on an improved assignment for the teacher to grade. Thus, it does not actually add to the teachers' actual workload. This form of peer learning can be run entirely online using the school's virtual learning environment (VLE).

Masterclass

A masterclass is a conventional teaching method for small groups, in which the teacher helps each individual student to get detailed feedback. The process of the teacher giving individual feedback to each of those

students is then made vicarious by filming the session, with the student's consent. The video can then be run on the VLE for other students to view. Even though the students viewing the video receive no personal feedback, they benefit from understanding what the feedback is, how it is given, and may then be able to apply it for their own improvement. Again, the workload for the teacher is just one tutorial whose value is magnified by making the recording available for all students. The method could be repeated for all groups over a term, so that each student has one session of receiving personal feedback. Making use of the VLE in peer reviewing and masterclass sessions can benefit both teachers and students significantly.

SUPPORT FOR TEACHERS

There is no doubt that educational technologies have the potential to offer students an active learning experience. But what do teachers need to scaffold that learning experience? Well, teachers need the support to innovate collaboratively, and to share, critique and discuss their ideas. Only then can they apply and improve on those ideas with their students. Another crucial factor is time. Education leaders should ensure that teachers are given the time to do all those things because it is not just about adapting other people's work, but it is also about being able to develop their own as well. ■



**ABOUT
THE KEYNOTER**

Diana Laurillard is Professor of Learning with Digital Technology at UCL Knowledge Lab, University College London. Formerly, she was Head of the e-Learning Strategy Unit at the UK government's Department for Education and Skills; and Pro-Vice-Chancellor Learning Technology and Teaching at the Open University. She had also served on the Governing Board of the UNESCO Institute for IT in Education, Moscow; Visiting Committee on IT, Harvard University; and is currently serving on McGraw-Hill Editorial Advisory Board. Her ongoing research is on 'The Transformational Potential of MOOCs' (Centre for Global HE, UCL-Oxford); 'Future Education' (RELIEF Centre, UCL-IGP); and the Learning Designer tool.

This article is based on Professor Laurillard's keynote address titled "Teachers as Collaborative Designers of Learning" at the Teachers' Conference and ExCEL Fest 2023.

THE PROFESSIONAL LEARNING

Journey



The biennial Teachers' Conference and ExCEL Fest (TCEF) organized by the Academy of Singapore Teachers provides an opportunity for local teachers to come together and celebrate the spirit of professional learning, as well as for them to learn, connect and engage with esteemed thought leaders and practitioners to explore possibilities for the future of learning. One of the main objectives of TCEF is to reinforce the fraternity's emphasis on lifelong learning, and we took the opportunity to ask two TCEF teacher participants to share their thoughts on the importance for both teachers and students to adopt a future-ready mindset.

How do you motivate and encourage yourself to adopt a lifelong learning attitude to develop professionally?

Having a positive and growth mindset is certainly key to adopting a lifelong learning attitude. Lifelong learning not only brings personal fulfilment and satisfaction but also empowers me to develop myself professionally, focusing on my growth rather than catering to others' expectations. It is essential to make time and space for learning because it won't happen unless I prioritize it.

Staying updated with changes in the educational landscape and engaging in discussions with colleagues are other important aspects. The Academy of Singapore Teachers (AST) regularly sends informative emails about the latest Teacher-Led Workshops, which provide valuable learning opportunities through sessions conducted by fellow educators. Lifelong learning doesn't always require enrolling in formal courses; I can deepen my knowledge by listening to podcasts, reading educational research, or exploring classroom inquiry. The English Language Institute of Singapore (ELIS) offers abundant resources specifically designed to support the professional development of English Language teachers. These resources are easily accessible, allowing me to learn at my own pace and fit learning into my busy schedule.



By motivating myself and adopting a growth mindset, I can enhance my knowledge and skills, such as learning how to create a *Google* site or use *Nearpod* (an interactive student engagement platform). This increased proficiency can boost my self-confidence both personally and professionally. Personally, the satisfaction derived from dedicating time and effort to learning and improvement instils a sense of accomplishment. Professionally, self-confidence arises from the trust that I have in my knowledge and my ability to apply what I have learned.

Open Classroom and Peer Observation

At Kranji Primary School, open classroom sessions and peer observation play significant roles in my professional development. Attending open classroom sessions provides me with an opportunity to develop a genuine curiosity and thirst for knowledge by observing my colleagues' lessons. Peer observation, on the other hand, fosters collaboration and collegiality which enables me to transfer skills with my colleagues and acquire new strategies in real-time. Engaging in this reflective practise strengthens my classroom practises by tapping into the expertise of my peers in a non-judgmental and safe environment. I can engage in discussions with my colleagues and mutually decide on the focus area, such as differentiated instruction, e-pedagogy or assessment for learning.

How do you motivate and encourage other fellow educators to do the same?

Build a Support Network

Surrounding oneself with like-minded individuals who value lifelong learning is crucial. Learning can occur in various settings, including both formal and informal ones. Informal opportunities, such as engaging in discussions with colleagues in the staff room, can initiate conversations that contribute to teacher professional development. These conversations can involve independent research, investigation and peer learning initiatives.

Set Clear Goals

Defining specific goals and objectives is essential to ignite one's professional development journey. The ability to learn is what fosters personal growth and development. Engaging in professional learning time can provide an avenue to discuss with colleagues on their interest in learning new skills to enhance their competencies. By establishing clear goals, teachers gain a sense of direction and purpose, which in turn facilitates motivation. It is important to encourage asking questions, seeking out new perspectives, and exploring diverse sources of information to stimulate intellectual curiosity. These actions empower educators to improve their skills, leading to enhanced student outcomes and curriculum innovation.

Dare to Venture Beyond their Comfort Zones

Teachers possess extensive expertise and diverse perspectives, and it is crucial for them to take the first step in venturing beyond their comfort zones. Encouraging them to have open communication with school leaders and reporting officers regarding their professional development aspirations, such as participating in Teacher Work Attachment (TWA) for a few weeks, can be beneficial. I think recognizing and acknowledging teachers' viewpoints is important, as it demonstrates that their voices are heard and valued, contributing to a collaborative and trusting work environment.

Commitment

It is vital to remember that adopting a lifelong learning attitude professionally is an ongoing journey. Making a commitment to engage in new learning initiatives is the final and most important step, which must be followed through. By staying committed, being open to new opportunities, and embracing the joy of learning, individuals can continue their professional growth throughout their careers. ■

The second TCEF teacher participant we interviewed, Ang Sing Yee from Compassvale Secondary School, also shares with us her views on lifelong learning as well as student beliefs.

Scan the QR code to find out more!



ABOUT

THE INTERVIEWEE

Mohamad Fazlee Bin Sabari is currently the Level Head English Language at Kranji Primary School. With approximately 10 years of teaching experience, he is a devoted and experienced educator. He possesses a deep enthusiasm for teaching the English Language and consistently strives to enhance his expertise in both content knowledge and pedagogy. His interest lies particularly in incorporating e-pedagogy and differentiated instruction techniques for the English Language, always seeking opportunities for further growth and development.

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Do you have any questions on topics covered during this year's Teachers' Conference and ExCEL Fest?
We welcome any questions you would like our NIE researchers to answer. Send them to us by scanning the QR code below!



ASK A RESEARCHER

