

A PUBLICATION BY THE MINISTRY OF EDUCATION, SINGAPORE

JAN - MAR  
2019

# CONTACT

ISSUE  
33

THE TEACHERS' DIGEST



## NO STRANGERS TO THE WEB

We meet educators who are turning knowledge into  
breakthroughs for the education system.

02

Feature

## Thinking Ahead

Creating a home ground for shared expertise in our education system.

06

Feature

## Preparing Future-ready Teachers

The institute for teacher education leads the way in a changing world.



09

FYI

## Schools of Thought

How teachers across the world benefit from learning opportunities.

13

Teacher to Teacher

## Empowering Educators

A mentor and mentee share how they were changed by their partnership.



14

School Leader

## The Joy of Learning

A conversation with Mrs Chua-Lim Yen Ching on why professional development matters

16

Cover Story

## No Strangers to the Web

How Economics teachers are injecting fun into the curriculum.



20

In Focus

## Cool Things You Can Do with SLS

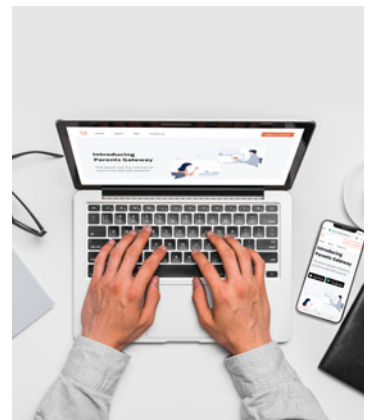
Easy-to-use features for you to deliver more customised and engaging lessons.

21

Shoutout

## Parents Gateways

A national platform for educators to engage in collaborative learning.



Back Cover Comic

## When MOE Says Fewer Exams in School...

Loosen up with a little laughter.

In the early 1480s, Leonardo da Vinci sent a letter to the ruler of Milan, Ludovico Sforza, seeking employment as a military engineer. He listed 10 different skills (designing bridges, tunnels, chariots and catapults, for example) before adding at the end that he could also paint.

Leonardo was an insatiable learner. His intellectual curiosity was essential to the art he would create years later. *Mona Lisa's* expression is the result of the artist-scientist's studies of anatomy, of all the muscles involved in smiling. In *The Last Supper* (commissioned by Sforza), he could make the perspective lines work flawlessly because he studied how our eyes perceive objects at a distance.


He embodied qualities that can enable us to flourish in our work and everyday lives. "We can be observing and curious like Leonardo," biographer Walter Isaacson notes. "I can, every day, try to look at things in a more observant way."

In these pages, we meet educators who have this same spirit. We seek insights on professional development from the head of the Academy of Singapore Teachers (see **p14**), and catch up with Academy colleagues who are carving a path for us all (see **p02**).

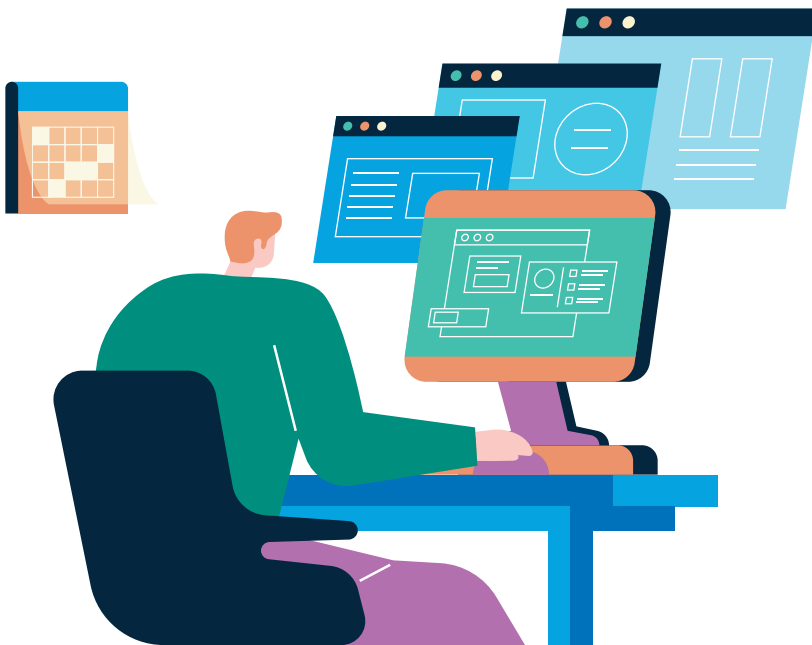
At NIE, professors and their students are studying a changing world, and turning their knowledge into innovations for Singapore schools (see **p06**). And we connect with teachers using the Student Learning Space to nurture in classrooms a similar passion for learning about the world (see **p16**). It's an exciting journey knowing the collective impact these efforts can have.

We do hope you find moments within this issue that give you pause, and think about what helps you advance in your workplace and on the personal front.

We'd love to hear where you gain knowledge and information about education, so please drop us a note at [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg), or fill in our short survey at [bit.ly/ContactReaders2018](https://bit.ly/ContactReaders2018).

As ever, thank you for your support. 

### The Contact Team



Knowledge is all around us, now more than ever before in human history.

## CONTACT

Issue 33. Jan - Mar 2019

### Publisher

Design Branch, Communications  
Division, Ministry of Education  
1 North Buona Vista Drive, Singapore 138675  
[www.moe.gov.sg](http://www.moe.gov.sg)

Editorial Adviser  
**RACHEL TAN**

### Contact Team

Editor  
**KENNETH WEE**

Art Director  
**KEN KOH**

Writers  
**FENG ZENGKUN/INKSPIRE GROUP,  
DON SHIAU**

Illustrator  
**GARCON DESIGN**

Contributors  
**HEIDI YEO, TAN PEILING**

Access the archive  
[www.moe.gov.sg/teachers-digest](http://www.moe.gov.sg/teachers-digest)

Share your views  
[contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg)

Watch videos



**MOESpore**

Connect



**moesingapore**



**MOESg**



**moesingapore**

Read school stories  
[www.schoolbag.sg](http://www.schoolbag.sg)

*Contact* is published four times a year by Design Branch, Communications Division, Ministry of Education. All rights reserved. Reproduction in whole or part without written permission is strictly prohibited. All information is correct at time of going to press. The views and opinions expressed or implied in *Contact* are those of the authors or contributors and do not necessarily reflect those of the publisher. Printed by Ho Bee Print Pte Ltd (Registration No: 199204772H)

COVER ILLUSTRATION: GARCON DESIGN

# THINKING AHEAD

Meet the heads of two departments at the Academy of Singapore Teachers, whose collective mission is to support the professional development for all in the education system, and create a home ground for shared expertise.

## A Fraternity of Inspired Professionals

"Teachers in Singapore have professional development in their DNA," says **Mr Teoh Tiong San**, Director of the new Professional Development Planning Office (PDPO).

"They know that it's important. Now, our job is to make it more meaningful, more efficient and more connected. Each and every teacher should feel that he or she is not only never alone, but also part of a fraternity that is always learning together."

The office will be guided by three questions: how the Ministry of Education (MOE) handles teachers' professional development now, how the ministry has fared to date, and how it should adapt or transform its methods as the teaching profession evolves.

"We're at the stage where we need a think-tank to rise above the individual departments to see where we have done well, what our current needs are, and where we can go further, and the PDPO will fulfil that role," he says. "There are three main areas that the PDPO will delve into: policy work, knowledge generation and consultation."

1. Ms Deborah Goh, Academy Officer, Professional Development Planning Office; 2. Mr Oh Teck Tiong, Senior Academy Officer, Professional Development Planning Office; 3. Dr Caroline Ho, Lead Specialist, English Language, English Language Institute of Singapore; 4. Mr Siraj Ansari, Senior Academy Officer, Professional Development Planning Office; 5. Dr Sally Ng, Assistant Director, Pedagogical Excellence Branch; 6. Mr Teoh Tiong San, Director, Professional Development Branch 2 and Professional Development Planning Office; 7. Dr Tan Yuh Huann, Senior Academy Officer, Professional Development Branch 2; 8. Mr Shawn Lim, Deputy Director, Professional Development Branch 2 and Professional Development Planning Office; 9. Ms Wendy Chan, Academy Officer, Professional Development Planning Office. Not pictured: Dr Goh Sao Ee, Master Research Specialist, Research and Management Information Division, MOE





Looking after teachers' professional development, Mr Teoh Tiong San.  
"We are looking at where we can mount research efforts that will have a big impact."



## DISTILLING GREAT PROFESSIONAL DEVELOPMENT

Policy work consists of writing think pieces and concept papers in collaboration with MOE's various divisions. PDPO will find out how they conduct professional development, and evaluate the most effective practices. It will also glean lessons from relevant research material and real-world case studies.

"The goal is to synergise all of the information, boil it down and come up with what we call the 'design principles' of great professional development: what you actually need to have and do to create great professional development practices," says Mr Teoh.

First up will be a monograph on Singapore's history of professional development in education. "This has never been done before, and we have come to a point in our journey where we can look back and codify not only some of our very good practices, but our story so far," explains Mr Teoh.

The PDPO is also planning a deep dive into digital learning opportunities for educators. Deputy Director **Mr Shawn Lim** notes: "We have made a big step with SLS, providing a common digital space for students to learn, but what about teachers? It is very easy to say we should use digital learning to help teachers become better, but details matter."

He adds, "if we want to create or curate online educational videos for teachers, for example, what type of videos should

we use? What should the content cover? When and where would they be useful? We cannot take any of these things for granted. We need to have broad guidelines for our entire fraternity on how to incorporate digital learning."

## EXPANDING THE POOL OF KNOWLEDGE

The PDPO will also undertake or support research to build its knowledge base.

"If we launch a professional development project, we'd want to track it, study it, and find out whether it's effective and how we can tweak it to improve it," Mr Teoh explains. "We're looking at where we can mount research efforts that will have a big impact."

Consultation makes up the third focus of the PDPO. "Since we're aiming to become Singapore's think-tank for professional development in education, we should expect and want other divisions to come to us for advice," he says.

In fact, a school cluster had already approached the PDPO for help in reviewing its professional development strategy. Mr Teoh says, "After having conversations with the officers and looking at their needs, we proposed a networking learning community (NLC) approach and connected them with Master Teachers who would be able to help them execute it."

PDPO's small size (there are 10 people in the team now, including several who are on secondment) will not limit its impact. "If people come to us for help, even if we do

not have the hands and legs to help them ourselves, we can direct them to others who have the expertise and manpower," he says.

Eventually, PDPO could become the lead organiser for seminars, workshops and other events related to educational professional development, and be the interface for other countries seeking to learn more about Singapore's efforts and achievements in the field.

## CHANGING WITH THE TIMES

"Traditional forms of professional development like conferences and workshops are not the only way," says Mr Teoh. "You cannot expect a teacher to be well-equipped just because you pulled him out of school for two days to attend an event. Skills have to be continually learned, practised and reinforced."

While such one-off events continue to have a role in professional development, mentoring has been shown to have a much larger impact on teachers' effectiveness and morale. Other emerging trends, such as micro learning, where information is packaged in bite-sized digital morsels that teachers can absorb at their own pace, also hold much promise.

"We also see teachers increasingly take charge of their own professional development," says Mr Lim, "whether it's seeking out opportunities or taking the lead to share with others their experiences and best practices. We want to help facilitate and grow that sense of ownership and leadership."

## BY THE NUMBERS

## PROFESSIONAL DEVELOPMENT FOR TEACHERS IN SINGAPORE

**2 in 5** teachers in Singapore are serving as mentors for other teachers, or who have an assigned mentor, compared to the international average of around 1 in 8.

**93 per cent** of Singapore teachers attend courses or workshops as part of Professional Development (vs. an average of 71% among other countries).

**More than 8 in 10** principals ensure that their teachers take responsibility for improving their teaching skills and students' learning outcomes.

**81 per cent** of teachers in Singapore say that they work in schools with a collaborative culture that is characterised by mutual support and respect.

\*Source: Teaching and Learning International Survey (TALIS) 2013, an OECD survey of over 45 participating countries, every five years. Initial results of the TALIS 2018 survey will be published in 2019.



Looking after the professional development of executive and administrative staff, Ms Joy Leong.  
“We want to foster a learning mindset, and contribute to the professional development of the EAS community.”



1. Assistant Director, Mr Chan Fong Cheok; 2. Senior Manager, Mr Anthony Yeong; 3. Director, Ms Joy Leong; 4. Lead Manager, Mdm Roslina Ng; 5. Senior Manager, Miss Lee Nuanxin; 6. Senior Assistant Director, Karen Thang; 7. Senior Manager, Mr Muhammad Yazid Bin Safaruan

## Achieving Administrative Excellence

Executive and Administrative Services (EAS) staff play an integral role in schools and MOE HQ. Many are the unsung heroes who keep operations running smoothly and efficiently, says **Ms Joy Leong**, Director of the new EAS Professional Development Unit (EAS PDU).

In late 2018, the MOE introduced a new School Administration Team (SAT) Competency Framework, which outlined the roles and responsibilities of each member of the team, and the corresponding skills, knowledge and attributes expected of each of them.


“That was a useful document and a milestone in the professional development of our 6,900-strong EAS colleagues,” says Ms Leong. “Now, with the competency framework in place, our new unit will focus on planning and rolling out professional development programmes and platforms that will help them to upgrade their skills and achieve the competencies that they need.”

As a first step, the EAS PDU is drawing up a comprehensive learning roadmap for each EAS role in the SAT. “If you’re an admin manager, for example, you may need to know about procurement, budgeting and finance,” Ms Leong explains. “The learning roadmap will point you to suggested courses and learning platforms. On top of that, learning resources will be consolidated into single reference points featuring links to the relevant instruction manuals, circulars and other tools that you can use to learn what you need to know.”

Besides working with experts to develop e-learning content, the unit is also developing an electronic PD Planner that will reside in the new OPAL 2.0 (One Portal All Learners) system slated to be ready later this year.

“You’ll be able to see the courses you’ve attended, the articles you’ve read, the things you’ve learned, the areas you need to broaden and deepen your skillset in, and how you can go about doing that,” says Ms Leong. “With this systematic way of tracking your own professional development, you’ll also be able to have more useful conversations with your supervisor about your learning needs, your performance on the job, and your potential areas for growth.”

Beyond the software, the EAS PDU plans to grow a network of PD Champions in schools who will take the lead in encouraging EAS staff to learn from one another. “We have some peer learning now,” says Ms Leong. “We have an operations managers network and a technical support officers network, and the Academy of Singapore Teachers facilitates these networks regularly for them.”

“Moving forward, however, we want to grow and deepen these communities of learning,” she says. “While a part of our work is to set out how you can progressively grow on the job, we want to foster a continual learning mindset so that we’ll be more open-minded, ready to learn, and contribute to professional development together.” 

# PREPARING FUTURE-READY TEACHERS

The world is changing and, with it, the needs of students and their teachers. With NIE being the springboard to many educators' careers in Singapore, we look at how the institute for teacher education is leading the charge.



**W**hen **Mr Lishanth Thangavelu** decided to become a teacher, he had some tough decisions to make.

"I wanted to teach Physical Education and Social Studies," says Mr Lishanth. "But that would have required two separate Bachelor's degrees and up to two years in the Postgraduate Diploma in Education Programme."

Happily, for him, it was 2014. The National Institute of Education launched the NTU-NIE Teaching Scholars Programme (TSP) along with revamped courses for the four-year Bachelor's degrees of Arts or Science with Education (BA/BSc (Ed)).

"I attended the tea session with the dean, and was convinced the revised programme was the best choice for me," says Mr Lishanth. "I could study courses related to sports science, physical education and geography, alongside teaching courses such as classroom management, assessment and educational psychology."

In May 2018, Mr Lishanth was among

the inaugural batch of teachers who graduated from the programme.

Looking back on the revamp of teacher education at NIE, **Professor Low Ee Ling**, the institute's Dean of Teacher Education, says that the measures were necessary to better prepare Singapore's teachers for the new world of tomorrow.

## A GOOD SYSTEM MADE BETTER

The four-year degree programme, by virtue of its length which allows us the time to prepare teachers adequately, has always been a good option for people set on becoming teachers by the time they enter university, says Prof Low.

"During the programme, they get to be with like-minded people who are all committed to a teaching career," she says. "The camaraderie that is built over their four years together is the start of a strong peer support network within the teaching fraternity that will help them throughout their years of teaching."

Student teachers also undergo four

practicum stints in schools, compared to only two in the Postgraduate Diploma in Education Programme.

Still, even with the courses in the degree programme being constantly updated to reflect the latest in pedagogy and the curricula, further enhancements were urgently needed.

"The greatest challenge that we faced was preparing our student teachers for an unknown future," says Prof Low. "The economy was changing, mindsets were shifting, and, with the Fourth Industrial Revolution, new jobs were emerging that we never could have imagined. All these realities are still unfolding. We needed to ask ourselves how we could best prepare our student teachers so that they could in turn teach children to be future-ready."

Further enhancements to the degree programme in 2015 included incorporating more overseas experiences. One of the four practicum stints now includes an opportunity for a five-week attachment in an overseas school.



All third-year student teachers have the chance to take part in an exchange programme at a foreign university, such as the University of Helsinki in Finland, Linköping University in Sweden, or Tsing Hua University in China.

**Assistant Professor Leong Wei Shin**, NIE's Assistant Dean (Degree and Student Life), says that the international exposure prepares student teachers to be more adaptable, and to think quickly on their feet.

"When I brought 10 students to a village school in Phnom Penh," he explains, "they had to understand the unique social-cultural context of education in a rural setting, and interact with school leaders and parents to figure out how to practice parallel and differentiated instruction in that setting."

Advances in technology have also given students and their parents many more ways to contact and engage with teachers. "Interactions are much more dynamic and frequent now," says Asst Prof Leong. "Student teachers need to hone their listening and observing skills even more now, so that when the time comes, they can respond sensitively to each individual student's needs."

Beyond expanding the menu of opportunities, NIE also introduced Education Research in addition to the Academic Exercise, to encourage student teachers to inquire into their practice.

"All teachers need to continually hone their craft and grow in their professional teaching practice," Prof Low says. "By delving more deeply into their practice,

they will be able to improve the quality of teaching and learning that they can offer to their students."

She adds, "research is fundamental to keeping up-to-date on the latest evidence-based practices and theories, and to understanding and responding to learners today. Even for myself, my main area of research is in teacher preparation and professional development, and I am constantly on the look-out for innovations that can propel our teacher education programmes forward."

Those in the TSP can take electives from NTU's University Scholars Programme and NIE's Masters-level courses that can be credited towards a Master's degree. They are also assigned an Academic Advisor who is an expert in their disciplinary major and who will mentor them from day one.

The goal of the revamped degree programme and the TSP is to provide "life-long, life-deep, life-wide and life-wise" learning for our student teachers, says Prof Low.

"We want teachers who will continue to learn throughout their career from pre-service to in-service," she explains. "Educators who will deepen their professional expertise, including through initiatives such as the Singapore Teaching Practice, who will be open to multiple local and global perspectives as well as multimodal methods of teaching and learning, and who will have a strong professional ethos and values."

## PREPARED FOR THE FUTURE

For Mr Lishanth and his fellow graduates, the rigours of the programme have stood them in good stead in their new role as beginning teachers.

**Ms Esther Wong**, who is now a geography teacher at Yishun Town Secondary School, says: "I spent my university years preparing to be a teacher, and appreciated the chance to use that time to gain pedagogical skills and content knowledge. It provided a safe and conducive environment for me to make mistakes and improve on my teaching craft."

Her core classes at NIE spanned education and curriculum studies, and academic subjects. The education studies



modules familiarised her with key concepts and principles that are useful for teaching, including educational psychology. The curriculum studies classes equipped her with teaching strategies for her assigned teaching subjects, while the academic subject lessons covered the content and fundamental concepts of various fields of study.

"For example, I took a module in urban housing, which is part of the housing topic that is now in the Secondary 2 curriculum," she says. "I also had the opportunity to go to New Zealand for my international practicum, and to carry out research in Australia."

**Ms Jane Chua**, who is now an art teacher at Kheng Cheng School, said that being in the TSP broadened and deepened her understanding of what it meant to be a good educator.

"The multiple attachments at schools, international practicum, educational research conferences, internship programmes and overseas community projects widened my understanding of how education is conducted in different places," she says.

"I used to think, rather simply, that being a good teacher was about how I translated knowledge and concepts into lessons," adds Ms Chua. "But being an educator is also about being a role model for strong values and character traits in life; demonstrating humility in learning from others, communicating with people, reflecting on the job, and the list goes on."

"In a nutshell, if I want to become the best version of myself as an educator, I have to keep learning every day," she says. "That is something that I learnt from the inspirational professors and teaching professionals that I had encountered in my four years at NIE and few months as a teacher so far."

Mr Lishanth, who now teaches physical education at Seng Kang Secondary, agrees. "I was given opportunities and experiences I never could have gotten from the other programmes that I was considering," he says, "and I was able to focus on becoming a first-class teacher."

Some of the beginning teachers also noted that they continue to rely on friends




they made during the programme. "Being in an environment where I could build four years of friendships with like-minded people made all the difference," says Ms Chua. "It's like what the dean said at the tea session: Just as a doctor learns his or her craft in a medical school, and a lawyer learns his or hers in a law school so, too, should a teacher learn his or her craft in an education school."

### A COUNTRY AS GOOD AS ITS TEACHERS

Singapore has gone through four phases of education so far. The "survival-driven" phase from 1959 to 1978, the "efficiency-driven" phase from 1979 to 1996, the "ability-driven" phase from 1997 to 2011, and the current "student-centric and values-based" phase since 2012.

Prof Low notes that the education

system has always met the needs of the country. "Personally, having been involved in teacher education administration for 10 years prior to becoming dean of teacher education, teacher education is something that is very close to my heart," she says. "As the dean, my goal is to contribute to providing the best possible education to the teachers of the future, and by extension to all of their future students."

She urges student teachers to have a strong passion for their profession, the patience to work with their students, and the desire to help them to grow into productive young adults. "Educators should have the humility to serve the community and the teaching fraternity, continually update themselves with the latest in pedagogy and content knowledge, and, finally, be able and ready to take on the mantle of leadership if called upon." 

# Schools of Thought

Just like their students, teachers across the world are benefiting from learning opportunities and professional development.

## Micro-Learning, Big impact

[United States]

For many teachers in the state of Tennessee, bite-sized online courses have been the key to upgrading their professional skills and solving their problems in the classroom. The state has been piloting a new professional development system for educators called “micro credentials”, where teachers can select short online courses from a menu and complete them at their own time and pace. Each course imparts a specific skill, such as how to use visual aids to improve students’ learning or how to handle special-needs students who may be disruptive in class.

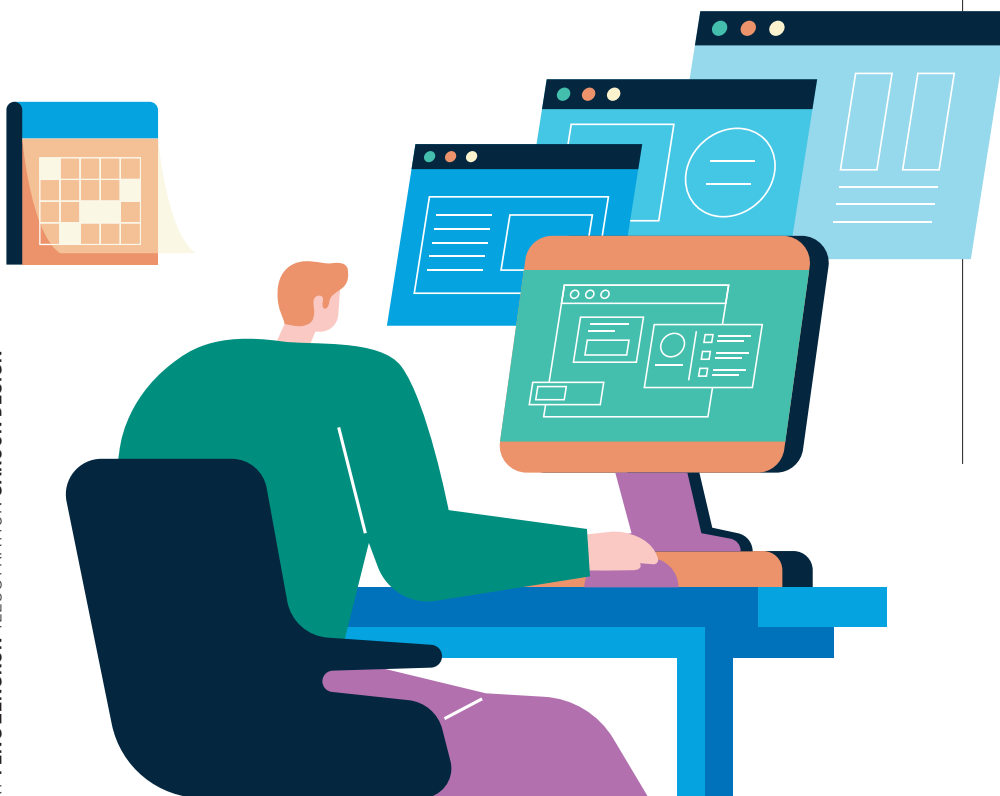
Source: The Pew Charitable Trusts,  
[bit.ly/TennesseeTeachers](http://bit.ly/TennesseeTeachers)

## PREPARATION FOR NOVICES

**300 hours**

The number of hours of professional development that first-year teachers in Japan must complete. In addition to the national first-year induction requirement, some local governments require second-year training.

Source: Phi Delta Kappan,  
[bit.ly/TeacherPDJapan](http://bit.ly/TeacherPDJapan)



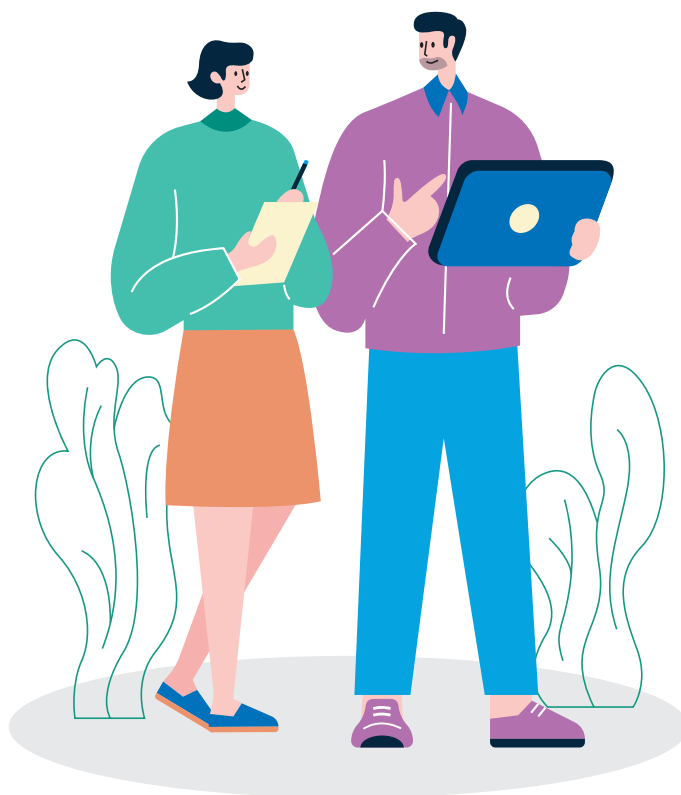


## School Buddies

[China]

Just as a teacher might assign a good student to help a poor one, schools in Shanghai have been blossoming under a longstanding buddy system. Under the “Empowered Management Programme”, a high-performing school is paired with a low-performing school – usually for a two-year period. Teachers and school leaders from both schools move between the two schools, building capacity and developing effective practices. More than 60 schools have been turned around by the programme.

Source: Foreign Policy,  
[bit.ly/ShanghaiSchools](https://bit.ly/ShanghaiSchools)



## Canadian Collaborators

[Canada]

Every six weeks, senior teachers from schools throughout the province of British Columbia gather in groups to discuss the learning issues that their students are facing. They debate potential solutions, demonstrate the latest teaching techniques, and design plans for their less-experienced colleagues. These “coordinators of inquiry”, chosen and trained by the Canadian Ministry of Education, are part of the province’s efforts to ensure that all schools benefit from one another’s experiences.

National Center on Education and the Economy  
[bit.ly/NCEEBeyondPD](https://bit.ly/NCEEBeyondPD)

## A VALUED PROFESSION

**10 percent**  
The percentage of applicants who are accepted into Finland's competitive primary school teacher education university programmes. The intake rate for secondary school subject teacher education programmes ranges from 10 percent to 50 percent.

Source: Finland National Agency for Education,  
[bit.ly/FinnishTeachers](http://bit.ly/FinnishTeachers)

## Contests and Credits

[South Korea]

Fun and games can help educators to develop their professional skills too. In Seoul, the government organises contests for teams of teachers to submit innovative ways of instruction that could help students to do well in school. District offices in other parts of the country also sponsor similar teaching contests where the winners go on to become professional development leaders or school consultants. Such contests are often featured in newspapers and on national television, adding to the participation rate and spurring the creation of impactful teaching techniques. To nudge educators towards professional development, the government has also instituted a system where they can earn credits towards promotions by taking courses.

Source: The National Academies Press,  
[bit.ly/TeacherPDSouthKorea](http://bit.ly/TeacherPDSouthKorea)



## LESSONS FROM NIE RESEARCH

## NOTES FROM RESEARCHERS ON MENTORING PRACTICES IN SINGAPORE

By Professor Low Ee Ling, Dean, Teacher Education, NIE and  
Dr Goh Sao-Ee, Master Research Specialist, Research and Management Information Division, MOE

**M**entoring supports beginning teachers in their professional needs and growth. Locally, not much evidence is known about its impact as well as the factors that account for successful implementation of school-based mentoring programmes. Our study focused on the Academy of Singapore Teachers' Instructional Mentoring Programme (IMP), and its implementation in schools. It included a survey of 800 beginning teachers and case studies of four schools.

The findings showed that the evidence-based IMP had a positive impact on schools. For example, it facilitated a learning and sharing culture through the establishment of a common language among mentors and mentees. It also improved mentoring practices, which had typically been less structured and relied primarily on mentors' own prior experiences.

Moreover, the survey revealed that compared with beginning teachers from schools yet-to-participate in mentoring programmes, beginning teachers from IMP schools reported significantly higher agreement to the availability and quality of structured support provided by the schools – as well as pedagogical and socio-emotional support provided by the mentors.

Such findings, among others, are useful in understanding the aspects of IMP that work, and more importantly, identifying what areas can be improved.

## Mentorship At Every Stage

[Australia]

At the Kadina Memorial School in South Australia, mentorship isn't just for beginning teachers. Every school staff starting a new role receives help from a more senior colleague under a year-long structured programme. New teachers are taught how to set up their classroom, negotiate their first week, handle their students and even decipher the education acronyms that their more experienced peers may take for granted. Those taking on new positions are prepared for their responsibilities and can tap on their mentors' expertise. Principal Dean Angus says the comprehensive mentorship programme, and the relationships between the mentors and mentees, have been key to reducing teacher attrition. 📖

Source: Australian Teacher Magazine,  
[bit.ly/KadinaMemorialSchool](https://bit.ly/KadinaMemorialSchool)

## MOULD THE FUTURE

“Educators, you are the heart, brain, muscle and backbone of our education system. You provide us the basis and foundation to explore new possibilities as we take Singapore’s education forward.”

Minister for Education, Mr Ong Ye Kung, in the opening address for the Appointment and Appreciation Ceremony for Principals on Dec 27. Read the full speech at [bit.ly/AACP2018speech](https://bit.ly/AACP2018speech)

How do you make time for professional development in school? Tell us about it: [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg)





# EMPOWERING EDUCATORS

The best mentorships are two-way streets, with young educators benefiting from the advice of their more senior colleagues, and the latter learning from the former, too.



When **Ms Tok Kah En** started teaching in 2015 at Serangoon Junior College (now Anderson Serangoon Junior College), she felt stressed and unequal to the job. "I was dejected and demoralised because I felt that I hadn't managed my first few lessons properly," she says.

Fortunately for her, the school had assigned her a mentor, **Mr Muhamad Salahuddin**, her senior colleague at the time who is now a Master Teacher at the Academy of Singapore Teachers. "When I opened up to him about my lessons and pointed out the negative parts, he told me that it was common for beginning teachers to feel inadequate, and that even he still sometimes walks out of a lesson thinking it wasn't good enough," she adds.

His emotional support helped her to overcome her fears that she was not right for the job, and, over the next two years, their mentor-mentee relationship made both of them more reflective and competent teachers. "Officially, we met once every two weeks to have an hour-long conversation about how things had been for her, but we spoke every day," says Mr Salahuddin. "Whenever she needed advice, I was happy to be there for her."

Mr Salahuddin reviewed Ms Tok's lessons, asked her questions that made her think more deeply about how she structured and delivered her lessons, and explored with her different ways of handling students. "She levelled up very quickly," Mr Salahuddin recalls. "She became very clear

in her lesson delivery, and quick to adapt to whatever happened in the classroom, which is a very big strength."

In 2017, both mentor and mentee were tasked with teaching biology to the school's entire JC2 cohort. "It was her first time taking JC2 students, and she took 50 percent of the cohort. This is very uncommon for a beginning teacher, and it was a testament to the school's belief in her, that she had the required ability and strength to rise to the occasion," Mr Salahuddin says.

Adding to the pair's work, it was the first year that the school tested students on a new biology syllabus, which included new topics such as immunology and climate change, in addition to a year-end practical test. "We had to create new resources such as lecture notes and assessments, and really relied on each other. If one of us had to miss a lesson because of other commitments at school, the other would take over," says Ms Tok.

Mr Salahuddin adds, "I was learning alongside her and trying to teach her at the same time. During that whole process, we learned a lot from each other."

He explains, "When she came to me and asked questions about creating lecture

notes, setting papers and other things, it made me think about them in ways that I never would have otherwise. I had to reflect on the issues so that I could give the right advice, and that helped me grow as a teacher, too."

Although Mr Salahuddin is no longer teaching at the school, Ms Tok says she holds his advice close to her heart. "There was a time in my second year when I struggled with my role within a team" she says. "I felt that my views were not fully heard and I was merely a follower. Mr Salahuddin reminded me that 'no matter what position you're in, you have your own sphere of influence'. I can still offer suggestions and, if that doesn't work, try again later."

For Mr Salahuddin, his experience mentoring beginning teachers for about a decade makes him believe mentoring relationships are indispensable. "Teaching is very difficult," he says. "You have to be a jack of all trades and master of them all, and beginning teachers can feel overwhelmed. With a clear mentoring structure in schools, teachers have someone who is trained, with the right personality and passion to help. It's impossible to overstate how important this is, and how much they need this." **Q**

# The Joy of Learning

A conversation with Mrs Chua-Lim Yen Ching, head honcho of the Academy of Singapore Teachers, about why educators will benefit from consistent professional development.



“Whenever I introduce myself to students I’ll say, ‘I’m just like your school principal, only that I look after a very big school.’”

As you can see from her quote, executive director Mrs Chua-Lim Yen Ching doesn’t do “management speak”.

The pioneer principal of NorthLight School, she leads the charge on lifelong learning for teachers today. She switches hats between the Academy of Singapore Teachers (AST) where she is Executive Director, and the Ministry of Education where she is Deputy Director-General of Education (Professional Development).

“I think the titles are meaningless to the students,” Mrs Chua quips. “Instead, I’d tell them, ‘If you come to my school at MOE and look into the classrooms, you will see your teachers.’ Students will usually express their disbelief, to which I’ll add, ‘Yes, your teachers also go to school, and they are learning every day!’”

**Contact: How has professional development for teachers changed since you started teaching in the 1980s?**

**Mrs Chua-Lim Yen Ching:** Way back then, it was quite ad hoc and uneven across schools. When I was posted to my school, for example, I was asked to teach English and later Physical Education, even though I was trained to teach Chemistry and Biology. I looked for courses and professional learning opportunities and attended them after school or during the school holidays. When streaming was introduced, we also learned how to engage the different types of students through trial and error.

Now, it is more systematic. The AST has Master Teachers who keep in close contact with schools’ Lead Teachers and School Staff Developers. Each school’s Lead Teacher works with Senior Teachers to oversee PD.

We also have more structured learning now, through groups like the Professional Learning Teams, where schools set aside one hour a week for teachers to discuss Teaching and Learning matters, and Network Learning Communities, where teachers who have similar roles can share their knowledge. Our OPAL (One Portal All Learners) system allows teachers to track their growth in five dimensions – the ethical educator, competent professional, collaborative learner, transformational leader, and community builder – based on the courses they’ve attended and their work reviews.

**Contact: You’ve also been outspoken about the importance of teacher-led workshops. Can you explain?**

**Mrs Chua-Lim Yen Ching:** When you attend a medical conference, who conducts it? Doctors. It’s the same for legal conferences, and it should be the same for teachers. Those of us who are more experienced have a responsibility to help our less-experienced colleagues, and the latter may have good ideas and strengths, for example in technology.

Since I joined AST, I’m heartened to learn we have more than 120 teacher-led workshops every year. Even though our teachers

are very busy, they still want to share their strategies. From past Teachers’ Conferences, we’ve heard that many of our teachers value such sharing. For the 2019 conference, we received more than 500 proposals from teachers. Everyone has a desire to work together to do better.

**Contact: What are our most pressing obligations to future generations of teachers?**

**Mrs Chua-Lim Yen Ching:** Every generation faces its own version of a volatile and uncertain world, but things are more critical now because of the rapid advancements in technology. By the time a Primary 1 child leaves the school system 18 years later, three-quarters of the jobs that exist today may have vanished. It’s paramount that teachers cultivate in students a joy of learning, so that if they have to unlearn and relearn things, it’s not a problem.

Teachers also have to impart other crucial 21st-century competencies, like how to assess information on social media, work with people who are different, and think inventively.

In the Singapore Teaching Practice, we have about 90

teaching videos recorded in Singapore classrooms. One Literature teacher said that after she watched one of the videos, she immediately used the two free periods that day to revise her lesson.

Instead of just going through the text with her students, she drew a line on the floor and told them that it represented the spectrum of values on a particular topic in the text.

She asked them to literally choose where they stood on the subject, and explain why. After that, she gave them a short break. When they returned, she asked them to choose a position on the values continuum again.


About three-quarters of them changed their minds – because they had been

discussing the topic with their friends. By conducting the lesson this way, the teacher taught the students to see things differently, understand the different perspectives on an issue, listen to others and realise that things are not always neat. She achieved all that just by watching a video by another teacher.

**Contact: What are the characteristics of a good PD culture?**

**Mrs Chua-Lim Yen Ching:** It’s one where everyone has internalised that learning is a part of them. We must be realistic. Every school has different needs and moves at a different pace, and you cannot expect, within a short amount of time, that every one of them will reach the level that you want them to be at.

That said, professional development cannot be ad hoc or by chance. It has to be deliberate, structured and systematic, and help each and every one move up one level, and then another level, etc.

There’s no such thing as ‘we have arrived and we don’t need to learn anymore’. All of us have to learn throughout life, and, as teachers, we have to keep moving forward as learners ourselves to become better educators and leaders. 

**“BY THE TIME A PRIMARY 1 CHILD LEAVES THE SCHOOL SYSTEM 18 YEARS LATER, THREE-QUARTERS OF THE JOBS THAT EXIST TODAY MAY VANISH. IT’S PARAMOUNT THAT TEACHERS CULTIVATE IN STUDENTS A JOY OF LEARNING.”**



# NO STRANGERS TO THE WEB

Here's what Economics teachers can teach us about using the SLS to inject fun into the curriculum and help students take on more responsibility in the classroom.

Imagine you teach Economics. You're looking for a case study on how the government managed an economic crisis. You want to integrate this into your lesson plan. What do you do?

Well, you can search the web for such a case study, and print it out for your students to read. If you wanted to know if students learnt the lessons from this incident, you could then ask them to write an essay on monetary policy using the case study as evidence. Or you could organise a class debate on it for a more vigorous engagement.

Or you could take a leaf out of Dunman High School's book. For Economics, teachers uploaded case study materials on the Student Learning Space (SLS). Students then used those to develop and post their arguments for and against the policy implementation, on the SLS.

"During the actual lesson, we used the SLS to let students read and score each other's answers," recalls Economics teacher **Mr Wong Ting Ee**, "They relished the opportunity to critique their peers' work, which is a good example of collaborative learning."

The SLS is accessible to all teachers across Singapore, allowing them to do something similar – create personalised learning packages – for their subjects and students.

More important, it removes the need to toggle between multiple third-party apps.





## WELCOME TO SLS

From the get-go, the aim of SLS is to have a good collection of syllabi-aligned content that students and teachers can access anytime, anywhere. It's the combined efforts of Curriculum Planning & Development (CPDD), Student Development Curriculum (SDCD) and Educational Technology Division (ETD). The former houses a production team that creates the animations and interactive visuals on SLS.

The repository of MOE-created lessons cover primary level to pre-university subjects, and can be used for both student self-directed and teacher-facilitated learning.

Mr Wong appreciates that he can acquire and curate learning materials using existing templates and resources, rather than getting lost in fiddling with complex technology or creating lessons from scratch.

"I have used SLS to create a learning package with a range of materials for students to progress from relatively easy tasks such as interpreting information to more difficult ones that require evaluative assessment."

Right now, SLS is one of many digital tools, but Mr Wong dreams that one day, "it may replace lecture notes or textbooks!" Well, maybe. For now, the next step is getting other teachers interested in trying out SLS tools.



Students relished the opportunity to critique their peers' work, which is a good example of collaborative learning."

— Mr Wong Ting Ee, Dunman High School

## NO CODING SKILLS REQUIRED

In Nanyang Junior College, fellow Economics teacher **Ms Chang Tyng Tyng** took longer to warm up to using technology in class. "I have tried using GeoGebra and Wolfram\* to show how economic variables change over time," she says, "However, these require programming techniques, which are challenging to learn."

SLS changed her mind. Her students have been so engrossed with the lesson activities that Tyng Tyng was spurred to take part in an SLS Design Challenge.

"My team of four curated a lesson on 'Introduction to Macroeconomics'," she explains. "We received feedback from ETD on how we should make the lesson more meaningful for the students. The peer feedback session that took place last November helped me think more deeply into the rationale for online learning and exposed me to different types of student collaboration that could be done on SLS."

Speaking of collaboration, she adds, "I am now working with a teacher from SAJC to create an SLS case-study lesson on macroeconomics. I'm also keen to trial a game created by CPDD that teaches market power and monopoly."

\*Online applications for creating interactive graphs, algebra, statistics, et cetera for learning and teaching mathematics and science.



SLS helped me think more deeply into the rationale for online learning and student collaboration.

— Ms Chang Tyng Tyng, Nanyang Junior College



## TEACHERS AS IMPORTANT AS EVER


Using technology to personalise education is not new. However, **Mr Koh Weining**, Acting Head of Humanities at Temasek Junior College, hopes the SLS can create an ecosystem of learners and teachers, and help personalisation succeed with scale.

During his stint as a Curriculum Planning Officer at CPDD from 2016 to 2017, Mr Koh had set up a Networked Learning Community (NLC) involving teachers from the A-Level Economics fraternity who come together to study innovations in blended learning – in which students take at least a part of a class online. “In the NLC, I was working with teachers from two other schools to develop a feedback app as a way to speed up and improve the feedback giving and receiving process for our students.”

“When I first heard about SLS in HQ,” he explains, “I was excited about the opportunities to make abstract economics concepts come alive through the use of videos, interactives and quizzes for our students.”

Beyond a repository of resources, SLS can be used to enhance learning. “What’s great about SLS is there are many ready-made packages from MOE in the system so teachers can readily customise the multiple media objects and questions already found in the respective subjects’ banks to create online experiences for their own students.

Ultimately, SLS is not intended to replace the teacher’s presence in the classroom. “The quality of the learning experience depends on the craft of the teacher to meaningfully integrate both the online and face-to-face exposure,” says Mr Koh.

“I am hopeful that with sufficient experience on what works and what doesn’t, schools will gradually become more open to the use of SLS.” 



I was excited about the opportunities to make abstract economics concepts come alive through videos, interactives and quizzes for our students.

— Mr Koh Weining, Temasek Junior College



### Did you know?

Meet the Publication Management Section, housed within the Curriculum Planning & Development Division (CPDD). It is made up of editors, digital artists, programmers, project managers and support officers who help turn ideas into colourful and engaging SLS resources. Here’s how: The team comes up with the design concept based on a brief; storyboard and edit the narrative; propose and illustrate the art work; programme code for simulations and animations; run tests; and – finally! – package the resources for uploading to the SLS platform. Phew!

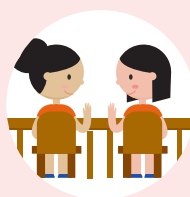


## YOUR STEPS TO SLS SUCCESS

### HOW TO TAKE A LESSON PLAN FROM CLEVER IDEA TO LIVELY CLASSROOMS.

#### 1. VISIT THE MOE LIBRARY:

At the heart of the SLS is a repository of hundreds of curriculum-aligned lessons organised according to subjects, levels and streams. You can assign SLS lessons for students to familiarise them with the content of your upcoming lessons before they come to class. This frees up classroom time to facilitate discussion of the subject content.



#### 2. DURING CLASS:

You can facilitate students' discussion of the content from SLS lessons, and use the included quizzes in class to conduct immediate checks of their understanding. Here are some ideas on how you can structure the use of SLS into your planning of lessons for the year:

- Think about the learning challenges which your students have encountered and the topics, concepts, or skills that could have been taught better with the use of technology.
- Browse through the MOE Library to identify which SLS lessons you could use/ customise to address these learning gaps (refer to SLS Starter Kit 3 which was sent to schools in Oct 2018).
- Decide when and how they can be used, and work these into your Schemes of Work.

#### 3. POST-LEARNING:

SLS lessons can be assigned to students after a particular lesson has been taught, for them to explore that topic in greater-depth, or to apply their learning to related/ linked topics. SLS resources seek to close learning gaps by leveraging the use of technology. Difficult or abstract concepts are explained and brought to life with different types of media. For example:

- Videos of laboratory experiments that demonstrate scientific concepts
- Interactive timelines that help students understand historical events and personalities
- Games to learn English and Mother Tongue Languages in fun and engaging ways
- Animated and live-action videos that simulate real-world scenarios for Social Studies, Economics and Commerce



#### 4. FORMATIVE ASSESSMENT:

SLS lessons include bite-sized formative assessment tasks, such as Multiple Response Questions and Free Response Questions. You can monitor students' responses and use this information to refine your lessons going forward.



# COOL THINGS YOU CAN DO WITH SLS

Check out these easy-to-use features for you to deliver more customised and engaging lessons!

## 01. READ STUDENTS' THOUGHTS

Insert a Thinking Routine as part of the lesson activity to allow students to make visible their thought processes. You can also create Custom Thinking Routines.

**New Thinking Routine**

See-Think-Wonder

Use the information below as a guide when creating a Thinking Routine.

Purpose	Key Thinking Moves
This routine encourages learners to make careful observations and thoughtful interpretations. It helps stimulate curiosity and sets the stage for inquiry.	Describing Interpreting Wondering

See

What do you see?

Think

What do you think?

Wonder

What does it make you wonder?

## 02. MIND THE LEARNING GAP

Monitor students' Thinking Routine responses in real-time and address learning gaps in a timely manner. Bookmark student submissions and sort them by time submitted and bookmark status. You also have the flexibility to reveal or hide students' names when leading class discussions.



Click on "Live Lesson View" on the View Assignment page

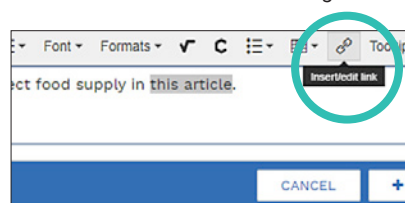
1 I used to think... 2 But now, I think... All

4 student(s) submitted

bacteria are non-living things because they live inside our bodies.	all living things belong to only two groups: plants and animals.
Anna C	Tay Wee T

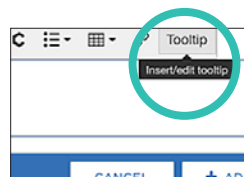
## 03. CLICK TO READ MORE

Got a web article for students to read as part of your lesson? Want to link out to an external technology tool such as Padlet or Tricider? Now you can create links to such external resources when creating lessons.



## 04. ADD A COOL TIP

When creating a lesson, you can use the Tooltip function to provide students with quick references such as definitions for unfamiliar terms.



Teacher View of Text Editor



Student View of a Tooltip Prompt

## 05. TIDY UP WITH FOLDERS

Use My Drive to organise resources by topics or in any way that suits you. Create folders to store lessons, quizzes, questions and even media objects.

### ENHANCEMENTS TO BE RELEASED IN 2019:

#### (1) More Interactive Thinking Routines

a) Add Drawing/Image or Upload a File.

When assigned a Thinking Routine, students can add multi-modal responses, such as audio clips, videos, drawings, or images.

#### b) Post Comments on Peers' Responses.

To facilitate interaction, students can now comment on their peers' responses. Student responses can also be highlighted for class discussion.

#### (2) Make Notes in Assigned Lesson

With My Notebook, students can make their own notes to personalise their learning in SLS.

#### (3) Picture Annotation

With this tool, students can:

a) Annotate on any point in an image

b) Use coloured highlights

c) Append notes, drawings and/or images linked to the annotations on the resource

# PARENTS GATEWAY

## ESSENTIAL FEATURES FOR TEACHERS TO SAVE TIME AND EFFORT ON ADMINISTRATIVE TASKS. \*

**D**eveloped by the Ministry of Education (MOE) and Government Technology Agency (GovTech), Parents Gateway provides an interface between teachers and 600,000 parents for common administrative functions, thus helping schools save time and manpower. This will help teachers better plan classes and nurture students.

It synchronises data from School Cockpit Plus, and requires teachers to log in using their IAMS username and password – making it digitally secure. Parents Gateway is available on iOS and Android mobile phones for parents, while teachers use an administrative web-based platform. Here are the key features for teachers.

### 1. WHAT YOU SEE IS WHAT YOU GET

Teachers will find it easy to navigate Parents Gateway. Once you are logged in,

an overview page will display your options, the latest announcements you have made and the consent forms you have sent to parents. Just select on the relevant section.

### 2. CREATE YOUR OWN GROUPS

Data drawn from School Cockpit Plus will reflect students by class, level and as a school. You can create custom groups, say for your co-curricular activities, to ensure that your announcements and consent forms go to the right parents.

### 3. FEWER HARDCOPIES FLYING AROUND

Sometimes, students “forget” to give letters to their parents. Other times, they may lose forms that contain sensitive information such as their NRIC and contact details. With Parents Gateway, you can send consent forms and collate responses

from parents directly, saving yourself – and them – many headaches!

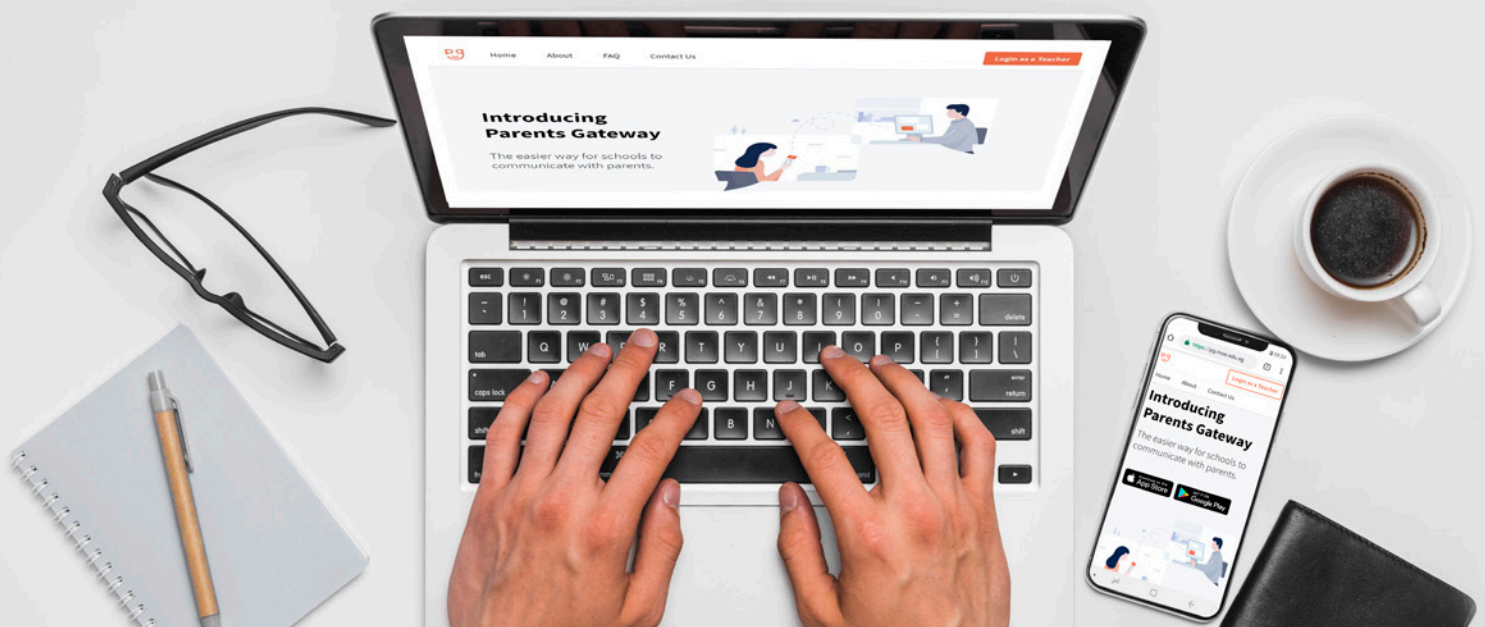
### 4. SAVES TIME (LOTS OF TIME)

The portal can save you at least 30 minutes each week on administrative tasks. At Huamin Primary, one of the pilot schools, teachers spent just 15 minutes instead of the usual four hours on issuing and collecting consent forms during the school year. In fact, Parents Gateway is expected to save its users about 640,000 hours collectively per year!

### 5. BUT WAIT, THERE'S MORE

Future releases include travel declaration and updating of contact information. (Gone are the days when teachers have to use hardcopies to get updates and manually transfer them into the system!)

\*Teachers must access the web-platform at <https://pg.moe.edu.sg> using their IAMS password.



Founded on Agile methodology, Parents Gateway adopts a “Forever Beta” approach in order to remain relevant and responsive to necessary changes. The team is constantly monitoring, calibrating and fixing issues for continuous improvement. Because user collaboration is pivotal, the team’s Education Officers and User Experience Designers visit schools to conduct research, and ensure features in development remain relevant and current.

# When MOE says fewer exams in school...

## What Students Think



## What Parents Think



## What Tutoring Centres Think



## What It Actually Is

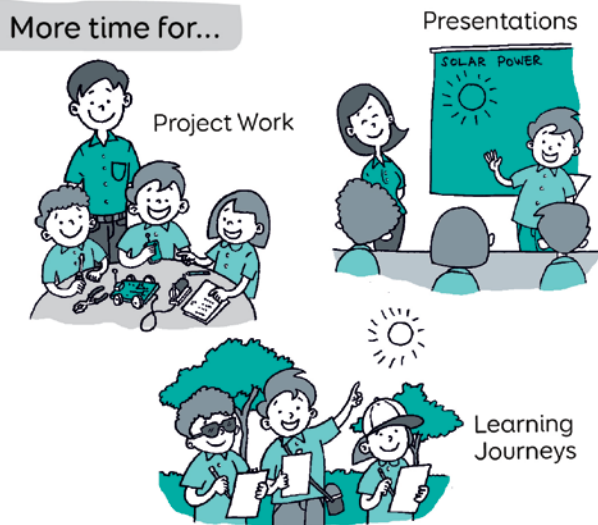


ILLUSTRATION GARCON DESIGN

### #CONTACTBACKCOVER: STORIES BY CONTACT READERS

Each issue, we publish a comic on the back cover – and it could be written by you! Your assignment: In 6 to 8 lines, tell us your funny story, inside joke, or even share a poem. Send your submissions to [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg). Please include your full name, school, designation, NRIC and contact number in your email. We'll choose one winning entry to illustrate, and the winner will receive an attractive prize.