

APR - JUN
2018

CONTACT

ISSUE
30

THE TEACHERS' DIGEST

CLASSROOMS REIMAGINED

We go on the hunt for stories about
schools doing things differently



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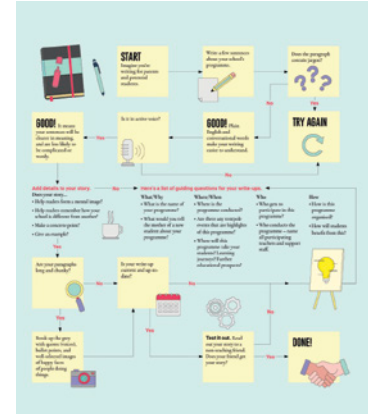


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Our Schools, Our Stories Photo Exhibition 2018

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Back Cover Comic

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A little humour saves the day.



We hear it all the time: The world is changing, and schools need to change. Students need more than facts. Among other things, they need to be able to communicate well and work together to solve problems – and our schools reflect that. Teachers, when rethinking learning spaces, look for ways to make teamwork possible, and part of our mission here is to share their ideas with you.

In this issue, we go on the hunt for stories about schools doing things differently. Our cover story is a series of anecdotes that bring to life the rich experiences and new possibilities for our students (see **p02**). Close on its heels is a centrespread of educational rethinks happening around the world (see **p09**).

In that same vein, we've done a redesign and an editorial refresh of *Contact*, with new columns for *Teacher to Teacher* (see **p16**), and the *School Leader Q&As* (see **p08**).

On the back cover, we've added a comic where we learn to laugh at ourselves a little more. And there's a new contest! (See back cover for details, plus the winners and answers to last issue's puzzle.)

Speaking of cool school experiences and winning contests, the inaugural photography competition for 'Our Schools, Our Stories' saw almost 800 entries sent in by teachers and students. The top images and honourable mentions will be presented in a roving exhibition kicking off on Jul 3 (see details on **p21**). Meantime, the photo on this page shows how some of these talented photographers capture that perfect shot.

Finally, if you've had any thoughts or reflections from the school break that you'd like to send our way then please drop a note to our editorial team (contact_online@moe.edu.sg); send postcards to the address on the right. Wishing you a great start to the second semester. **✉**

The *Contact* Team



Students experimenting with different photo angles and poses to tell their stories.

CONTACT

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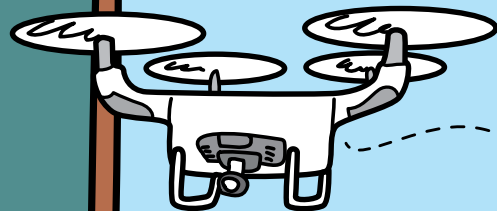
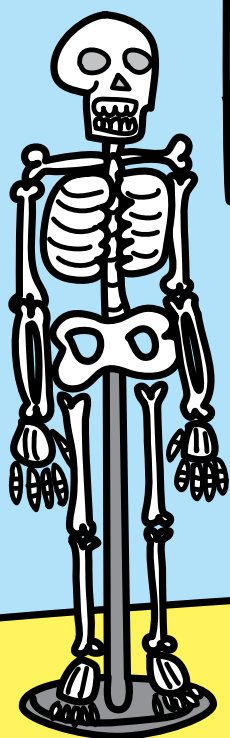
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COVER ILLUSTRATION: JOSEPH TEY

REIMAGINE SCHOOL LIFE

Across Singapore, we see examples of schools redefining the student experience. These changes, big and small, inspire us to think about what's possible out there.



Teaching and Learning

READING OWLS

Visiting the Jurong Bird Park to learn about our feathered friends sounds like a science outing. But for Primary 2 students at **Bedok Green Primary School**, this trip is part of an English lesson. After completing the book "Owl Babies" in class, students visit real owls and try to match what they read with what they see. Such activities are part of the school's efforts to help students discover joy in reading.

Read the full story at bit.ly/BedokGreenPri

CURTAIN RAISERS

Drama in the classroom? Yes, please. For students at **CHIJ Katong Convent**, it is a chance to put their creative juices to the test. At the school, all Secondary 1 and 2 students are first exposed to drama in a foundation programme, learning different play forms and basic acting skills. Drama lessons often involve students using movement to answer questions like, 'What can you do with a chair, apart from sitting on it?' In upper secondary, some students even go on to pursue drama as a GCE O-Level Applied Subject.

Read the full story at bit.ly/CHIJKC

50 SCHOOLS WILL OFFER APPLIED SUBJECTS AT O-LEVEL BY 2019, AND 30 SCHOOLS WILL OFFER MOE-ITE APPLIED SUBJECTS AT N(T)-LEVEL.

Lessons from NIE Research

Creative pedagogies in our education landscape.

MProSE is a method of teaching maths through problem solving, created by a team of mathematicians and educators. In these classes, students are given challenging problems and provided a scaffold to discover the answer instead of correct formulas.

Take how you derive the formula for compound interest. Students start by understanding how such interest accumulates annually. They note the total amount after the first year, and – knowing that this amount now becomes the principal amount of the second year – write down the total amount for the second year, and so on. With this list of numbers, they can identify the pattern and derive a formula for “x” amount after “n” years.

The name of the method stands for Mathematical Problem Solving for Everyone, and the researchers – who trialled it at NUS High School – found that it enhanced students’ confidence and ability to handle unfamiliar problems subsequently. Their ideas are available at the website math.nie.edu.sg/mprose

NO STRANGERS HERE

Catholic High School has an Open Classroom scheme, where teachers can open up their classes to other teaching colleagues to share pointers. Senior Teacher Tan Ping Hock helped to institute this arrangement through the Staff Professional Development Committee. Teachers are free to pop into his class to observe him running a team-based learning session, and he gladly sits in on others’ classes. After all, it’s not just his Physics students who have benefited from working and learning in teams. In fact, neighbouring schools have already started listening in.

Read the full story at bit.ly/CatholicHigh



MINI SCIENCE VILLAGE

At **Temasek Primary School**, students gain scientific knowledge by getting their hands dirty. There’s a garden to observe a butterfly’s life cycle, and an edible garden for growing vegetables in nutrient solutions instead of soil. In the works: a third science garden with orchids to teach hybridisation, and a room dedicated to Science, Technology, Engineering and Mathematics (STEM) for students to research problem statements, devise solutions and actually build prototypes. “I try to create more hands-on opportunities for my students,” says Connie Soon, who spearheads these efforts. “I would like to make the learning of Science come alive.”

Read the full story at bit.ly/TemasekPri

Learning Beyond the Classroom



YOUNG HANDS ON DECK

Thanks to the National Cadet Corps (NCC) Sea, Joie Lim from **Fairfield Methodist School (Secondary)** got the chance to sail 10 days with the Republic of Singapore Navy. On board the RSS Endurance ship, she and fellow cadets saw Navy personnel perform protocols from plugging leaks to firefighting, and even witnessed live-firing exercises. It brought to life the sea-proficiency syllabus the cadets had been studying – which included adventures from scuba diving, kayaking to dragon-boat training that they could share around the campfire.

Read the full story at bit.ly/FairfieldMethodistSec

WOW THE CROWD

Since 2013, **Ahmad Ibrahim Secondary School** has been offering circus workshops for students. They learn to handle a variety of skills, from juggling balls to spinning plates. Some of them take to the stunts readily; others are slower to warm up. Nonetheless, even the introverted ones find confidence with encouragements from the circus crew. Unconventional as it is, the school's principal, Ms Chew Ing Lim, likes that such programmes teach life skills, build confidence in students when they performed for schoolmates, and help them understand themselves better.

Read the full story at bit.ly/AhmadIbrahimSec

GREEN THUMBS

Instead of just reading about the need to care for the environment in their science textbooks, **Anchor Green Primary School** students walk the talk. The students pitch in to clean their classrooms daily and make the effort to deposit unwanted recyclables into colourful bins around the campus. Primary 1 students also “adopt” a part of the school’s eco-garden, and help to maintain and look after the plants.

Read the full story at bit.ly/AnchorGreenPri

GROOVE TO THE BEAT

Teamwork makes the dream work, and this is particularly meaningful for members of **Tampines Secondary School’s** Street Dance CCA. On practice days, the 65-member troupe would split into smaller groups of about eight to 10 during their practice sessions, and orchestrate their moves for various sections of a performance. They later re-group and work to piece together an entire gig. Ms Fadilah Abdul, the CCA’s teacher-in-charge, explained that this way of working offers students a glimpse into backstage work and challenges them to work together to achieve a successful performance – skills that can’t be taught through the textbook.

Read the full story at bit.ly/TampinesSec

8 IN 10 STUDENTS IN SINGAPORE SAY TEAMWORK RAISES THEIR EFFICIENCY. MORE THAN 9 IN 10 ENJOY COOPERATING WITH PEERS.*

Lessons from NIE Research Creative pedagogies in our education landscape.

Questioning the Author (QtA) and Negotiation for Meaning (NfM) are two strategies for teaching reading comprehension. Working as teacher mentors, researchers Dr Rita Silver and Dr Jessie Png tested these at a primary school to study the similarities (or differences) to current practices, and pilot lesson plans and materials based on QtA and NfM.

Briefly, QtA assumes that authors are fallible and students are urged to think about and explain why the information was presented that way, and whether the writer could have explained things better. On the other hand, NfM encourages students to “negotiate” their understanding of the text – for example, by asking each other about the meaning of unknown vocabulary. Both strategies require more open-ended discussion than was typical.

Lesson observations suggested that teachers could incorporate the new strategies despite initial discomfort, and students spoke up more during classes – even the quiet students. There were improvements in reading comprehension test scores, although these developed over time. Also, the strategies gave teachers the opportunity to find out what students understand, or do not, and figure out the next steps – on the spot. There are, of course, different types of class discussions. Learn more about the specific questions and comments at knowledgebank.nie.edu.sg/questioning-the-author.html



Character and Citizenship Education

CLASS OF KIND HEARTS

Visually-impaired people face many daunting challenges, taking the public transport is one of them. **Radin Mas Primary School** offered students a chance to find out how daunting this could be, in order to discuss ways that the visually impaired could be better supported. Part of the programme involved students travelling blindfolded around Punggol via public transport, relying only on their hearing and sense of touch. "It was a struggle when my vision was completely cut off," says P5 student Genevieve Guntur who took part. "I learned to understand the needs and feelings of others...that we should not take things for granted."

Read the full story at bit.ly/RadinMasPri

HELPING HANDS

Every year, the 25th Singapore Boys' Brigade (BB) at **Hillgrove Secondary School** takes part in the national Share-a-Gift project. In this nationwide initiative, donors are encouraged to shop and purchase gifts for the less fortunate; after which, a Car Flag Off event organises over 400 volunteers and BB boys to deliver food hampers to the homes of the needy. "We carry about 10kg worth of donated items by hand across blocks of flats," says Sec 3 student Lwin Moe Htet. "It all pays off when we see the smiles on the faces of the beneficiaries at the end of the day."

Read the full story at bit.ly/HillgroveSec

Lessons from NIE Research

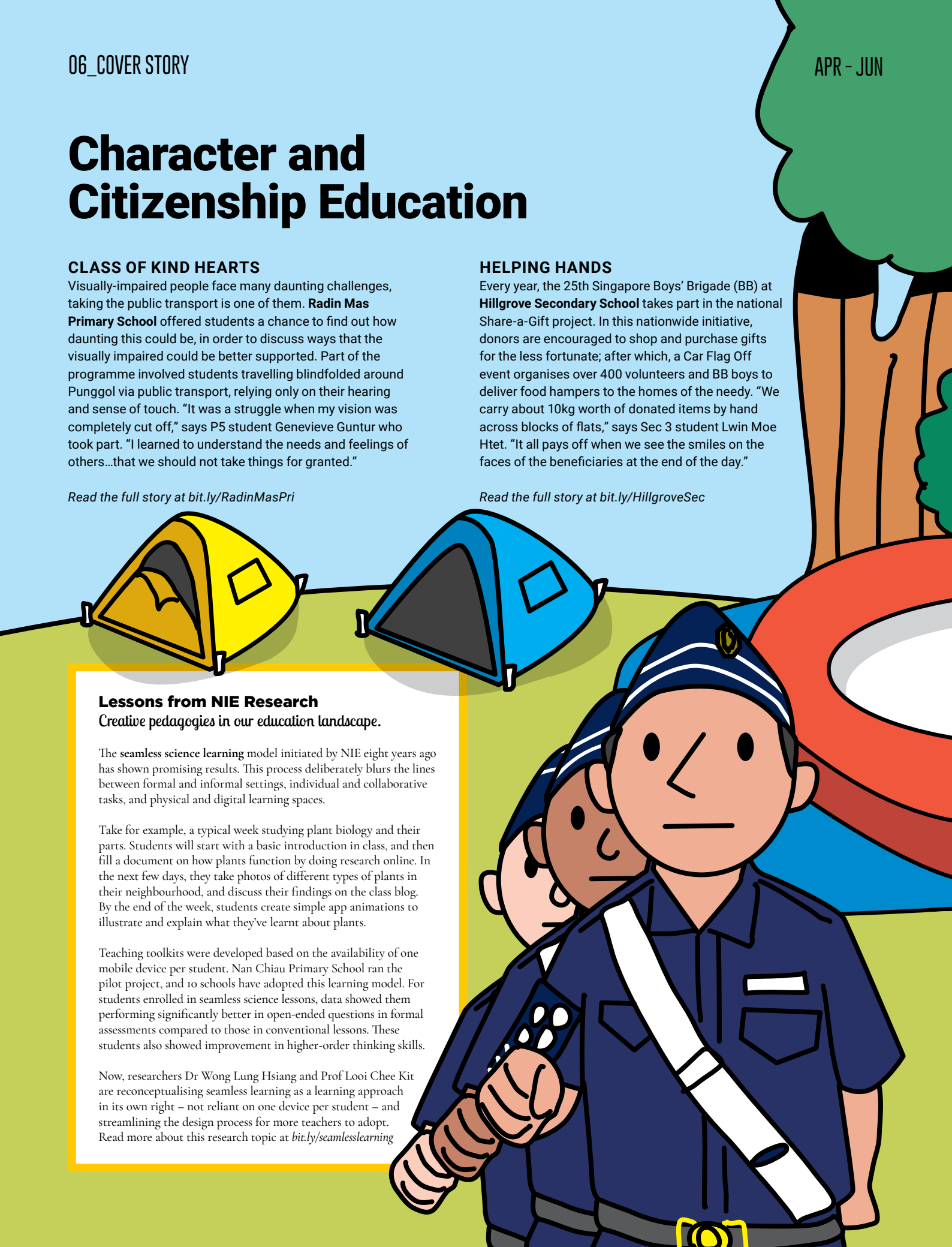
Creative pedagogies in our education landscape.

The seamless science learning model initiated by NIE eight years ago has shown promising results. This process deliberately blurs the lines between formal and informal settings, individual and collaborative tasks, and physical and digital learning spaces.

Take for example, a typical week studying plant biology and their parts. Students will start with a basic introduction in class, and then fill a document on how plants function by doing research online. In the next few days, they take photos of different types of plants in their neighbourhood, and discuss their findings on the class blog. By the end of the week, students create simple app animations to illustrate and explain what they've learnt about plants.

Teaching toolkits were developed based on the availability of one mobile device per student. Nan Chiau Primary School ran the pilot project, and 10 schools have adopted this learning model. For students enrolled in seamless science lessons, data showed them performing significantly better in open-ended questions in formal assessments compared to those in conventional lessons. These students also showed improvement in higher-order thinking skills.

Now, researchers Dr Wong Lung Hsiang and Prof Looi Chee Kit are reconceptualising seamless learning as a learning approach in its own right – not reliant on one device per student – and streamlining the design process for more teachers to adopt. Read more about this research topic at bit.ly/seamlesslearning





SPRINGBOARD TO IMPART VALUES

Bossaball is played on an inflatable court fitted with trampolines, and gameplay looks like a blend of volleyball, football and gymnastics. While the game is making inroads in Europe, **Yuying Secondary School** became the first school in the world to offer it under its roof. The students love their new signature sport. Started by PE teacher Lawrence Lim, he also saw it as an opportunity to impart values in discipline, cooperation and helping each other level up.

Read the full story at bit.ly/YuyingSec

FOLLOW OUR FOOTSTEPS

Fajar Secondary School runs a Shoes Donation Drive, collecting still-good shoes that people quickly outgrew. These are delivered to the less fortunate with the help of Soles4Souls, an organisation that sends donated shoes to third-world countries. This year, the students collected 1,508 pairs of shoes, and used 700 pairs to form the phrase "Walk The Talk" for a Singapore Record of "The Largest Word Formation Made with Shoes".

Read the full story at bit.ly/FajarSec

Character Education

A conversation with Ms Cheryl Foo, Principal of Greenwood Primary, about combining cartoons, moral values and Mother Tongue Languages.



We all view social interactions through the lens of our own experience, which can impede our growth and learning if we aren't aware of it. At Greenwood Primary School, students spend time examining their own background, biases and beliefs through an animated series of short stories.

Collectively titled *Values in the Woods*, the videos feature adorable renderings of cartoon owls (the school mascot) in various situations, voiced-over in Mandarin, Malay or Tamil. There are six themes, based on the school's core values, for students to explore how to be wise, enterprising, gracious, responsible, resilient and open to diverse perspectives. Students will first write the script in their mother tongue, and then translate it into English. The translated script is handed over to students of a different mother tongue, who will storyboard, animate and voice the final product.

The year-long project helps students fine-tune their self-awareness, recognise good character traits, and understand

issues on a deeper level – directly from each other. The conversational style and animated approach make the Greenwood fables easy to absorb. For example, one episode explores how a lack of graciousness can lead to social exclusion, and the ways to resolve it.

Contact: This looks like a fun way for students to learn values and their mother tongue languages at the same time. How did it become a highlight of the school programme?

Ms Cheryl Foo: The inspiration behind *Values in the Woods* was our school mascot! We had the idea of using animation to bring to life both mascot and values. With that came the idea of using the fables students often learn during Mother Tongue Language classes. As a student, I've always enjoyed these short stories read during Chinese lessons. Many mother tongue children's literature and comprehension passages talk about good character values.

Then, we realise that students can narrate such stories from their own

personal experiences. For instance, graciousness as seen through the eyes of a 9-year-old child. These narratives are more intimate for the students. It doesn't have to be literature written by adults.

Contact: What insights have students shared with you?

Ms Cheryl Foo: They told me that it was exciting to write about their personal experiences, and the process helped them appreciate their mother tongue languages. Sometimes, certain expressions in the mother tongue language may not have a direct English translation. For instance, Chinese idioms like “举手之劳” (ju shou zhi lao) might translate to “the effort made was modest”, but could also mean “it's no big deal”.

One group said they had to redo their voice-overs for parent and grandparent owls because their characters didn't sound old enough! The students got their grandparents to read the lines, so that they could imitate them.

Animators faced a different challenge. They had to understand the movement and behaviour of the characters, and decide what backdrop and colours best capture the mood of the story. One group explained that back-and-forth discussions with the authors was necessary. It wasn't so simple after all!

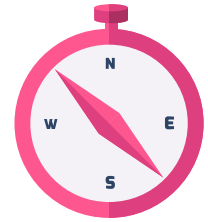
Contact: It sounds like quite a big project for teachers as well.

Ms Cheryl Foo: Credit goes to them for being open, creative, and willing to try new ideas and work across departments. When the teachers reflected on this project, they realised the energy levels of students were very high. They could feel the difference when students were empowered to decide how the lesson was going to go. The students never had problems coming up with ideas. The tricky part is managing that – which is a good problem! What's great was that the animated stories were subsequently used during the Character and Citizenship lessons. These were real stories of filial piety, friendship and family values written by schoolmates they know.

Students clearly loved this creative space given to them. We've just started on the second edition of *Values in the Woods*, because students have been asking us about it. **4**

LESSONS FROM ELSEWHERE

A glance at educational rethinks and revamps around the globe.



1.

Champions for Learning

[Global]

In 2012, The UNESCO Institute for Statistics and the Center for Universal Education at Brookings set up a Learning Metrics Task Force (LMTF) to study learning outcomes that could potentially be tracked by all countries.

By December 2013, the LMTF had input from over 1,700 teachers, students, academics, government officials and education experts from 118 countries. Their first report identified seven learning domains important for all students from early childhood through lower secondary: physical well-being, social and emotional, culture and the arts, literacy and communication, learning approaches and cognition, numeracy and mathematics, and science and technology. Subsequent reports recommended ways to measure outcomes in these areas, and improve opportunities for all children and youth. The implication being that countries are encouraged to rethink how they do assessments.

Things got interesting in the second phase. In 2014, a group of 15 countries, provinces and cities partnered the LMTF to experiment with its initial recommendations and reform their education systems. The LMTF Secretariat at Brookings kept in touch with these “Learning Champions” (Botswana; the City of Bogota, Colombia; the City of Buenos Aires, Argentina; Ethiopia; Kenya; Kyrgyz Republic; Nepal; Ontario, Canada; Pakistan; Palestine; Rwanda; Senegal; Sudan; Tunisia; and Zambia), whose experiences and activities were documented in a recent report from Brookings.

One observation that caught our eye was that these countries appreciated the “thinkspace” to experiment with new and innovative models – which reinforces our emphasis on innovation as well.

Source: The Brookings Institution, bit.ly/LearningChampions

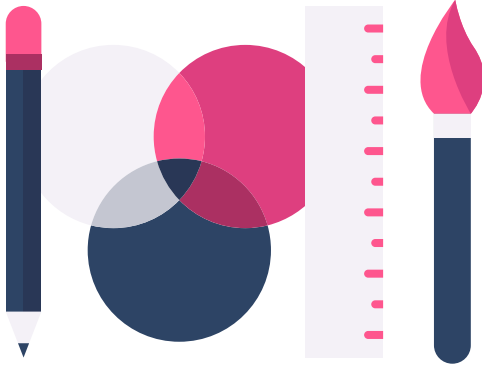
6 in 10 children and adolescents worldwide are not achieving minimum proficiency in reading and mathematics, according to latest data from the UNESCO Institute for Statistics (UIS). That includes over 387 million children of primary school age and 230 million adolescents of lower secondary school age. These figures signal “a learning crisis” says the UIS, which threatens progress towards the sustainable development goals that the world’s governments have agreed to achieve by 2030.



2.

Design Your Own Semester

[South Korea]



The Korean government recently implemented a “Free Semester” policy, in which 13-year-olds are given large blocks of time to design their own extracurricular activities, collaborative learning projects and creative performances. There were no tests or assessment for the whole semester. It’s part of a Revised National Curriculum to nurture “creative and integrative” learners, and will be fully implemented by 2020. The Korea Institute for Curriculum and Evaluation conducted a series of studies to find out how the new policies can be successfully implemented. One study recommended boosting the “Free Semester” with activities for career exploration, and arts and physical education

Source: UNESCO, bit.ly/FreeSemester

3.

The Future of Career Coaching

[United Kingdom]

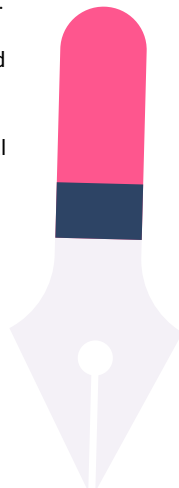
In January, the charity Education and Employers published a report, *Drawing the Future*, which revealed that children’s career aspirations are too often based on gender stereotypes, socio-economic backgrounds and by TV, film and radio. The survey asked primary school children aged seven to 11 to draw a picture of the job they want to do when they grow up. Results from 13,000 UK primary pupils show career aspirations that have little in common with projected workforce needs.

21 per cent of children in the UK drew a sportsman or sportswoman, making it the most popular job by a considerable margin of 10 percentage points over teacher or lecturer in second place. (Doctor came 6th, lawyer at 25th.) The report noted this corresponds to the increasing amount of TV time allocated to the sporting world.

3 out of 50 UK primary pupils aspired to have a job in social media and gaming, the 4th most popular choice after vet. The researchers say that for more and more children and young people, online celebrities and YouTube gaming “vloggers” have taken the place of TV and movie stars.

61 per cent of young people did not know anyone who did the job they drew. Most of them indicated they heard about the job through TV, film or radio. Among young people who did know someone, the most influential person or people were parents and members of their family.

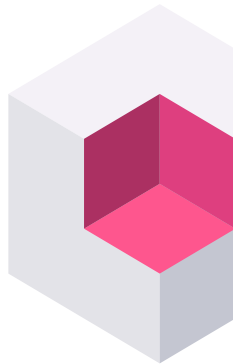
Read the report at bit.ly/DrawingtheFuture



OUTSIDE THE BOX

“We need to enable students to think for themselves and act for others, to educate the next generation who will create jobs, not just seek them, and to prepare our students to confront the unexpected with intelligence and compassion.” – Andreas Schleicher, OECD education director, writing for the BBC.

Read the article at bit.ly/AndreasSchleicherOECD



4.

Balancing the Scales

[China]

Since late February, Chinese educational reforms have re-entered mainstream public debate. Known as “academic burden reduction”, the policies aim to reduce the academic workloads of primary and middle school students. Experts say that these policies can better regulate the after-school tutoring market, but parents argue against reducing schoolwork. Some worry that when public schools cut home assignments, make tests easier and reduce the importance of scores, parents must step into the vacuum to provide their children with more extracurricular learning – to help them stand out from their peers.

But Xiong Bingqi, deputy director of Beijing’s 21st Century Education Research Institute, says that parents are not opposed to reducing academic workload on their children. “However,” he adds, “they also know that as long as the university entrance exam is the only way for students to get admitted, they have to force their kids to put all efforts into studying.”

Source: China Daily, bit.ly/AllWorkandNoPlay



5.

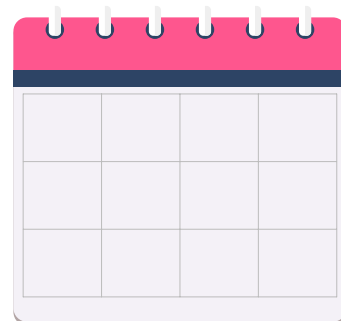
Teach by Example

[Australia]

Since 2013, Camdenville Public School in Sydney, has been exploring and implementing a range of innovative pedagogies and practices, which included project-based learning (PBL) and flexible learning spaces. These changes aimed to address a school-based survey that showed a lack of engagement and motivation in students. By the end of 2015, all teachers attended professional courses on PBL. However, the year-end review suggested that teachers may not have the understanding or the confidence to teach using PBL. In a survey, at most 70 percent of teachers felt somewhat confident.

So, the school leaders changed tack. Each week, teachers set aside time for a session of Teacher Professional Learning, which covered different aspects of PBL. They read articles, research papers, and blogs – and then attended meetings to share ideas, provide each other with feedback, and plan classes together. Classroom observations also provided an opportunity for teachers to act as researchers by gathering evidence, identifying patterns and evaluating what this meant for their own practice. In the post-intervention survey, teacher confidence was at 100 percent – with 83 percent reporting that they ensure students have opportunities to exercise control over their projects.

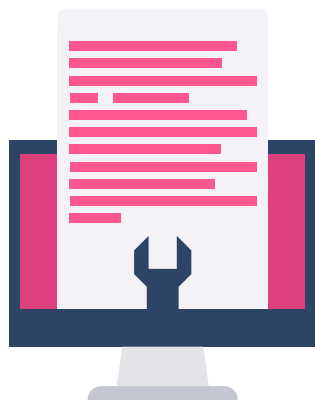
Source: Teacher Magazine, bit.ly/CamdenvillePublicSch



TURNING TEACHING UPSIDE DOWN

In Germany, the Evangelical School Berlin Centre (ESBC) offers no timetables or lecture-style classes. Students decide which subjects they want to study for each lesson, and when they want to take an exam. The ESBC is trying to do nothing less than “reinvent what a school is,” says headteacher Margret Rasfeld in an interview with *The Guardian*. This experimental philosophy has received much attention because the school has delivered impressive national results since it opened in 2007. It all boils down to students’ ability to motivate themselves, says Rasfeld.

Read the article at bit.ly/ESBCGermany



INVESTED IN FUTURE EDUCATION

US\$15 Million: The amount Elon Musk provided to the Global Learning XPRIZE, a contest for entrepreneurs to develop education software for children in developing countries. The winner will be announced in April 2019.

Source: Engadget, bit.ly/GlobalLearningXPRIZE

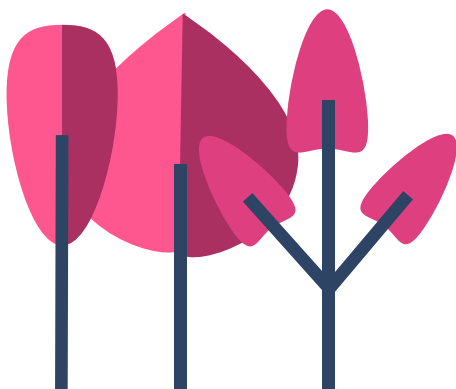
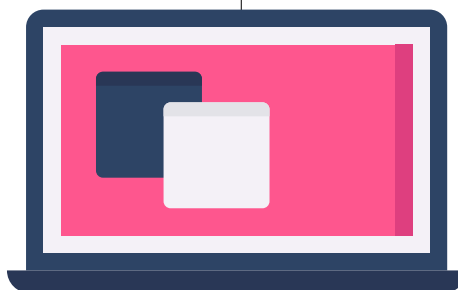
A NEW WORLD ORDER

“Students should be encouraged, at every stage of the learning process, to adopt an active stance toward their education. They shouldn’t just take things in; they should figure things out.” – Salman Khan in his 2012 book, *The One World Schoolhouse: Education Reimagined*.

COLLEGE, MICRO-MANAGED

MicroMasters: a type of online degree recently started by several US universities, including MIT, Penn and Boston University, as a way for students to begin work on a graduate degree without committing to a years-long programme.

Source: The Atlantic, bit.ly/USMicroMasters



6.

Fill Your Lungs with Fresh Air

[United States]

Learning in nature (besides Physical Education) does wonders for student engagement when lessons reconvene indoors, say US researchers. One positive after-effect: teachers were able to teach for almost twice as long without having to pause and redirect students’ attention to the task in hand. Writing in the journal *Frontiers in Psychology*, the researchers note, “it appears that, far from leaving students too keyed up to concentrate afterward, lessons in nature may actually leave students more able to engage in the next lesson, even as students are also learning the material at hand.” They refer to this process as “refuelling in flight”.

Source: Frontiers Blog, bit.ly/LearningInNature

GUIDES ON THE SIDE

How do teachers encourage students to explore education and career options more thoroughly? Four ECG Counsellors describe their work and share their perspectives on how to guide students towards success in life.

Some students know what they want to do when they grow up; when they graduate from secondary school. But most will not have concrete plans.

As educators, we can empathise. Way back when we were in school, some of us had no idea what jobs were even out there, apart from the basic list of doctor, engineer, lawyer, scientist, and teacher (not necessarily in that order). Sometimes we meet people who have jobs we've never heard of, but they sound really interesting, and we wonder if we'd have chosen a different career path had we known more.

So, how can we guide students to start thinking about their future, and explore their options more thoroughly? These are key steps that will help students of any level tackle this.



Start Exploring

In secondary schools, Education and Career Guidance (ECG) goes beyond awareness to exploration.

This is where **Mr Mohammed Syahril bin Samsudin** steps in to help. A query that he often gets is how to tackle the issue of subject combination.

"It is quite common among Sec 2 students," says the ECG Counsellor, who shuttles between East View Secondary, Tampines Secondary, Tanjong Katong Secondary and Tanjong Katong Girls'.

"Their concerns usually centre on what subjects to take in upper secondary that will lead to the courses or careers they want. For example, if they say, 'I want to be a scientist or a doctor,' then Pure Chemistry is a must. Aspiring linguists will need Humanities subjects; budding engineers will do well with Additional Maths."

Mr Syahril notes that half of the students he sees tend to know what they'd like for their future occupations. Secondary schools commonly conduct talks on Subject Awareness and Subject Based Banding for students and parents. "I've conducted similar talks during my schools' Parent-Teacher meetings," he adds.

It's the other half of students, the ones who don't know what they want, that Mr Syahril looks out for. One such student visited him towards the end of

"IT'S NOT JUST ABOUT SCORING WELL. IT'S ABOUT BALANCING INTERESTS AND SKILLS, AND IF YOU'RE GOOD AT WHAT YOU LIKE TO DO, THEN ALL THE BETTER."

— ECG COUNSELLOR MR SYAHRIL

Secondary 2, anxious about choosing the "right" subject combination. "He was being pressured by his peers to choose the same science subjects as they," says Mr Syahril. "His interest, however, appeared to be in language and humanities. When we met, his grasp of English and enthusiasm for Literature stood out. He scored better in language and literature classes compared to maths and sciences, and he sounded enthusiastic when I introduced careers in journalism, advertising, marketing and social sciences."

What was lacking then, Mr Syahril realised, was the exposure to future courses and careers. The student needed to explore beyond secondary school. "I explained how choosing a subject combination inclined towards the Humanities will serve him better if he decides, say, to pursue the arts stream at junior college and beyond," recalls Mr Syahril, but adds, "it's not just about scoring well. It's about balancing interests and skills, and if you're good at what you like to do, then all the better."

The student took his advice, and hasn't looked back since. "At this point," says Mr Syahril, "most students will have a clearer action plan, so we should grant them the ownership of their decisions. Of course, my office is always open to them for further discussions."



Delve Deeper

At 8am, **Ms Saira Kuttan** is in her office with appointments lined up with junior college (JC) students who want to figure out what courses to study in university or what to do next in life.

Ms Kuttan, who serves as the ECG Counsellor for Catholic JC, Anglo Chinese JC, St Andrew's JC, and Nanyang JC, loves to work with students.

Before becoming an ECG Counsellor in 2016, she assisted undergraduates on issues ranging from admissions to academic matters as the programme manager at Nanyang Technological University's Wee Kim Wee School of Communication.

She believes that self-exploration is crucial to finding the right career path.

"Exploring your likes and dislikes will help you understand your strengths better and allow you to make clearer career choices," she says. "It's not something that happens overnight, so students should take all the time they need to understand who they are as a person; be proud of who they are and what they stand for."

One of the common fears they hold is of becoming redundant by the time they reach the workplace, as technological disruptions mean that jobs are evolving by the minute.

In one case, a student who had initially been enthusiastic about pursuing a career in accountancy decided to ditch her plans, citing the rise of automation in

her preferred field—a trend she felt might make it difficult for her to stay relevant.

To help the student map out a career plan, Ms Kuttan got her to list down her personal strengths and job expectations. In the process, the student realised that an accountancy career will fulfil her passion for problem solving and improving processes, which will motivate her to continually improve her skills and stay relevant in the industry.

"I always make it a point to tell my students that regardless of what industry they embark on, change is inevitable. Instead of letting the fear paralyse you, it's about using it as leverage to adapt and evolve," she explains.

This is a key message that she shares with students: continually develop your interests, abilities and passion, and

use them to contribute meaningfully to society in your careers.

So if students are facing the age-old conundrum of following one's heart versus following one's head, what advice does she give?

"I'd say follow both," she replies, "but you need to follow your heart more because if you're not passionately engaged in pursuing something, you'll never be able to follow through for long."

To better understand her students, Ms Kuttan works closely with the school ECG team and conducts surveys to identify their key concerns. This information is then used to design workshops and training sessions. She also reaches out to companies to coordinate work attachments for students.

"YOU NEED TO FOLLOW YOUR HEART MORE BECAUSE IF YOU'RE NOT PASSIONATELY ENGAGED IN PURSUING SOMETHING, YOU'LL NEVER BE ABLE TO FOLLOW THROUGH FOR LONG."

— ECG COUNSELLOR **MS SAIRA KUTTAN**

Join the Dots

To most people, molecular biotechnology and journalism have almost nothing in common. But **Mr Teo Thim Toh** could see a connection between the two subjects.

In fact, he had a ready answer when a polytechnic student studying molecular biotechnology was torn between staying on in his course and switching to pursue his aspirations in magazine journalism.

"I said, 'Hey, you don't have to quit from your course!'" he explains. "I told him that he could incorporate his interest in writing like a journalist with his technical knowledge in science to be a technical writer. This idea was something that the student has not thought about before."



To Mr Teo, finding a job that combines an individual's interests and skills will lead to a fulfilling career. Many students, however, may not be able to join the dots to figure out a career pathway that enables them to be adaptable and resilient to thrive in today's workplace.

This is where the ECG department at Nanyang Polytechnic (NYP) steps

Did you know?

Education and Career Guidance (ECG) Counsellors in our schools regularly meet with industry practitioners and government agencies at networking sessions and learning journeys – to keep abreast of industry and employment trends.

MOE, SkillsFuture Singapore (SSG) and Workforce Singapore (WSG) have also developed MySkillsFuture, a one-stop ECG portal for both students and working adults. Through this portal, students gain insights into industries and occupations, as well as the education pathways leading to them. Upon graduation, students can continue to use MySkillsFuture to manage their career and learning plans as they enter the workforce.

in to share potentially suitable jobs or industries for their considerations, and help them hone their ability to understand their strengths, learn to seize opportunities, and develop core competencies and skills that are relevant to the workplace – for instance, communication and teamwork.

Mr Teo helps his students with a team of “personal mentors”, who all undergo training that equips them with the necessary knowledge and skills to conduct the 15-hour personal career strategies curriculum at NYP. This is one way that these counsellors and mentors keep up to date with the latest information about the landscape, which lets them be better able to advise the students.

“Sometimes, students may not be aware of the skills they have learnt or the career options they have. So we point them to the right place, right path, and give them advice to help them join the dots,” says Mr Teo.

Map out a Plan

In Ms Joey Teh’s two-and-a-half years as an ECG Counsellor at ITE, no student has touched her heart like 21-year-old Ganesh* who defied the odds to achieve his goals.

Growing up, Ganesh had a challenging childhood. At the age of 13, he was already the head of the household, working to provide for the family. Both parents had disabilities that restricted their care for their two sons.

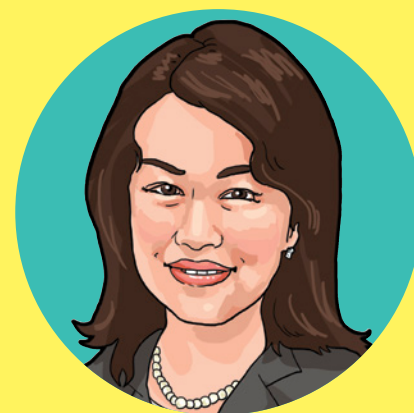
The struggle to balance both work and studies took its toll. Ganesh fared badly at the O-Levels. He applied for ITE and was finally accepted after several tries, enrolling into a Nitec course in Electronics.

“When I heard his story, I could only imagine how tough it must have been for this boy,” says Ms Teh. “But the hardship also made him realise the importance of education to make a better life for himself and his family.”

Ganesh’s story epitomises a key ECG message of setting life goals and taking steps to fulfil them – overcoming obstacles along the way. Such resilience can only come about when a person is clear about what he wants to achieve in life.

This is what Ms Teh advises students who face great odds, like Ganesh: Make informed decisions based on interests, attributes and aspirations with clear sight of future career opportunities. In fact, her team gives annual talks to students to help them plan their educational or career pathways.

It was one such session in 2015 that prompted Ganesh to approach Ms Teh for help in mapping out his educational choices after ITE. Despite his initial admission hiccups due to bad grades, he did very well in ITE




with a perfect GPA and also received the National Youth Achievement Award Gold Award.

This encouraged him to pursue a polytechnic diploma. “He was very determined to improve himself, and was open to exploring all plans,” recalls Ms Teh, who showed him the different pathways to enter polytechnic and provided the relevant information on the different courses and entry requirements.

Over the course of a month, he visited Ms Teh three times to prepare his portfolio for the various admission exercises. Together, they worked on polishing his writing and interview skills.

With Ms Teh’s guidance, Ganesh’s dogged determination eventually paid off. He got into Nanyang Polytechnic’s Electrical Engineering course.

Ms Teh occasionally invites him back as an ECG ambassador to share his inspiring story with students – how he turned his life around by making the right choices, with the right guidance. 

*Name changed to protect the student’s identity.

“MAKE INFORMED DECISIONS BASED ON INTERESTS, ATTRIBUTES AND ASPIRATIONS WITH CLEAR SIGHT OF FUTURE CAREER OPPORTUNITIES.”

– ECG COUNSELLOR **MS JOEY TEH**

REWRITING THE CLASSROOM SCRIPT

Explore the role storytelling can play in the classroom, and how plot points – fictional or nonfictional – reveal important lessons for the real world.

Marvel at Science

BY MR MOHAMMED IBRAHIM
HOD FOR SCIENCE, MANJUSRI
SECONDARY SCHOOL



Spider-Man developed enhanced vision and an athletic body within 24 hours after being bitten by a genetically enhanced spider. Why? Did the mutation selectively activate specific glands or organs to promote metabolism?

If Superman depends on the power of the sun for his strength, does he have a dietary plan to stay in shape? Have we actually seen him eat in his movies?

As a child, I was fascinated by superheroes; followed all their cartoons on television. Their feats instilled in me a curiosity about the potential of the human body. Up till this day, I am fascinated by

the mysteries in our DNA.

During my Biology lessons, I encourage students to draw connections between what they learn in the classroom, to things they can relate to in their daily lives. One way I have helped them do this is by using their favourite superheroes to discuss biological concepts. Students find lessons more enjoyable when they get to discuss these questions.

Of course, there are avid superhero fans in my classes who complain: "Mr Ibrahim, now I can't enjoy the movies the same way again!" Well, at least I know my students are adopting scientific

thinking even in the cinema and they are starting to question things happening in daily life.

Another connection I help my students make is between biology and their families. Specifically, when covering human reproduction, I get students to think about both the physical and emotional challenges that a mother may face during and after pregnancy.

I ask them: "Are you aware that as an infant, you needed round-the-clock supervision just to ensure that you were well-nourished and remained safe?" Such parenting challenges are often unnoticed by youths, but I am aware of them as a father of three young children.

As a father, the journey has not been easy, but it is a fulfilling one. It gives me great joy to watch my children achieve small successes as they progress through their developmental years. Often, our students fail to appreciate that their very existence is their parents' pride and joy.

These reflections help students to better appreciate their parents, and realise that their parents have been and will always be their heroes. I recall an email from a mother, whose son thanked her for going through so much pain to bring him into this world. Due to my lessons, her son has become more open in wanting to talk to and learn from her. Hearing such a feedback makes me treasure the influence that I have on my students as an educator.

"I KNOW MY STUDENTS ARE ADOPTING SCIENTIFIC THINKING EVEN IN THE CINEMA AND THEY ARE STARTING TO QUESTION THINGS HAPPENING IN DAILY LIFE."

The ties between Biology and the values we cherish also have relevance in the community. I have led a team of teachers to design a project which saw more than 600 students interacting with needy families in the Eunus area, and Tembusu Home for the Aged over three years.

This has evolved into Manjusri Secondary's current Applied Learning Programme, in which students work in groups to better understand Singapore's Smart Nation initiative and focus on developing solutions to improve the lives of elderly through Smart Home and Assistive technologies.

The programme has helped to raise awareness and empathy in our students as they consider the needs of the elderly and under-privileged people in Singapore in order to better their lives.

Often, the lessons that leave the greatest impact are those that engage our hearts, allowing us to rediscover ourselves and shape us into who we are and will be in the future.

It is therefore important that we continue to inculcate the value of empathy and altruism to bolster our efforts in nurturing a knowledgeable and future-ready generation, who will lead us into writing the next chapter of our Singapore story.

A version of this article was published in Schoolbag.sg with the headline *Movie "Science" and the Real Science of Life.*





“THE BOOK CLUB DISCUSSIONS HELPED MY STUDENTS TO LOVE AND VALUE THEMSELVES, AND TO EMBRACE OTHERS WHO ARE DIFFERENT. THEY MADE A MORE CONSCIOUS EFFORT TO LISTEN TO ONE ANOTHER WITH NOT JUST THEIR EARS, BUT THEIR HEARTS.”

Put on a Brave Face

BY MS FAITH HUANG
HOD OF ENGLISH, FARRER PARK
PRIMARY SCHOOL



Why did you do that to Willy? I came to a standstill amidst the lively role-playing and participation of the class. With his hand still raised, eyes looking straight at me, the boy who barely spoke in class had taken me totally by surprise with his question. Tom* had never raised his hand to ask or answer a question. No one knew about his condition at the time, but he was suffering from Generalised Anxiety Disorder. We only knew how hard it was to get through to him.

I had gotten the class to do some role-playing and I played the role of Buster Nose, a bully, while my students pretended to be classmates of Willy, one of Buster Nose's victims. They were totally immersed in their roles. I had never imagined that Tom, who seemed to be in a world of his own and uninterested in role-playing could be compelled to ask a question.

At that moment, I realised that every child – even the quietest ones – has a voice and is yearning to be heard. They will participate as long as the environment is safe and encouraging.

Over the next few lessons, Tom actively worked with his friends to present their ideas to the class. Through drama, he found his voice and grew in confidence. He graduated and is now in a secondary school.

The lesson on *Willy and Hugh* involved an approach I am passionate about: Process Drama. Through this, teachers and students create fictional characters and settings. They use these to explore complex issues without worrying about real-world consequences. As students take on different roles, they see things from multiple perspectives.

Sometimes, students get to create their own characters. In a lesson called, *The Hungry Giant*, my class created profiles of the giant and his family. They decided he was actually a baby giant, with even larger parents. Their contributions helped to steer the direction of the story and lesson.

Such classes allow me to help my students grapple with moral issues through developing empathy for the characters.

Once, a student was annoyed with the greedy, ungrateful wife in a story titled, *The Fisherman and His Wife*, and suggested that the fisherman “should change his wife.” I was shocked to hear that from an eight-year-old, but went on to lead the class in a discussion of what it meant to “change” wives.

I also got them to consider how the couple’s children would feel. Following that, another student said that the fisherman should forgive his wife and give her another chance. I was encouraged by how he could confidently express his view on the importance of reconciliation.

Of course, students do not only discuss the stories verbally – they have writing assignments too. However, they may not always know how to put their creative ideas into words. So I get them to do “freeze frames”, where they pause and hold their positions in the midst of acting out a scene, allowing them to reflect on the perspectives of characters involved. After doing the freeze frame, I would invite them to re-enact the scene in slow motion, while narrating the actions and emotions of the characters their friends are playing.

It is a gruelling but rewarding process. By using the frames, and watching their friends use them too, students build the confidence to speak up and learn from one another.

Beyond its benefits in the classroom, I believe that theatre can contribute to society by connecting people and bringing joy to them. With this in mind, I initiated a project for my school’s Drama Club to reach out to visually and hearing-impaired students at Lighthouse School over a period of two weeks.


Through conversation starters and games, club members

found out these students’ likes, dislikes and personal stories. They then used the information to put up a short performance for the Lighthouse School students.

Empathy can also be cultivated through literature. I started a book club in my Primary 5 class, spending ten weeks exploring the key themes of RJ Palacio’s *Wonder*. It describes how an eleven-year-old boy with a deformed face adjusts to school life.

The book’s messages on cultivating friendship and family relationships, bullying, accepting differences, and showing kindness resonated with the students. Upper Primary students often face friendship issues that they do not know how to deal with. At times, these issues could affect their performance in school.

The book club discussions helped my students to love and value themselves, and to embrace others who are different. They made a more conscious effort to listen to one another with not just their ears, but their hearts.

Through drama, my students have learnt that people are all wired differently and we need to adapt our communication styles accordingly in order to connect with them effectively. As one of my students once said in our drama lesson, “You can have monster friends and human friends. You must talk like a monster to your monster friends, but when you talk to humans, you cannot yell.” 

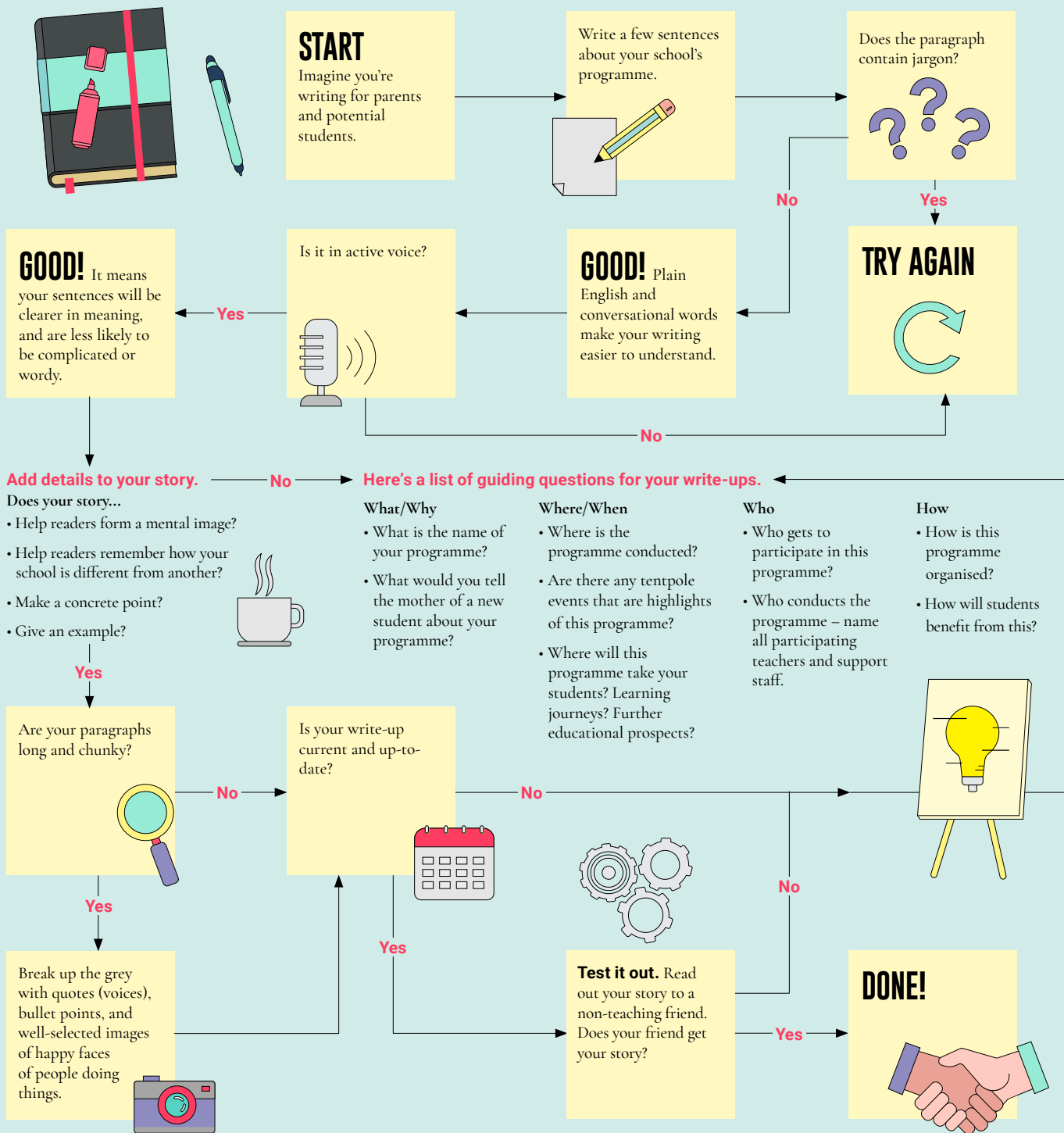
*Name changed to protect the student’s identity.

A version of this article was published in Schoolbag.sg with the headline *Tackling Life’s Tough Questions Through Drama*.



TELL A GOOD STORY

How do you tell other people about the cool activities you do in school today?
Consider this flowchart your cheat sheet.





OUR SCHOOLS, OUR STORIES

PHOTO EXHIBITION 2018



Wonder what's behind school gates these days? Get an insider look at school life – through the lenses of our budding student photographers and staff teacher photographers. Enjoy the “a-ha” moments in and outside classrooms, the everyday interactions between teachers and students and portraits of unsung heroes who help our schools run smoothly.

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Woodlands Regional Library
6 – 26 Aug

Academy of Singapore Teachers
27 Aug – 30 Oct

Bugis+ Mall
17 – 30 Sep

Jurong Regional Library
1 – 30 Nov

Tampines Regional Library
1 – 31 Dec

On My Last Vacation...



#CONTACTBACKCOVER

Help us create the *Contact* back cover. 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. Please include your full name, institution, designation, NRIC and contact number in your email. We'll choose one winning entry to illustrate, and the winner will receive an attractive prize!

Answers to last issue's puzzle:

1. (across) PRAISE 1. (down) PROSOCIAL 2. GRATITUDE 3. CONCENTRIC 4. ENDORPHINS 5. HELICOPTER 6. COFFITIVITY 7. TRIGGERS 8. SPRITE 9. BURNOUT

Congratulations to these lucky winners!

Mdm Lalitha d/o Savathan, Senior Teacher, Dunearn Secondary School • Miss Natdia Faranaz, Teacher, Loyang Primary School • Mdm Jennifer Joanne Chua, Teacher, Chongfu School