

# CONTACT

The Teachers' Digest

## TAKE CHARGE OF LEARNING

Hear a School Staff Developer talk about her professional development journey

## FINDING STRENGTH AFTER A STUMBLE

Two principals share how they give students the space to grow and learn from their mistakes

## A CLASS ACT

What makes a teacher great? Check out these eight qualities

How to  
**fall forward**  
and **bounce**  
**back**



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Show us how well you read *Contact* and you may be a winner!

## CONTACT

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# THIS ISSUE...

Resilience is the capacity to recover when something bad happens. It's about not letting anything get you down – kind of like a roly-poly doll which never fails to bounce back. But it's easier said than done. How *does* one become resilient?

In our cover story, we discover how sports and outdoor education are good ways to instill resilience, a critical life skill. Students learn to cope with defeats from sporting competitions or confront challenges in activities such as camping outdoors.

Yet, the type of resilience built up from the rough and tumble of these activities does not necessarily transfer to other aspects of life. Will a sportsman who is strong on the field, even after losing a game, be as steady in love?

In this issue, we also look at the ways schools and all of us can help students to become stronger and possess that “entrepreneurial dare” that Minister for Education (Schools) Ng Chee Meng talked about. Principals also share how they build resilience in students. The good news is, resilience can be developed. But the catch is, individuals will have to go through adversity to grow in resilience. There is no shortcut.

Then, in *FYI*, we showcase a few models of resilience from around the world – summarised through acronyms, (which we know Singaporeans all just adore).

In the rest of the issue, we see how the practice of mindfulness can help teachers and students learn better, why it's important to constantly seek Professional Development, and what it means to be a teacher in our “Illustrated Guide”.

So read on and find out what it means to fall forward and bounce back!

## The *Contact* Team



*PS. You should have received your tote bag from us. It's a little something that we are giving all of you, our readers, and we hope they bring a little smile and encouragement to your day. Did you know that there are a total of three different designs? Which one did you receive?*

### Readers' comments



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Get the soft copy of the magazine at [www.moe.gov.sg/teachers-digest](http://www.moe.gov.sg/teachers-digest)

# How to **fall forward** and **bounce back**

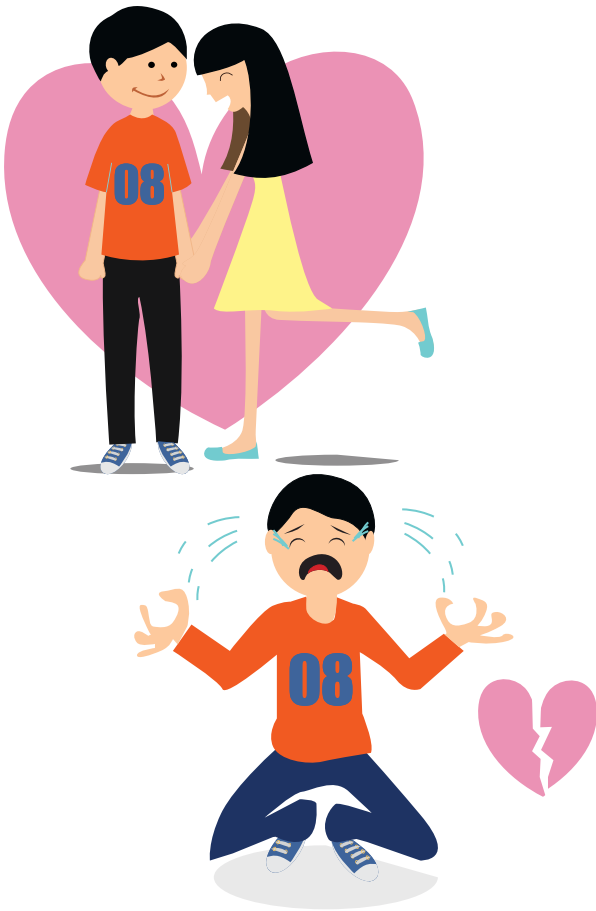
Raising resilient kids is all about giving them the skills, support and space to take risks, suffer setbacks and pick themselves up. It is also about giving them hope to see beyond the obstacles and move on.



When the captain of the basketball team, who has experienced his fair share of defeat, loses a game, he rapidly rebounds and encourages everyone to train harder to emerge better and stronger. But when his girlfriend breaks up with him, this macho man may just collapse in inconsolable agony and doesn't know what to do next.

In such a scenario, ruggedness on the courts does not equate to all-round resilience, or the ability to overcome adversity. Such contrasting sentiments are entirely possible as resilience is contextual, said Dr Dennis Kom, Assistant Director at the Ministry of Education's (MOE) Guidance Branch, which looks into the social and emotional wellbeing of students.

Sharing the example of the lovelorn sportsman, he said: "People are not always resilient in all areas. You can build resilience in some aspects, but it may not necessarily translate to other parts of a person's life."



Resilience, however, can be developed over time. “Some people are more predisposed to resilience, others less so. But everybody can grow in resilience,” he explained.

The road to resilience – a critical life skill – is an important journey. “Life is stressful and we will encounter adverse situations many times in our lives. If we do not have the capacity to cope, manage, adapt and thrive under those conditions, we will be in trouble,” said Mr Ong Kim Soon, Director of MOE’s Physical, Sports & Outdoor Education Branch.

### RESILIENCE THEN AND NOW

A common sentiment shared is that the youths of today are perceived to be softer than their predecessors. There is even a term to describe them, “Strawberry Generation”, a label first coined for Taiwanese youths who grew up in an environment of prosperity and overprotectiveness. They were said to bruise easily like strawberries.

Sharing her observations, Dr Susanna Ho, Senior Specialist at MOE’s Outdoor Education Branch said: “Anecdotally, there have been comments and observations that younger people are getting softer as a consequence of affluence.”

But she also stressed that youths face different challenges now compared to older generations of Singaporeans. Known as the mobile millennials, they are inundated by information and live in a fast-paced environment where constant connectivity to the Internet, mobile devices and social media shape their lives.

## Learning to get and give help

At Bukit View Secondary, distressed students can turn to their friends for support under a Peer Support programme set up more than 10 years ago.

“We believe strongly that being resilient is also knowing when to seek help,” shared the school’s Counsellor Ngiam Kee Peng.

But often, it is the other way around with Peer Support Leaders (PSLs) spotting the troubled students. Once, two PSLs noticed a Secondary One student who was always alone and withdrawn, spending her recess time at the fitness corner.

Worried, they reached out to her and she is now better adjusted with new friends. She also became a PSL through the recommendation of her Form Teacher.

“She realised that playing the role of a peer support leader could be meaningful if she could help someone who was in a similar situation as her,” said Mr Ngiam.

The PSLs also manage the Student Games Room, a place where students can unwind and connect with one another through games and activities after school.



Photos from Bukit View Secondary School

“The challenges in outdoor and physical activities provide generally low stakes and safe situations ...”



“As society becomes more complex and interconnected, and the impact of global factors becomes more immediate and apparent, we find ourselves more vulnerable to disruptive events,” said Dr Ho.

While this could mean requiring slightly different skills to bounce back from more frequent disruptions or unconventional challenges that arise in this digital era, the underlying concept of resilience is timeless. “Coping successfully with disruptive life events is facilitated by resilience,” she added.

### TIME TO “CHIONG”

In this new landscape, Minister for Education (Schools) Ng Chee Meng has talked about embracing the spirit of “entrepreneurial dare”, encouraging students to break boundaries and create value.

“It’s a mindset. An attitude of wanting to do better, find breakthroughs, of wanting to innovate. If I were to use a Hokkien word, it would be *chiong*, not a reckless *chiong*, but taking into account the risks involved and doing it anyway,” he said in an interview.

For Mr Ng, this mindset is rooted in resilience and it means giving students the space to learn from their mistakes, find their own answers and put in the hard work to make solutions succeed.

Hollywood actor Denzel Washington put it in another way, during a commencement speech at the University of Pennsylvania. As opposed to falling back on something, he suggested that individuals take risks and fall forward – facing failures in order to achieve success.

### SCHOOLS OF RESILIENCE

This is where schools can play a part in helping students strengthen their spirit of resilience during “peacetime” so that they can cope better during a crisis, Dr Kom noted.

One way is through programmes that offer emotional support, such as Form Teacher Guidance Periods

(FTGP) at primary school level where teachers spend time interacting with students and teaching them social and emotional learning skills like managing expectations. At secondary school level, sexuality education programmes offer teenagers relationship advice.

For instance, students learn ways to break up with their partners – if necessary – and how to communicate and cope during this tough period, shared MOE’s Guidance Officer Hendriawan Selamat. In all these instances, FTGP or sexuality education, students discover that “seeking help is not a sign of weakness”, he added. “It is to help them cope with the situation.”

Resilience could also be developed through outdoor education and Co-Curricular Activities (CCA), where students learn to literally overcome obstacles during outdoor camps, work in teams to achieve their goals or cheer themselves and each other up after experiencing defeat.

“The challenges in outdoor and physical activities provide generally low stakes and safe situations for students to experience adversity and find means to adapt and thrive – where failure and learning from it and overcoming it are part of the experience,” said Mr Ong.

Adventure camps for upper primary and lower secondary students are also designed to have resilience building as the major focus, added Dr Ho. “Camping presents many challenges for our students, such as being away from home, making new friends, trying unfamiliar tasks, working with others, communal living and so on,” she explained. “The unfamiliar outdoor environment also provides a useful leveller for students to work collaboratively to problem-solve and make decisions.”

These skills, support and experiences are handy, but the real test of resilience is when students face the hard knocks of reality – and whether they can emerge stronger. “We aim to build up their capacity so that they stand a better chance of withstanding shocks, but you’ll never know until you are tested,” said Dr Kom.

Sharing the same sentiment, Mr Ong noted that resilience in sports or outdoor expeditions can only be transferred into resilience in relationship challenges or academic difficulties when the students face those new challenges. “The learning (about resilience) cannot be merely cognitive; it needs to be experienced and practised,” he said.

In this sense, the basketball captain who was dumped by his girlfriend will only learn how to cope with relationship setbacks in the future by going through the current separation, painful as the experience may be.

## STAYING STRONG INSIDE AND OUT

While resilience is an evergreen issue, MOE's Guidance Branch started paying more attention to helping students develop resilience about two years ago. It came after the National Youth Council's survey of 2,843 respondents aged between 15 and 34 found that many were uncertain about their future in terms of jobs and finances, said Senior Specialist (Guidance Branch) Joanna Tan.

Such uncertainty could spread to the students' level where they start being stressed about a variety of things, said Ms Tan. Her team identified three main areas of anxiety – academic, expectations and relationships.


For all of them, schools and teachers can help students ease their anxieties by teaching them how to deal with their emotions. This could be through “teachable moments” when teachers remind students that results do not define them or teach them how to set goals and stick to them.

“It is also about learning how to be comfortable with emotions that are not so good,” said Ms Tan, likening it to the movie *Inside Out*, which is set in the mind of a young girl where five personified emotions – Joy, Sadness, Anger, Fear and Disgust – try to lead her life as she adjusts to new surroundings.

The aim is to get students to be adaptable and flexible, able to navigate change, develop a can-do spirit and grow a good base of social support and friendships.

Teachers, on their part, can help by being role models and sharing “authentic experiences” of their struggles and how they bounce back, added Dr Kom. “As adults, we tend to mask such emotions. But if students don't see the emotional side of us, our vulnerabilities and how we overcome the problems, then we miss a teaching moment,” he said.

Whatever the method used to build resilience, parents also play a crucial role by being supportive and encouraging when children face challenges in all areas. Mr Ong summed it up: “We can help our children better, by not blaming the environment, the system, or other people. Instead, we help our children learn to assess the situation, explore alternatives, and give our children the space to act on the options.”

Learning to be resilient in all areas of life does not come from just one source. Teachers, parents, friends and schools are all important in forming that base of support and creating an environment to forge stronger and more resilient students, who are ready to “chiong” forward into the future. 

# Productive Failure



*Photos from Montfort Junior School*

Students need to learn how to fail. It may sound odd, but it is the only way for them to learn how to succeed, shared Mr Wilbur Wong, Principal of Montfort Junior School.

“Failure is good if we learn from failure,” he said, describing the concept as “productive failure”.

The school uses two platforms to teach this concept: Its coding programme where students learn to design an app or online game, and the Maker Movement where they create new products.

“In the process of crafting the product, they probably won't get it right the first time around. But the product is not important to us, it's the process,” he said.

“When it doesn't work...then the tenacity comes in, the resilience comes in, and we recap where we went wrong. Let's have the resilience to stick at it and do it again. We celebrate that process.”

He added: “When you do things like this, the kids will think ‘I'm not afraid to fail, it's OK to fail, it's OK to get it wrong.’ And they learn from it.”



# Models of resilience

Singapore loves acronyms, and so does the rest of world when it comes to literature on understanding the roots of resilience and nurturing students who have the ability to bounce back after adversity. Here are some insightful models and programmes on raising resilient students that Singapore and other countries offer.



## ABC OF RESILIENCE

Back in 1962, psychologist Albert Ellis created this handy guide. The A refers to Adversity, B is Beliefs and C is Consequences.

So if student X and student Y both get the same low marks for a test (adversity), what happens next depends on their beliefs. X believes that she can improve with more practice. Y believes that she is stupid and can't do it. You know what the consequences are: X is likely to do better when she tries harder, but Y is more likely to give up.

As educators, we have to work on “resetting” our students’ beliefs so regardless of adversity, they can work for the best possible consequences!

## Lesson on FOMO

Here's an acronym courtesy of social media.

Students are stressed not just by school work but by many other pressures from body image issues to more modern anxieties like the “Fear of Missing Out”, or FOMO. It is an anxiety caused by the constant influx of information on social media that friends are doing things far more fun than you are.

In England, a national resilience programme will be rolled out to every school, with lesson plans setting out how teachers should discuss challenging topics such as anxiety, peer pressure, bullying, self-image and FOMO. The Public Health England said the programme aims to prevent children aged 11 to 16 from indulging in “risky exploratory behaviours” as a result of anxiety or other stresses.

Teachers will also be encouraged to speak to young people in language they will understand and engage with, making efforts to become familiar with modern slang and text speak in this digital age. Try to decipher this social media speak: “Imho, Idk if teachers get this fomo stuff. But national resilience programme FTW! #yolo”.



## SPACE TO GROW

Our very own MOE Guidance Branch had this handy acronym for us:



**Support** (Provide positive feedback and be willing to listen)



**Problem solve** (Reflect on setbacks together, guide your child to develop alternate plans)



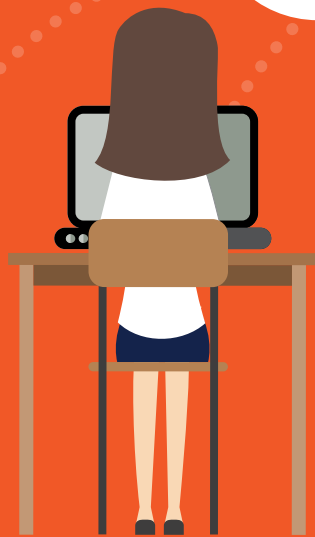
**Affirm** (Affirm strengths and efforts, use of effective praise)



**Cheer** (Cheer the child on for every effort, celebrate all success, even the small ones.)



**Empower** (Let your child make decisions, encourage your child to make his or her voice heard and carry out the plans made)



## ALL ABOUT

# CBUPO

Not a droid in a Star Wars movie, CBUPO was cooked up by teacher Richard Sagor, in a paper written for the ASCD, an association for professional educators in the United States.

He got this concept from watching skateboarders learn and crash and learn again. Basically, kids need Competence, Belonging, Usefulness, Potency, and Optimism when learning.

Successful students are those who have experienced the following in school:

- Authentic evidence of academic success or adept at a skill (competence)
- Feel they are valued members of a community (belonging)
- Believe they have made a real contribution to their community (usefulness)
- Sense of empowerment (potency)



In contrast, students who regularly have feelings of failure, alienation, uselessness and impotence reinforced through their school experiences will be poorly equipped to cope with adversity, said Sagor.

Teachers can come up with a CBUPO inventory, listing the things that would help reinforce such messages like building a portfolio of their skills (competency) or putting them in teams for projects (belonging).




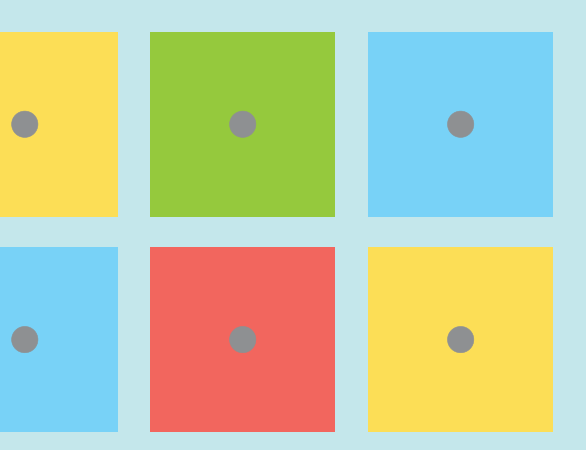
## SHOW YOU

# CARE

While the focus is on raising resilient kids, teachers are not left out. Cultivating Awareness and Resilience in Education, or CARE, is a professional development programme for teachers developed by the Garrison Institute in the United States.

Based on current research on the neuroscience of emotion, CARE introduces ways to improve the well-being of teachers by promoting understanding, recognition and regulation of emotion. To help teachers be more aware of each moment during their teaching, CARE also recommends activities such as short periods of silent reflection.

Through these activities, teachers learn to bring greater calm and awareness into the classroom to enhance their relationships with their students, their classroom management and curricular implementation. The CARE program also promotes empathy and compassion through caring practice and mindful listening activities. 



# The 5Cs of Resilient Teachers

Here's a list of C's that we created, which we know you will love too.



## COFFEE.

This is the liquid courage that gets teachers out of their warm beds – especially on a rainy morning – and keeps them going. Maths teachers will like this: A 2016 paper in the SIAM Journal on Applied Mathematics reported that just beyond the horizon is a “complete mathematical model of coffee brewing” – the model answer to your daily cuppa.



## CLASS CLOWNS.

Sure, they tend to disrupt lessons with their wisecracks and imitate you behind your back. However, according to the journal *Frontiers in Psychology*, their strength is humour – which can contribute to a more cheerful classroom. The trick is working with their strengths, not against them.



## CUTE COLLEAGUES.

We're not talking work crushes. We're talking about co-workers who never fail to put a smile on your face, teammates who would give you care packages with snacks, instant beverages and a note promising “a tea-lightful year together!”



## CANTEEN.

When the staff room gets too cold or stressful, here is where you'll find fellow educators working (with a cup of coffee). Got a new stall selling delicious dishes with rice? Lucky you.



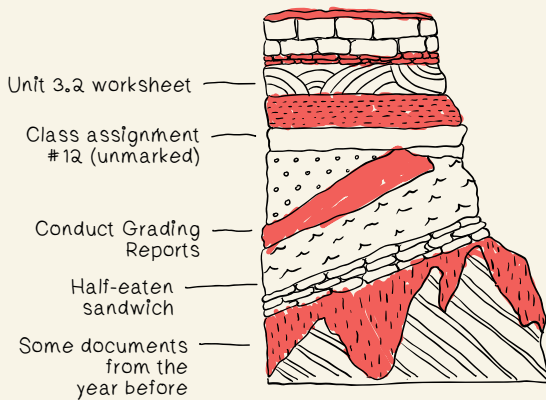
## CALENDAR.

Hang in there. June is coming.

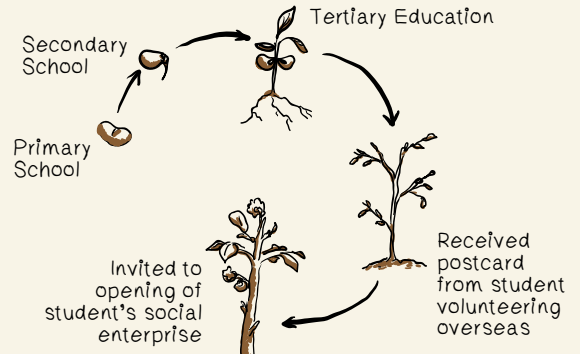
# The Illustrated Guide to Teaching Life

We all use diagrams for teaching, but do these look... familiar and true to life?  
Tell us by using the hashtag #OnlyTeachersKnow

TEACHER'S DESK STRATA,  
TERM 3, WEEK 8

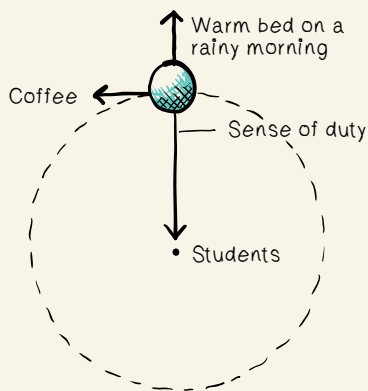


LIFE CYCLE OF  
EDUCATIONAL OUTCOMES\*

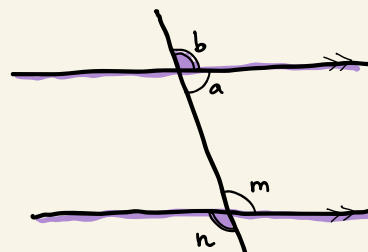


\*Fruits of your labour may not be immediately visible

OPPOSING FORCES IN AN  
EDUCATOR'S LIFE



STAFFROOM GEOMETRY



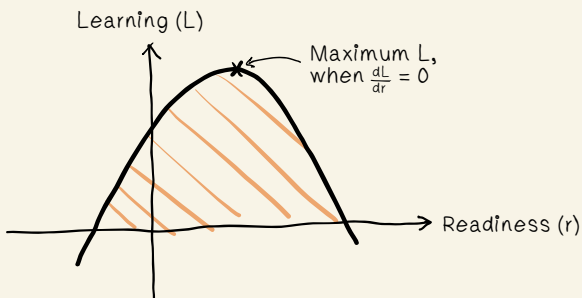
$\angle m$  = my seat

$\angle n$  = that noisy colleague  
OPPOSITE me

$\angle a$  = A(CUTE) colleague I share my cubicle with

$\angle b$  = my buddy in the CORRESPONDING cubicle

ON DIFFERENTIATED LEARNING



Learning can be maximised when instructions are differentiated based on students' readiness.

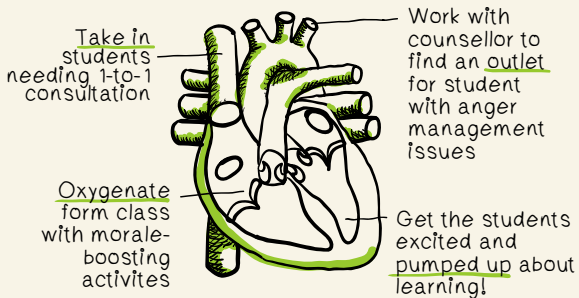
ASSESSMENT - AN INTEGRAL PART OF TEACHING & LEARNING

$$A = \int (T + L) ds$$

Where

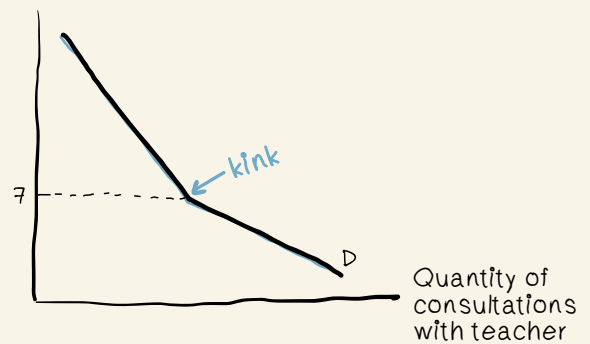
A = assessment      L = learning  
T = teaching        s = students

TEACHING IS HEART WORK



THE REAL KINKED DEMAND CURVE

Number of days to major exam

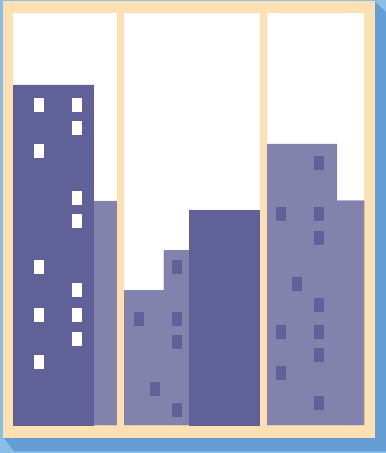


Like these?  
Got more ideas?

Send them to us at [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg) - and we might just feature them in future!

# Being Mindful

## in the Classroom



**Mindfulness is catching on in Singapore. In an age of digital distraction, mental training techniques are intended to help quiet a busy mind, to become more aware of the present moment and to be less caught up with what happened earlier or what is to come.**

The woman's voice over the speaker system was soothing as she led the school in a two-minute breathing exercise. "Sit quietly, close your eyes... keep breathing in and out, slowly," she said, as chattering students turned silent.

It was right after recess. Sitting on benches at the canteen, students from Westwood Primary School were practicing mindful breathing, to help them refocus before returning to class.

"Mindfulness helps children regulate their emotions and thoughts. As it becomes a routine and habit, they can use it in other aspects of their lives," Ms Sophia Tan, the teacher-in-charge of the programme at Westwood, said in a March interview with *The Straits Times*.

In the last two years, more than 10 primary and secondary schools in Singapore have introduced mindfulness practices such as meditation and breathing exercises. They are said to have a calming effect, enabling students to better focus and cope with stress.

This practice has gained global attention in recent years, with celebrities, chief executives, politicians and policy makers advocating the use of mindfulness in their workplaces, schools and lives.

In the United States, some high schools get students to do meditation in place of detention. In Britain, the Department of Education is already inviting schools to participate in a trial run to teach mindfulness exercises to students to manage their stress.

Teachers too, have much to gain from practising mindfulness. Besides having more focused students, it can ease their pressures and lead to improved teaching. Mindful Schools, a US training organisation, found that most of the teachers it trained experienced lowered stress, more connection with students and higher job satisfaction.

Here are five ways that you can introduce mindfulness in your classes:

### 1. FIND YOUR MINDFUL MOTIVATION

It begins with you! Practice self-care so that you are able to then give care and help students learn better. Read up about mindfulness, take a course as part of professional development, or try free meditation apps that require just 10 minutes daily.

### 2. MAKE MINDFULNESS A ROUTINE

Incorporate a short mindfulness practice into established routines. For teachers, it could be at the start of the day to clear the mind before lessons begin. For students, it could be after recess to help them settle down faster or in the middle of lessons to refresh their attention.

### 3. BE MINDFUL WITH SIMPLE ACTIVITIES

Mindfulness practice can take different forms. It ranges from getting students to sit quietly for a few minutes to focus on breathing to asking them to pay attention to their five senses as they eat a snack. Other activities include awareness body scans to explore where they feel certain emotions and give them time to process them.


### 4. USE MINDFUL MODELS

Here are some guided techniques to help students focus better or to let go of unpleasant emotions: STOP (Stop, Take a breath, Observe, Proceed) can help students pause and reflect before making impulsive decisions. This is one of the practices found in the Mindfulness Based Stress Reduction programme.

RAIN (Recognise, Accept, Investigate emotions with Non-attachment) trains students to work with difficult emotions and realise that these feelings do not define who they are they are. It was first coined by a mindfulness teacher Michelle McDonald over 20 years ago.

Growth mindset: A belief that most basic abilities can be developed through dedication and hard work, encouraging students to approach focus as a practice while examining the root of their distraction.

### 5. KEEP A MOOD DIARY

Writing a short entry daily on how they were feeling throughout the day is an effective way of getting students to reflect on what triggers different feelings and better recognise external forces that cause stress, as well as a way to keep the mind focused for a healthier and happier life. 

“Mindfulness helps children regulate their emotions and thoughts.”



## Zooming in, not zoning out

Dr Jon Kabat-Zinn, a Massachusetts Institute of Technology-educated scientist, is the founder of the mindfulness movement. In 1979, he developed the Mindfulness Based Stress Reduction programme, which brought meditation into a medical setting – to help patients deal with chronic pain.

These practices, which aim to focus thoughts on the present moment, are now more widely applied especially in this digital age where people are constantly distracted by their devices. Time magazine called it a Mindful revolution, where everything can be done mindfully – working, parenting, learning and even eating.

But the benefits are not just in the mind. Brain-imaging studies by Harvard University and Massachusetts General Hospital show that long-term mindfulness training can help thicken the cortical regions related to attention and sensory processing. Mindfulness is also considered effective in psychotherapy as a treatment for children with aggression, ADHD or mental issues like anxiety, according to an article in The Atlantic which cited sources such as the Journal of Cognitive Psychotherapy.

It is now spreading to schools where it could potentially have an impact on students' well-being, including giving them more space to learn as their minds are freed from stress or anxiety.

# Finding **strength** after a stumble

How can teachers help students deal with difficult situations? Two principals share how students need space to grow and learn from past experiences.



“Kids are very resourceful if you give them the space to learn.”

## Madam Lee Lin Yee

*Principal,  
St Margaret's Secondary School*

When Madam Lee Lin Yee's second child went to Primary One this year, he lost his nametag on his first day of school. The tag had a sticker that indicated his mode of transport home or whether he joined student care after school.

After chiding him, she told him to figure out how to get to student care on his own. If he could not find it, he would just have to wait at the canteen till 6pm when his father fetched him. She also gave him money to buy lunch at the canteen while he waited.

For many parents, it may seem difficult to let their six-year-old child be stranded in school, unsure of where to go. But not for Madam Lee, who believes it builds up the child's resilience.

“Kids are very resourceful if you give them the space to learn,” said the mother of three, adding that her son eventually found his nametag in school and made his way to student care.

The story of her son is one that the Principal of St. Margaret's Secondary shared with parents of Secondary One students at the start of the school term this year. Her message was to let their children fend for themselves. They are, after all 12- to 13-year-old girls, on the way to puberty and adolescence.

“Parents need to learn how to let go and be less of a helicopter parent, hovering around all the time,” shared Madam Lee who became a Principal two years ago. The school, on its part, also helps students develop resilience in various ways. But she stressed: “Resilience can't be taught. It is a by-product of learning experiences.”

One of the best methods is through outdoor sports and Co-Curricular Activities (CCAs), especially competitive events, where students inevitably have to confront setbacks or failure, said the sporty educator who qualified as a Zumba instructor during her maternity leave three years ago.

Not everyone can be No. 1 in a competition, and defeat can feel crushing. Such experiences are very powerful lessons in getting students to learn how to cope with adversity and pick themselves up after that, she added.

Her own experiences also shaped her belief in building resilience through different encounters. In a previous posting at Nanyang Girls' High School as Vice Principal, she and a group of teachers went for an overnight camping trip in Pulau Ubin. During a kayaking session, they were told to get from point A to B without any instructions on how to navigate their way at sea.

They used their wits, with help from Geography teachers whose knowledge of currents and tides came in handy. It took more than two hours to reach their destination after a few wrong turns, but they emerged more confident of their abilities to cope in tough situations.

## Learning cycle

American educational theorist David Kolb developed the Experiential Learning approach in the early 1970s, where people learn through experiences and experimentation.

Here are the 4 stages of learning:

- 1. Concrete Experience** – A new experience is encountered or a reinterpretation of an existing experience.
- 2. Reflective Observation** – Examining the new experience, with a focus on figuring out if there are any inconsistencies between experience and understanding.
- 3. Abstract Conceptualization** – Reflection gives rise to a new idea or a modification of an existing abstract concept.
- 4. Active Experimentation** – Applying what was learnt.

Explaining it as part of Kolb's Experiential Learning Cycle, she said experiences lead to reflections and observations, which in turn prompts conceptualisation and finally, experimentation of practising what you have learnt. (See box)

At Nanyang Girls' High School, the school then applied this to students going on overseas learning visits. Instead of transporting them in coaches all the time, the students get to experience how locals live by taking public transport or finding their own way around the foreign city.

It is a never-ending learning cycle. The more experiences people go through, the more resilient they become, she added.

### Mr Kwek Hiok Chuang

*Retired Principal*

He saw the teenager pace up and down the deserted car park, his brows furrowed in deep thought. It was past six in the evening, and most students and teachers had gone home. After observing the boy for a while, Mr Kwek Hiok Chuang approached him. "Why are you still in school?" he asked.

"I'm afraid to go home," the boy replied, his head hanging down. The first-year Pioneer Junior College (PJC) student had just received his year-end results, and they were bad. He was from a top secondary school and his parents expected more from him, said Mr Kwek who was then Principal of PJC.

Fearful of leaving the student alone, he drove him home and stood by the side as the boy faced his parents. "He got a very bad scolding," he recalled. In fact, the parents were so intent on scolding their son that they didn't even notice the Principal standing in the shadows.

The next day, he followed up with the boy by asking about his plans. He didn't want to tell the student what to do, but rather let him figure out his future. "You have to let them learn to solve their own problems as that will help build resilience," said the veteran educator who became a Principal at age 33 and retired last year. "Don't micromanage, everyone needs space to grow and reflect."

In such instances, it is also important not to put students down. "So don't ask why (things happened), as that will make people feel defensive, but how (they plan to effect change)," he added. For this particular student, he was intent on studying harder – focusing on his weaker subjects with help from teachers. "He made it," shared Mr Kwek.

As life in junior college is a little different from secondary school, he makes it a point to share a



**"You have to let them learn to solve their own problems as that will help build resilience."**


message of 3As to new students to develop a spirit of resilience: Accept, Adapt, Adopt. Students need to accept that they are in a new environment, adapt to the changes and challenges, and adopt measures to make the best of their time in school.

He also tells them to take it easy, let go of negative feelings and challenges them to make at least 200 friends in school. "Friendships are important. You will never die when you have friends to help you," he said.

While Mr Kwek has his network of support from friends and family, his own coping mechanism for the daily stresses and pressures are his daily reflections. The act of writing his thoughts down in a dairy helps bring clarity on how to do things better or deal with difficult situations.

These reflective moments also helped him come up with ideas such as starting school an hour later, at 8.30am, eight years ago at Nanyang Junior College (NYJC) – his last posting. He realised that some students stayed far away and found it stressful to get to school on time. He also made a mental note that students tended to sleep late and wake up late, so this move suited their lifestyle.

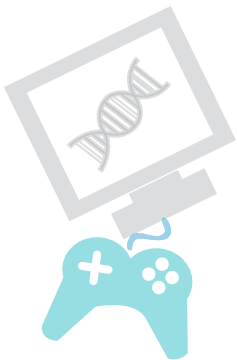
School rules and regulations should not be too stifling, he explained, adding that tweaks ought to be made if they are for the better. Beyond adjusting school rules, he also models resilience to his students through his spontaneous problem solving acts that show how he quickly overcomes obstacles.

Once, when the air-conditioners in the auditorium did not work on the first day of school at PJC, he reacted quickly and rushed out to nearby IMM shopping mall to buy 10 standing fans and fixed them up himself. "It was a quick lesson on how to overcome challenges," he smiled at the memory. "The staff and students were very touched." 

# Learn to **play,** play to **learn**

We all know how games are a great way to engage students. With more teachers using play in and out of the classrooms, discover how two schools came up with their own playful spin to make learning fun.

“We could design the game to fit the curriculum rather than the other way round.”



## CATHOLIC HIGH

Walk by a Secondary One class during geography lessons, and you could catch the boys huddled in groups chatting over a card game. But they are not playing hooky, they are playing a game about energy and sustainable development.

Called Sovereign City, which is created by the teachers, the game gets players to invest in energy cards to achieve sustainable development. This way, students get to apply their theoretical knowledge in real-life situations, which makes the issue come alive for them.

They figure out which energy resources to buy, taking note of the price, output and the type – renewable or non-renewable. They also decide on whether to invest in “Technology Cards” to maximise the energy outputs.

“As energy can be a pretty dry topic, the use of the game creates the hook or spark of curiosity for students to be engaged,” explained Mrs Michele Lau, the lead teacher of this project at Catholic High School.

So when the school was given an opportunity to create a game to teach, “we jumped” at it, she added.

It started in 2014 when the school partnered with research scientist, Dr Matthew Gaydos, from the Learning Sciences Lab at the National Institute of Education (NIE). A specialist in game-based learning, he helped them design an engaging game that is also a teaching tool to fit lesson plans.

The school was already using ready-made games to teach humanities students such as Aqua Republica, which raises awareness about water sustainability, and the Axis and Allies board game on World War II strategy.

But the idea of designing a game from scratch appealed to Mrs Lau and her team. “We could design the game to fit the curriculum rather than the other way round,” she said, adding that they combined the pedagogies of Inquiry-Based Learning and Kolb’s Experiential Learning Model – an approach of learning through experience that was developed by American educational theorist David Kolb.

The card game, which took nine months to develop, has been a hit with students who show more engagement and interest in self-directed learning, she noted.

There are now four Expansions sets that have grown from the original set. In one set, students pick a card to role play a country, which led to very interesting discussions.

Once, students teamed up in pairs – which means two countries collaborating – to win the game. “I wondered aloud if it was even possible, were there countries already collaborating their energy resources for a win-win situation?” recalled Mrs Lau.

“At that point, I really didn’t know the answer. Some students insisted why not? And that became our research question for the day.”

The class had an enriching session learning about how different countries worked with each other for energy resources, and discussed if this was the way forward.

“Although the content went beyond the textbook, it showed the magic of what students can do when they are really motivated to learn on their own,” she said.



Photo from Catholic High School



## ANDERSON JUNIOR COLLEGE

Students are locked in a darkened room with only a few clues to help them escape, while masked teachers stand silently in the background. They cracked a code to open a locked box containing a UV light that was then used to reveal hidden words on a diary.

This isn't some bizarre orientation game, but an innovative way to develop leadership and team-building skills by getting students to play Escape Room – a physical adventure game where players solve a series of puzzles in the room and escape within a time limit.

At Anderson Junior College, it is an annual game at the student leadership camp since 2015.

“As JC teachers, we wanted to do something innovative that would better engage our student leaders” said Ms Charmaine Miranda, a humanities teacher who is involved in this project.

She felt that the Escape Room game would be a good choice as it can help students “[develop] leadership and problem-solving skills that are in line with [AJC’s] vision of developing adventurous thinkers.”

The idea was first surfaced by one of the teachers who is a fan of Escape Rooms and had gone for several of them. She suggested it to the team of three other teachers and after playing the game together, they found that the concept could be adapted for the school environment.

The team first designed an Escape Room for 30 second-year student leaders who signed up to plan the camp

for their juniors, so that they would have first-hand experience playing the game.

After that, the teachers let the students take the lead and the seniors created the game for 200 first-year student leaders.


The planning process took four months, following guidelines set by the teachers. These guidelines did not just specify important aspects such as safety, but were also meant to make the student leaders think hard about how to design the game well.

Importantly, the teachers stressed that the game had to be sufficiently challenging and needed to have an overarching ‘storyline’ to increase student engagement. Yet it has to be simple enough that the individual tasks and puzzles can be easily reset for each new group of students to play the game.

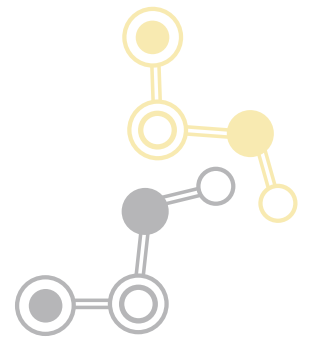
“The process of uncovering the clues and figuring out how to piece them together while working as a team in an unfamiliar setting helped to develop 21st Century Competencies like self-management, responsible decision-making, as well as communication, collaboration and information skills,” shared Ms Miranda.

Not surprisingly, students loved the game, with the Escape Room consistently rated as one of the most well-received activities during the annual camp.

“Most students say that they’ve not only enjoyed the game, but have also learnt more about themselves and their peers through it,” she said.

“We definitely see the emergence of leaders and problem-solvers; ‘thinkers’ and ‘doers’ through the game, and present our observations to the students during the post-activity debrief for them to reflect upon.” 

“As JC teachers, we wanted to do something innovative that would better engage our student leaders.”



Photos from Anderson Junior College

# A Class Act

# 8 qualities

## of a great teacher



We know that teaching isn't easy. The fact that you choose to step in the classroom and face your students day in, day out already shows how great a teacher you are. "Showing up is half the battle" as the saying goes. Here are 8 other traits that we think define a great teacher.

### 1 GENUINE LOVE

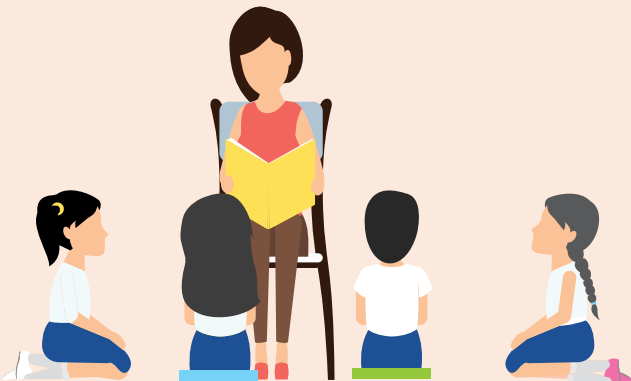
You can spot these teachers a mile away. They never seem to run out of energy, always have a smile on their faces, and are brimming with lesson ideas. Teachers who love their work get a thrill when students understand what is taught or gain new knowledge, and they will go to great lengths to make lessons come alive and inspire the next generation to discover their passion too.

### 3 HAVE A LAUGH

It helps when teachers are funny, or at least can see the lighter side of life and do not take things too seriously. Which student doesn't love a cringe-worthy pun now and then? Jokes aside, teachers with a sense of humour are positive influencers. They are typically good-natured, fun to be around and offer a different perspective that can help students grasp and remember their lessons better.

### 2 IT'S FOR THE KIDS

While some enjoy the thrill of the lessons, we know that most of you are really in this for the kids. To bring about the best learning, start by getting to know your students and let them get to know you too. Connect with them and build a bond. It takes time, but you will teach better when you know your students better. They will also learn better because they know you truly care.



## 4 STRUCTURED YET SPONTANEOUS

They sounds like totally contrasting qualities, but great teachers know how to be both. Preparing lessons properly is a great way to make sure they go smoothly, but to get students to be engaged in class, leave some room for spontaneity and you'll help them to learn to think on their feet.

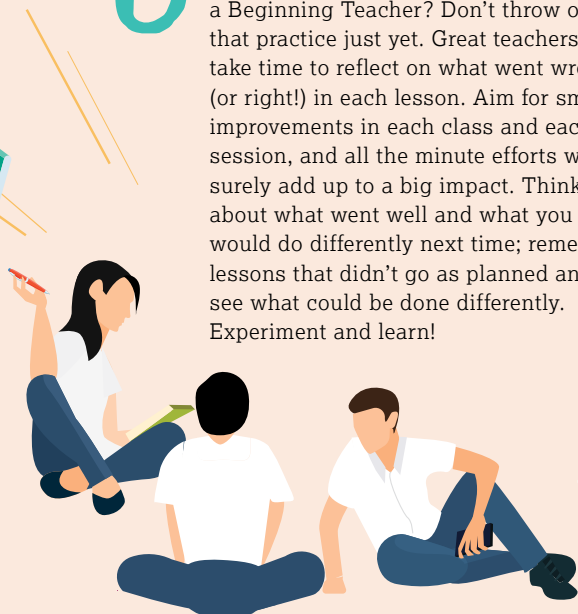


## 5 OPEN YOUR (AND THEIR) MINDS

All teachers should strive to be subject matter experts, but sometimes, exploration is the best way to learn. When students stump them, the best teachers are humble enough to say, "I don't know, but let's find out!" The ability to challenge assumptions, be critical thinkers and seek new answers is a vital skill that teachers can impart only if they stay open-minded to new ideas themselves.

## 6 REFLECT AND IMPROVE

Remember those reflections you do as a Beginning Teacher? Don't throw out that practice just yet. Great teachers take time to reflect on what went wrong (or right!) in each lesson. Aim for small improvements in each class and each session, and all the minute efforts will surely add up to a big impact. Think about what went well and what you would do differently next time; remember lessons that didn't go as planned and see what could be done differently. Experiment and learn!



## 7 WORK AS A TEAM

A great teacher is cooperative and collaborative. They work effectively with administrators, other teachers and parents for the good of their students. Collective learning and team effort produces better results than going at it on your own. You are part of a larger fraternity, with everyone working together to make the community and learning environment better. So remember – you aren't alone.



## 8 MODEL RISK TAKING

Keeping an open mind, constantly reflecting on your practice, and trying new things would mean nothing if we aren't willing to also take a bit of risk. We encourage our students to be risk takers, but in reality, many teachers are not naturally risk takers. The great teachers we all remember have at times tried something risky or even dared to appear a little "wacky", all in the name of better pedagogy. c





# Take Learning into Your Own Hands

School Staff Developer at Ahmad Ibrahim Secondary School Mdm Latifah Binte Noorahman talks about her professional development journey in a Masterclass at the Centre for Teaching and Learning Excellence.

## DEAR COLLEAGUES

One of my goals in 2016 was to deepen my Pedagogical Content Knowledge in Physics. In particular, I was interested to know effective assessment practices. This was at the back of my head when I attended the Physics Chapter Senior Teacher-Lead Teacher meeting and expressed my interest in working collaboratively on assessment issues. Soon after, I received an invitation to attend the Physics Masterclass on using Diagnostics Tools conducted by Master Teachers Dr Ravindran and Mr Lau Chor Yam. I signed up for this unique opportunity to learn how to better plan students' learning through assessment.

### EXPERIENCING PEDAGOGY IN ACTION

The unique part of this Masterclass was that it was conducted at Yusof Ishak Secondary School, which was also the Centre for Teaching and Learning Excellence (CTLE@YISS). At the Centre, we got to observe how tools like questionnaires were used with actual Secondary Four students from the school and how the results were analysed graphically to identify the students' difficulties and misconceptions. We also observed a live lesson where students were tasked to answer a series of questions about their conceptual understanding and construct their answers collaboratively before presenting their explanations to the class.

Observing the live class made me realise the importance of student collaboration in coming out with their answers and the teacher's role in facilitating class discussions. Through discussion with teachers from other Secondary Schools and Junior Colleges, I was also introduced to a wealth of resources such as the DIRECT tool, a test used to evaluate a student's understanding of electric circuits' concepts and how best we could test out these tools in our own schools.

### IMPLEMENTING IDEAS

Back in my own school, I shared what was learnt from the Masterclass with colleagues in my learning team. I introduced them to the DIRECT tool, which we used together with a role-playing activity to help identify some common misconceptions our students had about batteries and current flow in a circuit.

We designed some intervention strategies which I adapted for my own classes. I was happy to see my students were better able to discuss and tackle challenging questions that helped them learn these concepts better. The learning and tools I gained from the Masterclass were already paying off in a big way.

### LEARNING FROM PROFESSIONALS

Part of the value of professional development was receiving feedback from the experienced Lead Teachers and Master Teachers, as well as from fellow participants.

For instance, in discussions with the Master Teachers, they directed us to suitable literature supporting the teaching strategies employed. They also demonstrated how encouraging peer dialogue and using a social setting can get students to learn better in class.

After the first session of the Masterclass, we were able to try out the tools and ideas in our respective schools and then came together again a few months after to share and refine our techniques together, thereby learning from each other's lessons and findings.

More than this, going on this professional development journey provided me with the opportunity to learn from and team up with Physics educators from various levels. Together we also had the chance to discover and tap on research and resources from Physics educators from around the world. Having now been through the Masterclass, I am motivated and excited to find other ways and methods to further my own learning.

As educators, I would definitely encourage all of us to participate in such professional development opportunities to rekindle that passion for teaching, and seek ways to expand our own perspectives. 📌

## About CTLE@YISS

The Centre for Teaching and Learning Excellence was established in Yusof Ishak Secondary School in September 2015. The Centre, a tripartite collaboration between the school, the Academy of Singapore Teachers and the National Institute of Education, offers a new model of teacher professional development which is set in an authentic context. Through Masterclasses and Demonstration Classes, teachers from schools across Singapore can learn by observing innovative pedagogies in a real classroom setting demonstrated and facilitated by Master Teachers and NIE staff.

# Transforming *Teachers*

SkillsFuture aims to prepare our students with the right skills and attitude to face the challenges of the future. At the forefront are you, our teachers. Say hello to the five members of the League of Future Teachers. Which of these superheroes do you see in yourself?



## MS NAVIGATE

Students need help to map out and make sense of the shifting landscape. Ms Navigate is the strategist who gets her students to formulate plans to achieve their goals and reach their destinations.



## MR TEAMWORK

One is good, but more is better. Mr Teamwork encourages students to not only share but also learn from others. They will benefit from learning to work in teams in their future workplaces.



## MRS INNOVATE

Innovation is critical for growth and success. Mrs Innovate stays up to speed with the latest technology and trends, persuading her students to try new things, discover new ways, and create original solutions, even if it's learning with Pokemon GO.



## MDM FUNDAMENTALS

You always need to get the fundamentals right. In education, it is all about helping students gain knowledge – in academic subjects, technical skills, or life in general. Mdm Fundamentals inspires her students to read widely and keep pace with world issues.



## MR ANALYSE

Being stuffed with facts is not enough. It is more important to think critically and figure out the answers. Mr Analyse shows students how to apply keen insight to every problem. 🇸🇬



**Inspired by these  
superheroes?**

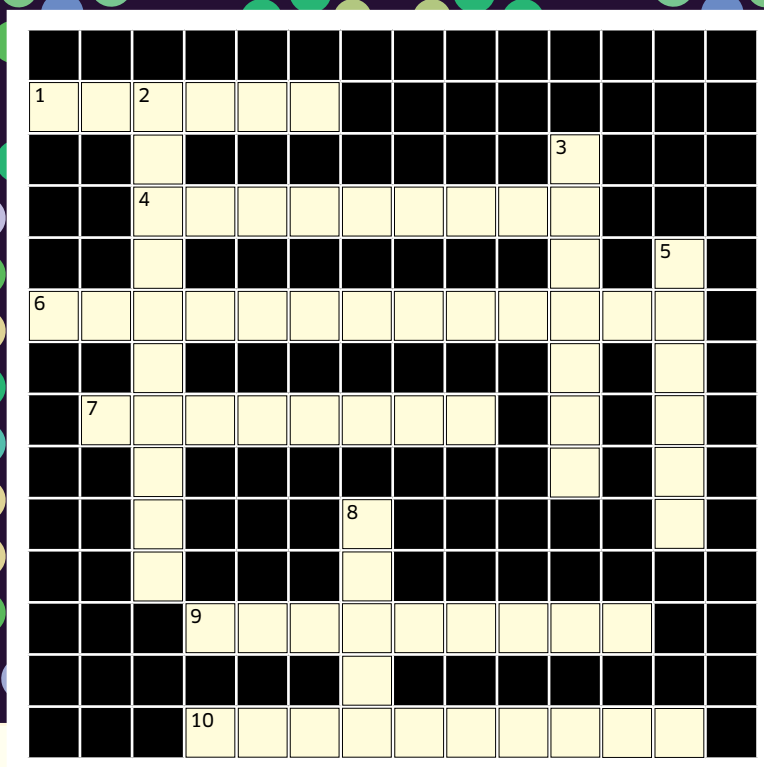
Tell us one new skill you would like to pick up, and why.

Send your entry to [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg), and the published entries will receive a NETS Flashpay card. Please include your name, NRIC, email address, school or division, and contact number.

ANSWER & WIN!

# Can you solve this?

Show us how well you read *Contact* by tackling this puzzle (answers can be found within the magazine). Three correct entries will be chosen to receive an attractive prize each!



## ACROSS →

1. In a Masterclass, Mdm Latifah binte Noorahman was introduced to the \_\_\_\_\_ tool.
4. Teachers from Catholic High created a card game called \_\_\_\_\_ City.
6. Ms Joanna Tan's team identified three main anxieties of students: academic, expectations and \_\_\_\_\_.
7. Ms Sophia Tan is the teacher-in-charge of the mindfulness programme at \_\_\_\_\_ Primary School.
9. What does the B in Richard Sagor's CBUPO acronym for resilience stand for?
10. Madam Lee Lin Yee qualified as a Zumba \_\_\_\_\_ during maternity leave.

## DOWN ↓

2. Students build \_\_\_\_\_ by confronting setbacks.
3. According to an article in The Atlantic, mindfulness can help treat aggression, ADHD or mental issues such as \_\_\_\_\_.
5. Anderson Junior College student leaders develop skills by playing the \_\_\_\_\_ room game.
8. Mr Kwek Hiok Chuang's 3As for new students are: Accept, Adapt, \_\_\_\_\_.

## Winners from last issue's puzzle



**Ms Serene Wong Hsi Wen**  
Teacher  
Anderson Junior College

**Ms Serene Lam Non Har**  
School Staff Developer  
Dunman High School

**Mdm Tan Siew Lian**  
Allied Educator  
Maris Stella High Primary School

**Congratulations!**

**THINK YOU HAVE THE ANSWERS?**

Send a clear photo of your completed entry to [contact\\_online@moe.edu.sg](mailto:contact_online@moe.edu.sg) by **23 June 2017**. Please include your full name, institution, designation, NRIC and contact number in your email.