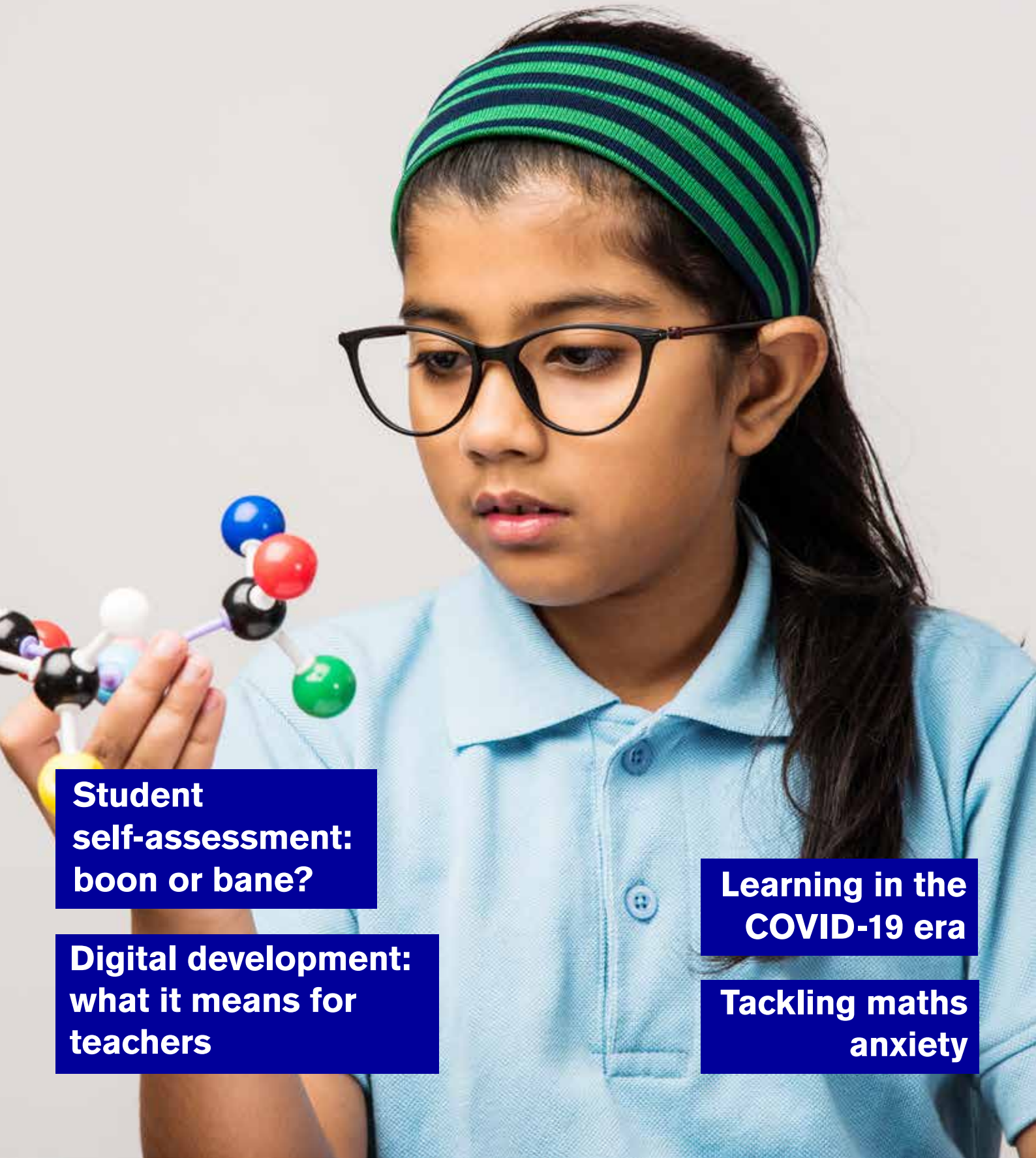


Teacher

THE PROFESSIONAL DEVELOPMENT COMMUNITY FOR EDUCATORS

Volume 14, number 2, April-June 2020



**Student
self-assessment:
boon or bane?**

**Digital development:
what it means for
teachers**

**Learning in the
COVID-19 era**

**Tackling maths
anxiety**

Teacher

THE PROFESSIONAL DEVELOPMENT COMMUNITY FOR EDUCATORS

Teacher India is a quarterly print magazine for school leaders and teachers developed by the Australian Council for Educational Research (ACER)



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Contributions:
anannya.chakraborty@acer.org



Subscriptions:
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Phone:
+91 11 41097433

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PUBLISHER



Australian Council for Educational Research

EDITOR Amit Kaushik

PRODUCTION

Editing: Anannya Chakraborty

Design: Hemang Mehta

CONTRIBUTIONS

Email: commsindia@acer.org

SUBSCRIPTIONS

Email: subscribe.india@acer.org

ADVERTISING

Email: sales.india@acer.org

ACER India

Corporate Communications
C-3, Block C, Qutub Hotel,
Shaheed Jeet Singh Marg,
New Delhi 110 016
Phone: +91 11 41097433
Website: www.acer.org/in



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REGULARS

44 News

34 Mother tongue, please!

COLUMNISTS

14 Digital development: what it means for teachers

FEATURES

TEACHING & LEARNING

05 A learning culture for the digital world - something to learn from Moscow

20 Learning context matters in maths performance

26 Tackling maths anxiety

ASSESSMENT

08 Assessing learning of students with disabilities

30 Student self-assessment: boon or bane?



IN THIS EDITION

Andreas Schleicher describes Moscow's digital revolution in education, Ashok Kumar Pandey writes about how school leaders can respond to COVID-19, and Amy Lightfoot explains what digital development means for teachers. Ashtamurthy Killimangalam discusses student self-assessment and Divya Kapoor



DEVELOPING 21ST CENTURY SKILLS

24 Critical thinking

25 Global awareness

LEADERSHIP

10 Embracing digital learning in the COVID-19 era

17 Interview: schools coping with COVID-19

TIME OUT

38 Book excerpt: ordinary people, extraordinary teachers – the heroes of real India

40 International Women's Day 2020 Quiz



talks about students' maths anxiety. The time out section contains a special book excerpt and Women's Day quiz. We continue our partnership with the British Council and much more in this edition of **Teacher**. **T**

From the Editor

In April 2020, the Australian Council for Educational Research celebrates the 90th year of its existence. Writing in *The Herald* in April 1930, a few days after ACER had been established with a generous grant from the Carnegie Foundation, Dr K S Cunningham, our first Executive Officer, noted that ‘a too slavish following of tradition is especially dangerous in education since we are concerned with preparing citizens for a constantly changing social life’. It is striking that those words still ring true, ninety years later, when the world has changed beyond recognition, and in so many different ways. Yet the mission of educators, and indeed of ACER, remains the same – how do we prepare the next generation to best meet the challenges of the future?

The ongoing COVID-19 pandemic has presented every stakeholder in the education sector with unprecedented challenges. Never in human history have we been so technologically and scientifically advanced, yet we still feel helpless in the face of an illness that spreads like wildfire with such severe consequences. In dealing with this pandemic, each one of us is having to re-examine dearly held beliefs in order to find answers to the many questions it has posed.

For leaders and educators, COVID-19 has the potential to provoke a complete rethink of the education system, from policy to leadership to the classroom. We are already seeing some initial responses to this crisis, with education boards in India deciding to promote all children in classes 1 through 8 to the next grade, schools moving to online classes and assessments, and development of teaching-learning practices that assimilate these changes. Some of the articles in this issue address these responses, and the

best way to implement some of them. The biggest challenge will lie in ensuring that stakeholders remain – and feel – emotionally connected the way they used to be, even as they remain physically apart.

It is worth recalling that such solutions are not available to everyone; government schools, while often well provided for in terms of basic infrastructure, usually lack adequate IT facilities to cater to all students. Moving classes online also requires home access to computers and the internet, facilities generally unknown to those struggling with more fundamental issues of poverty. Clearly, a more widespread use of technology is likely to increase the gap between economically, socially, and educationally advantaged and disadvantaged students.

While many countries in South Asia have moved to middle income status, thanks to rapid economic development and improved social indices, the region still accounts for the largest number of out of school children in the world. Those that were already in school were not, as we know, always learning, and the sudden disruption of their schooling caused by COVID-19 is only likely to exacerbate that situation. Governments and policy makers will thus have to seek policy solutions that address varied contexts, and do so in a dynamic and responsive manner. Most importantly, these solutions will need to be developed collaboratively, with all stakeholders working together to arrive at the best possible options.

At ACER, we remain committed to working collaboratively with our partners through these very challenging times, and to delivering on our commitments notwithstanding the changed circumstances. In that spirit, while we are unable to get the

print version of this issue of *Teacher* to you given the ongoing lockdown and suspension of non-essential services, we are pleased to share this PDF version through email, and look forward to sending you regular print copies of subsequent issues after normalcy is restored.

In the meanwhile, stay well, stay safe, and stay strong. As always, we look forward to your feedback via the Letters column, or through email at commsindia@acer.org.





A learning culture for the digital world – something to learn from Moscow?

WHILE PEOPLE HAVE DIFFERENT VIEWS ON THE ROLE THAT DIGITAL TECHNOLOGY CAN AND SHOULD PLAY IN SCHOOLS, WE CANNOT IGNORE HOW DIGITAL TOOLS HAVE SO FUNDAMENTALLY TRANSFORMED THE WORLD OUTSIDE OF SCHOOL. **ANDREAS SCHLEICHER**

Everywhere, digital technologies are offering firms new business models and opportunities to enter markets and transform their production processes. They can make us live longer and healthier, help us delegate boring or dangerous tasks, and allow us to travel into virtual worlds.

Technology should therefore play an important role in education if we want to provide teachers with learning environments that support 21st century methods of teaching and, most important, if we want to provide students with the skills they need to succeed.

In the health sector, we start by looking at the outcomes, we measure the blood pressure and take the temperature of a patient and then decide what medicine is most appropriate. In education, we tend to give everyone the same medicine, instruct all children in the same way, and when we find out many years later that the outcomes are unsatisfactory, we blame that on the motivation or capacity of the patient. That is no longer good enough.

Building communities of learners

Digital technology now allows us to find entirely new responses to what people learn, how people learn, where people learn and when they learn, and to enrich and extend the reach of excellent teachers and teaching. Already today, digital learning systems cannot just teach you science, but they can simultaneously observe how you study, how you learn science, the kind of tasks and thinking that interest you, and the kind of problems that you find boring or difficult. These systems can then adapt learning to suit you, with far greater granularity and precision than any traditional classroom setting possibly can. Technology can elevate the role of teachers from imparting received knowledge towards working as co-creators of knowledge, as coaches, as mentors and as evaluators.

Perhaps the most distinguishing feature

of technology is that it not only serves individual learners and teachers, but that it can build an ecosystem around learning that is predicated on collaboration. Technology can build communities of learners that make learning more social and more fun, recognising that collaborative learning enhances goal orientation, motivation, persistence and the development of effective learning strategies. And technology can build communities of teachers who share and enrich teaching resources and practices, and collaborate on professional growth and the institutionalisation of professional practice.

Combining data with collaboration

There is another angle from which to consider technology in education. Data can support the redesign of education as it has already done in so many other sectors. Imagine the power of an education system that could share its collective expertise and experience through new digital spaces. But throwing education data into the public space does not, in itself, change how students learn, teachers teach and schools operate. That is the discouraging lesson from many administrative accountability systems. Turning digital exhaust into digital fuel, and using data as a catalyst to change education practice, requires getting out of the 'read-only' mode of our education systems, in which information is presented as if inscribed in stone. This is about combining data with collaboration.

We should ask ourselves why schooling is still so far from delivering on these promises, and it is clear that if we continue to dump technology on schools in a piecemeal way, we won't be able to realise technology's potential. Perhaps we should stop seeking the 'killer app' or the 'disruptive' business model that will somehow turn existing practices upside down. Perhaps, instead, we should learn how to identify, interpret and cultivate systemic capacity for learning with technology across the entire ecosystem of schooling.

Something to learn from Moscow?

In some places, there has been a silent revolution where exactly that is happening. Over the last years, the city of Moscow has digitised virtually every aspect of its instructional system, and the key differentiator of the city's approach is not the specific technology, but the support and incentives that have shifted the role of students, teachers and parents from being consumers of educational services towards becoming designers and co-creators of educational content and learning methods.

In the schools I visited I saw teachers using a digital platform to develop and share engaging instructional material. That in itself is not unusual; what made it different was that the platform was not school-based but available across the entire city, and that it was integrated with reputational metrics. The more other teachers download, or critique or improve lessons, the greater the reputation of the teacher who shares them. Teachers have already contributed over 300 eTextbooks, 70 000 interactive applications and close to 40 000 lesson scenarios which, being built around a common lesson structure, can easily be reconfigured and adapted in the classroom. The teachers I spoke with saw themselves as proud designers of imaginative learning environments, who scaffold problem inquiry and help students see the value of learning beyond content knowledge acquisition.

The city is giving out grants to teachers and schools in order to encourage and support the development and curation of high quality instructional material. Most of these are in the order of US\$ 400–700, not much, but enough to signal that teachers contribute value to the system. In this way, Moscow is creating a giant open-source community of teachers and unlocks teachers' creativity simply by tapping into the desire of people to contribute, collaborate and be recognised for their contributions. And teachers can spend more time on this, since routine administrative and instructional

tasks that take valuable time away from teaching are being handed over to technology.

This is how technology can extend the reach of good teaching, recognising that value is less and less created vertically, through command and control, but increasingly horizontally, by whom we connect and work with. One teacher can now inspire hundreds of thousands of learners, and at the end of the school year, teachers don't just see how well they taught their own students, but also what contribution they have made to advance the teaching profession and the wider education system.

Most importantly, student learning is becoming personalised, adaptive and more engaging, with lesson scenarios that range from animated digital content, through interactive tasks, up to learning in virtual laboratories where students design, conduct and learn from experiments, rather than just reading about them. The digital lessons enable students to access specialised materials in multiple formats and in ways that can bridge time and space. I tried to configure the planets around the sun in a VR-based environment, and although I failed, I can now remember and visualise their correct sequence, something my own teachers failed to teach me over many years

In this way, technology is enhancing experiential learning, facilitating hands-on activities and delivering formative real-time assessments. And the e-school does not end with the school day, students can access the resources at home, complete their homework and other assignments, and assess their learning progress interactively. Not least, the e-school is connecting parents with education, facilitating communication with teachers, helping parents understand and follow their children's timetables and learning progress, and getting invitations to educational activities in the city.

I meet many people who say we cannot

give teachers and education leaders that kind of professional autonomy because they lack the capacity and expertise to deliver on it. There may be some truth in that. But simply perpetuating a prescriptive model of teaching will not produce creative teachers: those trained only to reheat pre-cooked hamburgers are unlikely to become master chefs.

By contrast, when teachers feel a sense of ownership over their classrooms, when students feel a sense of ownership over their learning, that is, when productive teaching takes place. Technology is not the sole answer to this, but it is an essential part of the answer.

The city of Moscow hasn't invented any of the pieces, nor is it the first to deploy them. All it has done is to put the pieces together within a coherent vision and at scale, so that the various parts of the school system are moving in the same direction. For many other school systems, that still seems an unsurmountable challenge. **T**

But simply perpetuating a prescriptive model of teaching will not produce creative teachers: those trained only to reheat pre-cooked hamburgers are unlikely to become master chefs.

This article first appeared as Andreas Schleicher's regular column in ACER's Teacher online. Visit www.teachermagazine.com.au for more.

AUTHOR

Andreas Schleicher is Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic Co-operation and Development (OECD) in Paris.

PHOTO © 123rf



Assessing learning of students with disabilities

ACER AND NEQMAP REVIEWED EXISTING INCLUSIVE EDUCATION POLICIES AND PRACTICES IN THE ASIA-PACIFIC REGION WITH A PARTICULAR FOCUS ON LEARNING ASSESSMENT OF CHILDREN WITH DISABILITIES.

The Asia-Pacific region is home to 690 million persons with a disability. While there is growing attention towards educating children with disabilities in regular schools, countries around the globe struggle to establish fully inclusive education systems. In the Asia-Pacific, education of students with disabilities is delivered through both segregated schools and regular schools, however, the choice of school depends on the nature of disability and education needs.

Within this context, the Australian

Council for Educational Research (India) supported the Network on Education Quality Monitoring in the Asia-Pacific (NEQMAP) in developing a thematic review on inclusive learning assessments for children with disabilities in the Asia-Pacific region.

Children with disabilities are less likely to attend school than their peers without disabilities, have higher dropout rates and get fewer opportunities as adults. Thus, the review calls for consolidated efforts to

ensure that the learning progress of children with disabilities is reported in both high-stakes examinations and large scale assessments so that education systems provide a complete picture of educational achievement.

Students with disabilities need accommodations or alternate forms of assessment so that their learning can be measured at system and classroom level and targeted teaching strategies can be employed. Various kinds of accommodations



should be made available to students depending on their needs and technology can play a pivotal role in providing assessment opportunities to children with disabilities. Put simply, diverse assessment approaches are necessary for testing students with disabilities along with a range of pedagogies that address their learning needs.

To understand how countries in the Asia-Pacific are currently evaluating students with disabilities, this study investigated four key areas that have an impact on testing students with diverse education needs:

- national policies
- teacher education
- assessment accommodations
- curriculum and pedagogy

The study found that some countries evaluate children with disabilities through formative assessment while others with established assessment systems or those who have participated in international assessments in the past allow participation of children with disabilities through accommodations. The review points out that children with severe disabilities or those who cannot be accommodated in national and international examinations are left out.

In order to improve learning for every child, the report suggests system level assessment programmes need to:

- ensure mainstreaming of education of children with disabilities,
- provide teacher education with a focus on inclusion and specific modules on assessments,
- employ funding models that incentivise and support institutions promoting inclusion, including evidence gathering on the learning of students with disabilities,
- encourage partnerships with non-governmental organisations that support inclusion and provide access to a resource pool of assessment experts and
- ensure that leadership at all levels supports inclusion and uses inclusive assessments for evidence-based decision making.

The review highlights that teachers and school leaders require extensive and continuous training for teaching in inclusive schools. Thus, the philosophy of mainstreaming inclusive education must be incorporated within teacher education programmes. Quality pre-service and in-service training can improve pedagogies and transform learning especially in developing countries of the region where teachers are the backbone of education systems.

The availability of funding and incentives for mainstreaming inclusive education may

not have direct impact on inclusive education but it is a cross cutting need. Funding is critical in encouraging schools to promote education of children with disabilities and invest in professional development programmes of teachers.

The report underscores that countries in the region have unique education systems, hence, the policies, practices, progress and readiness of each country varies. It examines the cross-cutting factors that affect inclusion of children with disabilities in mainstream schools and recommends ways to advance effective implementation of inclusive learning assessment.

The findings of the report will contribute to UNESCO Bangkok's review of the SDG efforts in the region. **T**

Read the full report:

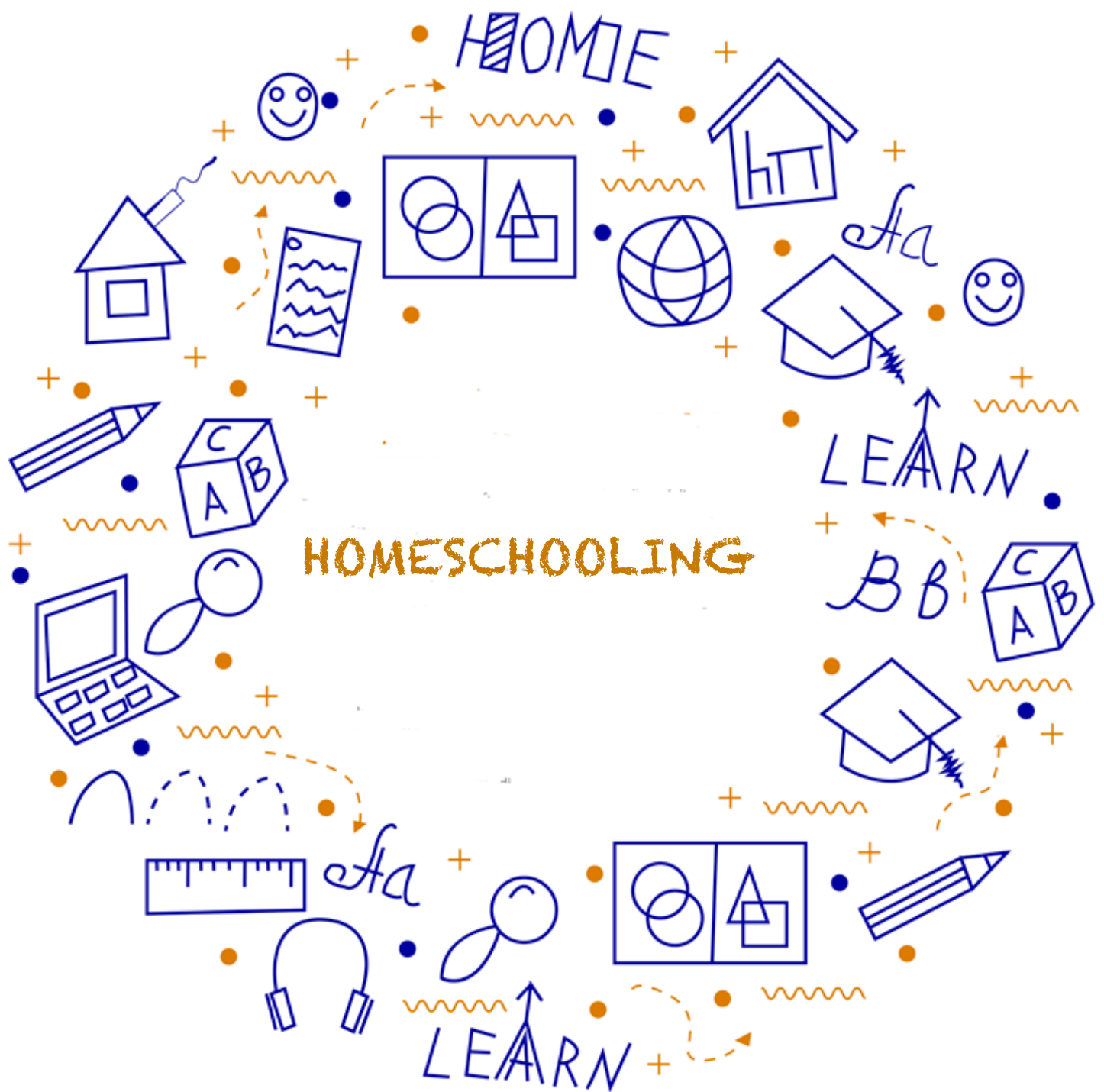
To read the full report 'Equitable learning assessments for students with disabilities', visit: https://research.acer.edu.au/rd_school/226/

This article first appeared in ACER's Discover <https://www.acer.org/in/discover/article/assessing-learning-of-students-with-disabilities>.

AUTHOR

Amit Kaushik is CEO of ACER India, and Anamya Chakraborty is a Senior Corporate Communications Officer at ACER India.

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Embracing digital learning in the COVID-19 era

THE COVID-19 OUTBREAK HAS LED TO SCHOOL CLOSURES ACROSS THE GLOBE. DR ASHOK KUMAR PANDEY WRITES ABOUT WAYS IN WHICH SCHOOL LEADERS CAN RESPOND TO THIS EMERGENCY.

‘Nearly overnight we have entered a radically new age of learning’ said Audrey Azoulay, UNESCO Director-General at the launch of COVID-19 Global Education Coalition.

In virtually no time, planet earth has refused to cooperate with humans, her most dominant inhabitants, turning the entire world order topsy-turvy. Among the worst affected are students forced to stay home. Fear and anxiety have gripped many of the present generation of learners, earning them the nickname ‘Generation Lockdown’. Under these circumstances, young children need support as well as emotional and physical safety. Schools must continue to treat children’s wellbeing as their number one priority.

The support and leadership that school leaders provide now will count forever. Now is the time for them to display their values and skills, and influence collaboration among students, teachers, and the community. School leaders often excel naturally while on campus, demonstrating these characteristics and more. The challenge is now for them to quickly put systems in place that allow access to the school community from a distance. Here are some suggestions for school leaders as they respond to the new order.

Healthy relationships: Having ongoing conversations with teachers will encourage them to connect with their students. Therefore, the priority should be to realistically assess online communication networks, analyse the need, and take action within the overall design of the online learning framework. The idea is to opt for a feasible, inclusive, and empowering protocol for engagement with students.

Adaptation: A traditional school system is different from online schooling. We cannot convert a real classroom into an online one. This transition will require leaving behind old practices, beliefs, and policies, and

adopting new ones that address the current reality. Children attending classes from home are not the same as those sitting in a classroom. A lot of patience, compassion, emotional support, and recognition of the varied needs of the students will make the programme inclusive. In a forced lockdown situation, the dynamics of the classroom have been overwhelmingly changed to a new reality where students, teachers, classrooms, and schools are ‘physically missing’.

Smart strides: Successful school leaders take great strides in challenging situations. With kindness and empathy, they can marshal the entire school community to achieve an objective. The purpose of education is to build intelligence and character. Times like these are more conducive to developing the latter. We can foster kindness, self-control, resilience, and forgiveness to achieve the wellbeing of our communities.

Online learning readiness: There are several myths about online teaching and learning.

■ The first myth is that online instruction is less effective than in person. The success of Khan Academy and the many Massive Online Open Courses (MOOCs) available on various websites does not support this argument.

■ The second myth is that even in online classes, teachers have to stand before a class. Not always! Experience suggests that children learn from and enjoy watching videos and recorded presentations more. They are under no pressure to learn everything in the presence of peers. Learning at one’s pace and the freedom to go through a lesson as many times as one requires, personalises learning.

■ The third myth is about the linearity of the content. On the contrary, high-quality online content comprises videos, audio, live-streaming, and text/PDF.

■ The fourth myth hinges around the lack of group dynamics in a virtual classroom. Not true! The creation of forums

for students to share questions and knowledge is a rewarding experience for anyone participating in a virtual learning environment.

Lessons online are learnt and consumed at a differential pace, and that is an additional advantage. Sharing feedback and constructive criticism is as essential on a virtual platform as it is in a traditional setup. A well-designed online learning programme must include a constructive feedback feature.

Toolkit for online classes: The school leader now has to don the hat of a digital leader and support equipping the digital teacher. None of the brick and mortar classroom provisions may work now. Notepads stacked with content production tools, mostly free, must find their way into smartphones or tablets. Google Docs, Adobe, Microsoft, etc., with their vast array of offerings are making life easy for those transitioning to the world of virtual classes. Zoom is another blockbuster, catching attention worldwide. Many technology players are offering Learning Support Platforms (LSP) with or without content. For example, LabXchange, a Harvard University-sponsored remote learning platform, provides free teaching and learning resources to institutions. There is an opportunity now for digital school leaders to tweak their shopping list and include what enriches their efforts to digitalise learning. Luckily price tags seem to have been removed for now!

All these days, we have been advocating flipped classrooms and hybrid learning experiences, but many of us lacked the conviction. COVID-19 has left us with no choice but to embrace new technologies as soon as we can. Lest we make the same mistake again, let us now invest in creating a virtual school and not a once-in-a-while online classroom joyride. Investment in technology infrastructure, capacity building, content designing, and empowerment are

School leaders have an unmissable opportunity to unleash the collective talent of teachers, students, parents, and freelance experts to find a magic formula for helping each child. As schools face closure across India and the world, homes are the new schools. Parents have the dual role of being teachers at home and supporting virtual classrooms. Collaborating with schools, they can ensure that their children's learning is not compromised. **T**

*Ashok K Pandey is Chairperson, Council
for Global Citizenship Education and
Director, Ahlcon Group of Schools, Delhi.*

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Digital development: what it means for teachers

TECHNOLOGY CAN BE LEVERAGED FOR TEACHERS' PROFESSIONAL DEVELOPMENT. [AMY LIGHTFOOT](#) EXPLAINS HOW.

The mobile phone that you currently have in your pocket contains a more powerful computer than the one which was on board Apollo 11 and responsible for Neil Armstrong's visit to the moon. Incredible, isn't it? Few people could have predicted the pace at which technology has developed in the last few decades, or how dependent we would become on it. We are still working out exactly how technology might best support teaching and learning, but it's clear that there are a number of ways it can be used. This has been accelerated further as schools around the world attempt to continue teaching and learning remotely during the COVID-19 crisis.

There are three main areas in education where technology has a potential role:

- for large-scale data gathering, analysis, and reporting
- to assist learning in and out of the classroom for our students
- to support the continuing professional development of teachers

As educators, we don't hear that much about the first role – that tends to be managed and discussed by administrators or government officials. In some schools, there may be a system that has been established for recording student attendance and centralised assessment scores. Ideally, this would be used by educators to help them understand learning gaps and ensure that these are plugged in future lessons – more on this later.

The second role – supporting our students' learning – is probably the one we hear about the most. There are multiple resources available that aim to augment classroom and remote teaching. These vary from ICT equipment such as projectors and audio-visual devices which make it easier to share knowledge with our learners (and for them to share with each other), to apps and platforms which seek to both provide input both within and outside the classroom and

test and track their progress. Countless start-ups have attempted to develop software that can either support or in some cases bypass teachers to try to improve learning outcomes across the curriculum.

However, it's the third function of technology – supporting teachers' professional development – which often doesn't get as much attention. How can technology be harnessed by teachers and other educators to help them develop their skills and knowledge, making them more effective in their roles?

Courses and resources

Perhaps the most obvious support that technology can provide to teachers for their professional development is opening up a world of online content to which they may otherwise not have access. This includes websites with content aimed at improving their teaching of particular subjects or topic areas, but also opportunities to develop their own subject knowledge. Many of these are free – for example, Khan Academy offers excellent tutorials on aspects of the maths and science curricula. Many apps including Duolingo, Memrise, and Busuu support teachers to develop their language skills.

Communities of practice

Social media platforms including Facebook, Twitter, and WhatsApp have multiple uses in terms of keeping in touch with friends, family, and events, but in recent years they have also been co-opted by education professionals seeking to learn and share ideas. Knowing how to use hashtags on Twitter can help you find people who share common interests, as can joining Twitter Chats on specific topics. WhatsApp groups can be very successful for sharing reflections on practice, as long as they're carefully moderated with group members agreeing to appropriate usage guidelines. There's even a global community of practice specifically for teacher educators working in English language teaching that has been set

up by the British Council – you can find it on the TeachingEnglish website.

Tracking progress

Whether or not our school or district has invested in an online tool for tracking our students' assessment scores, individual teachers can still make good use of technology for this purpose. By keeping accurate records of our students' progress, we are undoubtedly in a better position to be able to plan lessons that meet their learning needs and goals. It can also help us to keep information about what we have covered and reflections on our practice. Microsoft Excel can be used for this purpose, setting up a simple spreadsheet to record our learners' scores on formative assessments with dates and information about the content focus.

In addition, there are several tools such as Evernote, Padlet, and Wakelet which educators can use to create online professional development portfolios, including storing links to articles and resources of interest for future reference, notes on lesson reflections and ideas for future classes – with the opportunity to share with others online.

Challenges

We've discussed some of the ways that technology can benefit teachers, but it's not without its challenges. Not all teachers have access – either to the hardware or software they might need or to a reliable internet connection. It can also be expensive – streaming videos or audio can use up data quickly. It can be distracting. Social media wasn't really designed for professional development purposes and it can be difficult for some teachers to feel comfortable or willing to use it in this way when they're used to using it just for fun and staying in touch with friends and family. Technology can also let us down sometimes. It freezes, won't connect, or otherwise stops working.

Perhaps most importantly, some teachers report that they just don't have the skills or

the confidence to engage with technology – either for use with their learners or for professional development purposes. This is undoubtedly changing as the majority of teachers have smartphones and know how to navigate these, but there are still some gaps that might need to be addressed sometimes in areas that might not seem immediately obvious.

Navigating through the content

There's so much content out there that one of the biggest challenges for teachers (and others) is knowing how to make sense of it. How do we know which websites have reliable information? How do we choose between one classroom resource and another? One thing to be aware of is the different types of content – from blogs to ebooks to online courses, there are lots available. Taking time to research and think critically about what might be the most appropriate is important. Many teachers find their favourite sites and stick to them, but remember to look out for new sites every now and then. Communities of practice are good places for sharing these finds.

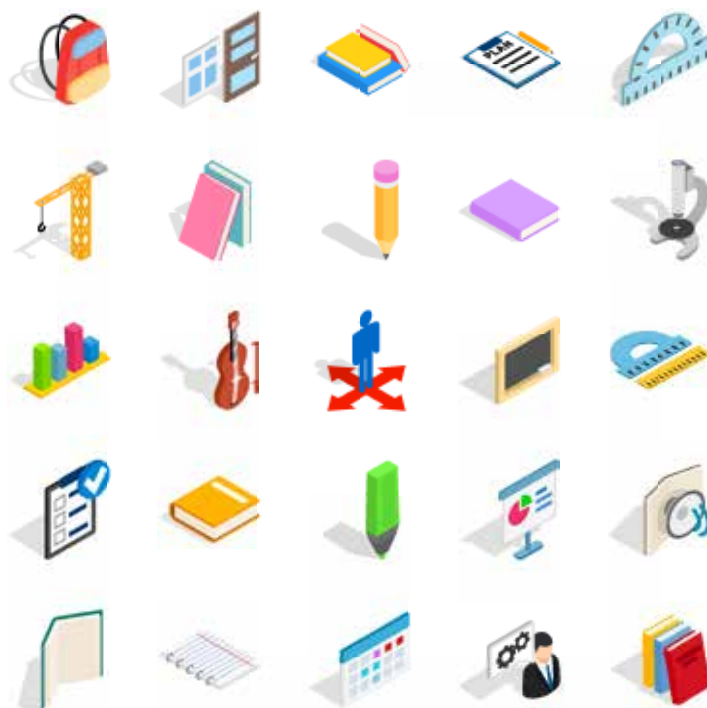
Building confidence

Some teachers don't like using technology either in the classroom or outside because they are worried about making mistakes or looking foolish in front of their students. It's true that many students these days are more tech-savvy than their teachers. This is a resource – why not ask your students to take charge and share what they know? Or help you when you get stuck? In most cases, this could be very positive in terms of building the teacher-student relationship.

Making time

Finding time to develop our skills and knowledge is an issue for many of us. However, taking half an hour to set up a system of note-taking and bookmarking of websites can save a lot of time and help us to keep track of interesting things we've seen but haven't yet had time to fully read through. Getting organised is key to any

professional development activity – whether it involves technology or not. **1**



REFERENCES

If you're interested in learning more about the issues related to the use of technology in education, why not listen to *Episode 7 of the British Council's Education in Focus: South Asia audio series*? It's available for free on all good podcast platforms, or via the hashtag #EducationSouthAsia.

The British Council has also produced a set of free *Technology for Teachers guides*, covering several topics including using apps and online collaboration tools, making the most of social networks, giving webinar presentations, and more. Access them here: <https://www.britishcouncil.in/teach/resources-for-teachers/technology-teachers-series>.

Finally, the TeachingEnglish website contains many free resources for teachers of English (includes the teacher educator community of practice): <https://www.teachingenglish.org.uk>.

AUTHOR

Amy Lightfoot is the Regional Education and English Academic Lead (South Asia) at the British Council, based in Sri Lanka.

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Interview: schools coping with COVID-19

SOME SCHOOLS HAVE TAKEN RAPID MEASURES TO PREVENT LEARNING LOSS DUE TO THE ONGOING COVID-19 PANDEMIC. DR VISHAL VARIA SHARES THE EXPERIENCE OF THE ROSARY GROUP OF SCHOOLS IN A CONVERSATION THAT INCLUDES SOME USEFUL TIPS FOR SCHOOLS AND TEACHERS.

In the past few days, schools across the globe and in India have been closed due to the COVID-19 pandemic. Given the situation, schools have been forced to move to online learning within a short period of time and teachers have been busy designing and delivering online courses. School managements are occupied with emergency academic planning so that they can help teachers, and in turn learners, in the best possible way.

What is the impact on learners?

Vishal Varia, Managing Director, Rosary Group of Schools, says that the closure of schools will have a tremendous impact on learners. Fixed learning schedules will be disturbed as online modules do not have a rigid arrangement. Teachers will not be able to support learners directly – they will not be able to motivate learners or supervise their work. It can also have a specific impact on certain tasks; for instance, students might lose control over their habit of writing.

Early grade learners will suffer the most – they will not be able to cope with online teaching as well as high school students. And even at high school level, pupils with an inclination towards technology are likely to be better engaged with online classes.

How are teachers coping?

‘Teachers are our superheroes without a cape. They are not only taking up the challenge of working differently but are setting an example of working in challenging times’, Varia adds.

Right before the complete lockdown, when students had stopped coming to schools but teachers were still attending, teachers of the Rosary Group of Schools participated in Faculty Development Programmes (FDPs) to focus on communication and delivery mechanisms. Now that teachers are at home, they have also created a WhatsApp group to connect with colleagues and share tips and challenges of teaching from home. They are also sharing videos on emerging teaching and learning techniques.

Varia says ‘This is a first-of-a-kind emergency that we are facing at the moment and we are developing ourselves on a daily basis to handle this uncertain situation.’

‘We also tell our teachers that it is important to spend quality time with family and limit working hours in these times. Teachers have flexibility in delivering these lessons, but it is mandatory for them to deliver one hour lessons on a daily basis.’

What tools are teachers using to collaborate or learn new skills?

‘There are a number of tools available for teachers to teach and collaborate remotely. Although teachers might not have had the opportunity to use these when teaching in the classroom, they might find them useful now.’

Varia shared his curated list with Teacher.

- Google Classroom: Used for learning exchanges.

- Flock: App used for remote collaboration.

- Teaching Channel: One of the most used professional learning platforms in USA which has been made free for teachers during these times.

- Teach Thought: Another professional learning platform with lots of articles on new topics and examples.

- Flinnt: An Indian learning app for K10 students. It’s an easy platform just like Google Classroom or WhatsApp but is especially designed for education.

- Telegram: Primarily a communication platform but there are specific channels that teachers can use.

Varia adds ‘We should be proud of the Flinnt app as it is made in India for the Indian context.’

‘This is also a good time for teachers to invest in their own professional development.’ He suggests several websites and educational portals for teachers – Swayam, Udemy, Unacademy, Simplilearn, Upgrad, CourseEra, Google for Education, etc.

What teaching methods has your school adopted?

‘We have students from less privileged backgrounds also, and not all of them have access to a laptops or tablet. But they have access to their parents’ smart phone. Thus, we have used our mobile application to supply assignments for students. They take photos of completed assignments and upload them on the app.’

‘But as the government has announced mass promotion of students to the next grade, teachers have reported that many of them have lost interest in completing the assignments.’

How are you communicating with parents?

‘We have shared circulars with parents on WhatsApp groups and our mobile application emphasising the importance of keeping children busy with learning during this time. We cannot afford to break the momentum of learning. We have also shared a schedule with parents – it covers different subjects including drawing, craft, and painting.’

Varia says the school has suggested parents consider keeping their children engaged in education games such as Word Swipe, Mental Education, Math Riddles, Kids Quick GK, Word Connect, etc.

What tips would you share with other school leaders and management?

‘Our school leaders are vigilant and alert. They are monitoring this situation closely’. He suggests a few points.

- Boost the constructive and creative approach of the staff.
- Ask teachers to share some creative work of their own on a common platform of the school.
- Allot teachers badges like ‘Creative Teacher’ or ‘Super Star’ to boost their morale.
- Use the school Enterprise Resource Planner (ERP) or communication channel, engage parents and children by sharing good videos and messages from the Principal/school leader.
- If possible, ask your teachers to share one video a day where they will provide tips to constructively engage children at home.

Do IT abilities of teachers help in such situations?

‘Absolutely! Teachers who have access to high-speed internet and are tech-friendly can easily adapt to the new situation. They can engage in social media groups not just for personal purposes but also professional purposes. This is the time to unleash the power of social media and technology.’

What are the challenges that your school has been facing?

‘There are a lot of challenges in teaching online. This drastic change was brought about by the pandemic and we were given very little time to prepare.’

Varia notes that some of the challenges include:

- Poor internet connectivity.
- Lack of availability of suitable devices at home.
- Parents share assignments with the children late.

In particular, Varia notes that ‘flexi

availability’ implies that online classes cannot be conducted at one common time. Many children miss joining the session and are left to watch the recording.

What is the one piece of advice you would give to schools?

‘Teachers are the core strength of any school and our education system.

Teaching is a full-time job. Under these uncertain circumstances, teachers have to work tirelessly outside the regular timetable. Without their commitment and willingness to adopt technology, tackling the challenge of learning during this pandemic would be impossible.’**T**



*Interview conducted and written by
Anannya Chakraborty.*

AUTHOR

*Dr Vishal Varia is the Managing Director
at Rosary School Rajkot.*

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Learning context matters in maths performance

PISA COLLECTS BACKGROUND INFORMATION TO UNDERSTAND CONTEXTUAL FACTORS THAT AFFECT THE PERFORMANCE OF STUDENTS. BUILDING ON THE EVIDENCE, JENY RAPHAEL DISCUSSES THE IMPACT OF THE LEARNING ENVIRONMENT ON THE CHARACTER STRENGTHS OF STUDENTS, AND ITS CONNECTION TO THEIR MATHS PERFORMANCE.



The Programme for International Student Assessment, more commonly known as PISA, takes place every three years. Fifteen year-old students from various nations participate in the assessment, and are tested in three key areas — reading, mathematics, and science. PISA focuses on the application skills of the student population – ‘How well can students apply what they learn in school to real-life situations?’ This is the fundame-

ntal yardstick for the assessment.

The beauty of PISA lies in the fact that it is not indifferent to the causes behind the consequences. After the formal PISA exam, the participants are given questionnaires to describe their domestic learning context. PISA collects information about socio-economic status, the psycho-social atmosphere at home, learning climate and

culture in school, etc. The data is analysed to develop an understanding of the factors influencing learning.

Mind set matters

The findings from PISA have significance for educators who are interested in motivational aspects of science and maths learning. PISA’s background analysis does not focus on the intellectual capacity of an individual student. Rather, it is interested in the extent of difference exhibited by students in their attitudes and beliefs about intelligence, their ability to persist despite difficulties, capacity for self-regulation in learning, etc.

Studies in educational research have been published in the hundreds to claim that academic backwardness or excellence can be a direct consequence of student beliefs and attitudes rather than any inherited or innate quality. Increasing evidence refutes the age-old belief that intelligence is an inherited fixed entity. The same conclusions resurface in the outcomes of contextual analysis of PISA.

Let us look at the data about maths learning from PISA 2012.

- Forty four per cent of students reported they ‘continue working on a task until everything is perfect’ but sixty three per cent reported that they tend to ‘put off difficult problems’.

- Three out of four students agreed or strongly agreed that learning maths will improve their career prospects.

- Fifty three per cent of students agreed or strongly agreed that they are ‘interested in the things they learn in mathematics’.

- Students who were more ‘open to problem-solving’ and those who believed that they could handle a lot of information were quick to understand the content to be learned.

- Students who sought an explanation for things could easily link facts together and enjoyed solving complex problems. Such students scored 30 points higher

in mathematics than those who were less open to problem-solving.

PISA probes various traits, characteristics, and psychological dispositions of students. According to the data, apart from solid teaching and learning strategies, some character strengths are essential to excel in mathematics. The analysis acknowledges four character strengths that facilitate excellence in maths learning and performance. These are perseverance, openness to problem-solving, locus of control, and motivation. Moreover, these character strengths share a bi-directional relationship with various aspects of the context of learning. Student-teacher interpersonal transactions taking place at the micro level, within the four walls of the classroom, matter a lot in this regard.

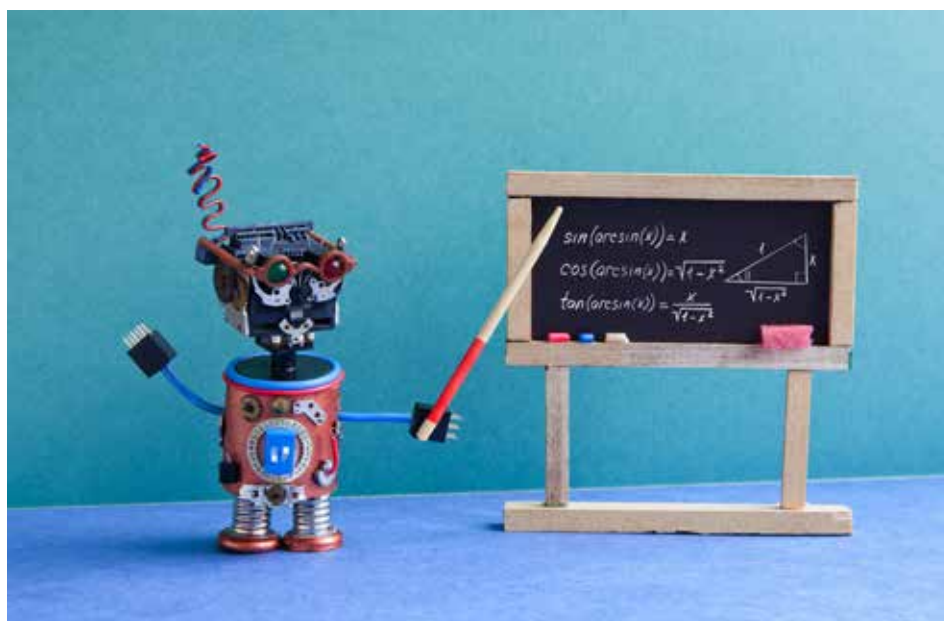
Perseverance

Perseverance is indispensable for maths learning. Perseverance is the willingness of students to work on problems even when they encounter complex situations and challenges. Intelligent students who lack this quality may suffer setbacks in their performance.

This willingness to stay in problem-solving mode until one gets the right solution is a quality that can be inculcated. Tutors can demonstrate this by enacting situations in which alternatives are tried and tested repeatedly to solve a problem. They can show how one must learn to discover the joy involved in the process of solving problems. Helping a student to experience the element of adventure and excitement involved in the act of exploration is the crux. Appropriate teaching methods and strategies can help to seed and sustain perseverance in students.

Openness to problem-solving

There is considerable variation among students with regard to their approach to dealing with challenges. Some move towards challenging situations, some shy away, and others wait for someone else to resolve



them. But PISA asserts that only those who have the mental disposition to step into an unresolved situation deliberately can fall in love with problems or challenges in mathematics; this is a quality rarely noticed in students. In the 21st century job market, openness to problem-solving is valued in recruitment drives. Unfortunately, many miss the opportunity to develop this quality during their school life.

But who are the students with an 'openness for problem-solving'? What is needed to develop this quality in a student? In the first place, we must know that it is the self-belief of an individual which makes 'openness' possible. Belief in self must be strong enough to ward off the fear of uncertainty.

Students who have developed some belief in their abilities will often spontaneously develop the quality of openness to problem-solving. The absence of pro-active self-belief leads to aversion or even anxiety towards maths. Imprints of self-satisfaction and the pleasure of discovery experienced in past learning contexts encourage students to solve challenging problems.

Past experience of failure and feedback

received from significant others shapes students' attitudes towards challenges. Thus, the classroom environment must be sensitive to this fact. Teachers should be sensitised about the far-reaching consequences of the feedback they give to the students. Feedback received from others after dealing with a challenging situation has the power to strengthen or weaken the openness towards future challenges.

Locus of control

Interest in any activity gradually fades when an individual feels that the consequences of her actions are not within her control. Learning is enhanced when a student feels that the reins of success and failure are in her hands. An unwavering belief in persistence and effort stems from this feeling.

There is a threshold for a 'sense of control' for each student. To explore any problem and think of possible solutions one must reach this threshold. Repeated failures in problem-solving slacken this sense of control and the student starts attributing the cause of failure to factors which are not in her control – luck, inherited intelligence, the gene with mathematical ability, nature of questions, the quality of teaching, not so

interesting classroom climate, etc. Autonomy is at stake when students attribute quality performance to factors outside her. Experiencing autonomy is essential for developing a sense of control in maths learning.

An inability to attribute the cause of failure to something real and manageable will influence student beliefs about performance adversely. In other words, it is the attitude towards failures, and not the failure itself, which creates under-performing students.

In a learning atmosphere where failures are treated as an offence, students can feel insecure and develop a fear of failure. Students will develop a sense of control when failures and mistakes are treated as normal steps of the learning process. The tutors' reaction and feedback to the mistakes matters a lot in this regard.

Feedback given in a mathematics classroom must have two strong messages. One would be to persist and work hard, and the other to instil a strong belief in the power of persistence. The first mistake must be celebrated but when the student makes the same mistake again, feedback should prompt the student to make a conscious effort. As a consequence, the third is less likely to happen. Students will gradually learn how to gain control over their maths skills.

Motivation to learn mathematics

Every action has a reason. The reason for initiating or prolonging an action is closely tied to a tangible or intangible personal need. For effective learning, students have to perceive a reason that is personally rewarding.

Based on the kind of reason for which students engage in maths learning, we can categorise them into two groups. One group likes to learn maths because it's very interesting and exciting to them. And the other group of students learns maths to avoid failure in the examination, to ward off puni-

shment from teachers, to get an adequate score in the examination so they can procure entry into their dream course or job, etc.

The first group of students is intrinsically motivated. And PISA analysis reveals that intrinsically motivated students perform better. For externally motivated students their reason for learning does not spring from within, hence, the motivation fluctuates. For example, students who do homework to dodge punishment are likely to show slackness if the teacher quits checking.

The intrinsic interest in mathematics is not an inherited quality. There is no maths gene that helps the maths topper to invest his energies in the subject. On the contrary, he has discovered the joy and excitement involved in the process of learning mathematics. Externally motivated students often miss experiencing this for one reason or another. Learning context and teaching strategies might not be conducive for kindling their intrinsic interest in maths. Intrinsic motivation can be triggered and sustained by constantly stimulating curiosity and the 'seeking' nature of students in the context of learning mathematics.

What next?

The learning environment and teaching practices have a considerable impact on the character strength of students and eventually on maths learning. Thus, teachers can help students to build their character strengths and mental disposition for better performance in mathematics. Teacher-student interactions have to be regulated consciously, the classroom environment should celebrate openness in thinking and communication, and careful feedback should be provided. While providing feedback, teachers have to be conscious of their words, attitudes, beliefs, and non-verbal responses. In summary, factors that affect students' interest and intent for learning must be the prime concern. **T**

What steps do you take to improve the learning environment in your class? What kind of feedback mechanisms do you use? Share them with us at commsindia@acer.org giving reference to the article.

AUTHOR

Dr Jeny Raphael is a higher secondary school teacher with 18 years of experience. She holds a PhD from Bharathiar University Coimbatore in adolescent psychology.

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Developing 21st-century skills I:

Critical thinking

BY KATHERINE BILSBOROUGH

This series of articles explores twelve professional practices that are important for the development of English language teachers.

Development in these practices moves through a series of key stages, from being aware of the practice to being able to help other teachers to progress. This series of articles will help you to develop your understanding, skills and confidence in these areas.

thinking question is open and encourages discussion. A closed question with one factual answer does not encourage critical thinking.

Activity: Questions to promote critical thinking

Look at these questions that follow a reading text about the film *Casablanca* in a coursebook. Tick the questions that promote critical thinking.

- ☐ 1. Who directed *Casablanca*?
- ☐ 2. Is the review formal or informal?



- a. questions that have one correct answer
- b. questions that have more than one possible answer.

■ Finish by asking students to choose five questions to answer individually.

*Students will probably suggest simple questions like *What is the man wearing? What's the weather like?* etc. Suggest a few questions to encourage critical thinking, such as *Who took the photograph? What is the man going to do?* etc. Students should then follow your example and suggest more imaginative questions.

Useful vocabulary	
professional	A professional is a person who receives payment for doing a job.
current trend	A current trend is something that lots of people are talking about at the moment.
uninformed	If you are uninformed, you do not have the information you need.
incomplete	If something is incomplete, it isn't finished.
analyse	When we analyse something, we look at every detail to see how it works.
interpret	When you interpret something, you make sense of its meaning.
open mind	When we keep an open mind we welcome new ideas and believe that other people should be free to give their opinions.

Introduction

All professionals need to develop 21st-century skills. For teachers, these skills include learning about new approaches to teaching, being aware of developments in Information and Communication Technology (ICT) and understanding the importance of key skills such as critical thinking. But what is critical thinking? And how does it help our students become better language learners?

Critical thinking encourages us to ask questions to get all the information we need so we can analyse and assess the information before interpreting it. Critical thinkers have an open mind. They make connections between new information and what they already know.

Our students can become better language learners if we help them to develop their critical thinking skills. By questioning and analysing the English they come across, they have a better understanding of how the language works.

These days, many coursebooks and other teaching materials include activities to promote critical thinking. However, it is easy to create simple activities or discussion questions of your own to use in class. A good critical

- ☐ 3. Why do people read film reviews?
- ☐ 4. What is the writer's opinion of the film?
- ☐ 5. How many Academy Awards did *Casablanca* win?
- ☐ 6. Why do you think the film *Casablanca* is so popular?

Useful classroom phrases

- Why do you think ...?
- How do you think ...?
- What do you think about ...?

Activity: Imaginative questions

- Show your students a photograph or another kind of image. You can use a picture from your coursebook.
- Brainstorm a list of 15–20 questions about the picture.*
- Write the questions on the board.
- Ask the students to classify the questions into two groups:

Key points to remember

- Teachers need to develop new skills for the 21st century.
- Critical thinking can help our students become better language learners.
- Critical thinkers analyse information.
- Language learners can understand the language better if they analyse it.
- A good critical thinking question is open and encourages discussion.

Over to you

Speak with a colleague. Find a reading page in your coursebook. Look at the activities that go with it. Decide which ones (if any) promote critical thinking. Think of some questions that would promote critical thinking.

Questions to promote critical thinking skills
Questions 3, 4 and 6 promote critical thinking

Answer:

Developing 21st-century skills 2:

Global awareness

BY KATHERINE BILSBOROUGH

Useful vocabulary	
globalised	Globalised means happening all around the world.
awareness	Awareness means having knowledge of something.
foreign language	A foreign language comes from another country.
beliefs	Beliefs refer to the things that a person thinks are true.
customs	Customs are things people do that are traditional and usual.
to offend	If you offend somebody, you say or do something that makes them upset or angry.

Introduction

As teachers develop new 21st-century skills they need to develop their global **awareness**. Think about these questions:

- How many people speak English?
- Why do people learn English?
- What do people use English for?

A quarter of the world's population speaks English of some kind. Around 375 million people speak English as their first language and more than 750 million people around the world speak English as a **foreign language**. Almost a billion people are currently studying English. These last two numbers are growing.

More books and newspapers are published in English than in any other language, and it is the main language of airports, international business, academic conferences, science, technology, diplomacy, advertising and international pop music.

In our **globalised** world, cross-cultural skills are important. Teachers need to be aware of cultural differences including their students' **beliefs** and **customs**. In monolingual classes, these differences might be less obvious and most students might share a common culture. But by addressing cross-cultural issues *inside* the classroom, teachers raise their students' awareness so that the newest generations of English speakers are less likely **to offend** people they meet from other cultures *outside* the classroom.

Activity: Promoting cultural awareness

- Tell the class that they are going to tell each other the stories of their first names. They can choose any information about their name – the origin, variations, famous people with the same name, the reason why they were given the name, etc.*
- Put the students into pairs to tell each other

about their first names. The students should listen carefully and ask each other questions if necessary.

- The students take turns to introduce their partner to the rest of the class, saying everything they remember about their partner's name.

*Give students time to think about their information. You might like to tell them at the end of one lesson, ready for the beginning of the following lesson. Students can find information online or in a library. They can also ask their parents and family.

Activity: Your coursebook

How does your coursebook reflect global awareness? Look through your coursebook and complete the chart. Tick (✓) your answers.

Does your coursebook ...	Yes	No
have pictures of places from different continents?		
show people from different ethnic groups?		
have texts about things from all over the world?		
show mostly pictures from your students' cultural context?		
show mostly people from your students' ethnic group?		
have texts about things that are mostly local?		

Look at your answers. Does your course book help students develop their cross-cultural awareness?

Key points to remember

- Teachers need to develop their understanding of global awareness.
- English is growing. It is the main language of business, technology and advertising as well as many other areas.



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- Teachers need to think about their students' beliefs and customs.
- Teachers should raise their students' awareness of cross-cultural issues to help them for when they use English outside the classroom and across cultures.

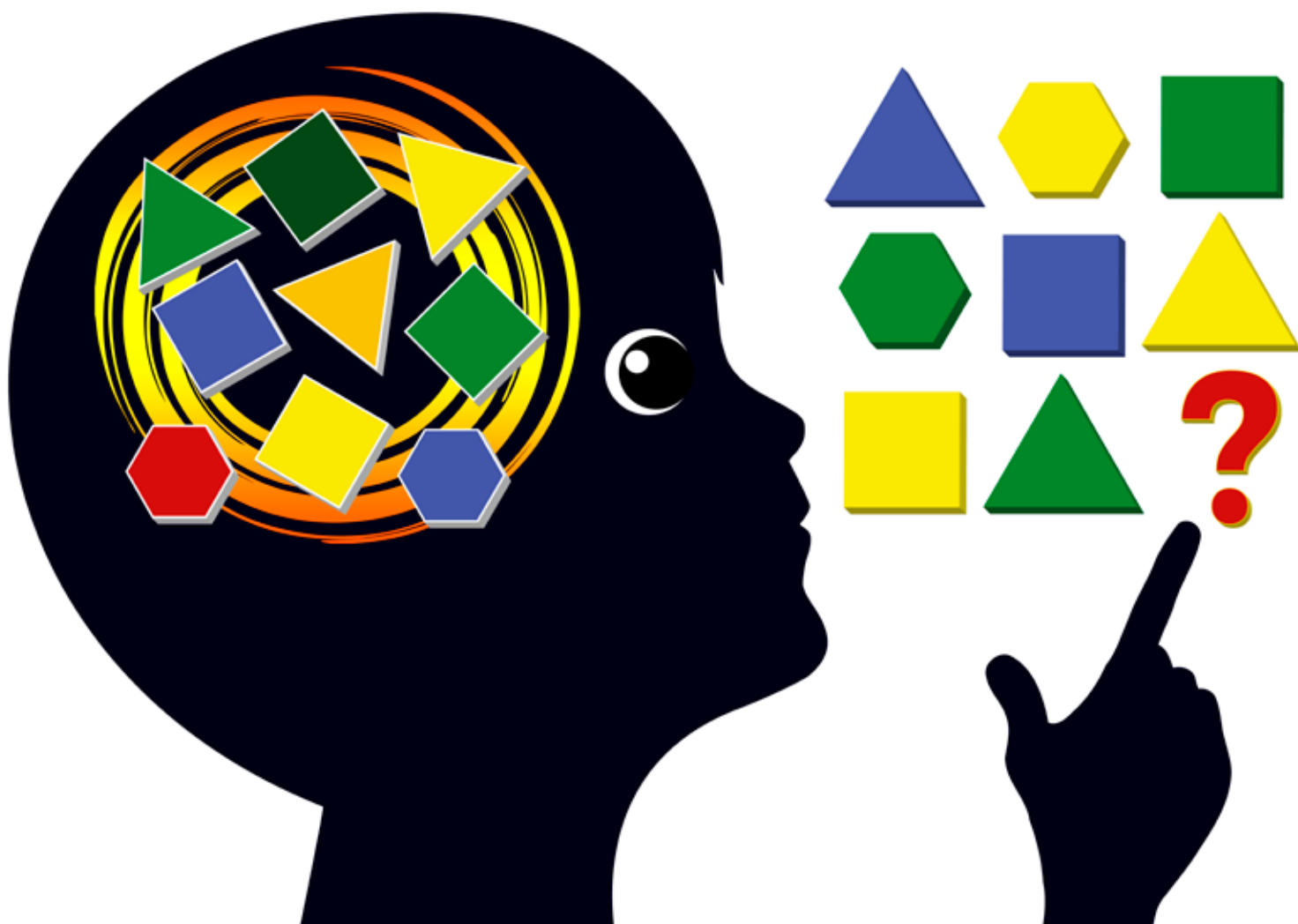
Over to you

Discuss this list of topics with a colleague. Which topics are appropriate and which are inappropriate for your classes? Give reasons for your opinions.

Politics – Wealth – Religion – Money – Conflict and war – Stereotypes

To find more ideas for teaching English visit www.teachingenglish.org.uk

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Tackling maths anxiety

MATHS ANXIETY IS ONE OF THE LEADING CAUSES OF POOR PERFORMANCE IN MATHS. **DIVYA KAPOOR** DISCUSSES SIMPLE INSTRUCTIONAL STRATEGIES TO HELP TEACHERS SUPPORT STUDENTS SUFFERING FROM MATHS ANXIETY.

Introduction

Helping students overcome the fear of maths is a daunting challenge for many teachers. Mathematics phobia can lead to anxiety, lack of involvement, and even behavioural issues among students. It is one of the leading causes of poor performance in maths.

Better and improved teaching methods can instil in students a love for the subject and make maths less threatening. This article highlights the origins of maths anxiety and the instructional strategies that can be used by teachers to help students overcome the fear of maths.

What is maths anxiety?

It is imperative to understand what maths anxiety is before we look for solutions to overcome it. Maths anxiety can be described as the mind block that students develop towards mathematical activities. It hampers classroom learning and affects the performance of students.

According to Miller and Bischel's study (2004), close observation reveals that maths anxiety can broadly be categorised into two types – state and trait. State anxiety refers to the situational stress that a student faces in solving a difficult maths problem. Trait anxiety, on the other hand, is the preconceived notion that the students bring to the class even before they face an actual maths problem.

The root cause

Maths anxiety can develop due to numerous reasons as identified by Vinson in 2001, Shields in 2005, and Gurganus in 2007.

- Parents themselves suffering from this may unknowingly transfer it to their children at home. Frequent errors by children coupled with inadequate parental support can often inhibit them from exploring new possibilities, thus, developing a hatred towards the subject.

- Societal myths are another reason

contributing to maths anxiety. Myths like boys have better mathematical aptitude as compared to girls or the thought that only some people are born with a 'maths mind' often push students away from learning the subject.

- Anxious teachers may also be the cause for maths-anxious students. Traditional teaching techniques, including textbook teaching and rote learning, assigning the same task to all the students without understanding their needs and capabilities, insisting on a single solution to given mathematical problems, and laying more focus on basic skills than concepts may lead to maths anxiety among students.

An invigorating classroom – what works?

The changes and complexities of today's world present new challenges to our education system. Along with the transmission of knowledge by teachers to students, modern teaching desires a focus on student self-learning and self-expression.

Traditional educational practices and instructional strategies can often fail to provide practical and in-depth knowledge to students. In addition, they do not take into account the varied learning styles and special needs of students, and can result in creating phobia and anxiety towards the subject.

In the following section, I have focused on various instructional strategies that can be used to make mathematics classes interesting for students.

Arts: Art integrated learning helps students explore mathematical concepts while simultaneously inculcating creativity and art appreciation among them. Many opportunities for art integrated learning can be provided in the classroom through activities based on visual and performing arts. Activities in the maths class may include role-plays, song compositions, model creation, collage and poster making, clay modelling, etc. For instance, students

can create beautiful artwork using their knowledge of fractions. They can be asked to divide a given circle into different fractional parts (half, one fourth, one eighth etc.) and then use these parts to create some daily life objects like trees, flowers, fishes, baby cots, etc.



- **Discussion on global topics:** Mathematical concepts can be used to discuss global issues encouraging students to think critically and conceive solutions for global problems. Mathematical concepts like percentage, graphical presentation, and analysis and solid shapes, etc. can be used to discuss themes like optimum uses of coal and petroleum, crop production trends, architecture across the globe, etc. This can help students have a clearer understanding of applied mathematics while making them aware of global issues at the same time.

- **Interdisciplinary projects:** Thematic project work enables students to apply their skills of communication and collaboration, creativity and imagination, critical thinking and problem solving, student autonomy, etc. To give an example, under a common theme like 'Harness today

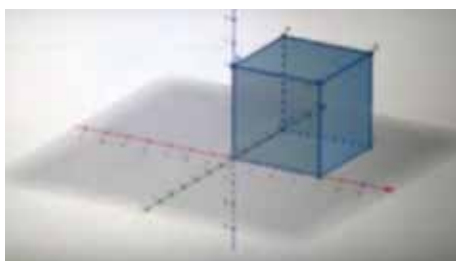
for a better tomorrow' focussing on SDG 7, students can be given the task of analysing the energy requirements and consumption trends in different states of India. Apart from helping students to develop a deeper understanding of mathematics, this activity will also enhance their abilities in English and science. Once students have collected the data, they can be asked to represent it using a bar graph/line graph. They may also develop a new energy plan suggesting alternate ways of energy production in different states. As a part of the project, a debate on optimum usage of electricity can also be organised for the students. Such team activities can help students tackle maths anxiety and build more confidence in the subject.



Outdoor teaching: Being confined to the four walls of the classroom can sometimes be monotonous for students. The school campus if utilised effectively can be a great environment for teaching scientific and mathematical concepts to students. Nature walks and outdoor activities can help students channelise their energy positively. For example, certain mathematical concepts like parallel lines, area, perimeter, and angles formed by a transversal can be taught in the school ground, giving students the opportunity to play and study simultaneously.

Digital learning: Technology can bridge the gap between classroom and

self-learning. Students can collaborate with peers and teachers through online platforms. In many of these platforms, lessons can be customised to suit each student's progress and learning style. Microsoft tools, educational games, Popplet, GeoGebra, Twitter, Smore, etc. are some of the online learning platforms that help students learn independently and build upon their mathematical skills.



Hands-on learning activities: Experiential learning provides students with the autonomy to construct their own knowledge. Hands on activities in mathematics such as creating NETS of 3-D shapes, mathematical games, mathematical mehendi, and rangoli patterns etc. support students to apply mathematical concepts in real-life situations.

Role of the teacher

A teacher's attitude towards mathematics can have a huge impact on her students' learning. Teachers are instrumental in creating positive and active learning environments that help students acquire mathematical skills. They can seek support from professional networks for discovering new teaching methods that help students cope with mathematics anxiety. Nonetheless, at the system-level, the curriculum needs to acknowledge that there are students with maths phobia and provide flexibility in teaching so that teachers are able to customise instructional strategies to complement the learning needs of those students.

Maths educators dream of the day when

when students can confidently say, 'I love maths!'. This dream will be realised only when the entire educational community strives to prevent, recognise, and support maths anxiety. **T**

All images in the article are student projects and assignments of Pragyan School.

AUTHOR

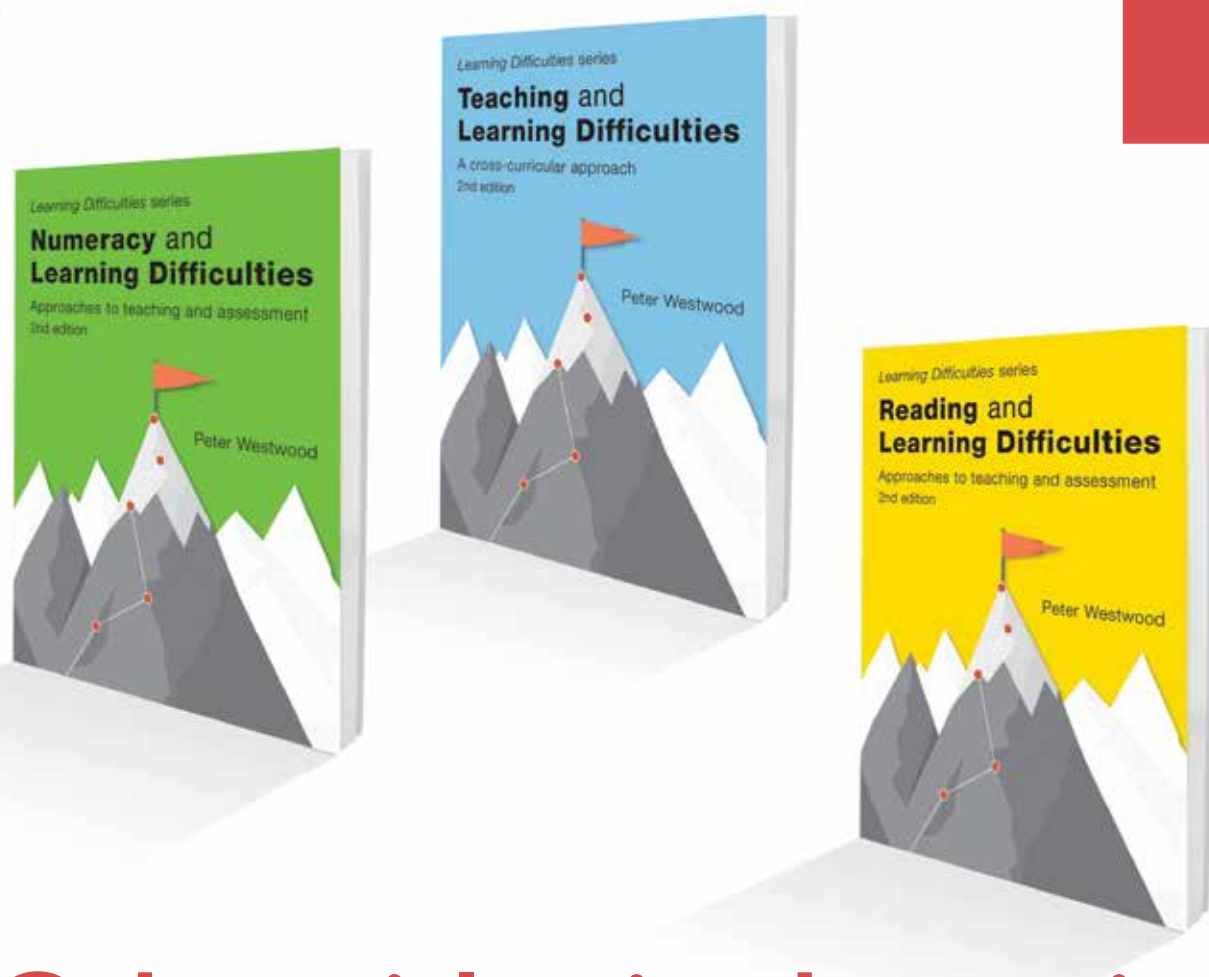
Divya Kapoor is Headmistress of Pragyan School, Greater Noida.

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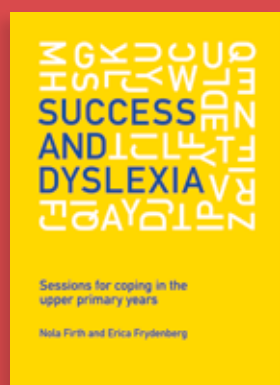
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Student self-assessment: boon or bane?

STUDENT SELF-ASSESSMENT CAN HELP TO IMPROVE LEARNING OUTCOMES. BUT ONLY IF USED AS A FORMATIVE EXERCISE, AS [ASHTAMURTHY KILLIMANGALAM](#) EXPLAINS.



The idea of student self-assessment always raises scepticism. How can an assessment be valid and reliable, if one is asked to assess oneself? Aren't students likely to overestimate the quality of their responses? Isn't this even more probable if the marks they award themselves are included in their final grades? It turns out that the answer is more complicated than that. We will come back to this question later in the article.

The important question when it comes to student self-assessment, isn't whether students are accurate in their marking but whether it helps their learning outcomes improve. It turns out that student self-assessment does improve student learning outcomes, and has additional benefits – it empowers students and enables them to regulate their own learning better.

The first question to ask is what is student self-assessment or what activities can constitute student self-assessment? A simple and comprehensive definition can be found in the work of Panadero, Brown, & Strijbos in 2015 – 'Student self-assessment most generally involves a wide variety of mechanisms and techniques through which students describe (i.e., assess) and possibly assign merit or worth to (i.e., evaluate) the qualities of their own learning processes and products.'

Student self-assessment includes a range of activities, from merely asking students to assess the number of questions they are likely to have answered correctly in a test to the complex evaluation of their work using rubrics. Students gain the most when they are asked to evaluate their work using rubrics on which they have training.

The importance of student self-assessment was emphasised in the 'assessment for learning' movement. In 1998, Black and Wiliam in their seminal work provided persuasive evidence that student self-assessment improved student learning outcomes. In a study of 8 and 9-

year olds taught maths at school, they suggested that students who regularly assessed their own progress against course learning objectives showed as much as twice the degree of improvement compared to a control group. The evidence is so convincing that the idea that student self-assessment improves learning outcomes is no longer in question; it has become an accepted idea.

The research clearly shows that student self-assessment does produce an improvement in student learning outcomes. So, why is there so much scepticism when it comes to this practice? The main issue has been that practitioners don't believe in the accuracy of student self-assessment.

Students do not evaluate their work as a teacher or an expert would. But do students always give themselves better grades than teachers would? The answer is not so simple. Butler pointed out in 2011 that when their own evaluations form a part of the final grade awarded, students tend to overinflate the grades they give themselves. However, if it is made clear to them that this will not be the case, then interesting differences arise. Low achievers tend to overestimate their work and high achievers tend to underestimate it.

These evaluations also have an effect on performance. Continuous underestimation leads to a negative outlook and lower levels of motivation dragging performance down. The opposite effect is seen with overestimation. However, this is not an argument to encourage students to overestimate their work as ultimately students need to be able to reflect accurately on their work.

In response to these findings, Panadero et al. suggested a different approach – thinking of student self-assessment not as assessment but as a tool for Self-Regulation of Learning (SRL). To elaborate, the focus shouldn't be on the product but on the process. Students gain by undergoing the process of self-asses-

ment. Therefore, it would be worth training and encouraging students to undertake self-assessment as part of their course of study.

Another way of thinking about this is to consider student self-assessment in a formative manner rather than as a summative process. Student self-assessment shouldn't be so much about what grades or marks students award themselves. Rather it should be used for identifying the kinds of errors students are making or where they are falling short of expectations and how they can improve. This is borne out by the fact that the biggest gains from student self-assessment occur when students are provided a rubric and evaluate their answer based on it, especially if the students are trained on using the rubric correctly.

Researchers have found that the practice of student self-assessment benefits students in multiple ways. Kostons, Van Gog, & Paas in 2012 found that student self-assessment helps students become better at regulating and monitoring their own work. There are increases in student-self-efficacy and it also empowers students so that they take ownership of their learning. In other words, students become much more self-sufficient at learning. (Read more: Ramdass & Zimmerman, 2008 and Black & Wiliam, 1998)

In conclusion, student self-assessment has long been acknowledged as an important tool to make students better learners. It not only improves learning outcomes but also equips students to become independent learners. The key to using student self-assessment effectively is to approach it as a formative exercise rather than a summative one. **T**

The author says that student self-assessment is an important formative tool. Do you agree? Send your answers to commsindia@acer.org giving reference to the article.



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AUTHOR

Ashtamurthy Killimangalam is a Research Fellow at the Australian Council for Educational Research (India).



Mother tongue, please!

THERE IS SUFFICIENT RESEARCH TO SHOW THAT MOTHER TONGUE-BASED MULTILINGUAL EDUCATION (MTB-MLE) CAN HELP IMPROVE LEARNING LEVELS OF STUDENTS. **ANANNYA CHAKRABORTY** DISCUSSES THE KEY ROLE OF TEACHERS IN DRIVING MTB-MLE AND THE SYSTEMIC CHALLENGES OF SUCCESSFULLY ENGAGING TEACHERS IN SUCH PROGRAMMES.

The International Mother Language Day celebrated on 21 February 2020 every year was introduced by the General Conference of United Nations Educational, Scientific and Cultural Organization (UNESCO) in November 1999 to promote linguistic and cultural diversity.

According to UNESCO, 43 per cent of the estimated 6 000 languages spoken are unsafe and at risk of extinction as the generation that speaks them dies out. If languages continue to disappear, there is a high likelihood that societies around the globe will disinherit their traditional and cultural heritage.

When it comes to education, UNESCO estimates that as much as 40 per cent of the population is not educated in the language they speak or understand. It also points out that there are many advantages of learning in one's own mother tongue – children learn better and faster than those studying in second languages, they have enhanced self-confidence and self-esteem in classroom participation, and they perform better when tested in official language at a later stage. In short, when students are taught in their home language in the formative years, it results in better educational performance in the long term.

In light of this evidence, the discourse of mother tongue-based multilingual education (MTB-MLE) promotes using the mother tongue as the language of instruction with a gradual transition to other languages (Language 2 or Language 3) as a child progresses in primary schooling (Read more UNESCO, Mohanty, A. et al 2009).

With the goal of providing quality education to all children, education systems across Asia have rolled out targeted multilingual education programmes for the inclusion of learners from ethnic and tribal communities who face cultural and language disadvantages. Such programmes are specific to regions that have a higher

percentage of ethnic minorities – mainstream education may continue to use English or the dominant language as the medium of instruction in school education.

Teaching in a language children master

UNESCO published a report in 2007 describing China's mother tongue-based bilingual education. The report showed that such programmes often teach children briefly in ethnic minority languages, before rushing towards a transition to the national language.

In the hilly districts of Bangladesh, the *Daily Star* reports that children are taught in their mother-tongue from pre-primary level to grade two, while Bangla (the dominant language) is introduced grade 3 onwards. Beginning in 2012, the government decided to publish books in ethnic languages so that appropriate teaching and learning material would be available to schools. Similarly, in Pakistan, Rahman (2019) states that there are sporadic interventions with language activists running schools in home languages while formal education continues in English or Urdu.

In India, the Odisha MTB-MLE programme is well known, with the Government of Odisha implementing it since 2007. Given the large tribal population in the state, the government rolled out the programme with the objective of ensuring teaching children from tribal communities in their mother tongue in order to improve their learning and address issues of achievement gaps. Additionally, the programme was designed to ensure that the school environment would be less removed from the immediate cultural context of a tribal child.

It is slightly different in Europe and USA where education systems focus on effective teaching in multicultural classrooms with children coming from immigrant families and diverse language groups. Jeffery & Beuningen note in 2019 that teachers have

the challenging task of building intercultural understanding and multilingual competencies. The study provides the example of Netherlands which has the highest level of multilingualism with over 90 per cent Dutch citizens speaking an additional language and over 75 per cent able to communicate in two languages in addition to their L1.

Teachers driving education in mother-tongue

Several studies have highlighted the central role of teachers in addressing the vernacular divide within and outside classrooms. Menon et al write in their 2014 study that teachers not only have a pivotal role in classrooms but also in responding to language policies that affect their students. Thus, teachers can alter the classroom experiences of pupils from diverse language and cultural backgrounds.

UNESCO points out that teachers can collaborate with local educators and community leaders to understand the cultural backgrounds of their students. Moreover, if teachers use home languages of pupils, parents and community members are able to support the learning of their students.

While the language policy of countries generally guides their practices, research also points out that a section of teachers have been working on the ground to help students cope with the language of instruction in bilingual classrooms. Anderson & Lightfoot in their 2019 study investigated translanguaging practices in Indian classrooms using English as the medium of instruction. The study revealed that minority teachers actively engaged in 'translanguaging' although teachers from English medium institutions refrained from using L1. However, the use of L1 varied across regions – urban, semi-urban, or rural. The study recommended that English language teacher education should provide cohesive support to translanguaging practices.

There is ample research and documentation on the advantages of using mother-tongue in education, some studies showcase the field-level challenges from MTB-MLE programmes implemented in various regions. Evidence suggests that education systems need to support teachers to tackle the challenges of teaching in a classroom with children from ethnic minority backgrounds.

The *Daily Star* reported that in Bangladesh, the training provided to teachers for teaching in schools running an MTB-MLE-based programme was limited to 14 days. Teachers were expected to master the ethnic script and deliver lessons based on this short period of training. Lack of training hindered effective teaching in classrooms even when resources were invested in the development of teaching learning material.

Teacher recruitment is another challenge while rolling out MTB-MLE programmes. Teachers belonging to tribal communities may not have the required qualifications. To address this issue, the MTB-MLE programme in Odisha notified in 2012 that teachers with fluency in tribal languages would be recruited on a contract basis, even if they had lower than the usually stipulated qualifications. After joining, they were required to acquire the prescribed qualifications within a stipulated time. Additionally, when there was a shortage of teachers fluent in tribal languages, teachers from non-tribal backgrounds but fluent in the target language could be engaged in the programme. *Shiksha Sahayaks* from the MTB-MLE programme have recently been promoted to Junior Teachers after completion of three years of continuous and satisfactory service.

Although learning English or a dominant language enables intercultural communication, the advantages of education in the mother tongue cannot be ignored. To implement mother tongue-based education,

most programmes would require teacher education that supports the endeavours of MLE teachers in classrooms. Menon et al highlight that teacher education programmes ‘could prepare prospective teachers to look critically at the way different languages are used in schools and to value their own, and their students’, emergent capabilities with languages’. To summarise, teachers need formal training and support to deliver targeted pedagogies for the benefit of students from ethnic minority classrooms **T**

Do you think education in the mother tongue helps students grasp concepts better? Send your views to commsindia@acer.org giving reference to the article.

¹According to Census 2001, there are 62 Scheduled Tribes in the state constituting 22.1 per cent of the total population of the state.

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AUTHOR

Anannya Chakraborty is Senior Communications Officer at ACER India.

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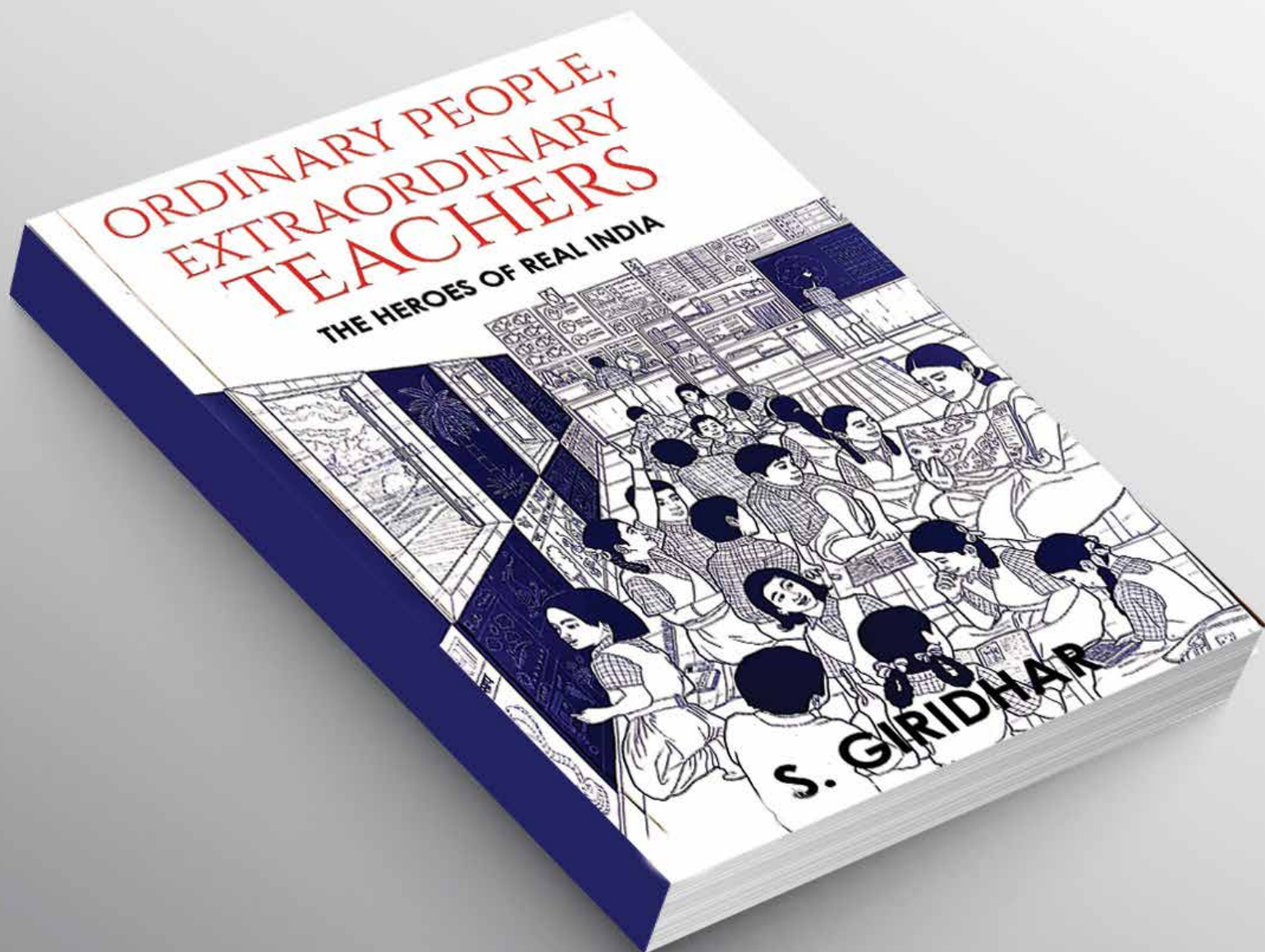
NICK ALCHIN

Dean of Studies, Aga Khan Academy, Mombasa, Kenya

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Book excerpt: ordinary people, extraordinary teachers – the heroes of real India

IN HIS BOOK 'ORDINARY PEOPLE, EXTRAORDINARY TEACHERS',
S GIRIDHAR DESCRIBES HOW TEACHERS IN GOVERNMENT SCHOOLS
ARE DETERMINED TO WORK BEYOND THE CALL OF DUTY BASED ON A
STRONG BELIEF THAT 'EVERY CHILD CAN LEARN'.

Rural government schools have the odds stacked against them. The most socio-economically disadvantaged children go to these schools. Around 50 per cent of these children are first generation learners whose parents are daily-wage earners. It is in these circumstances that government school head teachers have to demonstrate that their schools are good; that the children are well cared for; and, are learning well. They have to not only revitalise and sustain the relationship with the community but also manage a bundle of diverse issues and constantly look out for resources. Viewed in this context, these head teachers perform a role akin to that of a CEO of an institution.

During my visits, I discovered that the head teachers considered community relations and winning back enrolment from private schools as one of their main responsibilities. They consider this so crucial that they do not delegate this to their colleagues and personally lead all communications and actions involving the community. The dynamic head teachers have a clear three-pronged communication strategy.

One, articulate a clear vision of the school and its goals; two, visit and meet parents and community members individually and in groups to explain this commitment; and three, conduct visible time-bound actions that demonstrate their commitment to the safety and learning of children. Invariably, the community begins to respond positively to such efforts. Once this initial boost is received, the head teacher consolidates and ensures other actions for continuous and sustained improvement in every aspect of the school's functioning. All along, transparent communication with the community is maintained, expenditure statements are shared and visible improvements are showcased to garner their confidence and trust.

While parents may be barely literate, they have a basic desire to educate their children and a keen perception of whether the school is doing its work well or not. An assurance that it is indeed doing well leads to a significant improvement in attendance. Despite pressures of sibling care, migration of families for livelihood, and seasonal help to be extended on farms and during festivals that lead to absenteeism, committed head teachers have created a culture of regular attendance. The head teacher and other teachers often have mobile phone numbers of every parent and call them up if a child is absent from school. This not only works as a gentle reminder to parents to send their children regularly but also substantiates the fact that the school is an ally, a partner equally invested in their children's development.

Some months ago, at a seminar in a university, when I was asked to list the key elements of such committed leadership, I placed the following before them:

■ Many schools may have well-articulated goals, but in these schools (that also feature in this section), the goals are not merely expressed on notice boards or in conversations but are firmly ingrained in the detailed plans and actions of every single day. As a result of this commitment to make this vision a reality, one can see a perceptible impact on the attitude and work of teachers.

■ Every head teacher is aware of the importance of good relations with the community but the distinguishing feature of effective leaders is their ability to communicate and present their efforts and children's learning and development visibly. So, events such as *Bal Mela*, Annual Day and Independence Day are celebrated in a manner that reflects the school's commitment to all-round development of children and showcases their learning and talent. These head teachers have a clear metric to assess the impact of such a rapport—an increase in enrolment by winning back students from private schools.

■ With regard to planning and preparation, I noticed that they have a rhythm for specific, period and long-term actions. One can see this in the manner in which they identify priorities, implement actions, and then set new priorities as a natural progression towards the attainment of their goals.

■ From hands-on daily management of the school to keeping a keen eye on critical school processes such as the morning assembly, maintenance and use of the library, meticulous preparation and effective use of children's learning portfolios and regular reviews with teachers, these head teachers have their tasks cut out. But going beyond regular duties and demonstrating extraordinary drive and leadership, they assume complete ownership of their schools through how they care for the infrastructure, ensure safety and hygiene; attempt to mobilise funds from the community, gram

panchayat, block office and also contribute from their own pockets; focus on children's learning; and put in extra efforts for identified children. In larger schools, conscious of the criticality of their teachers, the head teachers also provide supervision and encourage teachers to attend development programmes for continuous improvement.

'Going the extra mile' might have become an oft-used cliché but regains its salience when used for these head teachers whose resilience and courage help them to either ignore constraints or overcome them with bold, ingenious solutions. **T**

(Excerpted with permission)

AUTHOR

S. Giridhar is the Chief Operating Officer of Azim Premji University.

To get a copy of the book, visit: <https://www.amazon.in/Ordinary-People-Extraordinary-Teachers-Heroes/dp/9388754859>.

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International Women's Day 2020 Quiz

CELEBRATED ON 8 MARCH, INTERNATIONAL WOMEN'S DAY RECOGNISES THE ACHIEVEMENTS OF WOMEN AND PROMOTES GENDER EQUALITY. TAKE THE QUIZ AND SEE HOW WELL YOU SCORE IN THIS SPECIALLY CURATED CONTEST ON WOMEN IN TEACHING. THE ANSWERS ARE PROVIDED AT THE BOTTOM OF THE PAGE.



1. Number of female teachers in higher education institutes in India?

- A) 73 female per 100 male teachers
- B) 42 female per 100 male teachers
- C) 101 female per 100 male teachers
- D) 57 female per 100 male teachers

2. Who is the first Indian female teacher?

- A) Maria Montessori
- B) Mary Mcleod Bethune
- C) Asima Chatterjee
- D) Savitribai Phule

3. Who is the first female Nobel laureate?

- A) Mother Teresa
- B) Marie Curie
- C) Malala Yousafzai
- D) Jane Addams

4. What percentage of world's researchers are women?

- A) 45%
- B) 10%
- C) 30%
- D) 66%

5. Who is the youngest female published author?

- A) Dorothy Elmhisrt Straight
- B) Ann Frank
- C) Virginia Woolf
- D) Jane Austen

6. Which of the following countries has NOT had a female prime minister?

- A) New Zealand
- B) Pakistan
- C) India
- D) Sweden

7. What is the oldest college for women in India?

- A) Bethune College, Kolkata
- B) Indraprastha College for Women, New Delhi
- C) Miranda House, New Delhi
- D) Queen Mary's College, Chennai

Enjoyed this quiz? Send your opinion to commsindia@acer.org giving reference to this quiz.



- 1. 73 female per 100 male teachers
- 2. Savitribai Phule
- 3. Marie Curie
- 4. 30%
- 5. Dorothy Elmhisrt Straight
- 6. Sweden
- 7. Bethune College, Kolkata

Answers

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NEWS SNAPSHOT BY **ANANNYA CHAKRABORTY.**



India

Improving English language skills

In partnership with the Kerala Infrastructure and Technology for Education (KITE), the Education Department in Kerala has introduced the E3 (Enjoy, Enhance and Enrich) English project. Due to unsatisfactory results in a recent assessment for primary students, the government decided to take this special measure covering 2 million students studying in government and government-aided schools. The programme has three components – the *Samagra* e-Library, e-Language lab, and e-broadcast – all targeting improvements in English language proficiency.



Spotlight on improving learning outcomes

Based on the results of the National Achievement Survey (NAS), government school teachers in Coimbatore are attending a ‘post-NAS’ training that will help them to improve the learning achievements of students in grades 9 and 10. A group of resource persons is delivering training on how teachers can support learners in tackling questions that require them to apply conceptual understanding.



Online student-teacher ratio survey

To measure the teacher-student ratio in schools, the Education Department in West Bengal will roll out an online survey. This

will give a clear picture of schools that have fewer teachers than required and schools that have low-student turnout. Such disparities between schools can be reduced when decisions are taken based on data from the survey.



South Asia

Focus on coordination for improving quality

Ministry of Education, Science and Technology in Nepal has advised that coordination between teachers, students, and parents will play a key role in enhancing the quality of learning in community schools. It also suggests that teachers alone cannot change the education system and consolidated efforts from all stakeholders are essential for improving the quality of education.



Education in mother-tongue faces challenges

In Bangladesh, ethnic minority students are taught in their mother-tongue from pre-school to grade 2, and Bangla is introduced from grade 3. Teachers dealing with these students are trained for 14 days to master the new ethnic script. It has been reported that the short duration of the training is inadequate in helping teachers to deliver classes effectively to children from such minority communities.

South East Asia

Digital literacy programme in Indonesia

The Communications and Information Ministry is implementing a nation-wide community-led digital literacy programme. Partnering with 100 communities, the initiative will help create awareness of online frauds and the safe navigation of online platforms and digital content.



Free breakfast programme for elementary schools

The Education Ministry of Malaysia launched a Free Breakfast programme that would cover 4 000 pupils in elementary schools. This government-led initiative will include children from families living below the poverty line.



International Corner

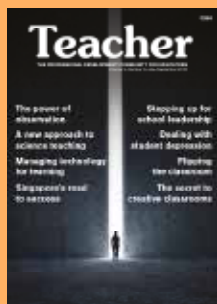
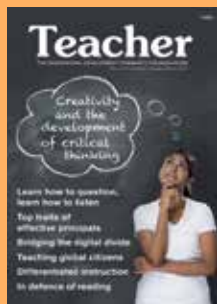
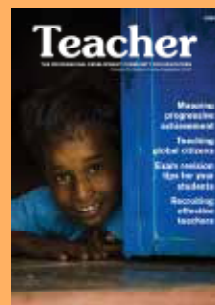
UNESCO estimates that the education of more than 1 576 615 423 learners in 192 countries have been affected due to school closures till 13 April 2020. In India, 320 713 810 learners are suffering.



LINKS

<https://timesofindia.indiatimes.com/home/education/news/kerala-introduces-english-labs-to-upgrade-language-skills-in-students/articleshow/74441121.cms>.
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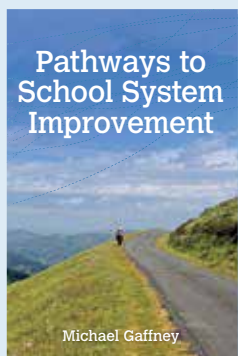
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SCHOOL IMPROVEMENT AND TEACHING AIDS

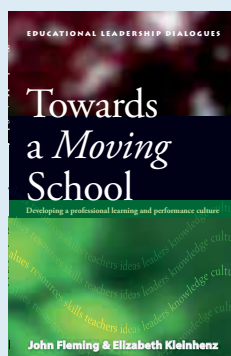


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Pathways to School System Improvement

Michael Gaffney, ACER Press

Pathways to School System Improvement Designed for educators with an interest and a responsibility for school system improvement. Drawing on data from two Australian pilot programs - Principals as Literacy Leaders (PALL) and Leading Aligned Numeracy Development (LAND) - the book looks at effective strategies for implementing system improvement, and it offers approaches for capitalizing on the successes and overcoming the shortcomings of initiative-based reforms.

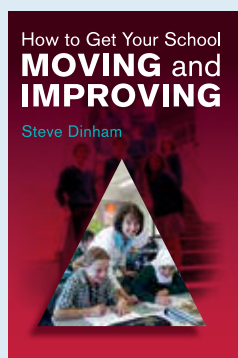


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John Fleming & Elizabeth Kleinhenz, ACER Press

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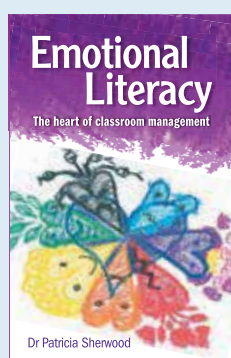


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Steve Dinham, ACER Press

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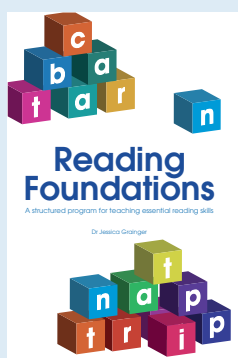


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Dr Patricia Sherwood, ACER Press

Emotional Literacy: The heart of classroom management is a pioneering book for primary school teachers, counsellors and therapists who wish to develop emotional literacy skills in classroom situations. It provides resources for managing the 'feeling' life of children and offers a classroom management model that creates opportunities for healing emotions, rather than emotions being denied, repressed, discounted or excluded from the process; simple self-managed processes that give children basic skills to identify and manage their own emotions and Group classroom exercises that help to reduce the possibility of major behavioural problems or psychological disturbances



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Dr Jessica Grainger, ACER Press

This book addresses the issue of teaching phonemic and orthographic skills to beginning and struggling readers. A program is outlined that provides a step by step process and structure with fully developed practice exercises. These exercises are designed so that they can be used in the classroom, in withdrawal situation and in special classes. In this book there are three programs that together examine ways to overcome reading failure for those learners who are having problems in the early stages of reading acquisition: Good Feedback Program ; Step by Step Phonemic and Orthographic Intervention Program; Story Tree Program



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John Munro, ACER Press

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