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Perspectives from Singapore
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ChARTING OUR OWN PATH(S) TOWARDS DIFFERENTIATION

by Heng Tang Tang, Guest Editor

Montessori, Lesson Study, Singapore Math: What do they have in common with differentiated instruction? They are educational and professional development approaches that have been borrowed from abroad and translated into new educational contexts. Education borrowing and translating have seen renewed vigour worldwide in the past couple decades given the movement of people and ideas with globalization. These are but a few of many other educational and policy ideas that have travelled across contexts.

RELEVANCE TO DIFFERENTIATED INSTRUCTION

In this issue focused on differentiated instruction (DI), I’d like to take readers one step back to contemplate DI vis-à-vis the U.S. context. DI is typically associated with the work of Carol Ann Tomlinson, a scholar based in the University of Virginia, and has been gaining immense popularity in Singapore.

In short, DI is defined as an educational approach where teachers intentionally modify curricular, teaching, learning and resources to honour the range of students’ readiness levels, interests and learning profiles to maximize their learning opportunity and capacity (Tomlinson, 2014). The approach embraces five core principles:

• instruction that responds to student variance
• quality curriculum
• assessment that informs teaching and learning
• environment that encourages and supports learning
• leading students and managing routines

Teachers can differentiate four classroom elements—content, process, product, environment/affect—according to three broad student traits: readiness, interest and learning profile.

HOW DI IS TYPICALLY APPROACHED IN SINGAPORE

In interacting with teachers, colleagues from the National Institute of Education (NIE), Singapore and I have observed some unique ways in which DI is interpreted in the Singapore context. Mary Anne Heng and Lucy Fernandez observed that it is seen as a “teaching strategy where the focus is on the instructional process, namely, activity-based instruction for student engagement” (2017, p. 105) and “DI tends to be carried out in a fragmented and isolated manner” (p. 106), omitting the goals of the overall curriculum.
Indeed, in my own experience, schools contacting me for professional development support often request for a three-hour workshop focusing on “DI strategies” that teachers can implement. In my research investigating teachers’ perceptions and implementations of DI in schools, I’ve also observed that DI tends to be carried out in a “fragmented” manner, limited to one-off activities and seen as a frill to be added on—when there is sufficient time—as opposed to being an essential part of daily teaching.

Yet, I also ask myself: How have we omitted other ways of knowing students and allowing them to fulfill their human potentials? Have we, as educators, reduced our value of students to merely their academic achievement? How does this reflect the assumptions that we have about teaching, learning, and our students?

Concessions and Tradeoffs in Educational Borrowing

As we borrow educational ideas, like DI, from abroad, some elements may be lost in translation. DI is premised on a philosophy that sees diversity as valuable and normal and that privileges equity over equality. It comes from a society where individualism, choice, independence, and diversity are celebrated, and where classrooms are more intimate and structures less standardized.

As a society, we may be more comfortable with hierarchy and communalism, lean more towards teacher- versus student-centeredness, and uncomfortable with offering different choices to our students. Therefore, it is understandable when we struggle with certain aspects of DI in Singapore.

In borrowing educational ideas from abroad, we could benefit from deep contemplation of the sociocultural, educational and structural environments from which ideas originate and are transplanted into. Further, thinking through and having dialogues as an educational fraternity about the potentials, limits and consequences of our educational decisions are necessary.
For instance, in choosing to adopt DI as an instructional strategy targeting readiness and downplaying conversations/activities to encourage appreciation for differences, we may need to account for potential self-esteem concerns or resentments amongst students downstream.

If we choose to embrace DI and its attendant philosophies, we may need to ask ourselves if we have the requisite educational and sociocultural conditions to support this or are we ready for students who may become more individualistic over time. Ultimately, each choice of educational approach is associated with concessions and tradeoffs.

These are not easy questions to answer. In an age of globalization, societies are constantly being made and remade through education and vice versa. I do not offer easy solutions to readers of this SingTeach issue nor do I offer specific recommendations of what is right or wrong. Instead, I’ve invited contributors to share how they have approached DI in their own ways in Singapore to expand our understanding of DI and consider a defensible approach to DI.

**CHARTING OUR OWN PATH(S) TOWARDS DIFFERENTIATION**

In this SingTeach issue, NIE faculty Mary Anne Heng shares about clinical interviews and dialogues as ways to deepen understandings of our students just as Lucy Fernandez emphasizes the need to privilege students’ voices as educators contemplate DI. Letchmi Devi Ponnusamy, Vasilis Strogilos and Levan Lim—researching on DI in Singapore—further illuminate how DI can be implemented for high-ability learners as well as children with special educational needs, illustrating the versatility of differentiation.

To showcase DI implementation, teachers Andrew Teo and Audrey Chan share the efforts they have made to serve diverse learners in their classrooms, while Pasir Ris Primary School reflect on their whole-school DI journey over the past few years. These perspectives are included so that we can create a more nuanced picture of DI and to invite readers to begin dialogues around how we can continue to chart our own path(s) towards helping our students attain their maximum potentials, academic and beyond.

**REFERENCES**


**ABOUT THE GUEST EDITOR**

Heng Tang Tang is Assistant Professor with the Policy, Curriculum and Leadership Academic Group at NIE. Her research interests include diversity in education, differentiated instruction, and international and comparative education. She teaches courses on differentiated instruction, diversity and culture in education, and pedagogical engagement. In 2019, she was conferred the NIE Excellence in Teaching Award and the Comparative and International Education Society’s Study Abroad and International Students SIG Early Career Award.
Amidst growing diversity in our classrooms and the forthcoming shift towards Subject-Based Banding, the philosophy of differentiated instruction has been gaining traction within Singapore’s education fraternity. A teacher-educator explains the importance of students’ voices in a differentiated classroom and how they can facilitate the development of a thriving learning community.

To help diverse students achieve intended learning goals, teachers will have to develop competencies to differentiate instruction in a mixed-ability classroom. But would professional expertise alone suffice in enabling them to cater to the needs of different learners?

According to Dr Lucy Oliver Fernandez, an Assistant Dean with the Office of Graduate Studies and Professional Learning, student voices can also play a central role in supporting teachers’ efforts to understand students’ needs and maximize learning for all learners.

**Using Students’ Perspectives to Inform Differentiation**

The concept of student voice centres on learners’ unique perspectives about their experiences with schooling, learning and teaching. Throughout her career in education, Lucy has often thought about how educators could invite students to participate in discourses about their educational experiences.

“Students’ perspectives are important because they not only experience our curricula and educational policies first-hand, but can also have varied experiences with the same curriculum,” Lucy explains. “Their perspectives can thus enrich our understanding about the relationship between teaching and learning as well as reveal information about students’ needs and possible gaps between the intended, implemented and experienced curriculum.”

Furthermore, when teachers understand how different students experience the curriculum, they are also better equipped to make informed decisions with regard to differentiating instruction for their students.

“After all, if differentiated instruction (DI) is about adapting to student variance to maximize learning for all learners, inviting students to share on their learning experiences and how teachers can support them can make differentiation more robust,” Lucy elaborates.

**Avenues for Student Voices**

During her stint as a secondary school teacher, Lucy made time for breakfast with her students to find out how she could cater to their learning needs and make the curriculum more accessible for different learners.

“I invited two students at a time to meet me for breakfast in the school canteen on particular days in a week and engaged them in discussions about the lessons we have had,” she shares. “At
Students’ perspectives are important because they not only experience our curricula and educational policies first-hand, but can also have varied experiences with the same curriculum. These sessions, I also sought my students’ views on whether they found my teaching approaches to be effective and the areas in which they require additional support.”

Lucy was also cognizant about the need to hear from all students when she initiated these meet-ups. “Some students are less outspoken, or prefer to approach teachers in smaller settings so these sessions gave them the opportunity to voice their perspectives and be heard.”

Lucy’s efforts to hear from every student paid off and over time, she observed that her classes blossomed into collegial and supportive learning communities. “From both an academic and socio-emotional standpoint, students appeared better off as they felt a sense of belonging and were helping one another improve,” she adds.

Informal meetings are, however, just one of many avenues in which teachers can gather inputs from students. “Other strategies that teachers may use include surveys and questionnaires, which can be based on an aspect of teaching or learning that teachers would like to focus on.”

Dialogue between Students and Teachers

While students’ inputs are central to efforts to engage them in their learning, there needs to be discernment and negotiation from all parties involved.

“It is also not about a teacher agreeing with every student’s view or acceding to every student’s request,” Lucy adds. “Rather, student voice is a dialogue about teaching and learning between students and teachers and in this conversation, both parties engage with one another.”

Additionally, after inviting students to share their perspectives, educators need to show that they appreciate students’ feedback and that teachers have heard what students are saying by responding to them.

“One way for teachers to do this is to initiate a dialogue with students on the feedback they have received and make decisions together so that both parties can move forward,” shares Lucy. “In doing so, students would also be assured that teachers value their inputs and thus not regard efforts to solicit their inputs as perfunctory exercises.”

An Opportunity for Educators to Grow

Making time to gather students’ perspectives did not just help Lucy understand the needs of different students and the pedagogical approaches that they find effective; they also gave her insights about herself as an educator.

“The conversations I shared with my students also prompted me to think about how, as a teacher, I could enact the curriculum differently and incorporate different strategies into my practice to support their growth and development as learners,” Lucy shares.

Inviting and accommodating students’ perspectives can, however, be challenging for teachers given the limited curriculum time. Nevertheless, Lucy encourages fellow educators who may be uncertain but interested in incorporating students’ voices into their practice to take small steps and trust their professional judgement.

“Even within a planned curriculum, there are spaces for teacher discretion, where the teacher can consider inviting students to share their inputs and make informed decisions together,” Lucy explains.

Furthermore, as classrooms and schools become more heterogeneous, students’ perspectives can strengthen teachers’ efforts to maximize learning for all students in a differentiated classroom.

“Accommodating diversity in our classrooms may require teachers to think and work in new ways, but it is also an opportunity for the fraternity to grow professionally and become better educators,” concludes Lucy.

ABOUT THE INTERVIEWEE

Lucy Oliver Fernandez is concurrently an Assistant Dean (Professional and Leadership Development) with the Office of Graduate Studies and Professional Learning and a Lecturer with the Policy, Curriculum and Leadership Academic Group at NIE.
Differentiation consists of the efforts of teachers to respond to variance among learners in the classroom and it can help address learners’ readiness, interests and learning profiles. Two teachers share more on the efforts they have made to serve diverse learners in their classrooms.

ENABLING LEARNING THROUGH FOUR INSTRUCTIONAL STRATEGIES

Every student learns differently; there is no one learning preference. To engage them during lessons, the use of differentiated instruction strategies is required to address their learning needs effectively.

For my lessons, besides assessment for learning strategies, I also use four instructional strategies.

The first involves using different types of graphic organizers to help students to organize their thoughts while also offering them different ways of presenting information visually. However, the use of different organizers during different sections of the lessons may cause confusion among students. To overcome this, I spend some time explaining and showing my students examples to help them appropriately utilize the different organizers. Students appreciate the provision of such structures to organize information.

The second one involves providing students with different types of support based on their individual needs to enable them to either work in pairs, small groups, or individually. This requires me to spend a fair bit of time on my students as I will monitor their work closely to allow me to better plan each lesson based on their different learning preferences.

I have also created a third-teacher environment in my studio to foster creativity and provide the culture of design for students to experience. A continuous careful and intentional selection of relevant learning materials is posted on the wall to support creative thinking and invention. I observe which learning materials on the walls were being referred to by my students and replace those they showed little interest in. This can help to ignite the joy of learning in students.

The last of the four instructional strategies involves me video-recording my lessons for students to watch again at their convenience. I see this as a scaffolding that supports students who need more time to process information. For the videos to be useful, it requires me to put in a considerable amount of effort, time and planning to ensure that the contents are engaging and beneficial.

— Andrew Jonathan Teo
(Subject Head of Design & Technology, Montfort Secondary School)
“Learning anything new takes practice, and with practice comes comfort, and with comfort comes the ability to do new and exciting things.” – Unknown

I find this quote apt when reflecting about my journey in implementing differentiated instruction (DI) in my classroom. At first, it was daunting and the obstacles seemed insurmountable. However, as I seek to inculcate in my students a love of learning, to give up DI without trying would go against my teaching. And as with learning anything new, I found DI easier to implement with practice.

**Teaching beyond Academics**

At the core of all my teaching lies my teaching philosophy that academics aside, I also have a duty to help students to build compassion, strong character and positive disposition towards learning. To do this, it is crucial that I 1) understand my class dynamics and students’ learning profiles; 2) create a kind, safe and conducive learning environment where students are not afraid to make mistakes and ask questions; and 3) build resilience in my students so they are equipped to deal with setbacks.

With these in place, I read up on and thereafter, carefully curated available DI strategies, making modifications to suit my teaching and students’ learning preferences. I realized that I could use DI as a vehicle to give my students a choice and a voice where they can learn to make decisions and verbalize their thoughts. It empowers my students to take greater ownership of their learning and enables them to grow into self-directed learners through collaborative learning.

**Giving and Making Choices**

Before implementing a new strategy, I would explain my expectations and routines explicitly to my students. After some experimentation, I found and modified DI strategies to suit my teaching style and philosophy. I feel that a combination of DI with open-ended tasks imbues in my students critical-thinking and decision-making skills, and creativity – skills which I think are essential to them in the long run.

In general, I implement DI in my classroom by providing students with the autonomy to decide:

- how (and who) they would like to work (with) (i.e., individually, in pairs, or groups);
- the number of tasks they would like to work on;
- the number of responses/solutions to provide for each task; and
- where they would like to work.

Additionally, I found it useful to scaffold my students’ learning by providing them with different options. Learners who feel they need more help can make a conscious decision to modify one of the given exemplars, and more advanced learners can challenge themselves to produce an original piece of work. This helped my students to feel safe and unpressured to perform, giving them the time and space to create with little inhibition.

To consolidate their learning, my students were given opportunities to present their learning and reflection in a form they preferred from a non-exhaustive list provided. I was surprised that many of my students actually took the time and effort to create comics, jokes and/or riddles to demonstrate their understanding. They shared that they enjoyed these DI tasks which, I think, helped them to develop positive dispositions towards the subject. This in turn, enabled them to enjoy the learning process and for me, the teaching process, as we grow together.

— Audrey Chan  
(Math and English Teacher, Junyuan Primary School)
Differentiated instruction involves more than just recognizing that every child’s needs are different; it is also about the practice of teaching with empathy. Pasir Ris Primary School shares more with SingTeach about their culture of care and their DI journey.

Having been a pilot school with the Ministry of Education for holistic assessment (HA), an essential component of differentiated instruction (DI), Pasir Ris Primary School (PRPS) is no stranger to HA practices. Nevertheless, when the school got on board with DI in 2015, its teachers and other stakeholders had to adopt a fundamental pedagogical shift.

Mdm Siti Nazrah, the Vice-Principal of PRPS shares that DI is a philosophy that fits into the school’s journey of enhancing the culture of care in the school. Elaborating further, she says, “Since 2015, our mission has been to restructure the culture of learning and enhance the culture of care in the school.”

Nazrah observes that when students work together in teams and groups, they will progressively become more confident and empathetic towards one another. She notes that teachers also consistently look out for group dynamics to ensure that no one is left out.

“If a student is not able to gel with their team members, we engage him or her in close conversation and listen with empathy. We try to fit them with someone they can work with so that everyone is engaged in the classroom,” Nazrah says.

PRPS’ culture of care extends to its teachers as well. A weekly one-hour professional development (PD) platform called Care and Share Forum (C & S Forum) seeks to enculturate empathy in teaching. Through this platform, teachers come together for discussions, share pedagogical practices and plan lessons together.

Mrs Polly Chew, Head of Mathematics department at PRPS, shares that she partners with a teacher who teaches at the...
same level to practise DI in her class. Based on her experience, she notes that the culture of collaboration and conversation has given more support and encouragement for key personnel (KP) to experiment with DI and take risks.

“The pitfalls they experience actually open up the opportunity for meaningful learning. They understand that their willingness to talk about failure can lead to improvements,” Nazrah adds.

**Strong Leadership Support**

Nazrah shares that in 2017, the Senior Teacher (ST) Council came into the picture as formal facilitators who created opportunities for teachers to engage in peer observations. It led to KP and teacher leaders (TLs) taking the lead in experimenting with DI in their classrooms.

“When KP and TLs opened their classrooms, and teachers observed the ongoing lessons informally, it resulted in richer conversations about how to enhance teaching and learning further,” Nazrah shares.

The ST Council meets regularly to plan for structures that can take place during the C & S Forum. Aside from giving teachers time to think through and answer reflection questions during the forum, the council also guides them in creating and sharing resources such as differentiated lesson packages and resource packs.

**Challenges Faced**

Initially, teachers were resistant to practise DI in their classrooms. In the first year, only the KPs and ST Council were on board in the DI journey. Subsequently, other teachers were brought into the fold. Teachers faced challenges in managing their time between PD activities and teaching duties, especially when both happened during curriculum hours.

“As they progressed, however, a DI template that was meant to support teachers at the start of the DI journey was eventually removed. “When teachers become more confident and competent in implementing DI in their classrooms, they found that they could act independently without the template,” explains Mdm Jaspal Kaur, leader of ST Council. This signals the need for open dialogue with staff, trust of staff and a responsiveness to their feedback.

**Teachers’ Professional Development**

In PRPS, DI is not just for students, but also for teachers. The areas that teachers focus on during the C & S Forum are differentiated based on the needs of the subject, level and teachers.

Teachers are also given the choice to choose the PD activities they prefer during the annual PRPS Learning Fest by selecting from a buffet of concurrent sharing sessions that are led by their peers. It is also a day for teachers to celebrate their innovation in teaching and journey of learning together.

“Since 2015, our mission has been to restructure the culture of learning and enhance the culture of care in the school.”

– Mdm Siti Nazrah

Vice-Principal,

Pasir Ris Primary School
“On top of that, with the different forms of DI that exist in theory and practice, there is always a question of which DI is considered to be most appropriate. Teachers also have to decide how much to differentiate or how much choice should be given to students. Suffice to say, the path has not always been rosy,” Nazrah elaborates.

Parents too, need convincing about DI. She notes that some parents have raised concerns that their children are learning less through DI.

“We are trying to bank on the current focus where HA plays a bigger part in student learning. We want parents to understand that DI and HA work hand-in-hand to raise student engagement and support their development,” she says.

Despite the challenges faced, PRPS has not lost sight of its bigger aims. The school’s long-term goals focus on providing holistic education and raising student engagement through three domains—developing skilful teachers, embracing inclusivity and enhancing student well-being.

The culture of care is also here to stay. “Our school leaders always show care for teachers as well as students. As leaders, we will continue to open our ears to feedback given and inspire all to embrace new ideas and challenges,” Jaspal concludes.

WHAT THE FUTURE HOLDS

“Our focus on DI is for the long term,” affirms Pasir Ris Primary School (PRPS) Vice-Principal, Mdm Siti Nazrah. PRPS’ professional development (PD) has focused on differentiated instruction (DI) for the past three years and a multi-year PD plan has been developed for the future. Guiding principles from the Singapore Teaching Practice have also been seamlessly incorporated into their PD plan.

Mr Tan Kin Ming, PRPS Principal, also shares the school’s focus with parents so that they are aware of the rationale behind curricular and pedagogical practices and can become partners. He explains that constant communication with staff, parents and students is critical in the school’s journey.

The long-term plans and constant calibration on DI have borne fruit. Nazrah shares that there is close to 90% penetration of DI into teachers’ practice.

“Our teachers are still relatively new to DI but they enjoy working and learning together. Younger teachers are enthusiastic in sharing their new ideas while experienced teachers are humble in learning from other colleagues on new approaches that have worked in the classroom,” she shares.

ABOUT THE INTERVIEWEES

Tan Kin Ming is the Principal, Siti Nazrah is the Vice-Principal, Polly Chew is HOD Mathematics and Jaspal Kaur is Senior Teacher from Pasir Ris Primary School.
Making Differentiated Instruction Work for All

In a typical classroom of 40 students, how can teachers ensure that students have their learning needs met? With diversity becoming a norm in most classrooms today, a one-size-fits-all approach to learning and teaching seems inadequate. In this article, a group of five education researchers share how differentiated instruction can be applied in the Singapore classrooms to meet the diverse needs of all students.

How Teachers in Singapore Differentiate

Through differentiating content, process, product, and the environment, teachers attempt to address students’ readiness, interests, and learning profiles.

Tiered assignment is commonly used to address students’ readiness in the Singapore classrooms, observes Assistant Professor Heng Tang Tang from the Policy, Curriculum and Leadership Academic Group at NIE. It allows students to work at a level appropriate for them as they progress towards or beyond baseline goals.

“Students who feel less ready are seated nearer to the teacher working on foundation questions, receiving more attention from their teachers. Students who feel more ready, meanwhile, are seated further working on more complex questions. Extension activities, like having students set, answer, and mark each other’s questions, are offered.”

Other ways in which differentiation has been observed include “teachers offering students the option to learn via different modalities, such as iPads, graphic organizers, and games, or incorporating students’ interests into manipulatives, examples, or texts that teachers use in class”. Taking into account student’s learning preferences and interests, Tang Tang explains, can encourage student engagement and ownership of their learning.

Tang Tang rues that teachers tend to primarily focus on students’ readiness, at the expense of interests and learning profiles. “While it is understandable that teachers feel accountable to their students because of the high-stakes examinations students have to take, we have to be careful of only differentiating for readiness as it can unintentionally create in-class streaming”. She suggests that teachers keep an open mind towards students, use flexible grouping and create opportunities for different students’ strengths to shine.

Clinical Interview as Formative Assessment

To apply differentiated instruction (DI) meaningfully in the classroom, teachers must, first of all, take students’ learning seriously. NIE Associate Professor Mary Anne Heng says that clinical interviews are a powerful means to challenge teachers’ assumptions about teaching and learning.

“Clinical interviews seek deeper understandings into students’ thinking and learning processes that underlie students’ performance in school,” Mary Anne explains. For example, teachers could pose open-ended questions to students such as: “Can you tell me what you were thinking when you gave this answer?” This will help teachers uncover students’ misconceptions so as to address learning gaps that may not be obvious even to experienced teachers.

“A correct response on a test question may simply be a rote response, masking a student’s partial or incorrect understanding of a concept, and so to learn what is hidden in students’ minds, observation is not enough,” she elaborates. Clinical interviews are a form of formative assessment that go beyond class tests and examinations. Her work with experienced teachers shows that clinical interviews provide teachers with new eyes and minds to see and understand the complex nature of teaching and learning.
RESEARCH IN ACTION

DIALOGUE AND COLLABORATION TO OVERCOME CHALLENGES

Often with time as a constraint, many teachers struggle to meet the needs of the various groups within their classes. One way to overcome this is to build a more conducive environment for differentiation by identifying and effecting structural changes that will encourage teachers to collaborate.

“Ring-fencing time for individual and group lesson planning as well as structuring collaborations and open classrooms can help teachers gain new ideas, develop baseline resources and provide them with intellectual and emotional support. At the same time, an open-minded, risk-free and non-hierarchical environment needs to be established so that teachers can speak their mind,” Tang Tang shares.

Collaboration is also part of what Mary Anne terms “critical deliberation”. This involves teachers, in their community of practice, acquiring a common language to talk about and understand DI, reflecting on their teaching as well as what they can learn from students’ responses to their teaching.

“Through the dialogue and collaboration, teachers will need to work together to acquire new understandings and adopt more sensitive student-centric approaches to teaching and learning.”

– A/P Mary Anne Heng
National Institute of Education

“To meet the needs of an increasingly diverse student population, teachers will need to work together to acquire new understandings and adopt more sensitive student-centric approaches to teaching and learning,” she emphasizes.

STRENGTHENING THE SUPPORT GIVEN

A common misconception about high ability learners is that they do not need much support and that any allocation of resources to help them takes away from others. The time and resource invested in differentiating for high ability learners actually strengthens the teachers’ “differentiation muscle.” Hence, it would help, says NIE lecturer and researcher Dr Letchmi Devi Ponnusamy, to have “teacher advocates” for high ability learners.

“These advocates, when certified and trained, can activate conversations about instructional strategies that motivate and stretch not only the high ability students, but most learners in diverse classrooms. However, they should also be given sufficient scope to tailor the curriculum according to the learners’ needs,” she explains.

Having more flexibility in the types of modification used for Special Educational Needs (SEN) in the mainstream classroom will also greatly benefit students with disabilities.

Associate Professors Vasilis Strogilos and Levan Lim, who used to do research together at NIE, shares, “Our research study, Differentiated Instruction as a Means to Inclusion, provided resounding evidence that contextual constraints such as class size, a common standardized curriculum and high stakes examinations are critical impediments to the diverse learning needs of students with SEN.”

They propose that there should be more emphasis on mixed-ability grouping, an exams-free pedagogy—especially for those with SEN—and more modifications used in the mainstream class.

With so many considerations to be made, creating an ideal environment for differentiation is challenging. Time and effort are required to re-culture expectations of teaching and learning, in addition to structural changes, reminds Tang Tang. Ultimately, teachers need continuous assurance and support from educational leaders in their journey towards differentiating their classrooms.
The same principles of differentiated instruction (DI) can be applied to high ability learners and children with Special Educational Needs (SEN). When working with high ability learners, Dr Letchmi Devi Ponnusamy says that it is important to establish clear learning goals.

“It is not just about bringing down content from higher levels and teaching it to the high ability learners,” explains Letchmi, who is teaching courses in the High Abilities Specialization for the Master of Education programme at NIE. “It is about the teacher having to think more critically about the depth and breadth of the concepts, and how high ability learners can be given opportunities to re-interpret them.”

The level of challenge given must be equitable with the student’s capabilities, taking into account factors such as the child’s experience with the concepts and appetite for inquiry. It then needs to be met with adequate assessment and support.

“Teachers who work with high ability learners have to come up with innovative ways of evaluating the student’s understanding of complex concepts, and assessing the learner’s progress and growth,” she adds.

For students with SEN, Associate Professors Vasilis Strogilos and Levan Lim say that the core elements of DI can support their inclusion into the mainstream classroom.

“Modifying the content of the curriculum by providing different reading texts, for example, is one of the ways to meet the needs of students with SEN. Teachers can also modify the process and resources of learning by providing e-books as an alternative to printed books, and using assistive technology in the classroom,” they share.

However, they note that different stakeholders have to learn how to manage the expectation of different learning outcomes as it is unrealistic for students with severe disabilities to reach the same level of achievement as the rest of the students in the mainstream classroom.

**ABOUT THE INTERVIEWEES**

Heng Tang Tang is Assistant Professor with the Policy, Curriculum and Leadership Academic Group at NIE. Her research interests include diversity in education, differentiated instruction, and international and comparative education.

Letchmi Devi Ponnusamy is Lecturer at NIE and her research interests include differentiation in mixed ability classes and addressing special learners’ needs and gifted learners’ life trajectories.

Vasilis Strogilos is Associate Professor with the Southampton Education School at the University of Southampton, UK. His research interests include the development of inclusive pedagogy and curricula, and the role of parents with children with learning disabilities.

Levan Lim is Associate Professor with the Psychology and Child and Human Development Academic Group at NIE. One of his research interests include students with special educational needs.

Mary Anne Heng is Associate Dean and Associate Professor with the Graduate Studies and Professional Learning and the Policy, Curriculum and Leadership Academic Group at NIE. Her published work focuses on the intersections of curriculum leadership and educational change, and teacher and student learning.