

OER

Knowledge Bites

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Volume 16

Supporting Secondary Students with Special Educational Needs



OER Knowledge Bites

Launched in May 2016 by the Office of Education Research at the National Institute of Education, Singapore, ***OER Knowledge Bites*** aims to share education research discussions and issues as seen in the Singapore context. It also serves as a platform for researchers to share thoughts and concepts of education research with policymakers, educators and the public.

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About this Volume

The Office of Education Research (OER), in collaboration with the Academy of Singapore Teachers, organised a Zoom webinar that sought to provide insights into the learning needs of secondary school students with special educational needs (SEN). Held on 23 September 2021, the webinar included several experts in SEN who shared research-based frameworks and strategies to create inclusive classrooms that enable all students to learn. This volume of ***OER Knowledge Bites*** provides a summary of the talks.

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Facilitating the Learning of Secondary School Students with Special Educational Needs: A Curation of the Building Blocks of Support through S.P.A.C.E.

By **Sarinajit Kaur**

Sarinajit Kaur is a Master Teacher (Special Educational Needs) at the Pedagogical Excellence Branch, Academy of Singapore Teachers.

Special educational needs support is best driven and motivated by the sincere belief that every child wants to and can learn (Singapore Curriculum Philosophy).

Whether one is serving as a teacher, an allied educator, an educational psychologist or a school leader, the **common factor**—the student—is at the heart of all that one does.

Having this common factor facilitates wider special educational needs (SEN) support from all stakeholders.

A Common Language Facilitates Learning

On a national front, the Singapore Curriculum Philosophy and the Singapore Teaching Practice (STP) provide the fraternity a common language so **all students** are better supported as they progress from one level to the next and one school to the next.

Teachers shared that Positive Classroom Culture (PCC) is the most important and best starting point as lessons are designed for enactment with the SEN student in mind. Delving deeper into PCC guides teachers in 5 key areas, namely: establishing interaction and rapport, maintaining positive classroom discipline, setting expectations and routines, building trust and empowering learners. This helps set up the classroom for effective learning.

Support

The Tiered System of Support (TSS) is a framework to guide systematic support for students using available resources, in order to improve the learning of all students.

Tier 1 provides critical foundation for our students with SEN through universal strategies that can benefit all students. It is estimated that at least 80% of students will benefit from **quality instruction** and effective delivery of core curriculum through this tier.

A practice that facilitates SEN support is the understanding that **students should not be pegged to the Tiers of Support.**

Take, for example, John who has dyslexia and struggles with reading. His main challenge in his English lesson is in comprehension where he lifts whole sentences in answering given questions.

At Tier 1, John is supported through effective classroom instruction. John's needs and strengths are considered when lessons are planned, designed, and enacted.

At Tier 2, John receives both complementary and supplementary practice through remedial lessons.

At Tier 3, John is supported through withdrawal support by the Allied Educator (Learning & Behavioural Support). The AED LBS provides more intensive and targeted 1-to-1 support using texts from John's English lessons and teaches decoding skills.

John is supported at all 3 tiers due to his needs through a many helping hands approach that helps him make progress.

Pedagogy

Teachers feel fearful that they may not be well equipped to support a student

Voices from the ground

Support

Pedagogy

Acceptance

Community

Expectations

What does Positive Classroom Culture look like when unpacked for learners with SEN?

The acronym S.P.A.C.E. provides a quick guide to ideas curated within the frame of a positive classroom culture.

with SEN in their class of 30 or 40. What helps is clarity that **SEN support in a mainstream classroom is about pedagogy** that is inclusive and **not about intensive intervention**.

Inclusive pedagogy reminds educators that every member of the classroom has equal rights and must be given opportunities to learn. It moves away from deterministic ideals of learning and spotlights the dignity of all students.

In setting up for effective teaching, an example of inclusive pedagogy that has been found useful for primary, secondary and college students, is the use of a visible lesson agenda to facilitate learning.

In using the visible lesson agenda, the teacher listed the parts of the lesson on the right side of the class whiteboard, at the beginning of the lesson and left it for reference throughout the lesson. She numbered the parts 1 to 5 and ticked off against the number as she progressed through the lesson.

There were many students with diverse needs in this class. The proper use of the agenda helps all students see where the teacher currently is in the lesson and is useful in getting students on task and engaged with the day's lesson. This is as opposed to showing the agenda on a PowerPoint slide that disappears as teachers progress through the lesson.

Pedagogy that helps the students with SEN **benefits** all other students. Inclusive pedagogy is not about singling students

out for isolated treatment. It should not be an afterthought of lesson design. These students' needs and strengths are considered when lessons are planned, designed, and enacted.

Acceptance

Teachers and peers can sometimes place immense pressure on students to level up when they may not be ready or able to.

A positive classroom culture of acceptance provides a buffer as there is understanding from teachers and peers. It helps mend cracks and manage lesson stressors.

As educators, it helps in SEN support if we acknowledge that these secondary school students are at the age where the gap between them and their peers becomes glaringly wide. Where they may have been blissfully ignorant when younger, it hits them hard that they do not seem to fit in. This struggle with "Why am I different?" is real and painful. Teachers may benefit from accepting that every student is different and has different strengths from one another.

When educators show acceptance and celebrate the diversity of these students, they make learning possible for them.

Community

With reference to the 6 key principles in SEN support, WISDOM, the O of WISDOM reads, 'Organise a community around the child'. This can look very different across schools.

A community is about relationships and peer support and for the student with SEN, this may not come naturally.

Pairing for discussions and grouping for collaborative learning must be deliberately engineered at the beginning so that certain students are not left without a partner or group. Norms must be clearly communicated and not left to chance or common sense. Students must be taught how to look out for strengths and symbiotic relationships where they will soon realise that they gain as much as they give. Peers will learn that students with SEN can contribute too. This feeds into society and educators must be mindful to role model what community should be like from the start.

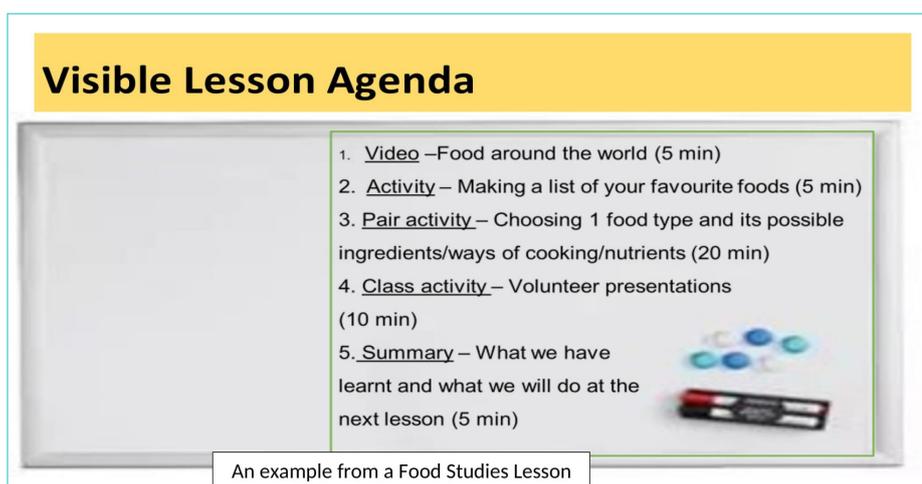
Expectations

Clarity in sharing our expectations is also core as we facilitate learning.

The student is provided a predictable learning environment where clear expectations add to the positive classroom culture.

In supporting SEN students within a class, what helps is if there is clarity of expectations along with consistency. That which we consider basic may be core for effective teaching and can facilitate or impede the learning. Expectations of how we wish to start and end a lesson, handing in of work, ways to seek support and ask questions, movements from one place to another among other things, would need to be clearly articulated and followed through for not just the SEN student but all students.

S.P.A.C.E. maps the 5 key areas of PCC so the classroom is set up for effective learning. This is useful for all but critical for students with SEN.



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Improving Special Educational Needs Student Engagement in the Classroom: Considering Assistive Technology Through the SETT Framework



By **Wong Meng Ee**

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According to the United States Individuals Disability Education Act, assistive technology (AT) is defined as “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customised, that is used to increase, maintain, or improve functional capabilities of a child with disability” (IDEA, 2004).

AT is widely accepted to be an enabler to support students with disabilities to compensate in areas where their impairments may interfere in a variety of activities including positioning, mobility, communications, computer and instructional access (Bryant & Bryant, 2003). With so many possible AT devices to meet the diverse needs of our students with special educational needs, how can we proceed to plan for a systematic approach to consider AT for our students

especially when we know educators do not always use frameworks to guide them? (Wong & Lee, 2021).

SETT Framework

SETT is an acronym for Student, Environments, Tasks, and Tools developed to help collaborative school-based teams create Student-centered, Environmentally useful, and Tasks-focused Tool systems (Zabala, 2005).

The SETT Framework provides an organisational structure that enables stakeholders to actively participate in AT consideration. Use of the SETT Framework brings together information, skills, observations, and the contributions from individuals, families, and professionals to better inform the factors set out in SETT. Team members work collaboratively to identify appropriate technology by first understanding the student, the environments, and the tasks. The questions and comments highlighted in each section are not conclusive but intended to generate present and further discussion as unfolding questions arise. The conversation continues until the team is satisfied that adequate information

and shared knowledge has been sought where informed and reasonable decision can be supported by data (Zabala, 2005).

Student

- » What is the functional area(s) of concern?
- » What does the student need to be able to do that is difficult or impossible to do independently at this time?
- » What are the student's special needs that contribute to these concerns?
- » What are the student's strengths?
- » What are the student's interests?

Environment

- » What materials and equipment are currently available in the environment?
- » What is the physical arrangement? Are there special concerns?
- » What is the instructional schedule?
- » What supports are available to the student?
- » What resources are available to the people supporting the student?
- » What are the attitudes and expectations of others in the environments?



Task

- » What does the student need to do?
- » What activities take place in the environment that support the student's curriculum?
- » What are the critical elements of the activities?
- » How might the activities be modified to accommodate the student's special needs?

Tools

- » How might technology support the student's active participation in those activities?
- » What strategies might be used to improve student performance?
- » What no-tech, low-tech, and/or high-tech options should be considered for this student in these environments?

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“Careless”, “Lazy”, “Unmotivated”: When What You See Is Not What You Get—Understanding and Supporting the Secondary School Student with Special Needs

By **Ng Siau Hwei**

Ng Siau Hwei is the Head of Division and Principal Psychologist from the Division of Paediatric Psychological Services, Khoo Teck Puat – National University Children’s Medical Institute, National University Hospital.

Secondary school students have to navigate the school system and cope with the daily demands of schoolwork and friendship issues in the midst of developmental tasks that come with middle adolescence. This is no exception for students with special needs. However, coupled with the skill deficits that arise from their special needs, navigating the secondary school system and doing well may become an additional challenge for these students! Often, the special needs of these students may be less visible in secondary school. Instead, they may come across as disinterested, underperforming, or uncooperative. For students to do well, it is crucial for educators to keep in mind adolescent developmental challenges and skill deficits arising from special needs conditions when planning holistic support.

Developmental Milestones in Middle Adolescence

Middle adolescence is defined as the period between 14 to 18 years old. Cognitively, adolescents continue to develop their capacity for abstract thinking. Yet, they often revert to a more concrete, all-or-nothing thought pattern during stressful moments. Adolescents become more interested in intellectual exchanges and goal setting; they develop initial ideas of goals and dreams. These may result in anxiety towards their school or academic performances. Adolescents also become more interested in moral reasoning and start to ponder on the meaning of life.



On a socio-emotional level, adolescents develop an egocentric perspective; they are typically absorbed in their own lives, and alternate between unrealistically high expectations on themselves and poor self-concept and worries about failure. Due to egocentricity, adolescents often feel misunderstood. They also have increased interest in personal attractiveness and worries about fitting in. Adolescents have a stronger reliance on peer groups and increasingly distance themselves from parents in order to seek independence. Feelings of love and passion are also more pronounced at this age.

Commonly Encountered Special Needs in Secondary School

Three learning and developmental conditions commonly encountered in secondary schools are attention deficit-hyperactivity disorder (ADHD), autism spectrum disorder (ASD) and specific learning disorders (SLD).

Attention Deficit-Hyperactivity Disorder

ADHD is a neurological condition in which the adolescent has difficulties with one or more of the following, to the extent that it affects day-to-day functioning: inattention, hyperactivity, impulsivity, mood regulation, and organisation. While hyperactivity is commonly seen in children, this is replaced with fidgetiness, an inner feeling of jitteriness, restlessness or impatience in adolescents. Female students tend to present more with inattention-type symptoms, making their difficulties harder to notice in the classroom.

Students with ADHD are often misunderstood as being intentionally difficult, uncooperative, or defiant. This cannot be further away from the truth. Brain imaging studies have shown that, for individuals with ADHD, the frontal lobe—the area of the brain responsible



for a range of executive functioning behaviours, such as motivation, judgement, impulse control, planning, decision-making, attention, ability to delay gratification, and time perception—is smaller or develops slower than those without ADHD. Some neural networks and pathways that are involved in reward, focus, planning, attention, movement and the shifting of tasks are also found to be different in the brains of individuals with ADHD.

Useful strategies to support a student with ADHD in the classroom include:

1. Teaching work skills such as time sense and time management

- » Have the student experience how long a specific time frame is (e.g. 30 minutes), so that s/he knows what to expect;
- » Break each section of work into recommended time to finish;
- » Write down the time the student needs to stop at the start of each new section.

2. Teaching work skills such as organising

- » Teach essay writing skills. Be specific (e.g. introduction, main points 1, 2, 3, conclusion)
- » Develop a check list of what the student needs to do when checking work (e.g. check for full stops at end of sentences, capitalisation at start of sentences).

3. Improving mental stamina

- » Assign work time based on what the student can currently tolerate and schedule in break times;
- » Gradually increase work time by 5-minute increments;
- » Have a fidget break or teach chair exercises for regulation.

4. Planning the day

- » Print out odd and even week class timetables on separate sheets of paper; use different colors for easy recognition;
- » Write down the starting date of the week to avoid confusion.

5. Managing personal expectations

- » Encourage the student to have a growth mindset; teachers should affirm for effort put in rather than grades;
- » Catch the student doing well and give praise for good behaviour.

Autism Spectrum Disorder

Autism is a condition that is characterised by repetitive routines, odd or peculiar behaviours, significant difficulties in communication and a significant lack of social awareness or interest in others. Students with autism can behave differently, and have different type and levels of support needs, depending on their cognitive ability and the degree of

severity in autism symptoms.

In supporting students with autism, consider the following:

1. Supporting social interaction

- » Assign a group of buddies for work and break times;
- » Facilitate casual conversations among students during down time;
- » Provide casual check-ins such as “How are things going?”.

2. Managing mental fatigue

- » Limit information provided to essentials;
- » Break long or complicated instructions and give a portion at a time;
- » Give reminders to stop racing thoughts;
- » Provide a quiet corner in class, or allow time for “decompressing”.

3. Encouraging meaning making

- » Encourage conversations on what is meaningful to the adolescent;
- » If possible, connect what is learnt to practical aspects;
- » When not possible to, empathise with the adolescent and teach that tolerating and doing what we do not like is also a life skill.

4. Sustaining school attendance

- » Emphasise quality over quantity by reducing work demands;
- » Consider shorter hours in school

at the start in order to build mental stamina;

- » Do not penalise for slight lateness (e.g. Since I will be punished if I am late, I may as well not go since I have missed the bus).

Specific Learning Disorders

SLDs affect one in ten adolescents. While these students typically have at least normal intelligence, the “snow-balling” effect of learning disorders usually result in them performing less than ideally at higher levels of education. SLDs are accompanied with general difficulties in planning, organising and working memory.

The most commonly diagnosed SLD is dyslexia. It is characterised by inaccurate or poor word recognition, poor phonological decoding, poor spelling, poor reading comprehension, letter or number reversal or confusion, and can affect written expression. Less commonly known conditions are dysgraphia and dyscalculia. Dysgraphia affects handwriting and spacing, letter and word spacing consistency, pencil grip and writing posture, and spelling accuracy. Dyscalculia is characterised by difficulties processing numerical information, learning mathematics facts, performing accurate or fluent calculations and math reasoning. These conditions need to be diagnosed by a trained educational, school or clinical psychologist.

When supporting a student with learning disorders in the classroom, some areas to consider are:

1. Managing mental fatigue

- » Provide scheduled breaks;
- » When reading long passages, encourage the student to read each paragraph, talk about the content and how it links to the previous one, before moving on to the next;

- » Consider reducing demands for routine practice work, such as assigning 25-50% less to ensure quality learning takes place;
- » Allow slightly more time to turn in assignments, if appropriate.

2. Improving working memory

- » Use memory aid such as mnemonics, chunking, mind maps;
- » Speak slowly, and check back what was heard;
- » Use checklists for tasks with multiple steps.

Educators educate based on the belief that students want to do well. When students do not do well, educators need to consider if there are developmental challenges or skill deficits that need to be addressed. As such, there needs to be close collaboration between teachers, parents and the student. The student with special needs can then thrive when these conditions are met:

- » rightly placed in an environment with an appropriately challenging curriculum;
- » having access to support and appropriate accommodations;
- » having educators who view the student as an individual rather than someone with a set of “problems”;
- » providing the student with space for strength development.

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