Teaching Today's Learners on Their Terms

A DAS PERSPECTIVE

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"Teaching Today's Learners on Their Terms" - an apt title for the learning and education of children today. Born in the millennium, these children take to technology like fish to water thus, the term "digital natives" is conferred on them to portray their symbiotic relationship with technology.

As children become more savvy with technology usage at a very young age, so too must adults and educators be. Born before the millennium, we might not be digital natives like these children, but are we ready to be "digital immigrants", embracing technology and utilizing it in our teaching? On the other hand, is technology not the invention and creation of people from the past? Why are we not the digital native then? Do digital immigrants have to play catch-up with digital natives to be equipped with necessary skills or can we hold hands with them to guide them towards something new?

The EduTech Team of the Dyslexia Association of Singapore (DAS) are continually thinking of ways to support the educators of the Main Literacy Programme (MLP) in order to elevate lesson designs and objectives with the integration of technology. The objective of this sharing was to bring to light the underlying pedagogical approaches in the efficacy of educational technology integration in the classrooms.

TECHNOLOGY IN TEACHING AND STUDENT ENGAGEMENT

Today, teachers can be expected to be able to bring together pedagogical, content and technological knowledge (TPACK) for good learning. The DAS MLP educators and their classrooms are equipped with iPads, ceiling mounted short throw projectors, Mimio Teach Interactive Systems as well as Smart Boards to explore their extensive use of these tools to deliver instructional materials to their learners. The TPACK framework suggests that the 21st Century Learner will benefit most from this combination of teaching. This will then garner student engagement. Student engagement can be seen from 2 perspectives:

(1) Engagement level - authentic engagement, passive compliance, ritual engagement, retreatism and rebellion.
(2) Engagement types - behavioural engagement, emotional engagement and cognitive engagement.

Ideally, students should be behaviourally, emotionally and cognitively engaged in learning. Additionally, in order to achieve authentic engagement where there is high attention and high commitment in learning, proponents of technology have argued that it can be an effective tool to meet this requirement. The benefits of technology as a teaching tool can be displayed in the forms of presentation of content, freedom of expression, authentic task and feedback. It is suggested that students are seen to be less overwhelmed and more participative with the use of technology.

Educators often strive to achieve a balance between teaching and learning. There must be a good amount of imparting knowledge (teaching) and an equal amount of reciprocation from the learners - which is learning. Gagné published The Conditions of Learning back in 1965, suggesting that certain mental conditions must be present in order for knowledge absorption and retention to occur. He also introduced the 9 Events of Instruction, based on the internal and external cognitive factors that contribute to learning. The internal factors are the learner's prior knowledge, while the external factors are outside stimuli, such as the form of instruction. Educators can use these 9 events of instruction to develop learning experiences that stick and offer 21st century learners the opportunity to engage in every step of the instructional process.

9 Events of Instruction

Gain attention

Engage students immediately so that their focus is applied to the class and not split between worries or tasks outside of class.

- ★ Pose a question and have students write a response or talk to another student
- ★ Pass an item around the classroom (i.e. an equipment, tool, example)
- ★ Show a short video (YouTube, animated, self-created)
- ★ State statistics or world facts regarding the topic, or share current news/events to pique student curiosity and interest

Inform learners of objectives

Communicate expectations to the students about the skills, knowledge, or attitudes they are to master as outcomes of the course or session. This may appear in the syllabus, handouts, instructions for activities, projects, papers, etc.

- ★ Explain criteria for performances and assessments
- ★ State expectations about how this impacts their success in the field, such as having an attitude of professionalism

Stimulate recall / prior knowledge

Require students to apply and recall current knowledge and understanding to new concepts.

- ★ • Ask students about their prior experience and learning regarding the concepts
- ★ Connect prior material with how it relates to the new material
- ★ Recall previous activities and events in the curriculum or the students' lives that relate to the new material

Present the content

Use a variety of methods to deliver content. Concepts portrayed in different mediums will assist learners with comprehension.

- ★ Visuals (photos, graphics, videos, charts, graphs, models, maps)
- ★ Audio (mini podcast, narrated PowerPoint, video, sounds)
- ★ Read and write (textbook, articles, handouts, news, request students to write reflections/key information about concepts)
- ★ Activities (group work, projects, problem-solving, games, presentations, role-playing, ask questions

Provide learning guidance

Give advice and guidance to students about what studying methods or resources students may use to help be successful in learning this material.

- ★ Explain what helped you master this material or what former students have done to be successful
- ★ Share resources
- ★ Provide instructions, expectations, and timelines regarding material, content, and projects

Elicit performance (practice)

Provide opportunities for students to apply and practice their knowledge and skills in a safe setting.

- ★ Lab practical's, written assignments, role-playing, practice interviews, practice case studies, projects

Provide feedback

Timely feedback is most effective. A student needs feedback to correct misinterpretation and application of information.

- ★ Immediate feedback with online quizzes
- ★ Provide rubrics for students to assess in detail what components were incomplete, missing, or need improvement
- ★ Provide an opportunity for students to give feedback to each other in regards to performance or application

Assess performance

It is important for students to keep track of their performance throughout the course and not just in the middle and/or end.

- ★ Provide prompt feedback with assignments and activities
- ★ Require students to reflect and assess on how they think they are doing in the course
- ★ Provide opportunities for students to self-assess their knowledge and understanding by using quizzes or optional self-check assignments throughout the assessment

Enhance retention and transfer to the job

Students must apply the information with present-day application and/or relevance.

- ★ Ask students to share how the information relates or will relate to their personal experiences and future
- ★ Provide job-aids and outlines of information that students may use in the field

CAN DIGITAL IMMIGRANTS (EDUCATORS) TEACH DIGITAL NATIVES (STUDENTS)?

Geoff Morris, in his presentation 'Teaching with Technology - Digital Immigrants teaching Digital Natives' suggests that students today will spend over 10,000 hours playing video games, over 200,000 emails and instant messages, over 10,000 hours talking on cell phones, over 20,000 hours watching the television (including over 500,000 commercials) and maybe 5,000 hours book reading.

With the rise of modern and new technology, digital immigrants may find it hard to adapt to this technology and use it in their teaching as they often assume that students today are the same as the students in the past and whichever method works for those students will work on today's learner as well. So how can educators as digital immigrants bridge this gap so that learners as digital natives benefit much from their teaching?

Claire (2013) mentioned that the learning preferences of digital natives include teamwork, flexibility in the learning environment, student-based projects that incorporate challenging assignments, and most importantly respect for student voices. Therefore, the only way for digital immigrants to be equipped with the necessary skills to teach digital natives with the use of technology is by learning these skills from the digital natives themselves.

When students get the opportunity to teach their peers and teachers what they know, it will eventually give meaning to their learning. As digital immigrants, it is important for educators to understand and accept the fact that there is a vast divide between digital natives and digital immigrants. Only when such acceptance is present, can we minimize the gap between digital natives and digital immigrants.

Some basic guidelines in how to approach teaching digital native (Claire, 2013):

- ★ explaining objectives clearly
- ★ student-centered learning
- ★ problem-based learning
- ★ project-based learning
- ★ inquiry-based learning
- ★ active learning
- ★ asking open-ended questions
- ★ constructivism or co-constructing
- ★ learning by doing
- ★ allowing students to find and following their passion
- ★ allowing time for questions and sharing their thoughts and opinions
- ★ creating presentations in text and multimedia
- ★ giving students guidance
- ★ delivering material in the context
- ★ creating rigor
- ★ practice through games
- ★ teach that failure is a learning process

EDTECH RECOMMENDATION

This session also included tools that are useful for teaching such as Padlet, StoryBird, Google Slides and Videos

padlet

Numerous MLP educators have demonstrated the creative use of Padlet during the biannual M-Learning Week. Padlet is a dynamic and collaborative space where many users can come together in a safe environment to either contribute ideas, comment or answer questions which can be moderated by the teacher (if need be). Padlet's interface is kept simple thus making it user- friendly for young learners too. For example, reproduction of new vocabulary can be interesting and motivating via this tool as can be seen below.

STORY BIRD

Especially for educators who are aspiring writers, Storybird is the app to use for creating picture books with students as young as in kindergarten to Grade 9 (equivalent to Secondary 2 in Singapore's context). Students start by selecting a theme for their writing, compose their story and then select the pictures they want. The stories will then be published as a book online. This app comes both as a free version and paid version. By paying for the app, teachers and students would be able to print out their stories.
Here's the link to find out more on Storybird: https://storybird.com/educators/

GOOGLE SLIDES

Another app that's very useful and quite exploited by DAS educators in the classroom is the Google Slides. Fans of Powerpoint would like to check this out! The slide designs are picturesque that would elevate your presentation layout to sophisticated level. Partnering with a projector or a smartboard in your classroom, imagine a technology-based lesson created for your digital natives in the classroom. To find out more, log into your google account and access the link here: https://www.google.com/slides/about/

Google Slides is a great tool for learners who are either reluctant in developing content or are still developing their sequencing skills. It can be a individual task or a cooperative and collaborative task where students work on various areas of the task and then review each other's parts as a whole. Top the activity up with a presentation and watch them presenting their works proudly.

VIDEOS

The power of videos in MLP classrooms are underrated especially when working with students who require multi-sensorial material delivery. Videos are becoming more and more necessary not just for showing content but for students to review their own recording (think of video blogging - a.k.a vlogs) which are not only trending but an essential skill in 21st century learning - to be able to fluently and coherently get their ideas across through a video. In the session, videos of the presenter's student was shown and in one of those, the student was comparatively reviewing some snacks at the comfort of his home.

MIMIO-TEACH INTERACTIVE SYSTEM

DAS EdTech Team has been exploring the use of Mimio Teach Interactive Systems for some time now through a research study conducted in phases. This interactive system is very helpful for the kinaesthetic learners in our classroom. The set up for this device is extremely easy and the use is effective. It is a portable device that can turn any whiteboard into an interactive board. This device allows teachers to move away from traditional pen and paper activities and move into a more engaging platform of interactive learning. Once the device has been set-up, students can come to the whiteboard and use the stylus to manoeuvre on the white board. Lessons will move from passive learning to active learning.

CONCLUSION

At the end of this RETA session, attendees reported that they felt motivated to improve their technology savviness and exploratively use more of tech-tools in their teaching. Indeed, it is in line with the Orton Gillingham (OG) principles of simultaneously multisensory and diagnostic and prescriptive which is the mantra of the DAS MLP educators. As the educational approaches in the world is getting more advanced with ever evolving technology, the importance and urgency of incorporating educational technologies knocks on every classroom door. As educators, we have to embrace this fact and educate ourselves on how to approach teaching digital natives by creating engaging instructional materials to meet the learning needs of the 21st century learner. Only through this way, can we minimize the gap between digital immigrants and digital natives so that our students could benefit more from our teaching.

Resources & References

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Gagné, R. M., Briggs, L. J., & Wager, W. W. (1992). Principles of instructional design (4th ed.). Forth Worth, TX: Harcourt Brace Jovanovich College Publishers.

BE A PART OF THE DAS PARENTS' SUPPORT GROUP

Benefits of DAS Parents' Support Group (PSG):

Be more engaged
As a PSG member, you are more likely to be an informed and involved parent. You will also be building rapport with educators and supporting DAS's initiatives.

Be part of a network
We understand that parenting a child with learning differences is challenging. The PSG provides a platform for you to share ideas, concerns and experiences with other parents.

Increase your knowledge
Gain valuable experiences and grasp new opportunities, to support your child more effectively.

Make a difference
Provide DAS with feedback to make positive recommendations for change in our organisation.

Be a role model
By becoming a PSG member, you will demonstrate the importance you place on education and enhance your bond with your child.

If you would like to join the PSG, please contact the Centre Managers.

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