Lauren Hubert's 2023 Fulbright experience in Singapore

How similar/different have you found Singapore students to be when compared to yours back home?

During my visits to Singapore schools, I observed mainly secondary one to four students. Like my Arizona students, most prefer to work together with their peers. They may occasionally drift off-task, but they generally desire to perform well in class. Most students in both groups are respectful of staff and one another. However, I observed that lower progressing students in both places are more likely to require reminders to stay on tasks during lessons. As discussed with several Singapore teachers, students in both countries are struggling with apparently lessened attention spans post-covid and mobile phones being an ongoing distraction. Singapore students are more respectful of school rules pertaining to the use of mobile phones and class policies than students are in Arizona. Late-coming, absenteeism and inappropriate in-class mobile phone use are currently the biggest complaints of American secondary school teachers. Possibly due to major end-ofyear examinations, Singapore students seem to take their school attendance and studies more seriously than American students, many of whom at my school seek only a minimal passing grade for each course. Lastly, Singapore students are committed to active participation in school clubs.



Student engagement at Punggol Secondary School

What was the most unexpected thing about Singapore schools/teachers/students for you?

My visit to Singapore was filled with unexpectedly pleasant surprises.

Unexpected about schools: Clubs built into the curriculum, food choices in school canteens, hydroponics, many class periods, uniforms, January to November schedule, project work, facial recognition security.

Unexpected about teachers: The variety of duties, they are mostly (solely) trained through the NIE system, their career tracks and (job) titles, their attachments to MOE/AST, the shared office spaces, the SLS online site.

Unexpected about students: Their dedication to studies and how few fail PSLE/O/A level examinations, (their being) super friendly and polite, the greetings and closings for (every) class, and that most are on-task in classes.

The most unexpected thing about Singapore education is the level in which sustainability concepts are incorporated



into the curriculum, not only through Geography S1–JC, but also in STEM clubs, Food & Nutrition, Design & Technology, as a choice of theme for A-level project work, and incorporation into ALPs and community projects.

Efforts by campuses to add gardens, reflective paint, LED lights, solar panels, and green roofs place Singapore schools well ahead of most American schools in efforts to prepare for a more sustainable future.

What are ideas you got from your attachment to Singapore schools/the Singapore Fulbright experience that you wish to take back home to seed and/or implement?

Curriculum on Sustainability:

Drawing from my experience in Singapore schools, I plan to incorporate more outdoor learning journeys for observing nature, journaling and collecting data within our school and neighborhood.

Seeking corporate partnerships and grants will be a goal for the next year to be able to add solar panel and aquaponic/hydroponics lessons and improve our campus garden. I will share the idea of the science center acting as a partnership "brokerage" for schools with a colleague at Arizona Science Center.

Project work scaffolded up to the quality of the Singapore JCs will be the mainframe of the Sustainability JC/college dual enrollment course I am designing for 2024-25.

The end-of-course review system set up by Biology teachers in which exams are shared between schools to create 10 weeks of review homework is a definite "must" idea.

The books created and published by students at primary and secondary levels on various topics, either in print or digitally, will make for a great collaborative project.



National Institute of Education (NIE), Singapore



Nature journaling with Dunman Secondary School at the Flower Dome, Gardens by the Bay.



Dunman Secondary School's upcycled bag project using the Bernina lab at Temasek Polytechnic.

CCAs and Interest-based Clubs:

The Science Club I sponsor will lead the way towards improving campus sustainability efforts by encouraging all students/staff to improve recycling efforts and reduce energy and food waste by creating posters and videos and organizing competitions between classes and clubs.

Challenging each school club or class to fulfill a project of service/empathy for the community during the next school year is a plan I expect my campus will adopt willingly.

Professional Development of Teachers:

I will be lobbying for my district to adopt an improved teacher career track that allows long-term attachments at the school district to work on curriculum and assessments.

Share with us an experience that resonated strongly with you in the course of your professional development journey in Singapore.

From day one, the learning journeys were informative and enjoyable, basically the best form of PD I have ever experienced. We usually call them "field trips", but I love the term "learning journey" and am actively using it. Other than specific field experiences for science that I have voluntarily signed up for, I have never had outdoor PD sessions in the U.S. Most of my past PD experiences have been set in a classroom with a PowerPoint. Boring! Learning about Singapore, the education system, sustainability, history, planning, etc while walking/hiking and talking was immersive and is still resonating in my mind. Visiting AST and MOE sites to experience how teachers learn and curriculum and assessments are built, really helped me understand these processes. Visiting Northlight School helped me to truly grasp how Singapore approaches elevating the success of the least-last-lowest, so they are not left behind. I enjoyed "experiencing" your PD approach.



Northlight 'Shine' Hotel



Examples of project work at Temasek Polytechnic



Learning Journey to MOE Heritage Center.



Learning Journey to Singapore Sustainability Gallery with Geography MTTs



Learning Journey to Berlayer Creek.

What was it that you were exposed to in Singapore that culminated in the content presented in TCEF2023?

At TCEF2023, I presented a comparison between how sustainability is being approached by Singapore and by the USA, an argument for using a project-based learning approach, and an outline for a proposed course in Sustainability for JC/college dual credit.

In Singapore, I was exposed to galleries, campuses, classrooms, and public spaces that share a common goal of preparing Singapore youth for a more sustainable future. The Green Plan and Eco Stewardship Programme outline plans for improvements in infrastructure and the education system. I had expected to observe lessons in the classroom and some campus improvements, at least on a few pilot campuses. What I did not expect was the degree to which partnerships with schools, public messaging, scaffolded project work and campus improvements were being systematically implemented.

I observed lessons on solar panels, school gardens, upcycling and learning journeys in nature around which I plan to teach project-based lessons in Environmental Science. I toured exhibits of student projects in Sec 3 and 4, and JC project work that demonstrated high quality above that I have seen in JC 1 and 2 at my school.



Student lesson on solar energy at Punggol Secondary School



Neta Farms hydroponic project at Dunman Secondary School

Singapore has set the bar very high in how it is moving towards a well-planned sustainable future.



The bounty harvest from Neta Farms hydroponic project at Dunman Secondary School



Professional Development sharing at Dunman Secondary School