Institute of Policy Studies

IPS Forum on Educating Singapore's Next Generations: Towards the Super School Concept

24 April 2014

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Since independence, Singapore's education system has produced a high-calibre workforce that has helped to catapult Singapore into the league of developed economies. In recent years though, there has been a sense of apprehension as to whether the current education system would sufficiently prepare students for the challenges of the 21st century. Such concerns in fact rallied a group of local intellectuals to ruminate on the challenges, which culminated in a concept paper titled "Educating Singapore's Next Generations: Towards the Super School Concept".

The paper was presented by architect Tay Kheng Soon at a forum organised by the Institute of Policy Studies (IPS) on 24 April 2014. The forum was moderated by IPS Director Janadas Devan and saw the attendance of over 40 participants representing sectors as diverse as education, architecture and media as well as two Members of Parliament (MP) and a Non-Constituency MP (NCMP). Also present were the intellectuals who contributed to the paper: economist Yeoh Lam Keong, educationist Koh Boon Long, law professor Dr Kevin Tan and economist Donald Low. The final contributor, Jack Sim, founder of the World Toilet Organisation, was unable to attend.

What is the Super School Concept?

Central to the super school concept is the idea of a Central Nervous System (CNS). A high functioning organism like the human body, it processes a huge quantity and diversity of information. This notion of a CNS could be extended to the physical environment. Mr Tay observed that prior to the 1970s all the schools were located in the city where most people lived. Singapore's first-generation leaders in business, government and bureaucracy grew up in the city and were "naturally street smart". As Singapore developed, new housing estates emerged but the schools were on the perimeter of these estates. Such a spatial arrangement is not close to "where the action is, the unpredictable kinds of interactions that can produce synergy and mutual benefits and situations that require proximity and contiguity".

To enrich the learning environment, Mr Tay suggested introducing a CNS into housing estates and imagining the school as the physical space in which interaction takes place between the school and community, bringing the school to the street and vice versa.

The school would be located on the upper levels of buildings, with shops and the community centre below. The coffee shop could double as the canteen that provides meals to students at discounted prices. Teachers can bring students to the grocery store to learn about food ingredients and pricing. A bicycle track would link up the CNS, with students travelling back and forth the school and the neighbourhood. Farming and other community activities could be introduced to enrich the learning environment. When all the nodal points are linked by the CNS, the entire Singapore could be conceived as an interconnected ecosystem of learning.

Following Mr Tay's presentation, two of the paper's contributors shared their thoughts on the super school concept. Dr Tan described the environment's significance in shaping education. He noted that our motivation to learn is tied to relevance. Unfortunately, today, relevance in schools entails obtaining stellar grades and entering reputed schools. To Dr Tan, such motivations are short-sighted. Relevance is also about functioning within the larger society, so reintroducing the environment into the students' lives is pivotal to promote learning. When learning is not "atomised", the learner is forced to respond to the environment, thereby developing important life skills. Responding to the environment also fosters a dialogical process in which teachers and students have to create the kind of syllabi that would hopefully be relevant for the future.

The imperative of equipping students with future-proof skills and knowledge was echoed by Mr Yeoh. Based on "increasing anecdotal evidence" from business and industry leaders, he noted that despite having high Programme for International Student Assessment (PISA) scores, graduates from the Institutes of Technical Education (ITE), polytechnics and universities are hardly meeting the requirements of the knowledge-based economy. In contrast, those who have experienced the overseas western education system are regarded as better talent material than local graduates.

Mr Yeoh then highlighted two aspects of Singapore's education system that work against producing the desired graduate traits in western education — first, a large classroom size which restricts teachers to imparting content knowledge; and second, early mass testing which is detrimental to social mobility since children from better-off backgrounds can access private tuition to excel in exams. He called for smaller class sizes, less standardised testing and more individual testing to restructure the education system.

The presentation was followed by a robust discussion, with participants raising questions on the viability of the super school concept and commenting on the challenges confronting Singapore's education system.

What about Existing Schools?

A participant who runs a pre-school asked about the implications of the super school concept on the school curriculum and assessment. Noting that some pre-schools were already adopting "localised curriculum" — that is, tapping into their communities for learning materials — she asked if this would lead to "non-standardised learning content" among schools since the content would be dependent on the learning resources available in the community. She also wondered about the potential overhaul to the school system; if schools were not following the national curriculum, teachers would have to become curriculum

designers themselves. And if students had to cycle from school to school for lessons, organising timetables could be an uphill task. Finally, would assessments be standardised among schools since content and curriculum are localised?

Another question pertained to the role of existing schools, since the super school concept calls for the location of schools along the CNS. An NCMP asked if it was possible to train students to become more adept in the knowledge-based economy without having to implement infrastructural and spatial changes.

Mr Tay clarified that the concept paper did not advocate the closing down of existing schools; instead the super school concept would entail "a transformation process taking 10 to 20 years, [and] not a revolution". He reiterated the concept paper's starting point, which is to think about the spatial relationship between a school and its community, then select an existing school and "introduce into a school say, start-up businesses".

On concerns over non-standardisation, decentralisation and autonomy to students and teachers, Mr Tay declared that he was supportive of having standardised curriculum and syllabus but there should be different ways of delivering the content. Giving the example of an experimental school for impoverished students in Thailand, he noted that the students followed the standardised national Thai curriculum but the teachers and students had the freedom to plan their own timetables. For a mathematics and botany project, some students worked in a mushroom farm and conducted market research on how they could increase their families' earnings. The students' parents also became involved in the project, which is important. The issue is not what you teach but how you teach, he added.

To address the participant's query on standardised assessment, Mr Yeoh acknowledged the need for testing at some stage, but mass testing should be minimised and only when necessary: "The earlier you start the testing, the worse for social mobility and for the late bloomers from developing fully."

Are Smaller Class Sizes Better?

A MP in the audience acknowledged the desirability of smaller class sizes but pointed out that it would entail hiring more teachers. While it would be easy to increase the pool of teachers, the challenge lies in recruiting enough quality educators. Moreover, teachers would require training to understand the syllabus and design the curriculum. She added the teacher-student ratio in schools has improved, as seen in the reduced class sizes for Normal (Technical) students.

Citing study findings, a participant from the Ministry of Education (MOE) suggested that investing in the quality of teachers might deliver better returns than focusing on small class sizes. He also opined that parents might not opt for a smaller class size that is taught by a "weaker" teacher when they could have a "stronger" teacher in a big class.

In response, Mr Yeoh agreed that if it was an issue of academic test scores, class sizes would not matter as a good teacher could guide the students to score well in examinations. However, anecdotal evidence from employers have illustrated that test scores do not correlate with workplace performance; in China, for example, top graduates with impressive

test scores are failing to meet the human resource requirements of multinational corporations. Moreover, it would be difficult to teach complex soft and interactive skills in a big class setting.

On a related note, another participant, a former teacher, questioned the seeming inability of Singapore to produce quality teachers, unlike countries such as Finland. The same MP replied that besides ensuring all teachers are university graduates, another factor could be cultural. In Finland, students look up to their teachers with respect whereas in Singapore, remuneration is a deciding consideration, with teachers joining other professions such as finance after fulfilling their bond.

Dr Tan suggested that remuneration might not fully explain the difficulty in retaining teachers. Instead, he opined that if teachers were given greater autonomy in their work, they might remain in the profession longer. A few participants begged to differ, believing that teachers are given the autonomy in how to design and teach the lessons.

Would the Community be Receptive?

The idea of the community as a learning environment for students was welcomed by many participants. An IPS researcher commented that schools are actually "ghost towns" with their sports facilities being used by the public during the weekends, and said that she liked the paper's concept of "strategic aggregation". Co-locating the schools within the community allows for planned and serendipitous encounters between the students and their community, enabling the students to find their interests and to discover that their studies have real-life implications. Students could potentially develop an ongoing and engaged relationship with their communities too.

Another IPS researcher also supported the idea of the "community as a campus" and suggested that having the community as teachers in special situations might even solve the problem of teacher shortage. Having a school on top of a community also creates a psychological sense that society is not separate from the school, offered another participant. She added that situating schools in the community and persuading the latter to take ownership of educating the students fosters an identity for the neighbourhood.

A number of participants however expressed their misgivings on involving the community in schools' learning. One participant wondered if the community would be ready to welcome the students into their daily routines and support the schools in promoting learning. She also asked if the community might feel "disturbed since they are busy with their business".

A senior MOE official cautioned against romanticising community engagement as it could expose schools and students to not just opportunities but distractions and risks, including "characters that may abuse children". Similarly, another MP expressed concern over the possibility of less motivated students becoming "distracted" by the community such as gaming centres and asked how they could be encouraged to return to school.

The same IPS researcher who supported the concept of "strategic aggregation" proposed that such challenges could be alleviated by ensuring that students' community-based learning is guided and facilitated. Mr Tay added that besides its internal synergy and logics,

the super school concept would incorporate "control points" such as a school timetable so students would know when to return to class.

In his concluding remarks, Mr Tay acknowledged that the super school concept is still at the germinating stage, and for it to flourish would require education on the part of teachers, parents and the community. "Nothing is given, nothing is in the perfect stage, so it's experimentation, interaction, learning from each other, it's solving problems. That's learning how to be savvy, not just for students, but also getting the parents and teachers savvy too. That's a super school," he said.

Mr Tay and his associates have started a Google+ Hangouts page to continue the discussion on the super school concept. Those who are interested to participate in the conversation can contact ips.publicaffairs@nus.edu.sg for more information.

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If you have comments or feedback, please email ips.enews@nus.edu.sg

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