

Fostering 21st Century Competencies among Lower Progress Learners

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KEY IMPLICATIONS

- 21st Century Competencies (21st CCs) must be a central aspect of Normal Technical (NT) curriculum and pedagogy.
- Flexibility in curriculum and programs facilitate customized, innovative learning outcomes.
- Strong belief among teachers and school leaders in every student's ability to learn is the foundation for equitable education.

BACKGROUND

While Singapore has recognized the imperative to create a 21st century workforce and has implemented educational policy to this end, many Singaporean classrooms continue to operate within a traditional teacher-centered paradigm. This is especially true for those within the “long tail” of academic performance such as NT streams where instruction generally reflects remediated and vocational education approaches. The Ministry of Education (MOE) has sought to address this gap by taking steps such as an increased policy focus on

“low progress” learners, creating an ideal environment for school improvement in general and specifically for the integration of 21st CCs for all learners. However, as curricular innovations are notoriously difficult to diffuse throughout schools, there is a critical need for research into pedagogy for NT students that propels school improvement forward.

FOCUS OF STUDY

This exploratory research project sought to collaborate with one Singapore secondary school to investigate the potential for infusing 21st CCs in the NT curriculum, beginning with digital literacy instruction. The project was focused on the three core 21st CCs of collaboration, creativity and critical thinking. Specifically, the aim was to 1) find out how 21st CCs were presently being implemented in the school, with a particular emphasis on their role in equitable education; and 2) establish curricular design principles for the infusion of 21st CCs for lower progress learners.

KEY FINDINGS

The findings indicated that the school's approach to widening opportunities through 21st CCs pivoted around three principles. First, close engagement with community and industry partners provided learning opportunities for students while modelling 21st CCs. Second, committed teachers and a strong leadership with a clear vision and belief that every student is able to learn was instrumental in ensuring equitable education. Finally, at the core of the school's innovation is the deliberate, customized, and equitable incorporation of digital media into the school's curriculum which showed elements of 21st CCs.

SIGNIFICANCE OF FINDINGS

Despite the far-sighted innovations at the project school, further work remains to be done. First, it is imperative to make 21st CCs a central component of vocationally-oriented curricula. Second, systemic

changes are needed to give NT students more opportunities and exit strategies. Third, the growth mindset evident at the project school should be extended to non-specialized schools with NT cohorts.

PARTICIPANTS

The study was conducted in a secondary school dedicated to NT education. After initial observations of multiple, lower-secondary classes, the project zoomed in on two classes, and five students from each class became focal participants (n=10) as well as the two ICT teachers of the focal classes.

RESEARCH DESIGN

The study was exploratory in nature and followed an ethnographic design. The key data sources were documents, field notes, audio and video-recordings of classrooms, interviews with teachers and students.

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This brief was based on OER 03/17 RDR: Investigating Digital Literacies as 21st Century Competencies among Normal Technical Students.

How to cite this publication

de Roock, R. S., & Weninger, C. (2022). *Fostering 21st Century Competencies among Lower Progress Learners* (NIE Research Brief Series No. 22-009). Singapore: National Institute of Education.

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