Ideas First, What's Next? Exploring Advances and Challenges in Creating Knowledge Building Science Classrooms in Singapore

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The education system in Singapore is entering a period of change. These changes have their genesis in education policies that seek to develop a nation and its schools for a 21st century economy (www.moe.gov.sg). The goal is to foster in students the skills to learn and adapt in a rapidly changing world. We believe that learning in a Knowledge Building community supported by Knowledge Forum (Scardamalia, 2002, 2004; Scardamalia & Bereiter, 1991, 1994) will support the desired changes in education. Knowledge Forum was first introduced in Singapore in 2001 (Ibrahim & Tan, 2004; Ow, Low, & Tan, 2004; Tan, Hung, & So, 2005). Since then, there have been numerous pockets of pedagogic innovation exploring the integration of Knowledge Forum into Singaporean classrooms. However, a scalable model of Knowledge Building communities in classrooms has yet to be developed. Creating such a model is one of the goals of the newly-established Learning Sciences Laboratory in Singapore. In the poster we discuss the advances and the challenges in creating knowledge building classrooms in Singapore. The work is part of a 3-year research project designed to foster learning in a knowledge building community as part of the science curriculum of nine Primary 3 and 4 classrooms. The project design involves a half-year of offline transitioning mechanisms in order to scaffold both teachers' and students' work prior to the use of Knowledge Forum. The offline-learning environment involves material artifacts that are meant to provide tangible "tools-to-think-with" in transitioning to a knowledge building pedagogy that challenges the more traditional Singaporean pedagogy. Hence, we are designing a new implementation path (Bielaczyc & Collins, 2006) for introducing teachers and students to Knowledge Forum.

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