Showcasing the Creative Talents in Science of the Academically Less-Inclined Students through a Values-Driven Toy Storytelling Project

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EXECUTIVE SUMMARY

It has been mentioned that gifted students may not necessarily just be the ones who have high IQ and perform consistently well in their examinations but also those who are able to showcase their creative talents through content and skills gained in their academic subjects. This chapter highlights how a class of academically less-inclined students in Singapore has been able to showcase their creative talents in science and other subjects through a values-driven toy storytelling project that serves a community need. Results from this study show that the project has provided an avenue for the students' creative talents in science and other subjects to be recognized by members of the community. The positive recognition through the students' work instilled a sense of pride and self-worthiness amongst them.

BACKGROUND INFORMATION OF NT STUDENTS IN SINGAPORE

In Singapore, students who do not perform well in the national Primary School Leaving Examination (PSLE) to qualify for the traditional academic streams are placed in the Normal Technical (NT) stream in secondary schools. The NT stream was established in 1994 and comprises about 15% of the students in each cohort in Singapore (Albright, Heng & Harris, 2008; Ismail & Tan, 2004; Ser, 2004a). The number of students that enter the secondary one NT stream ranges from 7795 in 2000 to 6491 in 2010 (Singapore Department of Statistics, 2011). In 2010, there are about 26,010 NT students across the neighbourhood schools in Singapore (Singapore Department of Statistics, 2011).

Many of the students in NT stream are predominantly kinesthetic learners with short attention spans and seem to exhibit a disinterest in studying when the subject content is not set in contexts that appeal to them and teaching approaches that are not matched to their learning styles (Chang, 1997; Ismail & Tan, 2004). Ser (2004b) stated that having already been relegated to the bottom stream, these students lose interest in their studies very quickly. Many students in this stream have also been identified as ones that have difficulties reading, understanding and answering questions across subjects because of their weak proficiency in the English language (Albright et al., 2008; Ismail & Tan, 2004; Kramer-Dahl & Kwek, 2011; Lee & Bathmaker, 2007). Several students in this stream have been diagnosed with dyslexia and exhibit ADHD-symptoms, and a few have been reported to have mild autism (Ho, Lim & Ho, 2005). Most of these students also come from low-income family backgrounds (Ng, 1993 as cited by Lee & Bathmaker, 2007) and are deemed to be the ones who are less academically inclined because of their poor performance in English, mathematics and science (Moo, 1997 as cited by Lee & Bathmaker, 2007). Ng (2004) reported that most teachers see these pupils as poor, coming from dysfunctional homes or having parents who do not care enough. Because of these, the pupils are then seen not to be coping well in school.

Reports have shown that teachers, parents and non-NT students (who are more academically-inclined) seem to have negative perception of students in the NT stream (Albright et al., 2008). Ser (2004a) mentioned from her interviews with parents and non-NT students that at their best, normal tech students are perceived to be unmotivated and lazy, and at their worst, an ill-disciplined and disruptive bunch generally beyond redemption.

Ser (2004a) also reported from her interviews with teachers that they felt there is only so much a teacher can do to help NT students, because not all of them are willing to be helped. Ser (2004b) mentioned that teachers and school councilors told her that many of these students also have a greater propensity for delinquency.

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