Making Smart Choices:  
A Serious Game for Sex Education for Young Adolescents

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ABSTRACT

Current educational resources for sex education in Hong Kong are mainly designed to be used in classroom. They are mostly text-based and are unattractive to the most vulnerable adolescent group. As discussion on sex is still taboo in Chinese society, self-learning resources can supplement classroom teaching. This paper describes an interactive game playable on Facebook, iPad and the web to educate young adolescents with reliable knowledge and positive attitudes towards relationship and sex and life skills necessary for making wise decisions regarding love and sex in a fun way. The effectiveness and acceptance of the game were evaluated by more than 1000 grades 7-9 students from six schools. The results showed that after playing the game, students’ sex knowledge improved with a medium effect size. The students were mostly receptive to the game, finding it fun to play with and describing the content as “interesting”, “interactive”, “informative”, “close to reality” and “applicable”.

Keywords:  Game Enhanced Learning, Serious Game, Sex Education, Student Perception, Young Adolescents

INTRODUCTION

Despite the sociological changes, sexual issues essentially remain a taboo in Chinese society and thus open discussions within the family are rare (Chang, Hayter & Lin, 2012; Chang, 1991; Okazaki, 2002). However the society has become more liberal in attitudes and beliefs about sex in recent years. Engagement in underage sexual intercourse, un-protective sex and limited knowledge of contraceptive methods have become increasingly apparent.
Among youths in Hong Kong (Ip, Chau, Chang & Lui, 2001), Shek (2013) indicated an increase in the rate of premarital sex among Hong Kong adolescents and changes in sexual attitudes with 50% of adolescents endorsing premarital sex and 48% accepting abortion. A similar phenomenon among young university students in Mainland China was observed too (Zhang, Gao, Dong, Tan & Wu, 2002; Ahl, 2012). A recent report published by the Family Planning Association of Hong Kong (FPAHK, 2011) including the views of 2,934 13-19 years old secondary students (average age 16.2) revealed that 7.4 percent of teenage girls and 9.8 percent of teenage boys have experienced sexual intercourse. The average age of first sex experience for those boys and girls was reported to be at the ages of 14.6 and 15.3 years respectively. Among the adolescents reporting sexual intercourse experiences, 22.5% had not used contraceptive measures. These result in health risks such as the spread of sexually transmitted diseases and teen pregnancy. In Hong Kong the rate of HIV infection cases associated with unprotected sex is on the rise. According to the Virtual Aids Office (2014), a total of 559 new cases of Human Immunodeficiency Virus (HIV) infections were reported in the year of 2013. This is an all-time high figure since the first case of HIV was reported in Hong Kong in 1984.

Sex education has been reported to be associated with behavioural changes such as practising safer sex (Kirby, Laris, & Rolleri, 2007) and with a lowered risk for sexually transmitted disease infection (Dodge, Reece, & Herbenick, 2009). Shin, Park, and Cha (2011) found that receiving sex education during the school-aged years had a positive impact to the sexual attitudes of college students in Korea. In particular, sex education during elementary school and middle school, but not in high school, influenced the attitudes towards sexual behaviours among the female students. These findings indicate the importance of sex education for the young at primary and junior secondary levels.

Even though there is a dire need for quality sex education for the young in Hong Kong, the city has no single subject dedicated to relationship and sex education in its primary and secondary education. Relationship and sex education has been integrated into educational curriculum for many years, yet efforts to provide quality sex education have been limited and largely unsuccessful (Che, 2005). For junior secondary students, selected topics of sex education are included in the curriculum of the Life and Society subject prepared by the Curriculum Development Council (CDC, 2010). A survey involving 134 schools done by the Department of Health in 2013 indicated that major barriers in providing effective sex education were schools being too busy and had no time for HIV/AIDS or sex education (52%), regarded this as a low priority (50% and 25% for HIV/AIDS education and sex education respectively), and lacked relevant documented policy (75%) whereas teachers were not well equipped to teach sex education (74%) and lacked relevant learning and teaching resources (RRC, 2014). The average number of school hours spent on sex education was around three hours for each junior secondary level (RRC, 2014) whereas in South Korea, 10 hours of sex education per year was mandated for students in elementary school, middle school, and the first year of high school (Shin, Park, & Cha, 2011).

Educational resources providing sex education are available but they are mainly designed for teachers’ use, e.g. presentation slides and lesson plans which usually involve group based activities. Attractive and easily accessible materials tailored for young adolescents remain scare. Furthermore Chinese tend to feel ill at ease when discussing sexual topics. A self-learning approach to sex education can supplement classroom learning. It also addresses the problem of lacking school hours for sex education. There are challenges ahead however. First, well designed self-learning materials on sex education are rare. Second, current learning resources tend to be text-based and are unattractive to young adolescents. Third, few multimedia materials on sex education are offered online or tailored for mobile access. Mobile accessibility enables young learners to choose a space with which they feel comfort-
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