

Enhancing Sexuality Education for Young Adolescents Through Serious Gaming

Alvin Chi Ming KWAN¹, Athena Wai Ling HONG¹, Frankie TAM², Grace Ming Ying³ LEE, Mickey LAU², Charles LAM³, Man Ting TANG³, Po Yin YU³, Samuel Kai Wah CHU¹

¹The University of Hong Kong, Hong Kong, China

²FifthWisdom Technology Limited, Hong Kong, China

³The Family Planning Association of Hong Kong, Hong Kong China

cmkwan@hku.hk

athenawl@hku.hk

frankie@digitalgameslearning.org

gracelee@famplan.org.hk

mickey@fifthwisdom.com

charles@famplan.org.hk

mttang@famplan.org.hk

pyyu@famplan.org.hk

samchu@hku.hk

Abstract: Adolescents in Hong Kong have become more liberal and receptive towards sex in recent decades. Research findings indicated an increase in the rate of premarital sex among Hong Kong adolescents. They also held a more permissive attitude towards premarital sex than in the past. Sex education, however, is not always well organised and delivered in schools. A recent survey indicated that Hong Kong teachers found themselves not well equipped to teach the sex education and lacked relevant learning and teaching resources.

Current educational resources for sex education are mainly designed to be used in classroom. They are typically composed of presentation slides and lesson plans of group based activities. As discussion on sex is still taboo in Chinese society, self-learning resources can supplement classroom teaching. Unfortunately they are rarely offered online or tailored for mobile access. Available online resources are mostly text-based and are unattractive to the most vulnerable adolescent group. This project aims to address this gap by developing an interactive game playable on Facebook, iPad and the web to educate and equip young adolescents with reliable knowledge and positive attitudes towards sex and relationship and life skills necessary for making wise decisions regarding love and sex in a fun way.

The game, titled *Making Smart Choices*, consists of five mini-games, adopting a Chinese user interface, offering different scenarios where players exact their decisions in their chosen virtual characters and learn in the process. The mini-games aim to help young adolescents:

- to gain better self-understanding for establishing a healthy love relationship;
- to learn to set and maintain intimate boundaries;
- to understand about sexual impulse and considerations in deciding whether to have sex or not;
- to acquire safer sex knowledge including awareness of self-protection, contraceptives, prevention of sexually transmissible diseases, and emergency contraception; and
- to be aware of available options and support services in case of unplanned pregnancies.

To evaluate the effectiveness and acceptance of the game among young adolescents, a series of workshops and game sessions were conducted for more than 1,100 junior students (in Secondary 1 to Secondary 3) in six co-ed secondary schools. Students' knowledge about safer sex was collected before and after playing the game. Participants were also asked to complete a questionnaire regarding their perception of the value of the game and whether they found the game interesting and user-friendly. Focus group interviews were arranged with selected students in order to gather their detailed feedback. The collected data were analysed using SPSS and the results showed that after playing the game, students' sex knowledge improved with a high medium effect size. The improvement was found in every junior secondary level. The survey respondents perceived that the game had helped them enhance their critical thinking, decision-making and ability to seek help regarding matters related to love and sexuality in addition to knowledge and proper attitudes towards relationship and sex. They 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: serious game, sexuality education, student perception

1. 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. 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). 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, an all-time high figure since the first case of HIV was reported in Hong Kong in 1984, were reported in the year of 2013.

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. 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).

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. Unfortunately 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 comfortable to study the online materials. This project aims to address these gaps by developing an interesting computer game to disseminate sexuality education to young Chinese adolescents. As social networking is a popular activity for the youth, smart devices and platforms present vast potential in attracting the attention of adolescents. For this reason, the game was developed to play on iPad, the social networking site Facebook as well as the web. While the iPad and the web versions require registration with a student account to a local educational website, the Facebook version was made available for all at <https://apps.facebook.com/fpasmartchoices>.

In the next section, a description of our game and its development strategy is given. Section 3 gives details of the methodology for evaluating the game in terms of its effectiveness in delivering correct knowledge to the learners as well as user acceptance. Results are discussed in Section 4, followed by the concluding section.

2. Game Design

2.1 Game structure

The game, titled *Making Smart Choices* (MSC), was co-designed by the staff members from the Family Planning Association of Hong Kong and the University of Hong Kong, and implemented by a software vendor experienced in educational game development. It consists of five mini-games offering different scenarios for participants to make decisions using chosen virtual characters. The information and values embedded into the game messages fall in line with the learning points related to sex education in the curriculum of the Life and Society subject prepared by the Curriculum Development Council (CDC, 2010) of Hong Kong.

All scenarios in MSC are crafted to mimic authentic situations that adolescents may encounter when dealing with love and sex. The mini-games share a similar structure (see Figure 1). Each mini-game starts with an introduction to the aims and instructions (top-left), followed by one or more scenarios with each of them styled in comic-strips-like animations (top-right). In each scenario, the player is given a few choices and is required to choose his/her desired response to the specific scenario (bottom-left). After all scenarios of a mini-game are dealt with, key educational messages relevant to the scenarios are shown (bottom-right).



Figure 1: Key screenshots of the mini-game titled *Love Q&A*

The mini-games include:

- *Love Q&A* (戀問·戀答) - to gain better self-understanding for establishing a healthy love relationship
 - In each of the four scenarios, the virtual character requires to choose a response to a situation in which conflicts exist between the virtual character and his girlfriend (or her boyfriend), his girlfriend and his friends, or his girlfriend and his family members.
- *Intimacy Photo* (照出親蜜線) - to learn to set and maintain intimate boundaries
 - This mini-game highlights the importance of maintaining appropriate physical boundaries based on the maturity of a relationship. The player is asked to set the maturity of a relationship (e.g. starting courtship for a few days), then the gesture of the virtual character as well as the physical distance between two virtual characters of opposite sexes before taking a photograph (see Figure 2).



Figure 2: A screenshot of the mini-game titled *Intimacy Photo*

- *Escape from Sexual Impulse* (智性逃慾) - to understand about sexual impulse and considerations in deciding whether to have sex or not
 - The scenario is about two adolescents in courtship finding themselves bored after doing their homework together at home for a while. They want to watch a movie on DVD which has been misplaced. The virtual character is supposed to find the DVD by clicking on the selected objects in the living room and bathroom (see Figure 3). Objects being clicked on will affect the character's impulse for sex. For example, the entertainment magazine on the bathroom floor increases the impulse whereas the watermelon in the living room decreases it.



Figure 3: Screenshots of the mini-game titled *Escape from Sexual Impulse*

- *Sorting out Safer Sex Knowledge* (識性讚一讚) - to acquire safer sex knowledge including contraceptives, prevention of AIDS and sexually transmissible diseases, awareness of self-protection and emergency contraception
 - The scenario is about two adolescents in courtship who are going to have an overnight stay in a resort. This had been mentioned to the virtual character's Internet friends who volunteered to offer their advices on safer sex. The player needs to identify correct sex knowledge among those Internet friends' advices (see Figure 4).



Figure 4: Screenshots of the mini-game *Sorting out Safer Sex Knowledge*

- *Rank Your Options* (出路有排行) - to know the options and available support services in case of unplanned pregnancies
 - The scenario is about the girlfriend of the virtual character's friend has an unplanned pregnancy. The character tries to identify various information sources, help, and options for his friend (see Figure 5).



Figure 5: Screenshots of the mini-game *Sorting out Safer Sex Knowledge*

2.2 Software Architecture

HTML5 was chosen as the core framework so that a single code base for all three different versions of the game – iOS, Facebook and web-based version – was achieved. LimeJS, an HTML5 framework for building games for modern touchscreens and desktop browsers, was chosen as the basis for the development of MSC. MySQL database was used for keeping track of the players' data and behavior in the game. A single sign-on solution EdConnect from Hong Kong Education City (<http://www.hkedcity.net/english/>) was adopted to minimize our workload on the user account management for the iOS and web-based versions of the game.

2.3 Participatory Design Approach

A participatory design approach that emphasizes the active role of users in the design process (Reich, Konda, Monarch, Levy & Subrahmanian, 1996) as well as expertise of different stakeholders to design, develop, and refine the targeted product (Bergold & Thomas, 2012) was used. The game content was designed by family planning experts with inputs and feedback from secondary school teachers and students throughout the game development process. App implementation was done by a software vendor specialized in education game development. Academics with extensive exposure in education, computer science, information science and health science worked together to derive an appropriate learning theory which provided an overarching theme for the designed game based learning. 15 secondary school students conducted usability testing on the initial versions of the app. These studies resulted in improvements to the design that reflected the perspectives of the students. Heuristic evaluation (Nielsen, 1994), conducted by six evaluators at the supporting academic institution, was applied to study the usability of the app. App design was modified to address the deficiencies found in the evaluation.

3. Methodology

The effectiveness and acceptance of the app among teenagers were studied through a series of game sessions and workshops conducted for Secondary 1 to 3 students (between ages 12-16) in six co-ed schools in late 2013. Students' participation was voluntary. In the game sessions the students were allowed to play the game as many times as they liked. Each first time player needs to complete a pre-test on his knowledge on safer sex before playing the mini-games. When the player completes all the mini-games, he is asked to complete the post-test. For each player, the pre-test and post-test are composed of six identical multiple choice questions drawn from a pool of 12 questions related to safer sex knowledge covered in the mini-game "Sorting out Safer Sex Knowledge". A total of 788 students completed the tests. The figure is smaller than the actual number of students who played the game because some students did not return the consent forms whereas some did not complete all the mini-games or the post-test. For instance, 93 students did complete the pre-test, all the mini-games and the post-test but they failed to return the consent forms.

A survey on the perception of the value and usability of MSC were completed by 1,123 students (see Appendix 1). To obtain in-depth feedback from the participants, 10 focus group interviews involving 60 students were done too. Quantitative data obtained from pre-test, post-test and survey were analysed with SPSS version 20. Qualitative data are being studied. In this paper, the discussion is focused on the quantitative results.

4. Results

4.1 Effectiveness of gamed based learning

Regarding the effectiveness of the game in enhancing students' knowledge on safer sex, pre-test and post-test scores were studied. The scores correspond to the number of correctly answered questions in those tests, which range from 0 to 6. We first tested whether the data were able to pass the test of normality. The results were negative in both Shapiro-Wilk's test ($n = 788$, $p < 0.001$) and Kolmogorov-Smirnov's test ($n = 788$, $p < 0.001$). Wilcoxon signed ranks test was then applied to the matched pairs (see Table 1).

Table 1: Applying Wilcoxon signed ranks test to analyse pre-test and post-test scores on safer sex knowledge of students based on school levels

<i>Students group</i>	<i>n</i>	<i>Mean of pre-test score</i>	<i>Mean of post-test score</i>	<i>p</i>	<i>Effect size</i>
Secondary 1	281	3.046	3.687	<.001	0.449
Secondary 2	238	2.979	3.798	<.001	0.540
Secondary 3	269	3.082	3.736	<.001	0.448
All	788	3.038	3.737	<.001	0.477

As shown in Table 1, the mean scores of all participating students in the pre-test and post-test are 3.038 and 3.737 respectively. Such an improvement was found to be significant ($p < 0.001$). The corresponding effect size is 0.477, indicating a medium (≥ 0.3) but close to large effect (≥ 0.5). These figures indicate students' knowledge on safer sex was improved significantly after playing MSC. The same test was applied to student groups of different school levels. The results are similar with the Secondary 2 group improved a bit more than the other two schools levels.

Table 2: Applying Wilcoxon signed ranks test to analyse pre-test and post-test scores on safer sex knowledge in relation to school banding

<i>Students group</i>	<i>n</i>	<i>Mean of pre-test score</i>	<i>Mean of post-test score</i>	<i>p</i>	<i>Effect size</i>
Band 1	246	3.390	4.407	<.001	0.649
Band 2	55	3.436	3.636	0.297	N/A
Band 3	487	2.815	3.411	<.001	0.422

We further checked whether school banding would have an impact to the game effectiveness. In Hong Kong, each primary pupil is classified to one of three possible bands, i.e. Bands 1-3, according to their academic ability reflected in school and public examinations. Secondary schools with the majority of its student population associated with a particular band, say Band X, are generally called Band X schools. Higher banding schools are believed to have more academically abled students when compared to lower banding schools.

According to the results shown in Table 2, improvement in safer sex knowledge is clearly shown in Band 1 schools and less prominent but still significant in Band 3 schools. Improvement in Band 2 schools cannot be confirmed. We conjecture that the phenomenon could have been caused by a suboptimal game experience. In the current study, there was only one Band 2 school involved in the game evaluation. Due to a lack of tablet computers, the participated students were only able to play the game in pairs. All other schools participated in the study managed to provide a computer to each of their students to play the game.

Among those 788 participants, 711 students played the game once, 71 played it twice and the remaining six students played it three or more times. The same test was applied to check whether those students played the game twice ($n = 71$) would achieve even better results. Their mean scores in the pre-test and post-test are 3.44 and 4.68 respectively. The improvement was significant ($p < 0.001$), with an effect size of 0.678, i.e. large. Note that the mean pre-test score of this group of students is significantly higher than the overall figure shown in Table 1. A check on the raw data revealed that 52 students in the concerned group came from two Band 1 schools. Nevertheless, the means of the concerned group are still higher than the Band 1 group, probably suggesting that "serious learners" tended to be able to learn more with MSC.

4.2 Perception on value and usability of App

Wilcoxon one-sample signed ranks test was used to analyse the students' perception on the value and usability of MSC. The data were collected from the survey with the respondents answering each question in a rating scale of 1 (strongly disagree) to 6 (strongly agree). Questions 1.2-1.7, 2.1-2.12, and 3.1-3.5 link to perception on app's usability, perception on improvement in knowledge about relationship and sex, and perception on enhancement on important skills such as critical thinking, decision-making, and ability to seek help in relation to love and sex matters respectively. The test results are summarised in Appendix 1. Note that the values of asymptotic significance for all rows are significant ($p < 0.001$) and thus not shown in the table. The effect size is medium for the answers corresponding to Questions 1.8-1.9 but large in all other cases, indicating that the students perceived that they had learnt sexual knowledge from MSC and found MSC having a good usability. Mann-Whitney U test was further used to check whether male and female students have different views on the value and the usability of the app. For a significance level at 0.05, no notable difference was found in the concerned items.

4.3 Qualitative feedback from players

Results from the focus group interviews show that students were mostly receptive to MSC, describing its content as "interesting", "interactive", "informative", "close to reality" and "applicable". The students found the game based learning approach more engaging than the traditional classroom teaching. They expressed that they had learnt knowledge of safer sex, clarified misconception and changed attitudes toward sex, and known how to handle peer pressure and social norm to maintain a healthy love relationship, etc.

5. Conclusions

Social learning is common among human beings, which advocates that people learn by observing others (Bandura, 1977). A game setting typically offers various scenarios, usually involving frictional characters displaying special behaviours, for its players to make game decisions in relation to selected goals and expected outcomes when such game decisions are made. Such a symbolic model which involves frictional characters displaying special behaviours helps the player acquire vicarious experiences that facilitate observational learning. Besides, as discussions on sexual matters are rare in Chinese society, delivering sexuality education through discussions in classroom has its drawbacks. These two concerns inspired the project team to develop *Making Smart Choices*, which can be used both inside and outside classroom, for young adolescents in Hong Kong.

To the best of our knowledge, *Making Smart Choices* is the first Chinese language interactive game designed for supporting sexuality education. Unlike the video game PR:EPARe which focuses on the topic of sexual coercion (Arnab, Brown, Clarke, Dunwell, Lim & Suttie, *et al.*, 2013), *Making Smart Choices* covers a variety of topics on relationship and sex education from the relevant curriculum developed for junior secondary students, which may be the first of its kind. Students had the opportunity to engage with the ideas presented, and to practice decision-making in the game world, with minimal risk of deleterious consequences.

This study demonstrates the great potential of supplementing classroom learning with game based learning in sexuality education. *Making Smart Choices*, which was highly rated by students, was found to be effective to help promoting correct sex knowledge and positive attitudes towards relationships and sex among Chinese adolescents in Hong Kong. It also help alleviate the problem of lacking school hours on sexuality education due to current curriculum constraints and school priorities as students can play and learn from the game anywhere and anytime so long as Internet access is available.

Chang, Hayter & Lin (2014) pointed out that for Taiwanese adolescents the primary inhibitor of sexual activity is fear of pregnancy and their perspectives were influenced by media, their peers and their family. These factors are addressed by different scenarios of *Making Smart Choices*, though in a lesser degree with media. Further improvements to the app are to look in ways to incorporate this kind of factors to determine scenarios that are more and more aligned with the realities of students' social world.

The project team envision that an upgraded version of the MSC app which will require no login will reach teenagers in Mainland China, Macau, Taiwan, and Chinese speaking teenagers worldwide. The game can also be translated into different languages and adopted by non-Chinese speaking countries/regions.

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References

- Ahl, T. (2012). Sexual behavior among Chinese male and female medical university students in Chongqing, China, Master thesis, School of Health, Care and Social Welfare, Mälardalen University, Sweden.
- Arnab, S., Brown, K., Clarke, S., Dunwell, I., Lim, T., Suttie, N., Louchart, S., Hendrix, M. & de Freitas, S. (2013). "The development approach of a pedagogically-driven serious game to support Relationship and Sex Education (RSE) within a classroom setting", *Computers & Education*, Volume 69, pp 15-30.
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Chang, J. (1991). *The Tao of love and sex: The ancient Chinese way to ecstasy*. New York, NY: Penguin Books Ltd.
- Bergold, J. & Thomas, S. (2012). "Participatory Research Methods: A Methodological Approach in Motion", *Historical Social Research / Historische Sozialforschung*, Volume 37, pp 191-222.
- CDC. (2010). *Life and Society Curriculum Guide (Secondary 1-3)*, Curriculum Development Council, Hong Kong Education Bureau Printing Department.
- Chang, Y. T., Hayter, M. & Lin M. L. (2012). "Pubescent male students' attitudes towards menstruation in Taiwan: implications for reproductive health education and school nursing practice", *Journal of Clinical Nursing*, Volume 21, Issue 3-4, pp 513-521.
- Chang, Y. T., Hayter, M. & Lin M. L. (2014). "Chinese Adolescents' Attitudes Toward Sexual Relationships and Premarital Sex: Implications for Promoting Sexual Health", *Journal of School Nursing*, first published on February 6, 2014 as doi:10.1177/1059840514520996
- Nielsen, J. (1994). Heuristic evaluations. In: Nielsen, J. & Mack, R.L. (Eds). *Usability inspection methods*. New York, NY: John Wiley & Sons, pp 25-64.
- Okazaki, S. (2002). "Influences of culture on Asian Americans' sexuality", *Journal of Sex Research*, Volume 39, Number 1, pp 34-41.
- Reich, Y., Konda, S.L., Monarch, I.A., Levy, S.N., Subrahmanian, E. (1996). "Varieties and issues of participation and design", *Design Studies*, Volume 17, pp 165-180.
- RRC. (2014). Fact Sheet on Survey of Life Skills-based Education on HIV/AIDS at Junior Level of Secondary Schools in Hong Kong, [online], Red Ribbon Centre, Department of Health, Hong Kong, http://www.rrc.gov.hk/res/lsbe_02.pdf
- Shek, D. T. (2013). "Sexual behavior and intention to engage in sexual behavior in junior secondary school students in Hong Kong", *Pediatric & Adolescent Gynecology*, Volume 26, Issue 3, Supplement, pp S33-41.
- Virtual Aids Office of Hong Kong. (2014). "Hong Kong: Local HIV/AIDS situation in 2013 reviewed", [online], Department of Health, Hong Kong, <http://www.info.gov.hk/aids/english/press/2014/140225.htm>
- Zhang, L., Gao, X., Dong, Z., Tan, Y. & Wu, Z. (2002). "Premarital sexual activities among students in a university in Beijing, China", *Sexually Transmitted Diseases*, Volume 29, pp 212-215.

Appendix 1 - Applying Wilcoxon one-sample signed ranks test to analyse players' perception on the value and usability of MSC based on survey data

	<i>Question</i>	<i>n</i>	<i>Mean</i>	<i>S.D.</i>	<i>Effect size</i>
1.1	The game is fun and interesting	1092	4.232	1.161	0.622
1.2	The game instruction of different stages is clear and easy to understand.	1090	4.182	1.142	0.611
1.3	I understand the purpose of the first mini-game (Love Q&A)	1091	4.325	1.087	0.676
1.4	I understand the purpose of the second mini-game (Intimacy Photo)	1092	4.344	1.115	0.681
1.5	I understand the purpose of the third mini-game (Escape from Sexual Impulse)	1091	4.339	1.127	0.675
1.6	I understand the purpose of the fourth mini-game (Sorting out Safer Sex Knowledge)	1092	4.310	1.092	0.668
1.7	I understand the purpose of the fifth mini-game (Rank Your Options)	1081	4.277	1.156	0.642
1.8	I would recommend this game to my friends.	1084	3.865	1.397	0.380
1.9	I will replay or have replayed this game to increase my knowledge in sex	1092	3.924	1.375	0.425
After playing the game, I ...					
2.1	have more respect towards my own feelings and feelings of others	1095	4.564	1.157	0.732
2.2	have more understanding of my own view and attitudes towards sex	1091	4.613	1.128	0.747
2.3	have a clearer view on the boundary I should set with the opposite sex	1096	4.581	1.113	0.745
2.4	have learned how to control my sexual impulse	1087	4.553	1.134	0.731
2.5	have understood what I should consider before having sex and make sensible decision	1089	4.625	1.083	0.766
2.6	have understood the importance of the knowledge about and awareness of self-protection	1089	4.661	1.100	0.769
2.7	have gained correct sexual knowledge and positive attitude towards sex	1090	4.669	1.126	0.761
2.8	have understood that before making an important decision, I should discuss with my partner and come up with a consensus to solve our problems	1093	4.706	1.088	0.779
2.9	have understood the risk of sexual behaviors	1079	4.787	1.134	0.779
2.10	have learned how to reduce the risk of getting sexual transmitted diseases	1076	4.650	1.090	0.753
2.11	have learned how to practice safer sex	1073	4.610	1.122	0.742
2.12	have understood counting safe period is not a reliable way of contraception	1073	4.661	1.153	0.752
3.1	enhanced my value and belief, e.g. understand my own values and attitudes towards sex and relationship, respect others with different values	1079	4.572	1.127	0.744
3.2	enhanced my thinking skills, e.g. sensibly withstand the influence of peers and social norms	1079	4.563	1.105	0.747
3.3	enhanced my decision making skills, e.g. able to consider the consequences and impacts of the actions before making a decision	1077	4.553	1.127	0.737
3.4	enhanced my communication skills, e.g. be a good listener as well as capable of expressing my thoughts and feelings to others	1078	4.499	1.143	0.721
3.5	enhanced my ability to seek assistance, e.g. willing to seek assistance through proper channels when crisis arise.	1075	4.425	1.203	0.684