

A Visual Novel for Educating Culture-Sensitive Topics

Kittivit KANOKWANVIMOL, Chalermphol ONGSRICHAROENPORN,
Boonying MANABORIBOON, Chulatida CHOMCHAI & Krittaya LEELAWONG*

Mahidol University, Thailand

*krittaya.lee@mahidol.ac.th

Abstract: Sex is a topic that is sensitive for Thai citizens in general. Visual novels (VNLs) are similar to adventure games (ADGs) but with dominative use of static anime-style images, narration, and a few interactions. Manga and anime are popular media forms for teenagers in Asia. Thus, we aim to introducing sensitive topics, such as sex education, in a media form that is common among Thai teenagers.

Keywords: visual novels, sex education

Introduction

The Ministry of Education of Thailand has made sex education mandatory in high school as a part of health education and physical education since 2002 (Thai Ministry of Education, 2008). However, in 2011 chief Samatchai Chomvinya of the Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups reported that Thailand had the second highest rate of mid-late teenage pregnancy in the entire world (Bangkok Post Online Reporter, 2011). In Year 2010, Dr. Yongyud Wongpiromsarn, the advisor of the Working Group on Preventing and Solving Teenage Pregnancy then, reported that a quarter of five million Thai teenagers had risky sex (Thai Health Promotion Foundation, 2010). In addition, more than two thousand teenagers between the ages of 15 – 19 years old became pregnant every year.

Even though there has been no formal study why the rates are high, Dr. Charuaypon Torranin, the former Permanent Secretary of the Ministry of Education, and Dr. Bejaporn Panyayong, the Director of Institute of Child and Adolescent Mental Health, shared similar viewpoints that sex is a very sensitive topic among older generations of Thai population (Torranin, 2006; Yaemwajee, 2011). This attitude may result in inefficient communication of effective methods from parents and teachers to teenagers so that they could protect themselves from sexually transmitted diseases (STDs) and pregnancies.

1. Background

A number of Japanese-culture products including *manga* and *anime* have been heavily consumed in Asian countries, such as Thailand (Toyoshima, 2008). In Thailand, manga can be found in any bookstores, and anime in any multimedia stores. In addition, Japanese video games have gained popularity in Asia since 1994 with the release of PlayStation from Sony Computer Entertainment. Visual novels are heavily text-based embedded in a form of video games with anime-style graphics or live-action still that is mostly static with choices available in a similar fashion to Choose Your Own Adventure books (Barnholt,

n.d.). Visual novels typically have great story and beautiful graphics to compensate for the minimal gameplay.

Many of visual novels contain adult contents involving dating. For example, one of the best-selling visual novels in 2005 was *School Days* where the main male character took interest in several girls simultaneously. The game was ranked number one in the sale of its PC version via mail order on the month it was released and also number one for the first half of the year (The first half of 2005 sales ranking!, 2005).

Some visual novels include the practice of safe sex, such as the use of contraceptives in *Yume Miru Kusuri* (A Drugs That Makes You Dream) and the use of male condom in *Emi's Route*. In *Yume Miru Kusuri*, the practice has a consequent to the story; later on in the game, the girl that uses contraceptives does not get pregnant while another girl not using any contraception gets pregnant. However, these games do not offer educational information on how to conduct these practices correctly.

Because of the nature of visual novels where building relationships with the opposite sex seems to be one of the most popular themes, we have adapted this genre of games to contain knowledge on safe sex and soften it to be used in conjunction with a classroom or training session.

2. Prototype

A year ago Kanokwanvimol, an author of this paper, was inspired by the actual incidence that happened to one of his best friends. She was pregnant while studying in an undergraduate program and did not return to school after the birth of her child due to both social and family reasons. It was the first time he realized that the teenage pregnancy was actually a big problem in a person's life. Thus, application development on sex education became his term project topic in one of the classes in Year 2011 under his undergraduate study at Mahidol University International College.

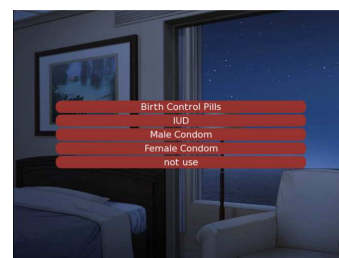
Sylvia's Dating Sim

The first version of the game *Sylvia's Dating Sim* was developed as a visual novel under the supervision of his instructor, Dr. Leelawong. From the start of the game, the main character, a male high school student, was dating a female high school student, Sylvia, from the same school. This was different than typical Japanese dating games where male and female characters were strangers and then gradually developed a relationship.

The game was developed to cover the length of two school days. In the game, the male character had a choice of learning about safe sex and birth control at school while also having a choice in his relationship to choose between abstinence and sex, and then protected and unprotected sex for the latter. Some of these simple branching scenarios were illustrated in Figure 1.



(a) The decision to go to school or to skip school and go to the town instead



(b) The decision to use a method of protection or nothing

Figure 1 Examples of Branching Scenarios in *Sylvia's Dating Sim*

Figure 2 illustrated all choices a player could make in the game during the first day of two of the game. If the character decided to go to school, he would have a chance to attend the sex education class and get the information of contraception. Even though the young lovers might still decide to go to a hotel later, the game now offered an option whether Sylvia had been taking birth control pills. However, if the couple decided to skip the school and went straight to town, the contraceptive option would not appear.

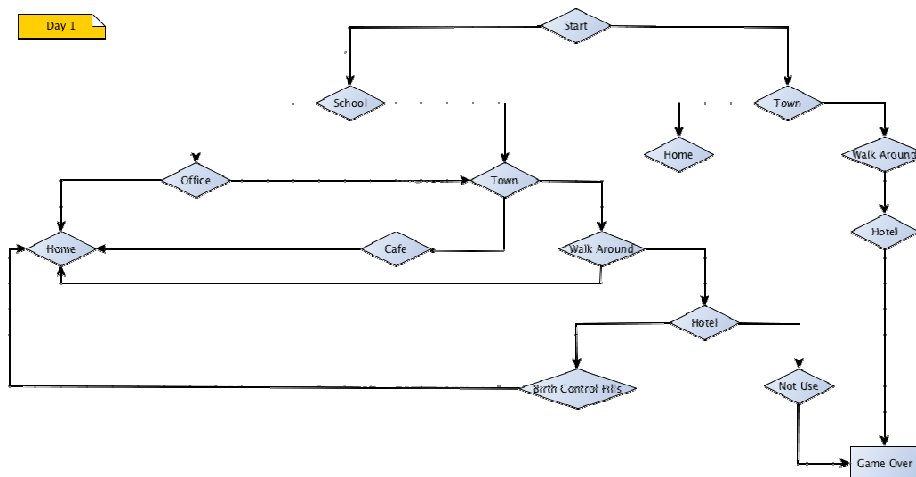


Figure 2 Path Structure of Day 1

On the second day, the lesson progressed to cover STDs and safe sex. The choices after school were slightly more complicated, as shown in Figure 3. Male condom now was another choice if the player decided to take his girlfriend to a hotel. Even after skipping the school, contraception was now offered on the last day of the game.

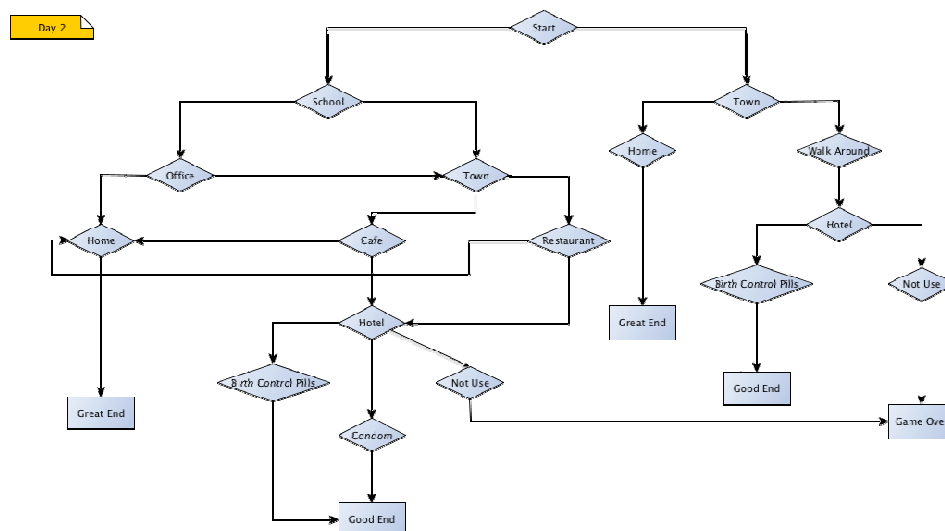
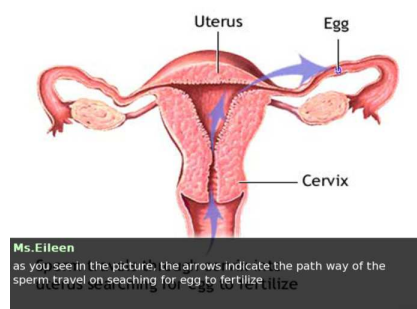


Figure 3 Path Structure of Day 2

In the sex education class, Ms. Elleen, the instructor, gave her students the information of how female can become pregnant, main methods of birth control, and how to conduct them correctly over two days of the sex education class. Figure 4 displayed some of the information given in this class.



(a) Information on Human Fertilization
(image from <http://www.scribd.com/doc/51140272/on-RH-BILL>)



(b) Instruction on Wearing Condoms
(image from <http://www.mamamia.com.au/wp-content/uploads/2010/02/Banana-condom.jpg>)

Figure 4 Examples of Information on Birth Control

The game had three endings:

- *Great end*: Our two main characters went home and decided to continue the relationship without having sex
- *Good end*: The characters had sex with a birth control method, either using a condom, being taken pills, or both
- *Bad end*: The main characters had sex without protection

To keep the size of this application to be small enough for a term project, the game has the story spanning only over two days. Therefore, it did not convey any real use of the hormonal method. Another limitation of this game was that it was a single player game where the player could only play one male character. In such a commercial game, the player could select from a number of male and female characters.

Implementation

Sylvia's Dating Sim was implemented in Ren'Py (<http://www.renpy.org/>), a visual novel game engine. The game ran on both Windows 7 and Mac OS X systems. As with typical visual novel games, the system should be equipped with a sound system to enjoy the music and background effects of the game. The images used in this game were provided with the engine except the ones used to illustrate birth control and STD protection that came from various sources of the Internet. The music was from a royalty-free source also on the Internet.

3. A Revision

Getting Feedback from Experts in the Field

To put the game to real use, we have consulted with the Pediatrics department at the Siriraj Hospital in Bangkok, Thailand. The department has conducted a free on-site seminar on sex education for many schools in Bangkok and vicinity for many years. The team is interested in using the application as a supplementary to their regular class materials. After the demo of the application, the team suggested a remake of the game to be more complete and realistic.

The team has also discussed a number of improvements. First of all, the lesson in the game should reflect the reality of available and easy-to-access birth control methods in Thailand that are condoms, oral contraceptive pills, and *depot medroxyprogesterone acetate* injection. However, the injection is not common among teenagers. As a

consequence, the length of play in the game should be extended to be long enough to allow a realistic time frame of taking hormonal pills. This should be longer than four weeks.

In addition, the game should introduce the correct methods of birth control. For example, the hormone pill should be taken everyday at about the same time of the day. In addition, the proper use of a condom is not only wearing it correctly but also wearing it before the intercourse. Furthermore, the ending must emphasize the hard consequence of becoming parents while still in school. This would include quitting the school to take the responsibility of the parent and being away from the typical social life of teenagers.

Thus, the game has been revised and expanded to cover as many of these suggestions as possible but is still under the scope of the senior project at the same college. The scope of the new application is described next.

Information on Birth Control and STDs

Similar to the previous version, the content of sex education to be included in the new version of Sylvia's Dating Sim is limited to birth control and STDs. By consulting with the sex education team under the guidance of Dr. Manaboriboon at Siriraj Hospital in Bangkok, Thailand, the game will introduce two main types of birth control that could effectively prevent both pregnancy and STDs, namely *barrier methods* and *abstinence*, and also another effective contraception method, *hormonal pills*.

The barrier methods either prevent a man's sperms from reaching and entering a woman's egg (fertilization), or prevent a fertilized egg from implanting in the woman's uterus (Mendigo, 2008). By giving training sessions to students in school and practicing in clinical sessions, the physicians in the team has concluded that abstinence, even though it is 100% effective, is not a choice preferred by many teenagers. Using Condoms, a barrier method, is the most popular method used by teenagers because condoms could be purchased easily in many convenient stores. The hormonal method is another popular choice selected by female teenagers to prevent pregnancy because pills can be bought in most drug stores even though this method should be used with the barrier method to protect them against STDs.

Nevertheless, these two methods have to be conducted correctly as mentioned previously. According to the seminar, there are a number of misconceptions among Thai teenagers. For example, some of them use condoms only before ejaculation. Also, the oral contraceptive pills typically are not taken daily; a couple of pills are normally skipped unintentionally per month. There are the issues that the game has to address and emphasize that they increase the chance of becoming pregnant.

Character Design

The new version of the game will have one main male and several main female characters according to the typical patterns of dating games. There are also friends and teachers of the main characters to help the story telling and give information on sex and safe sex. The player could select to play either from the male or the female side. Once the character is selected, the player cannot switch to any character until the end of the game.

Gameplay

Even though the length of a realistic play should reflect the use of the hormonal method for at least a month, the two undergraduate students who have been developing this

program as their senior project would not have enough time to make a game on that large scale. Therefore the new timeframe in the game will be only five days long.

The gameplay is still similar to the previous version, but the lesson on birth control and STD protection will span over five days of classes instead of one big lesson used in the previous version. Also, some knowledge would come from friends of the character being played. For example, Sylvia may consult with one of her best friends that her boyfriend has asked her to have sex with him. In this case, this friend would ask Sylvia to wait. If that is not the choice preferred by the player, the friend would suggest that Sylvia protects herself.

This game has two main types of endings, one with Sylvia getting pregnant and another not. To mimic a real-life situation, Sylvia might get pregnant with certain possibility regardless of choices the player has made in the game, as shown in Figure 5. For example, even though the user does not select a path of safe choices, such as having sex with no protection, the chance of pregnancy is 85%. In the same fashion, when the male condom method is selected and the use of condom is correct, the chance of pregnancy is 2%. With the hormonal method with typical use of forgetting a couple of pills each month, the chance of pregnancy is 8%. Therefore, the user might get different ending even if he would play the game with the same choices.

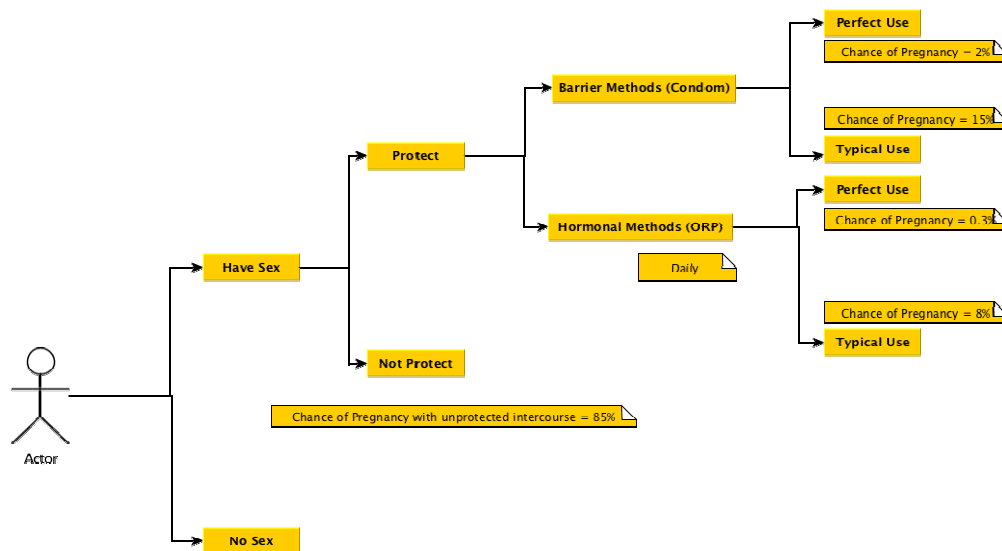


Figure 5 Outcome of Choices Selected in the Game

Implementation

The application is being implemented in *Pygame* (<http://www.pygame.org/>) that is a set of Python modules designed for writing video games. Pygame adds functionality on top of the Simple Directmedia Layer library (<http://www.libsdl.org/>). This allows programmers to create fully featured games and multimedia programs in the Python language. Pygame is highly portable and runs on nearly every platform and operating system. However, the team has had difficulty to display text in Thai that is necessary to high school students who often are more comfortable to communicate in the native language. The game is projected to be completed by the end of the year 2012.

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