**4.1 Introduction**

Children nowadays are very attracted to android games especially ages 4-7 years old. The users were distracted in learning basic education because of enjoying playing android games and parents have a hard time in teaching the kids. The developers have an idea from that problem on how to help the users to gain knowledge while enjoying playing a game. The developers conducted a survey from kids ages 4-7 years old. The age of the user is important on how the game can be.

**4.2 Experimental**

In this phase the developers made a decision to use algorithm that has been suitable for the game. As the data that are being collected from all the sections. The developers played a various game that has similar concepts to Island of Knowledge to identify what else is needed and not included.

**4.2.1 Two-Dimensional Design**

The developers chose to use the two-dimensional design since 3D of unity very difficult and also time consuming. The developers also do not have enough knowledge to use 3D feature of unity. 2D is the common used to develop a game for android graphics when developing a game.

**4.2.2 Game Difficulty**

The game difficulty for The Island of Knowledge is depending on the level for each Island. The game has 4 Island. The Alphabet Island has 26 levels, Shape Island has 10 levels, Color Island has 10 levels and Number Island has also 10 levels. The game is very easy because the developers focus and depends on the users ages 4-7-year-old.

**4.2.3 Menu Buttons**

The menu buttons are very important to navigate a game. A game will become useless when a menu buttons are not created. The game will become unplayable because the menu buttons are the setting where the users can manipulate on how the kids want to play the game.

The game should be parallel and balance.

**4.2.4 Auto-Save**

The Island of Knowledge has an auto save feature when the user wants to quit or finishing the game and also the unlock levels to save the progress and data. All games have auto save feature to make it easier and friendly user. Auto save is a very important function for the game and the user.

**4.2.5 User Interface Outline**

All games have GUI otherwise the game is unplayable. The developers make unique design and create GUI instead of copying from different game. The developers decided to use of bright colors since the users are kids and bright colors are very attracted to all kids.

4-2

**4.2.5.6 Installation Process**

**4.2.6.1 Hardware**

Android Specification

* Any core processor
* 512 MB of RAM
* 512 MB of ROM
* Full compatibility apk

**4.2.6.2 Software**

These are the requirements for the system:

* Android 2.3 gingerbread or higher

**4.3 Result and Analysis**

From the result of the survey that are being conducted that have been questions about the kind of education such as familiarizing the alphabet, shapes, colors and counting numbers. In order to know what to be included in the game. After collecting data from the survey, the developers made adjustment to benefit the game.

**4.4 System Tools and Requirements**

* Mobile Phones

The game will be use through mobile which means can be played wherever the user location is. As long as the mobile phone has touchscreen features.

4-3

**4.5 Summary**

The developers is able to make the game based on the survey and information that being gathered. All the experiments done have been used in the creation of the game. The developers can guarantee the handling of the system and the coding. Every experiment is done with outmost understanding. The developers conduct a survey to the users after playing the game and developers satisfies all the requirements of all the users. The developers also research about the behavior of the kid’s ages 4-7 years old also the currents games that have similarities to Island of Knowledge.

4-4

4-4