CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter will discuss on the framework methodology where it is used to plan, analyse, prepare specification, design, code, test, and do the maintenance of VEGOC. A large number of methodologies have been invented and used over the years and it all has its own strengths and weaknesses in the methodology.

The aim is to develop software methodology that are selected based on variety of technical, organizational, project and team considerations. Software development methodologies are used to differentiate the phases of a particular software development cycle and arrangement in which those phases are executed.
The SDLC, figure 3.1 referred as the application development life cycle, is a term used in systems engineering, information systems and software engineering to describe a process for planning, creating, testing, and deploying an information system. The systems development life cycle concept applies to a range of hardware and software configurations, as a system can be composed of hardware, software, or a combination of both of that device.

### 3.2 The steps of SDLC

#### 3.2.1 Planning

In planning stage, it develops a planning document which provides the basic for acquiring the resources needed to achieve solution. It also establishes a high-level view of the intended project and determines its goal.
The result from the discussion was found clearly based on problem statement, objective and scope of user. The application will develop using mobile. From the study it will be more attractive and easy to access.

For this study, PPUM is the primary client, because they do not have the regular classes to student whose are stay in long period in hospital. In this situation, they will spend time by do thing. Based on analysis, the most of average age of student in the hospital is within 10-12 years old. So, here have difference of categories for modules divide into 3 level based on ages of student, which is year 10, year 11 and year 12.

After clear about aims of the project, the proposal was submitted to PPUM include the detail of progress and show the flow of the application. PPUM are agreed to be client for the project. A survey was conducted to gather requirement. There are oncology children ages 10-12 years old and a teacher was participated in the survey is Pn. Badariah Binti Ismail.

The result of survey, percentage of student able to play video games and have experience in all type of games. From the total of student 70% of them know about the education games. Average of hours per day they spend to playing games is 3-4 hours. The teacher agreed to enhance the conventional method to education games during lesson session.

The information about the application will use to the next process which is design the flow of the system. Following the standard rule for game, for example are consistence background colour and button for every pages, every icons have same size, avoid use the unfamiliar images or icon and have instruction. The detail about the flow of the application we can see in design stage.

The theme colour for this application is blue and green. The images for the background image is playground. It is look more familiar and more suitable for children. The rules of the game are user need to answers faster and correctness. The game is based speed and knowledge, user that answer all the question correctly within the shortest will crowned as a winner.