**CHAPTER 3**

**METHODOLOGY OF THE STUDY**

The chapter presents the research methods and techniques, target clientele, status and replacing the current system, determining the acceptability and the design features of the Bulacan Polytechnic College Academic Portal and development process of the BPCAP.

***Methods and Techniques***

**Internet Research Method:**

Internet gets an expensive assortment of answers to questions from different people all over the world. It is the most convenient technique of gathering data. You can do it anywhere as long as there a computer that is hooked up to internet. Through the wide span of knowledge and facts that the internet can provide, necessary data were gained and conducting the research study had been easier and convenient.

**Interview Research Method:**

It is a face to face meeting of individuals interacting together purposely to get information regarding the research topic. It is a conversation between 2 more people where questions are asked by the interviewer to obtain information from the interviewee. It is the best way to collect data. The proponents used this method of data-gathering and are considered the most important. Beside the facts that will be gathered, the opinions of the benefactor can also be revealed and may give great effect on the development of the proposal.



**Figure 2.1**

***The Waterfall Model***

**Planning Stage**

In this stage, we the proponents create a set of plans that will guide us through the execution and closure phases of our project. It involves the planning of the data and information that we are needed to be able to finish our study.

**Analysis Stage**

The analysis stage defines the requirements of the system, independent on how these requirements will be accomplished. This stage defines the problem that the proponents are trying to solve. Gathering requirements is the main attraction of this stage.

**Designing Stage**

Design or the system design is the stage which involves an architectural design that defines and describes the main blocks and components of the system. This involves the collaboration of different pieces of components that will create the proposed system.

**Coding Stage**

The goal of the coding phase is to translate the design of the system into code in a given programming language. A well written code reduces the testing and maintenance effort. During the coding stage the proponents should focus on developing programs that are easy to write. Simplicity and clarity should be strived for during this stage.

**Testing Stage**

In this stage it involves the testing of each component then as a whole to check or verify that it works or operate with high functionality and meeting the specification of the user.

**Implementation Stage**

The implementation stage involves the actual construction and installation of a system. This stage may also include the maintenance and any updates of the system. The implementation stage is defined as “the system or system modifications being installed and made operational in a production environment. This stage is initiated after the system has been tested and accepted by the user. This stage continues until the system is operating in production in accordance with the defined user requirements.

**Maintenance Stage**

The maintenance stage involves different task and new responsibilities for the developers like checking, testing, maintenance regularly and routinely to achieve a more updated and flexible system for the future needs of the user. The system must respond quickly to the fast changing growing needs of the user.