DESIGN OF BUILDING CONDITION LEARNING MODELS SEMAPHORE PASSWORDS BY USING VISUAL STUDIO PROGRAMMING

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ABSTRACT

The design of Semaphore Password Learning Mode Using Visual Studio Programming is an application designed for semaphore coding learning. So far, learning has been done manually by means of drills from the instructor. With this application is expected to accelerate the learning process. Learning is done by clicking the alphabet button in the application, then the system will display the image of the letters in the application. To test skills, it can be done by the instructor sending practice questions to the server application, then the students will answer in the client application. In making the application the author uses the System Development Live Cycle (SDLC) in building software.

Keywords: Semaphore and Lesson Application.

1.   INTRODUCTION

1.1   Background

The skill of playing semaphore is one of the skills that must be mastered by Indonesian Navy Communications personnel to support their main duties in the service. However, memorizing the semaphore code until proficient and skilled is not easy and it takes a long time. Many factors influence the learning process, including learning modes that are less attractive so that interest in learning will decrease.

A soldier who has sufficient provisions will be able to work professionally because speed and security in sending information is one of the necessities in sending information, in exchange of information to the Indonesian Navy, especially on KRI using several means either through audio, visual media or a combination of the two . Along with the development of technology, modern ways of sending news in the form of data communication are also available, however, audio and visual transmission is still used. One of the visual media for sending news is the semaphore signal.

Semaphore is a coding art used in the Indonesian Navy for

send and receive news using a flag device by reading the final movement of the hand. Information obtained from Semaphore codes based on hand position. In the Indonesian Navy, the process of delivering news is usually carried out on the deck, a signal carried by two personnel, one person as a player holding the semaphore flag, then another personnel as an assistant who will

assist in the process of sending and receiving messages.

The use of Semaphore Codes for training and operations in the Indonesian Navy. Using Semaphore Codes as a simple way of conveying information without using electronic devices is one way to avoid hacking information. Along with the development of increasingly rapid technology, it is possible to create a learning system based on computer electronic devices to simplify the current learning process for the Semaphore Password Signals and to complement existing conventional learning methods, namely by direct drill from the instructor.

To follow up on these problems, the writer wants to raise this problem into a final project entitled Design and Build Learning Mode Password Semaphore Using Visual Studio Programming..

1.2   Problem Formulation

Based on the description of the background, the problems can be formulated:

a.   How to create a semaphore crypto learning system using Visual Studio programming as an interactive, interesting and easy-to-understand learning medium to complement existing conventional methods?

b.   How to make a semaphore cipher learning system using Visual Studio programming that can display a semaphore cipher signal visualization in the form of an image using the C # program?

c. How to make a semaphore password learning system using Visual Studio programming that is integrated with the teaching computer via TCP / IP client-server *?*

1.3 Research Objectives

The Research Objectives of this research are:

a. To create a semaphore crypto learning mode using Visual Studio programming as an interactive, interesting, and easy-to-understand learning medium to complement existing conventional methods.

b. To create a semaphore cipher learning mode using Visual Studio programming that can display semaphore cue visualization in the form of an image using the C # program.

c. To create a semaphore password learning mode using Visual Studio programming integrated with the teaching computer via TCP / IP client-server*.*

1.4 Research Benefits

The benefits of designing a semaphore cipher learning mode using visual studio programming are:
a. Obtaining a semaphore cipher learning mode by using visual studio programming that is interactive, attractive, and easy to understand to complement existing conventional methods.
b. Obtaining a semaphore cipher learning mode using visual studio programming with visualization in the form of an image using the C # program.
c. Obtain a semaphore password learning system using visual studio programming that is integrated with the teaching computer via TCP / IP client-server*.*

1.5 Limitation of Problems

The problem limitations of the design of the semaphore Password learning mode using Visual Studio programming are:

a. Using MYSQL database for data storage.

b. Works wirelessly using TCP / IP client-server.

c. Using the C # programming language with the Visual Studio editor

2. LITERATURE REVIEW

2.1 Learning Media

(Arsyad, 2011), "The word media comes from the Latin medius which literally means middle, intermediary or introduction. In Arabic, the media is an intermediary or messenger from the sender to the recipient of the message.

According to Gerlach and Ely cited by (Arsyad, 2011), "Media when it is understood in broad terms is human, material and events that create conditions that enable students to acquire knowledge, skills or attitudes. In this sense, teachers, textbooks, and the school environment are media ".

According to (Arsyad, 2011), "The main function of learning media is as a teaching aid which influences the climate, conditions and learning environment that are organized and created by the teacher".

Based on some of the opinions above, it can be concluded that the media are all objects or components that can be used to transmit messages from sender to recipient so that they can stimulate students' thoughts, feelings, attention and interests in the learning process.

2.2 Semaphore

(Agus S & Anwari, 2015), "Semaphore (in Indonesian, the standard word is semaphore) is one of the scouting techniques for delivering news cues in addition to morse". One of the easiest methods to memorize semaphore cue codes is to use the 8 cardinal point method or sometimes referred to as the clockwise method with this method, memorizing the semaphore is not done in alphabetical order, but memorized per key consisting of 7 keys.

In this method, the position of the hands is arranged in 8 points around the body which include the points below the body, lower left of the body, left side of the body, upper left of the body, upper body, upper right of the body, right side of the body, and right below the body. Details are in the following image :