

**STIN3113 Research Method in IT**

Quiz 1

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A group of researchers is conducting a research on **designing a game for treating Dimentia patients**.

By using a suitable **diagram**, design a suitable **research methodology** to conduct the research. Your discussion should include explanation of each phase by emphasizing on research design (**sampling method, sampling frame, data collection method**) and **how the game will be designed**.

**[20 marks]**

**Answer:**

This proposed research conduct in four months that includes four phase as shown in Figure 1.

Figure 1: Research Methodology

Phase 1: Research Planning and Literature Review

This phase is focus on identify the need to conduct the research based on the problem statement, research questions, research objectives, scope and significance. Based on the problem statement, research questions and objectives will be indentified. After complete the research scope and significant, the next phase is will make some literature review. There are 20 article will be selected from journal and google scholar. The literature have to related with the reearch title which is “Designing a Game for Treating Dimentia Patients”. The purpose of this phase is to collect some idea or knowledge from the article. It may helps us to figure out the research problem and achieve our research objective.

Phase 2: Questionaire and Data Collection

This phase is focus on making questionaire and data collection. The data collection sampling method had been chosen in this research is stratified random sampling. There are 50 respondents will be involve and the respondents are working in Dementia Care Center. A questionnaire related to the research objectives will be designed and the respondents need to answer the questionnaire with an online method such as Google Form. All the data provided by the respondents will be collected. All the answers will be private and confidential (PNC) and will be used for research purposes.

Phase 3: Data Analysis

This phase is focus on data analysis. After complete the questionnaire answer, the data will be analyzed with the data provided by respondents. Once the data analysis is complete, a dicussion wiil be conduct to deliver the final result and conclusion. This research is to know the benefits of game for the dimentia patient and identify the type of games which are suitable for the dimentia patient.

Phase 4: Game Design

This phase is focus on game design. The tools of design a game is Unity. Game developer will design a game based on the information from quetionnaire. The interface of game will be design to ensure is suitable for dimentia patient. The game will be simply and easy to control for dimentia patient. Game developer will always make some correction for game design to ensure the dimentia patient will more easy to play the game.

Explanation of the proposed phases should include:

a. Activities involved

Stratified random sampling is a method of sampling that involves the division of a population into smaller sub-groups. In this research will be use in stratified random sampling, which involved 50 respondents who are working in Dementia Care Center.

b. Tools/techniques to be used

The tool to be used in this research is the questionnaire and Unity. A questionnaire is a research tool that consists of a series of questions, to collect information from respondents. The questionnaire provides a relatively cheap and fast way to obtain a lot of information from a large number of people. Data can be collected relatively quickly because the researcher is not required to be present when completing the questionnaire. Unity is a software to design and develop a game. The programming language of design and develop game is C. It easy to use for design the interface of game.