UNIVERSITI TEKNOLOGI MARA

ONLINE STUDENT PERFORMANCE SYSTEM INTEGRATING MULTIDIMENSIONAL DATA VISUALIZATION AND CHATBOT FOR PRIMARY SCHOOL

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FEBRUARY 2022

DECLARATION

I certify that this report and the research to which it refers are the product of my work and that any ideas or quotations from other people', published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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JANUARY 30, 2022

ABSTRACT

Today's technology has improved to the point that it can be utilized to execute many activities in daily life with minimum effort, and the world has acknowledged the worth of education in one's life. The schools have to analyze student performance manually, which requires a lot of time and effort from teachers to work on. However, the increasing amount of student data becomes difficult to analyze using traditional statistical techniques and database data management tools. The objective of this project is to study the current problems in the online student performance system. A preliminary survey of 30 respondents was conducted in order to gather information based on previous user experiences with the online student performance system. The next objective is to develop an Online Student Performance System integrating Multidimensional Data Visualization and Chatbot for Primary School using Web Development Life Cycle that can visualize student performance systems to assist teachers and parents. Following that, this project employed a tool based on Multidimensional Data Visualization techniques. Google Charts and Dialogflow were used in this project to visualize the dashboard and construct a chatbot for the system. The last objective is to evaluate the usability of the system. There are three experts to test the project usability using the Post-Study System Usability Questionnaire (PSSUQ). The findings of the project can be used as a guideline to improve the system in the future. Overall, this project will assist teachers and parents in obtaining information about their students' academic performance. The data about the students' performance can be displayed in the dashboard as a chart, graph, or diagram, and they can also communicate with the chatbot if they require assistance or guidance in using the system and obtaining their students' performance.

TABLE OF CONTENTS

CHAPTER THREE: METHODOLOGY