

DEVELOPING VIRTUAL REALITY OF BLUE WHALE (BALAENOPTERA MUSCULUS) FOR LEARNING BIOLOGY IN DISTANCE LEARNING

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Abstract

Blue whale (*Balaenoptera musculus*) is an endangered marine mammal that lives in Indonesian seas. Understanding blue whale behavior and its role in marine ecosystem may improve our method of conservation. Learning structure and biological aspects of blue whale needs virtual reality. Besides, the use of virtual reality increase learning and increase collaboration among students.

Students achieve flow situation in VR which supports learning process. In addition, that VR may help learners in idea generation, which is a component of creativity.

The VR provide students opportunity to learn blue whale skeleton, movement, and feeding. Development of the VR is based on ADDIE, consisting of analysis, design, development, implementation, and evaluation. The first phase which is analysis is carried out by defining the aim of development, audience, and competence that students will have after using the application. Target audience are students of Universitas Terbuka already took classes of BIOL4212 Animal Structure and BIOL4322 Vertebrate Taxonomy. The VR content includes skeleton, whale activities while swimming, and a video of how blue whale feeds on krill. The reason for selecting the topics is that those topic are the most difficult for students to learn. The VR is called "Blue Whale" (Beginning of Learning Enthusiastically While Engaging). After finishing the design, the design is evaluated by content and multimedia expert. The content experts are lecturers of the departement of biology at Faculty of Science and Technology of Universitas Terbuka. The result of review showed that some revisions are required to match the design with the aim and the competence that students have to learn about the whale.

Keywords: Blue whale, ADDIE, virtual reality, design, learning

1 INTRODUCTION

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2 METHODOLOGY

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3 FINDINGS AND DISCUSSION

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4 CONCLUSION

The design is still in the development process. Future studies are required to measure students/user satisfaction in using the VR.

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