UNIVERSITI TEKNOLOGI MARA

DESIGNING SOLAR SYSTEM COURSEWARE USING GRACEFUL INTERACTION DESIGN CONCEPT FOR CHILDREN

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ABSTRACT

Nowadays, the development of educational technology has been growing rapidly in line with the development of other technologies. Educational technology is widely used and can be seen through courseware or self-learning material. Designing a courseware is important in order to build an effective learning material. The use of multimedia elements such as sounds, animations, and also dynamic icons in courseware can assist communication between the user and courseware itself. Since the target user of this courseware is children, the purpose of this research is to design an interactive solar system courseware interface with elements of the graceful interaction design concept that is appropriate for this age group. From this research, it is found that the graceful interaction design concept is adapted from the Laban Movement Analysis theory where movement quality was nominated. The importance of this concept can be seen through this solar system courseware. Prototype of this courseware has been develop according to the design specification and the mapping method has been used to ensure graceful interaction design follows best practice guideline in designing a courseware for children, From the result obtained, this courseware enables children to learn facts and phenomena of the solar system through interactive interface courseware design. By applying graceful interaction design concepts, it provides an effective, joyful and happy medium for children in learning factual subject. Moreover, it also enhances the user feeling besides intensifying the experience of graceful interaction. It is hope that all the elements of graceful interaction design concept can be applied in future development with this project being extended to further to the testing phase to obtain better result of the child's acceptance with overall elements used. Hopefully, this graceful interaction design concept could be suggested as a part to be emphasized in designing an interactive interface for courseware.

Keyword: Graceful Interaction, courseware, solar system, children learning, best practices, interactive multimedia

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