

Science Learning Courseware for Pre-schoolers Using Assistive Approach

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ABSTRACT

Most learning material for preschoolers are based on the books and do not have any interactive multimedia. Science Learning courseware for preschoolers implement assistive approach that compiles a few elements of it in the courseware which are communication, interaction, visual supports and independence that are suitable for preschoolers. To develop the courseware, ADDIE is the guidelines for designing the courseware. This syllabus and contents are based on KSPK. It also included quiz-based activities for the preschoolers to understand more about the subject. Expert evaluation and user evaluation have been distributed to evaluate whether the user requirement of the courseware is fulfilled or not. User evaluation has been discussed by using usability metrics method where it consists of effectiveness, efficiency and satisfaction.

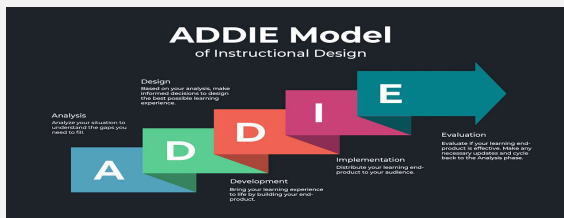
PROBLEM STATEMENT

- Lack of interest and engagement in learning science due to limited availability of interactive teaching.
- Limited explorations with reading, writing and fun due to limited teaching aids.
- Limited information in existing teaching books.

OBJECTIVE

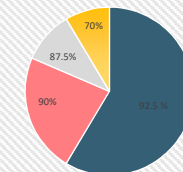
1. To identify the current problem and requirement in learning science for kindergarten's student age 5 and 6.
2. To design and develop learning science courseware to attract kindergarten's students to learn about science.
3. To evaluate the functionality and usability of the courseware.

METHODOLOGY



FINDINGS & RESULT

System Usability Scale (SUS) score of satisfaction Science Learning Courseware.



BENEFITS

Science Learning Courseware for Preschoolers with an interactive Multimedia elements.

- Learning basic science before going to primary schools.
- Quizzes to test the capability of learning based on the contents provided in courseware.
- More exciting with games, experiments and quizzes to capture preschoolers attention.

NOVELTY

Science learning courseware for preschoolers using Assistive Approach provide and interesting courseware with multimedia elements and very interactive with high quality sound to help kindergarteners to learn and enhance their interest in learning science.



COMMERCIALIZATION

- Science courseware as teaching and learning aids to assist parents and teachers to teach preschoolers about science.
- Provide an interactive multimedia courseware that supports the learning at kindergarten and home.
- Able to increase preschoolers awareness to learn more exciting about science.

CONCLUSION

To sum up, the establishment of science learning courseware for preschoolers using assistive approach courseware develop all multimedia elements to create an interesting courseware to enhance the interest of preschoolers to learn about science. Positive feedbacks was given through evaluation from the experts and also user as teaching aids for kindergarteners, teachers and parents.