

# Web-Based Early Literacy Assessment Model for Early-Age Children

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## ABSTRACT

One of the reasons for the low literacy level of Indonesian children is the limited initial literacy assessment that leads to improving literacy learning for children from an early age. For this reason, this study aims to: (1) develop the design of a web-based initial literacy assessment model for early-age children, (2) develop the quality of the early-age children literacy assessment model, (3) analyze the child's profile after using the web-based early literacy assessment model for early-age children, and (4) analyzing the effectiveness of web-based early literacy assessment models for early-age children.

This research is a development research using ADDIE. The research samples were 127 PAUD teachers, 593 children at the instrument testing stage, and 38 children at the model implementation stage. The validity of the instrument was proven by content validity which involved 9 experts including 3 assessment experts, 3 website experts, and 3 assessment model experts. The results of expert validity were concluded with the Aiken formula and construct validity was proven by EFA and CFA.

Reliability is estimated with the construct reliability model alpha Cronbach. Analysis of the quality of the instrument items was carried out using the Classical Test Theory (CTT) and the Item Response Theory (IRT) bifactor multidimension model. Data collection techniques with observation, interviews, questionnaires, and tests. Data analysis techniques used qualitative and quantitative data analysis techniques. Qualitative data analysis with content analysis. Quantitative data analysis using descriptive and inferential analysis.

The results of this study are as follows. 1) a web-based initial literacy assessment model was produced for early-age children with the syntax of a formative assessment model which includes the stages of giving assessments, finding children's weaknesses, developing learning, implementing learning which refers to four main components, namely sharing learning goals and success criteria, effective questioning, self-assessment, and feedback; as well as forms of reporting and evaluation. (2) The quality of the assessment model is good as evidenced by the results of the content and construct validity of the instrument, the reliability index of all dichotomous instrument items is above 0.9, the item parameters have good characteristics, and the instrument is suitable for use for children with abilities -4.5 to 3.9 (3) Profile of children's mastery of literacy skills in the spoken language dimension 51.2 percent, the written language dimension 75.1 percent, phonological awareness 95.26 percent, lowercase alphabet knowledge 92 percent, uppercase alphabet knowledge 93 percent, and grapheme-phoneme correspondence dimensions 96.84 percent. (4) The web-based initial literacy assessment model for early-age children is effective to use. This model is indicated to be able to define children's early literacy and a web-based initial literacy assessment model for early-age children that is relevant for implementation in schools.

Kata Kunci: *early literacy, assessment models, early-age children, website*