

Development, Validation, and Evaluation of a Proposed Computer-Aided Instructional Workbook (CAIW) in Teaching Biology for Grade 7 Students

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Abstract

The research aims to produce and develop a Computer-Aided Instructional Workbook (CAIW) for grade 7 science. The specific topics in basic biology can be used as a general instructional workbook or a supplementary reference guide for teachers to enhance their teaching methodology or strategy and effectively encourage a positive learning attitude for the student. The researcher initially made the CAIW based on compiling a set of graphic and visual interactive methods from various references in General Biology. For purposes of evaluation, to obtain the desired number of subjects for the study, the researcher devised a pre-validated survey questionnaire was divided into three parts, namely: The first part covers the profile of the respondents in terms of demographic distribution; The second part contains the basis for determining the level of acceptability of the respondents based on the following: objectives or learning outcomes, followed by the content, usefulness, clarity, presentation, appropriateness and language and style; and The third part bears the numerical response of the subject as the basis of recommending the CAIW. The study utilized the descriptive comparative method of research to develop and understand the content and execution of the devised computer-aided instructional workbook. The results imply that the CAIW has all the essential portions that will encourage better learning facilitation and make students more engaged in Biology. Most respondents highly recommended the proposed CAIW. The workbook and the Bio APPs are enjoyable, foster active engagement, develop critical thinking, and promote retention among the learners and teachers.

Keywords: computer-aided, validation, evaluation, development