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Title: COMPUTER-AIDED INSTRUCTIONAL MATERIAL FOR COMPUTER CONCEPTS AND SKILLS DEVELOPMENT AMONG FIRST YEAR HIGH SCHOOL STUDENTS  
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Abstract: This study was conducted to develop Computer-Aided Instructional (CAI) Material in developing computer concepts and skills among first year high school students.

The research followed the Research and Development (R&D) methodology which has 3 stages: planning stage, development stage, and validation stage. The planning stage had two specific phases-preliminary preparation and bibliographical phases. Development stage involves development of CAI materials, internal validation in which the CAI material was evaluated by panel of experts and assessed using a five point scale in terms of objectives, contents, activities, evaluative items and design characteristics. Revision was done based on the evaluation, comments and suggestions of evaluators to further improve the material.

The validation stage included the tryout of the material. A pretest and posttest to two groups were conducted. In the evaluation of the tryout, the significant gain in the scores showed the effectiveness of the CAI material. The CAI material was further revised based on the results of the tryout.

The instruments used to gather data include validation checklist and a pretest and posttest validated by the researcher’s panel of experts. To interpret the data gathered, weighted mean and t-test were used.

Based on the findings, the following conclusions were drawn:

The computer-aided instructional material was found excellent as to the five components such as objectives, content, activities, evaluation and design characteristics. Hence it is valid as support materials in the development of computer concepts and skills.

The CAI material was found effective in developing computer concepts and skills among first year students based on the mean gain difference of the gain scores of the pretest and posttest.
In the light of the findings and conclusions drawn, the following recommendations are offered:

That the CAI material constructed and validated be reproduced and be widely used for secondary schools with access to computers for higher academic gain. CAI should be used as support to the traditional lecture/discussion for the development of computer concepts and skills.

School administrators should give attention on the acquisition of more computer units for computer-based instructions and wide use of other educational software as teaching-learning support for both teachers and students.

School administrators should provide more training for teachers on the development and use of CAI materials as an alternative delivery mode of teaching.

More CAI materials should be developed and validated to cover the whole course during the school year for each year level.

The CAI materials should be tried out on a bigger scale and its effectiveness should be further analyzed. Studies should also be undertaken to examine more closely other aspects of computer-aided instruction. If the use of CAI as an alternative delivery mode promotes better achievement of students, this will contribute to the improvement of the quality of education in the country which is one of the major goals of the Kindergarten to Year 12 (K-12) program of the Department of Education.