

An Analysis of the Use and Characteristics of Feedback in Computer-Assisted Instruction

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The main purposes of this study were to analyze the characteristics of feedback used in computer-assisted instruction, and to investigate the differences between the use of characteristics of feedback in grade levels, subject areas, and types of instructional programs. The methodology of content analysis was used to examine and analyze 199 computer-assisted instructional programs located in the Microcomputer Lab, College of Education, Southern Illinois University at Carbondale.

Results of the analyses indicated that 1) 184 programs used feedback, 2) more programs provided a second attempt after a wrong response was first entered, and an overall result, while few programs provided a cumulative score after each response was entered, 3) among the use of feedback in grade levels, subject areas, and types of programs, the highest frequency of use was found in programs for the elementary school level, in the area of math, and in drill and practice programs, 4) among the use of characteristics of feedback, high frequency was found in the use of written messages, simple statements, animated figures, simple line drawings, immediate feedback, information feedback, the combination of knowledge of results and knowledge of correct results, and non-personalized feedback.

Results of the Chi-square test indicated the significant differences ($p < .01$) between the use of 1) forms of feedback in grade levels, subject areas, and types of programs, 2) types of written messages in grade levels, subject areas, and types of programs, 3) still and animated figures in subject areas, 4) simple line drawings and detailed/shaded drawings in grade levels, 5) immediate and delayed feedback in subject areas, and types of programs, 6) reinforcing and information feedback in grade levels, 7) knowledge of results, knowledge of correct results, and the combination of both types in subject areas, and types of programs, and 8) personalized and non-personalized feedback in subject areas.