Terminal Talk

Information Technology

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Wofford College Computer Center

Grades

Call-A-Computer provides a Fortran program called GRADES***which is
an aid to preparing grade averages. In addition to presenting statistical
data on each quiz or grade item, the program gives the user the opportunity
to obtain averages, class standing, and standard scores for his students
calculated with weights supplied by the user during execution. A few
experiments with the relative weights of the various scores included in the
final grade can prove quite interesting. Since standard scores are includ-
ed in the output, it is easy to compare one's grading with the much-mention-
ed "standard curve."

New Language Requirement?

An article in the May 23 issue of Scientific Research gives a brief
sketch of the history and possible future of time-sharing with considera-
ble emphasis on the importance of the Dartmouth system.

A suggestion is made that scientific researchers may soon think in
FORTRAN or BASIC, rather than in mathematics. This may be especially true
in the study of complex systems such as those of the social scientists for
which no really adequate mathematics exist. Programmed simulation of such
systems may become the basic vehicle for proof of results or comprehension.

This tool is so significant that a growing number of institutions
allow computer programming ability--i.e., knowledge of a computer language
like FORTRAN--to substitute for one of the previously required foreign
(human) languages.

Computer Assisted Instruction

This is another general category of computer use which is being tested on a small scale here. An initial example is the TUTOR series of programs developed by Ford Motor Company and made available in the C-A-C library. This series is designed to teach the BASIC language and terminal operation. The user is presented with information and questions on the language and his responses are analyzed by the program. Selection of additional material is based upon the validity of previous responses.

One strength of CAI over the usual programmed text is the ability of the computer to make choices about the future "course of study" based upon the student's past responses. Most current programmed texts (and even many CAI programs) are largely linear, without branching. Development of effective CAI material is currently quite expensive. If the material is to be pre-tested for educational effectiveness, with weak sections rewritten or eliminated, it can easily require 300 man-hours to develop a single hour of instructive material. The possible saving lies in the fact that the computer may now be able to present this material to a large number of students with a minimum of human intervention.

There are a few large universities in the country actively developing and testing CAI materials. None claim economic feasibility. Nevertheless, many predict that decreasing costs and increasing utility will make CAI a practical instructional tool in the near future.

At Wofford, several pieces of experimental CAI material have been used The first experience was the coding of a flow chart called weightlessness, by Arnold Arons. This is a sequence in elementary mechanics. The Naval Academy has prepared a set of programs of this type for several academic disciplines. Dr. Moore is currently testing some of these in chemistry. Further information is available in the Computer Center.