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Presentations at the Summer AAPT Meeting, 2005.

The Personalized System of Instruction (PSI), or Keller Plan – Thirty Years Later

by
Robert G. Fuller, University of Nebraska – Lincoln
and
David Winch, Kalamazoo College

In the early 1970s a mastery-oriented, self-paced style of instruction, called the Personalized System of Instruction, or Keller Plan, came into physics courses[1]. For a few years the Keller Plan flourished and reached an apex in physics with the publication of a complete set of Keller Plan materials for the calculus-based physics course in 1975[2]. By 1980 it had all but disappeared from physics courses[3]. This presentation will discuss the features of the Keller Plan, the explanations of why it disappeared and what are some attributes of the Keller Plan that can improve present instruction in physics.

Footnotes:

[1] Ben A. Green Jr., "Physics teaching by the Keller Plan at MIT," American Journal of Physics, 39, 764-775 (1971).

[2] ***CBP Modules*** by O. Anderson, S. Baker, V. Bluemel, et. al., University of Nebraska, 1975. Partially supported by the National Science Foundation grant, HES75-11210.

[3] Charles P. Friedman, Stanley Hirschi, Malcom Parlett, and Edwin F. Taylor, "The rise and fall of PSI in physics at MIT," American Journal of Physics 44, 204-211 (1976).

Calculus-based Physics Modules - Then and Now

by
David Winch, Kalamazoo College
and
Robert G. Fuller, University of Nebraska – Lincoln

In the summer of 1975, fifteen physics educators met for three weeks to create a complete course of Keller Plan modules for the calculus-based physics course[1]. These materials consisted 45 modules and each module included a practice test, three equivalent mastery tests and grading keys. This presentation will describe a CBP module and explain how they got produced and distributed and used[2]. Subsequently the CBP modules got transformed into an extension course for calculus-based physics[3]. The extension course materials lived on for several more years as self-study materials for AP courses in high schools. This transformation and after-life will be discussed.

Footnotes:

[1] Supported by the National Science Foundation College Faculty Workshop grant, HES75-11210.

[2] The CBP Production staff was Robert G. Fuller, Editor; Thomas C. Campbell, Assistant Editor; Wi11iam D. Snow, Illustrator and Catherine A. Caffrey, Production Editor.

[3] ***General Physics, Course Syllabus***, Division of Continuing Studies, University of Nebraska – Lincoln, 1982.