



TRAINING RESEARCH ABSTRACTS

Austin, John J., and Sommerfield, Donald A.

"An Evaluation of Vocational Education for Disadvantaged Youth"

Poverty and Human Resources Abstracts, Vol. 3, No. 6, Nov.-Dec. 1968, p. 115. Institute of Labor and Industrial Relations, University of Michigan, P. O. Box 1567, Lansing, Mich.

"This booklet reports a study of a vocational-occupational education and training program for disadvantaged youths conducted in 1966 by the Muskegee Area Skill Training Center, under provisions of the Manpower Development and Training Act. The program included academic instruction, sessions in vocational training shops, and counseling.

"The primary objective of the project was the assessment of the effect of vocational and basic education on disadvantaged youths. The secondary objective was the identification of the pattern of change taking place in the different categories of youths. Conclusions are that vocational-occupational education programs in community or area training centers can help large numbers of young people to enter the adult work-day-world, and that such programs can positively effect behavioral changes for all groups. Recommendations stress the need for continuing evaluation of such programs, development of effective tests, and research in several areas to increase the value of this type of program. The report includes statistical tables and graphs, descriptions of testing theories and procedures, and training center outlines."

Dale, H. C.

"Memory and Effective Instruction"

Aspects of Education, No. 7, July 1968, pp. 8-22.

The purpose of this paper is to review the research on short-term memory and discuss its relevance to effective instruction. Since effective instruction is judged in terms of long-term memory, the paper investigates the relationship between short and long-term memory. The differences between short-term and long-term memory are discussed as well as the factors that appear to promote or impede the transfer of material into long-term storage. Some of the more important findings of the article are that for material to enter long-term storage it has to survive an initial period during which retention loss can be extremely rapid. To survive, the amount of material should be small, it should be as free as possible from inter-item acoustical confusions, it should be varied so that interference between successive messages is minimized, and there should be an opportunity for a brief period of silent rehearsal after each component message is presented. Some applications of these principles are discussed.

Duncan, K. D.

"Computer-Assisted Instruction"

Aspects of Education, No. 7, July 1968, pp. 113-121.

This article attempts to examine the present status of computer-assisted instruction. Some recent advancements in instructional technology are elaborated on as well as some of the areas where there are shortcomings or a gap between theory and application. For the computer to be properly engineered to the classroom, objectives must be carefully specified. The author also mentions that there is increasing disquiet over the usefulness or appropriateness of the operant conditioning experiment as a model for human learning from a program. In many instructional situations, cueing and prompting may be more practicable and more

efficient. Some of the solutions that are being attempted in order to make the instructional logic of computer assisted instruction programs more exacting are examined, such as different means of student - computer communication. The author regards the outlook for the future as generally promising.

Hodgson, James C., and Brenner, Marshall

"Successful Experience - Training Hardcore Unemployed"

Harvard Business Review, Vol. 46, No. 4, Sept.-Oct. 1968, pp. 148-156.

The author notes the increasing pressure upon business to provide jobs for the hard-core unemployed and some of the difficulties and frustrations that are liable to be encountered. A successful program developed by Lockheed Aircraft Corp. is described in the article. The authors discuss in detail how Lockheed's programs were set up in two locations, why they succeeded, and what changes are still being made as the program continues. Some of the reasons mentioned for success of the program were (1) the training developed proficiency for specific jobs, jobs for which the trainees knew they were being prepared, (2) the students were prepared for skill levels slightly above those required for the jobs for which they were being trained, (3) the instruction was by demonstration, (4) the trainees were given special personal help, (5) there were jobs in sight, and (6) the jobs were not dead-end jobs.

Ingham, Roy J.

"A Comparative Study of Administrative Principles and Practices in Adult Education Units"

Adult Education Journal, Vol. 19, No. 1, 1968, pp. 52-68.

Adult education units exist in various types of organizations. The administrators of the different units attempt to achieve their organizational goals by applying principles, either explicitly or implicitly. One source of these principles is the writings of those who study adult education phenomena. Little effort has been made to utilize some model dealing with organizations for analyzing and explaining various principles and practices. An attempt has been made in this paper to demonstrate the fruitfulness of one such model — the compliance model formulated by Etzioni. Two examples were presented to demonstrate the value of this model. One example showed that principles dealing with administrative processes must be applied differentially to organizations based upon their compliance structure. The second example utilized the model to explain why the adult education units in the public school are unable to prescribe the task requirements of its students as rigorously as the adult education units of the university.

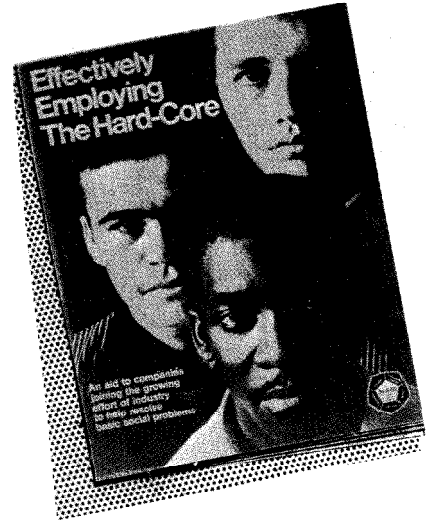
Mackay, P. D.

"Application of the Critical Path Method for Instructional Research Projects"

The Alberta Journal of Educational Research, Vol. 14, No. 1, Mar. 1968, pp. 15-23.

This paper consists of an examination of some of the possibilities which sophisticated techniques of project planning may hold for planners of educational research. An example of such a technique applied to a small project plan is also presented. A computer program can be used to obtain the various parameters required for implementation of the method. An attempt is made at the conclusion of the article to suggest the implications of these techniques for industrial research planners. The Critical Path Method is seen as a means of enabling research administrators to make the most efficient and effective use of time and

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other resources. A variety of other applications are mentioned, including its use in training programs for researchers.

Markowitz, Steven

"Training and Job Creation — A Case Study"

Labor Law Journal, Aug. 1968, pp. 488-96.

Poverty and Manpower programs are discussed and reasons are given why they have failed to live up to optimistic expectations. As an example, the article reports on the Concentrated Employment Program in one particular city - Houston, Texas. The program is described in detail. Discussion of the shortcomings of the program is divided into two broad categories - administrative problems and operational problems. Several suggestions are advanced to alter or replace certain aspects of the program in order to promote greater success for such programs in the future. A briefer discussion is also given to the Concentrated Employment Program in Washington, D.C. Implications for the future are discussed. The author feels that true success will arrive only after many thorny problems are overcome and that a greater degree of patience is needed.

Nadler, Leonard

"Has Federal Legislation Affected Your Training?"

Personnel Management Abstracts, Vol. 14, No. 3, Spring 1968, p. 18. Bureau of Industrial Relations, Graduate School of Business Administration, University of Michigan, Ann Arbor, Mich. 48108

"Management may be overlooking an important source of assistance in federal aid available for training programs. Twenty seven federal laws contain provisions for financial assistance to persons enrolled in educational or occupational training programs. Major laws are discussed under three broad headings: (1) developing a trained work force, (2) helping the disadvantaged, and (3) providing assistance to employers. Specific acts that are discussed in the article are The Manpower Development and Training Act of 1962, the 1963 Vocational Education Act, the Higher Education Act of 1965, the Economic Opportunity Act of 1964, the Veteran's Readjustment Benefits Act of 1966, and the State Technical Services Act of 1965. Management must become more innovative in using federal training programs to supplement its usual training methods, and must explore ways in which it can have a decisive effect on legislation of the future."

Petersen, Peter B., and Lippitt, Gordon L.

"Comparison of Behavioral Styles Between Entering and Graduating Students in Officer Candidate School"

Journal of Applied Psychology, Vol. 52, No. 1, Feb. 1968, pp. 66-70.

"Two groups of students in an officer candidate school (N=880) are compared to determine their differences in behavioral styles. The instrument used is the Job Analysis and Interest Measurement. There is a difference at the .01 level of significance in the mean scores between entering (N=561) and graduating (N=319) students in four prechosen behavioral dimensions. Entering students compared with graduating students place a higher value on approval from others. In the other three scales considered, the mean graduating students' scores are higher than the entering students' scores. This indicates that graduating students as compared with entering students tend to be more self assertive, are likely to be more persuasive leaders, and are more prone to like supervisory activities."

Purifoy, George R.

"Instructional Methodology and Experimental Design for Evaluation Audio/Video Support to Undergraduate Pilot Training"

U.S. Government Technical Report, Oct. 1968, Air Force Human Resources Laboratory, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio 45433, 86 p.

"This report presents a detailed description of the methods by which airborne video recording will be utilized in the training of Air Force pilots, and presents plans for an assessment of its effectiveness. Audio/video equipment configurations and limitations are discussed as they apply to training operations in the T-37 and T-38 aircraft, and training methodology is described which has been formulated to permit the integration of video recording and teaching techniques into the Air Force Undergraduate Pilot Training program. Plans for an eight-month experimental evaluation of the effects of these techniques are detailed, including schedules, operating practices, student selection procedures, data gathering processes and materials, instructor training plans, and analysis guidelines."

Reinhard, Erwin A., and Roth, Charles H.

"Computer-Aided Instructional System for Transmission Line Simulation"

U.S. Government Research and Development Reports, Vol. 68, No. 24, p. 25. Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151

"A computer-aided instructional system has been developed which utilizes dynamic computer-controlled graphic displays and which requires student interaction with a computer simulation in an instructional mode. This system permits student interactions with a computer programmed lesson and associated laboratory simulations to create learning experiences which cannot be duplicated in the classroom or laboratory. The student interacts with the lesson by responding to multiple-choice inquiries, by controlling the simulations, by making qualitative measurements of the dynamic variables directly on the scope face and by constructing responses for subsequent judging by the computer. Two programmed lessons on transmission lines, each requiring about 45 minutes of student time, have been prepared and tested."

Williams, D. J., and Love, G.

"Motivation in Learning"

Aspects of Education, No. 7, July 1968, pp. 123-131.

A comprehensive investigation of sensory reinforcement is felt by the authors to be useful in the field of education, and might enable a more effective approach to the problems of boredom, attention, intellectual stimulation and performance. The concept of optimal arousal level has implications for teachers, suggesting that they should create an exacting environment for learning. However, it may be that the optimal level of arousal is different for different individuals. Stimulation that is too strong could conceivably disrupt behavior, rather than promote reinforcement. Caution should therefore be used before attempting to apply any of the principles relating to sensory reinforcement to the classroom. There is still a great deal of debate in the field in many important areas. The article discusses research in the areas of sensory deprivation, stimulus complexity and change, and curiosity behavior.

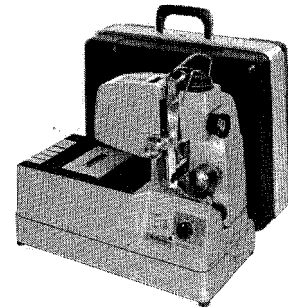
Bibliography of Publications (as of June 30, 1968)

HumRRO Special Publication, The George Washington University Human Resources Research Office, Sept. 1968, 252 p.

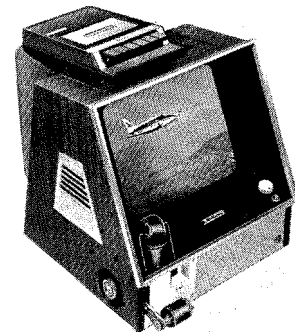
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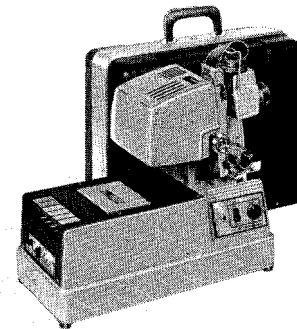
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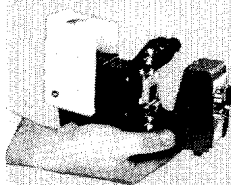
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Assessing the Training Needs Within a Firm

Industrial Training International, Vol. 2, No. 9, Sep., 1967, pp. 346-353
(Abstracted in *Research in Education* (ERIC), Vol. 3, No. 8, Sep. 18, 1968)

“A case study by a senior training officer of the British engineers industrial training board shows why a firm must examine in detail a number of factors to determine when to apply its training effort. Excessive labor costs may be attributed to inadequate or inappropriate initial training, high labor turnover, due to low wages, establishment of unrealistic experienced worker standards, poor conditions of plant and machinery, poor functioning of production control or immobility of the labor force due to seniority claims. High amounts of scrap and rework may be due to factors other than labor skill, such as lack of uniformity in interpreting quality standards or faulty tooling. Recruitment or selection of employees may be poor. Adequate examination of such factors can uncover the real needs of the firm and can lead employers to examine critically their own functions and efficiency. It may well be that in order to make operator training effective, other applications of effort will have to take priority.”

Entelek Inc.

Computer-Based Instruction Guide

(Abstracted in *U. S. Government Research and Development Reports*, Vol. 68, No. 18, Sept. 25, 1968, 153 pp. Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151)

“The CAI guide contains the specifications of all operational CAI programs that have come under Entelek's surveillance since the inception of the CAI information exchange. A total of 226 CAI programs by 168 authors of 38 CAI centers are cited. 30 major areas are represented. Research and preliminary results from over 80 programs cited in the guide can be found in the report abstracts of the CAI information exchange.”

“Executive Development Programs: What the Colleges Offer”

Personnel Management Abstracts, Vol. 14, No. 3, Spring 1968, p. 19. Bureau of Industrial Relations, Graduate School of Business Administration, University of Michigan, Ann Arbor, Mich. 48108

“In-residence university programs can be valuable because they provide an environment in which an executive can give thought to new ideas and new solutions to corporate problems. This article lists and briefly describes all the in-residence executive development programs offered by the nation's colleges and universities. All of the courses last at least two weeks and almost all concentrate heavily on planning and profit control, decision making, communications, and handling of people. Most deal with the broad problems of industry rather than with those of a particular industry or a particular function. The major differences are in the levels of management to which the programs are offered. Questions that should be asked before sending executives to these programs are: (1) Is the executive suitable? (2) Will your company benefit? and (3) Will sending a few executives create interpersonal difficulties among executives of the same level?”

Industrial Training Research Register

British Ministry of Labour, London, England, Mar. 1967

Copies attainable through U.S. Dept. of Health, Education, and Welfare, Office of Education, Washington, D.C., 20202

In this classified register of current and recently completed studies of industrial training in Great Britain individual projects are arranged by the item number judged most important, and the numbers of other relevant industrial research projects are inserted at the end of each section to provide cross references. Descriptions include the title and, whenever possible, a short summary of objective and procedures, the time and place of the research, the principal researchers, and the sponsoring organization. The broad categories represented are (1) national aspects, (2) components of the educational system, (3) work environments, (4) training specialists and their activities, (5) means of identifying training needs, (6) training methods and learning aids and (7) evaluation techniques. Also included are a subject index and the addresses of research organizations and industrial training boards.

Report of the Task Force on Occupational Training in Industry, A Government Commitment to Occupational Training in Industry

Aug. 1968 (For copies write to Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402, 113 p.)

The Task Force on Occupational Training in Industry was appointed in accordance with the instructions contained in the 1967 President's Manpower Report to Congress and began its work in December, 1967. The report calls for a Federal commitment to adequate levels of occupational training in the United States and provides a framework for action to promote and assist training in business and industry. The Task Force recognizes, however, that continued evaluation and study will be necessary to develop a comprehensive and dynamic national policy on training. It is also recommended that business and industry play a larger role in attaining the nation's training objectives primarily through the expansion and improvement of their occupational training programs. Employers are also recommended to provide leadership in the improvement of public education and training to make them more relevant to industry's manpower needs.

System Development Corporation

Computer-Based Instruction

Santa Monica California, Feb., 1968, 19 p. (Abstracted in U.S. Government Research and Development Reports, Vol. 68, No. 18, Sept. 1968, Clearinghouse for Federal Scientific and Technical Information, Springfield, Va., 22151)

"The report describes the latest computer-based instruction systems that are technically feasible and that can teach a variety of subject areas to students ranging in grade level from kindergarten to college. However, CBI is still largely in the research and development state. There are few, if any, CBI systems in regular operational use. As a consequence, there is little empirical evidence that CBI is a practical approach for long-term application in a number of schools, or that CBI can teach more effectively than conventional methods. Limited experience indicates that the effectiveness of CBI is largely dependent on the care taken in (1) preparing and revising the content material itself, (2) designing the teaching strategy by which the computer program selects sequences of material to meet individual student needs and (3) user engineering of both the equipment and program to facilitate communication between the human and the machine."

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