Programmed Instruction: A Guide For Management

By Gabriel D. Ofiesh
New York
American Management Association
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Review By Geary A. Rummier

The name “Ofiesh” in programmed instruction usually means “where the action is.” Colonel Gabriel D. Ofiesh spearheaded the use of programmed instruction in the Air Force, founded the National Society for Programmed Instruction, and presently is engaged in the War on Poverty. He has a great deal to say about programmed instruction and has said some of it in recent book, PROGRAMMED INSTRUCTION: A Guide for Management. When Gabe Ofiesh turns his attention toward the use of programmed instruction in business, one can’t help but look, which I did.

In summary, here is what I found:
1) can’t argue with very many technical things he said, 2) have some questions about how it was said, and 3) seriously question if it was worth saying.

Since you now know my conclusions, let me fill you in on my bias. 1) As Director of the Center for Programmed Learning for Business of the University of Michigan, I’m concerned with the education of business and industrial management in the sensible (i.e., economically and behaviorally sound) application of programmed learning.
2) The staff of the Center are constantly being questioned by managers who are trying to make order out of the mountain of mis-information available on teaching machines and programmed learning.
3) The Center is continually on the prowl for straightforward commentaries on the intelligent field-use of programmed instruction which our students can pass along to top management.

And so, I reviewed Programmed Instruction in terms of that set of conditions. That is, I asked, “Would this book help management use programmed instruction more intelligently?”

First, the book is not as straightforward as it might be and, therefore, not as useful as I had hoped. I would like to elaborate by discussing my three conclusions in some detail.
1) I can’t argue with many technical things said.
Col. Ofiesh has said a great deal in this book and, as far as I’m concerned, it is accurate and often down-right inspirational. He often supports my observations on the lack of terminal behavior specifications and evaluation procedures in industrial training. For example, he comments that: “Descriptions of mastery behavior have usually been arbitrarily arrived at by a course writer or subject matter expert and are based on materials by non-behavioral technologists and managers too often focuses on the literary qualities of the materials, not on examination of their relevance.” He also notes, “When management has successfully identified a specific training need, its customary practice has been to develop a training program to satisfy it. Measuring the effectiveness of the program always been desirable: this measurement, however, has been dependent upon the ability of management to describe the specific purposes the training should fulfill. In some cases this has been done haphazardly. In other cases the needs have been so vague and indeterminate that the training programs themselves have been ill conceived, and their effectiveness has been difficult to measure.”
2) I have some questions about how it was said.
However, I do have some questions about the way Col. Ofiesh has said what he has to say, particularly in view of the subtitle of the book, “A Guide for Management”. This title indicates to me (and probably to the intended market) that a training or personnel director is going to be able to pick up the book, go to specific parts based on his questions or problems, and get some insight into the solution. I’m a little skeptical of the relevance of what is said and seriously question the organization of the book as a guide.
The general organization of the book is; Chapter 1-4, Ofiesh on the need for programmed instruction; Chapter 5, Joe Tucker’s ASTD talk on systems which is always good reading; Chapters 6-8, general discussion of how to get started in developing a program using the Air Force Air Training Command as a model; Chapter 9, a useful chapter on management and programmed instruction; Chapter 10, a chapter on self-instruction in medical education by Dr. Jerome Lyons; Chapter 11, a useful chapter of case-histories which presents a wide range of problems and how they were solved with programmed instruction; Part II, 35 non-categorized case histories on programmed instruction which all begin to sound the same after you have read the first ten.

My major concern then, is whether the book can actually serve as a “guide” to management. My experience is that management wants to know what programmed instruction has to offer and what it will do for them. Only Chapters 9 and 11 seem to serve that function and I would certainly recommend these chapters as a “fast track” for business management.

The first four chapters on the need for programmed instruction contain a constant needling of the “non-behavioral” behavior of management regarding training. I agree with every knock, but I don’t think it is the most effective way to sell management on programmed instruction. In addition, there are signs (chapters 6-8) that Col. Ofiesh is treating the world the way he would like it, not the way it is. That is, he urges industry to form great educational systems (like the Air Force) and predicts that not much application will be made of programmed instruction in business as long as the application is “localized” (individual organizations attacking single problems). He then discusses in-house programming projects in terms of these non-existent systems, using the team approach employed by the Air Force as a model.

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include Carlton Downing, John Blyth, Bill Deterline, Jim Evans, John Olsen, Bob Magee, Geary Rummler, Marvin Schultz, Bob Smith, Winn Smith, Larry Stolurov, and Virginia Zachert. These are the official hard workers — they include all of our past presidents and many vocal and thoughtful members. Pellets to them all.

In fact, if you include the list of those who are on the Editorial Board, you might say that there are a lot of people working hard to make this organization what it should be. There is always room for a hard worker. And for ideas. If you out there are one or have one, let us know.

A Guide For Management...
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In fact, programmed instruction is being used in industry by individual organizations attacking single problems, and I contend that some advice on how management should operate given these constraints (like that offered by Robert Royce in the Atlantic Refinery Case Study, Part II) would be more helpful than advice on what management should do in the event a great educational system should evolve in industry.

One of the potential strengths of the book was the case study aspect; therefore, it is a genuine disappointment that the cases were not keyed to the text as Col. Oflies had originally intended. Some assistance, if not guidance, could be given the reader if there was a directory of relevant points in each so that he would know which of the 55 cases were useful in solving his problem.

3) I seriously question if it was worth saying.

And finally, the last point, was it worth it?

It depends. To hear (or read) Oflies on education is worth the price of admission to me. If the goal was to set down in writing some good things on educational technology, then the book is a success. If the objective was to furnish a guide for management, then I doubt it makes it.

Vocational Education...
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both linear and branched forms, bar-
bering in a combination linear-branched form, and vocational guidance in branched form only.

The commonly accepted method of write-try-and-revise was used in pro-
gram development. Inmates on various farm units were asked to study the programs. Study in all phases of the program was limited to inmates with at least seventh-grade educational ability. Standard for program acceptance was set at 90% accuracy of linear responses, and comparable test results for branched programs.

Experimental study of the completed programs was done by selected groups of inmates. To qualify for participation in the experiment, an inmate had to have an educational level of at least seventh grade, be willing to participate, and have approval of the warden. Assignment of inmates to experimental groups was made by random procedures. No pre-test was used because of random assignment to groups and to prevent pre-sensitizing of the groups. Actual program study was conducted in either a classroom or a cell as required by the statistical design. A comprehensive post-test followed completion of study by no less than one week nor more than three weeks.

Data for the statistical analyses were the scores made on the post-tests. Evaluation was based on the results of factorial analyses. Inmate attitude was obtained by questionnaire.

Results of the study are summarized below:

1. A significant interaction between place of study and method of presenta-
tion of a linear program indicated the slight superiority of presen-
tation by programmed books over teaching machines in a classroom. Teaching machine presentation gave slightly superior results over pro-
grammed books in a cell. The total N value for this analysis was 40.

2. There was no significant difference in type of program or method of respon-
ding.

3. Results of the questionnaire indicated that most of the inmates sur-
evied preferred programmed instruction over conventional instruc-
tion and wanted to have additional programmed material made avail-
able for their use. Among the pro-
grams wanted most were mathe-

News Briefs...
(Continued from page 5)

The UCI computer facility is involved in the application of modern computer systems to university administration, research, and instruction.

A nation-wide survey of closed-circuit and “2500 Megacycle” television facilities in American schools and colleges was announced by Anna L. Huyer, Director of the National Edu-
cation Association’s Audiovisual In-
structional Service Division. The study will be done in cooperation with the U. S. Office of Education.

A two-phase project, charted for completion in March 1967, the study will encompass both the “software” and “hardware” aspects of these growing instructional television services. In the first phase, some 16,000 public and private schools, junior colleges, colleges, and universities (representing about 90% of all educational institutions in the country) will be questioned by mail to learn if they are employing closed-circuit or “2500 Megacycle” instructional television services and what specific uses they are making of such facilities.

Institutions indicating use of CCTV and/or 2500 m/c TV will provide the data for the second phase of the project. They will be asked to supply technical information on the “hard-
ware” they use and the personnel they employ in their installations. The technical data will aid the Office of Edu-
cation in its studies of future equipment compatibility among institutions.

The study will fill an information need that has existed since the publication in 1963 of the NEA Technological Development Project’s Directory of Closed-Circuit Television Installations in American Education With a Pattern of Growth.

matics, auto mechanics, courses in
mechanics, and welding.

Since the completion of the study, the prison system is continuing to use programmed instruction in both aca-
ademic and vocational courses. Though it has capabilities of writing its own programs, it prefers to use commer-
cially prepared programs. The indi-
cated superiority of teaching machines over programmed books as studied in cells was not sufficient to warrant the use of teaching machines in prefer-
ence to the more readily available programmed book. The need for pro-
viding programmed material for both self-development of the inmates and for on-the-job instruction in the prison was established.

(This paper was presented at the National Convention of The National Society for Pro-
grammed Instruction, Philadelphia, Pennsylvania, May 6, 1965.)
President's Pellets

Did you ever wonder what an organization looks like from the top? I did, though my predecessor, Bob Mager, gave me one important clue when he mentioned the "great roar of silence" from out there. A sociogram of the interaction patterns might almost be called an "a-sociogram!" There is, of course, a reason — there's always a reason. We can, like many do, blame it on lack of money. There is, also, a small item we could call lack of interest. Not all members of any organization will be persons who consider the organization central to their existence. That's too much to expect and NSPI can hardly expect it. To some members, we are merely a Journal and one of many journals which arrive and are filed. To others, we are a once-a-year meeting with friends and colleagues.

On the other hand, there are small eruptions now and then from the ground level indicating that some members take the organization very seriously and would volunteer for activity if there were something to be active about. They also hope that, if there is something they want done, there is an organization to help them accomplish their objectives. In the recent past, more people have been asking more things of the society. Last year as the Journal's Editorial Board (my last action as Chairman was to set up a Board for our present Chairman to be Chairman of) and this year, I'm countering the suggestion "Wouldn't it be nice if we could ...?" with "Yes, it would and why don't you." (Credit should be given to a couple of my predecessors who were models for this behavior.) The result is that a lot of people have become involved in organization affairs by executive appointment. Pellets to the working group. Who are they?

At the Convention in St. Louis, a motion was introduced and carried that the office of Regional Vice President be established if a committee to consider the problem so decided. Such a vice president would break the 26-to-one ratio that keeps the national officers and the chapter officers from getting to know each other by introducing a national officer closer to the local level. With a smaller distance and a smaller number of "charges" the vice president might be able to accomplish things that a single set of officers can't do. Telephone calls wouldn't break the bank. Letters might get answered. And, further, those who appear to be reticent about communicating with Olympus might say something to a more visible person.

The magic number three was mentioned. The size of the United States would indicate that three is rather inefficient — I arrived at six of these as a rational figure. So, instead of appointing a committee to think about it, I asked three people to experiment with it. There are three "regions" being covered and three regions not being covered. Sounds like an experiment, doesn't it? It is. The chapter presidents have been let in on the fun. It seems to me that members who are not in chapters but who live within communicating distance of the Executive Vice Presidents should also be let in on it. You might have a problem or a suggestion which could go to one of them instead of simmering uncommunicated.

In the Southeast, Dr. Bob Reynolds, former president of the Atlanta chapter, accepted the call. In the Middle Atlantic region, Dodd Wragg, former president of the National Capitol chapter, took the job. And, in the Far West, Tom Wathen, former president of the Los Angeles chapter, agreed to work. If you live in one of these regions and are thinking of establishing a chapter or would like to suggest something for the national organization or need information that an active NSPI'or could provide, get in touch with your Executive Vice President. Participate in the experiment. (Their addresses appear in previous journals, or they can be reached through National Headquarters.) If you don't live in one of these regions and have a reason for wanting to communicate with a national officer, go directly to Headquarters. In this way, we can find out whether we have a strong need for such an office.

A second motion carried at the St. Louis Convention asked the president to take action on searching for sources of funds to enable the NSPI to carry out its mission more efficiently and effectively. To request such funding, the president needs to have in mind — I was about to say a clear statement of objectives and criterion measures thereof — a well-thought-out statement of the rationale for the organization and the need for funds to foster its growth and accomplishments. The task of formulating such a statement is obviously formidable.

The committee set up to solve this problem is chaired by Bert Holtrey, present president of the National Capitol Chapter and long-time programer with the Forest Service. Working with him as a central group are Gabe Offesh, Des Wedberg, Chip Holtz, Walter Hirsch, and Derek Nunney. Far-flung correspondents (Continued on page 14)

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