Study as Self Instruction: The P.O.W.E.R. Comprehension Model

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Most reading expected of secondary and college students is accomplished out of class even though that reading is usually for the purpose of school achievement. Usually it is instructional behavior we are after when we have students read for class, but most management of the learning process ends when the students leave the classroom. If out-of-class reading is for instructional purposes and if the teacher's function is to manage the learning process, then consideration of learning behavior in out-of-class instruction is worth our attention as teachers. Rothkopf (1965) has coined the term mathemagenics to refer to behaviors which give rise to learning, and much research suggests that reading behaviors can be controlled and manipulated to produce variations in learning outcomes even beyond the classroom (Ausubel, 1960; Bull, 1973; Duchastel & Merrill, 1973). The directions students receive, the evaluational expectations they carry, the orienting stimuli provided with texts all affect the ultimate consequences of reading.

Teachers, however, seldom use such information and students end up usually with a set to read the first work of a chapter or book, the last word, and all words in between. They run their eyes over the lines and look for information to memorize (Tyler, 1972). Anyone who has watched students studying in this way has surely noticed the clear inefficiency. Inattention soon habituates. Reading (not to mention learning) soon becomes interrupted by other more stimulating distractions.

Students have learned to read, but few have learned to read for self-instruction. The P.O.W.E.R. Comprehension Model (performance orientation with enriched reading) is a method for studying which is based upon the need for learning from text. Appropriately it is tied to learning theory as Glaser's Basic Teaching Model is hooked to the Instructional Systems Model. Our assumption is that if study behavior is to lead optimally to learning, it must be directed as much toward our knowledge of learning as to our knowledge of the reading process.

Learning, we know, can be thought of in many ways; but the question is, How shall we describe it for the student? One way to think of learning from an instructional perspective (or, self-instructional) is as a change in behavior, the acquisition of new performance capabilities. The literature on the use of behavioral objectives (Gagne, 1972) has been enthusiastic in its reports of greater efficiency and accountability resulting from the performance approach to instruction.
This emphasis on behavioral learning theory has led to at least two new approaches for instruction—the Keller Plan (Ryan, 1974) and Glaser's Basic Teaching Model (Glaser, 1964). If we look briefly at Glaser's model for teaching we will be able to more easily perceive a systematic application of the performance approach to study behavior. The Basic Teaching Model requires first the specification of objectives (performance expectations). These objectives are then defined in light of preassessment results. Next, the teacher arranges learning experiences to move students toward the goals; and finally, the instructor evaluates performance relative to the expectations. If Glaser's Basic Teaching Model is sensible and effective for class instruction, shouldn't the same model relate well to self-instructional attempts? The P.O.W.E.R. Comprehension approach is just such an attempt to relate a systematic model based upon sound learning theory to study behavior. Students first are encouraged to think of their reading assignments as learning assignments—tasks which give them new performance capabilities. Modifying the student's orientation in this way is usually difficult, but can be facilitated by helping them with their first attempts in class, by providing guide sheets explained below, and by providing performance suggestions appropriate to the content. Just as with the Basic Teaching Model the student is asked to specify his own performance expectations for the task at hand. Specific materials suggest specific behavioral possibilities, but general behaviors can also be encouraged. One can plan to teach the ideas or skills learned to an imaginary class, to a friend, or parent. Other general behavioral orientations would be to develop an outline with a closed book of what one has learned, to make a list of basic information, to formulate several questions for class, etc.

Once the student has specified performance plans, what follows is a slight modification of Robinson's SQ3R method (Robinson, 1946). A preview (skim) of the material provides a perceptual set, conveys the structure of the material, and creates anticipation. We encourage at this point inspection of all the extraneous matter in the text—graphs, charts, illustrations—to initiate immediate learning and to avoid later distractions. Reading with recitation in the P.O.W.E.R. Model, however, may require the student to recite at several levels (of Bloom's Taxonomy). After one has read a few paragraphs he turns away and recalls information gained—names, dates, and facts. Then, he puts the ideas into his own words and generates personal illustrations where possible. Then, as a further step, the student is encouraged to imagine possible applications, to note ways in which these ideas just learned might be used. This complex recitation provides more than just increased comprehension. It insures student involvement and provides a sense of intrinsic reinforcement. What was previously a study drag becomes active learning. Students almost always report that such learning seems to progress much faster and that studying seems more worthwhile.

Finally, the usual review stage is encouraged; but the last stage becomes performance: the student actually uses what he has learned according to his plan. Not until one has met performance expectations (listed as the initial
step) is study complete. Thus the P.O.W.E.R. Model, based upon a systematic approach to learning and Robinson's SQ3R method, brings into combination a more efficient and valid practice for self-instruction. We have suggested to our students that the method be reserved for material which must be mastered as opposed to more casual assignments, and that a study or learning guide be used. Such a guide sheet, which can be provided by teachers, has room for performance objectives to be written first, then three columns are headed (1) Information, (2) Interpretation, and (3) Application, for facilitating recitation levels. Students typically find the method a bit strange at first, but they soon become lost in the learning. That is the kind of predicament we all want our students to encounter.

REFERENCES


