

## C H A P T E R   X

### *CONCLUSIONS AND IMPLICATIONS*

What teaching tasks are performed by a person who decides to teach himself?  
What difficulties does he have? Who assists him, and how much?

To attempt to answer these questions, the writer interviewed forty adults who had spent at least eight hours teaching themselves something during the preceding year. All forty subjects were college graduates living in one metropolitan area; they included a variety of occupations and a wide range of ages. No attempt was made to select subjects who had actually taught themselves nor to select carefully a representative sample from some clearly defined population. Using questionnaires and an interview schedule that had been developed and tested during several initial interviews, the interviewer spent about two hours with each subject.

The framework for investigating self-teaching consisted of twelve major teaching tasks that it was hypothesized might be performed during self-teaching. It was assumed that a self-teacher performs for himself some of the tasks commonly performed by a professional classroom teacher.

Although these interviews provided a large amount of detailed information regarding the attempts of forty adults to act as their own teachers, three limitations should be noted. First, the forty interviewees were not carefully selected to be representative of some clearly defined population. Second, all data collected were limited to what each subject could recall and to what he was willing to reveal. Third, the data were limited to the twelve teaching tasks used during the interviews: somewhat different results would have been obtained if some of the twelve tasks had been subdivided and if some additional tasks had been included.

#### *Conclusions*

The data clearly support a major hypothesis in the study; namely, that self-teachers can and do perform several of the tasks of a professional teacher. Each subject performed at least six major teaching tasks; the median was nine.

Each of the twelve tasks included in the study was relevant and important during at least some self-teaching projects. For example, each task was performed in a fairly large number of the projects; the least common task (dealing with lack of desire) was performed by seventeen of the forty subjects. Each task, in at least a few projects, was performed very frequently, required much time, caused much difficulty and concern, and required a great deal of assistance from several individuals.

The data also indicate that most of the self-teachers performed several of the teaching tasks frequently and spent much time doing so. Most self-teachers experienced some difficulty or concern during their project; only six subjects found that none of the tasks was troublesome. The typical self-teacher experienced difficulty or concern with three of the nine tasks that he performed. He

obtained assistance from other people with six or seven of his tasks, and performed only two or three without help. The amount of assistance received by the self-teachers was very great. Nonetheless, with at least one or two tasks most subjects would have liked even more assistance than they actually had obtained.

The assistance was provided by a surprisingly large number of people. Every subject obtained assistance from at least four individuals; one subject used thirty-one assistants and another used twenty-eight. The mean number of assistants was 10.6 and the median 9.5; that is, the typical self-teacher obtained assistance from about ten individuals. For several of the various tasks, too, the number of assistants was very large. The subjects who obtained assistance with estimating level of knowledge and skill, for example, used a total of 203 assistants; the mean number used by each subject was 7.2.

If judged by the number of tasks with which they helped, the assistants were generally helpful. The self-teachers obtained assistance from each assistant with a mean of 3.1 tasks.

The individuals who assisted the self-teachers were classified into seven types. All the subjects used at least two different types of assistants, and most used three or four types. Almost all the subjects used at least one intimate (member of immediate family or very close friend) and one acquaintance (friend, relative, or colleague who is not an expert). Indeed, the forty subjects obtained assistance from a total of 156 acquaintances and 87 intimates. Smaller proportions of the assistants were subject matter experts approached on a personal basis (12%) and those approached on a business or professional basis (17%). Sales people, fellow learners, and librarians were less numerous. The relative proportions of the seven types of assistants varied from one task to another; that is, with certain tasks there was a greater tendency to obtain assistance from certain types of individuals than with other tasks.

### *The Typical Self-teacher*

The following description of a hypothetical but representative self-teacher summarizes the behavior of adults while teaching themselves.

Before beginning his project in earnest, the typical self-teacher spent about an hour deciding just what knowledge and skill he wanted to learn. Although he was interested in the subject matter, he did not seriously consider learning it until some specific impetus occurred. While choosing his goal, he received advice, encouragement, and other assistance from six individuals, mostly family, friends, and colleagues.

Once he had chosen his goal, he very frequently considered which activities would be effective for learning that subject matter. In particular, he decided which books and articles to read, which individuals to ask for information and advice, and what to observe and practise. Altogether he spent about five hours making such decisions, and obtained assistance from two subject matter experts and three other persons.

Once he had decided whom and what resources he wanted to use, the subject spent more than five hours obtaining the printed materials and walking or travel-

ing to see the assistants. He was assisted a great deal in obtaining these resources although only four individuals provided the assistance.

In order to fit his self-teaching project into his busy life, the self-teacher had to decide just when to learn. Although these decisions about time were made throughout the project, he spent only about forty minutes making them.

Continuously throughout the learning he attempted to estimate his level of knowledge and skill. In particular, he looked back in order to see how far he had progressed, he estimated his current level, and he looked ahead in order to note the gap between his current level and the desired level. Seven people assisted him with these estimates; some of them served as models for comparison and a few made direct evaluative comments.

About ten times he found that he was unable to grasp some part of the knowledge and skill when he first encountered it. He spent more time dealing with these difficult parts than he spent performing most other tasks, and experienced more difficulty and concern than with other tasks. He obtained assistance from three relatives and friends, two experts (one of whom was approached on a personal basis and one on a businesslike basis), and one sales person.

In addition to performing the six teaching tasks already discussed, the typical self-teacher performed four of the following tasks: (1) occasionally dealt with doubts about success; (2) decided what place would be suitable for his learning; (3) dealt with his dislike of the activities that were necessary for learning; (4) spent almost an hour deciding whether to continue or stop learning after reaching a certain goal; (5) considered how much money to spend for reading materials and equipment; and (6) dealt with his lack of desire for achieving the goal.

### *Discussion and Implications*

This study has taken a small, early step toward an understanding of self-teaching. It has produced some fairly definite findings regarding the actions and difficulties of forty adult self-teachers, and regarding the assistance they obtained and the individuals who helped them. In particular, the study has demonstrated that the tasks and functions of professional educators are also performed by adults who teach themselves. The study shows not only that the tasks or steps described by Houle and others are relevant to self-teaching, but also that laymen can perceive the relevance of these steps.

It is surprising that all but two of the forty-four adults with whom an interview was started had conducted at least one self-teaching project lasting at least eight hours during the preceding year. Apart from checking that each subject was a college graduate, no attempt was made to select subjects who had actually taught themselves. It seems possible, therefore, that self-teaching among college graduates is far more common than most adult educators realize. It also seemed evident during the interviews that many self-teaching projects are very important in the life of the adult, arouse great enthusiasm, and consume a large amount of his time.

Although the *effectiveness* of self-teaching was not studied, it became evident during the interviews that many adults who decide to teach themselves

some large and difficult body of knowledge and skills do so quite successfully. This finding does not seem to agree with the following statement in a book prepared by the Commission of Professors of Adult Education:

Self-education is possible when an individual has sufficient insight and skill to define objectives clearly, to select and arrange a sequence of developmental tasks for himself, and to manage and effectively direct his own progress with objectivity. . . .

Such sophistication is not ordinarily characteristic of individuals in need of learning; consequently the educational setting constructed by an external agent to make systematic achievement possible is still required in most cases in order for an individual to accomplish the needed learning.<sup>1</sup>

The experience of the forty interviewees in the present study suggests that many adults are, in fact, able to teach themselves effectively and do not require an agent to plan and arrange things for them.

If one believes that most college graduates can and do teach themselves successfully, the following question raised during this study becomes even more puzzling: why did so many of the subjects say that the quality and amount of their learning were low, and that their procedures for learning differed from the usual or ideal pattern? Perhaps schools and colleges encourage their graduates to believe that only learning conducted in an educational institution is important, legitimate, and effective.

The self-teachers received an astonishing amount of assistance, and they obtained it from an equally astonishing number of individuals. Certainly it is erroneous to think of the self-teacher as a person who plans and manages his self-teaching alone and without human assistance. The large amount of assistance probably reflects the difficulty of planning and carrying through a major intellectual effort in an unfamiliar area of subject matter. Functioning as a teacher and a learner simultaneously is clearly not easy. Even when enrolled in a course or taking private lessons, however, adults (and perhaps adolescents and college students) may obtain more assistance from a greater variety of individuals than previously suspected.

Some of a self-teacher's assistance may come from subject matter experts, amateur instructors, or professional educators. During the forty interviews it became increasingly evident that, in the life of an individual adult, self-teaching and organized education are intertwined. Almost one-quarter of the subjects engaged in some educational activities organized by another person as *part* of their self-teaching project. In the minds of these nine subjects there was not a sharp distinction between the learning in a group (or from an instructor) and the rest of their learning. Consequently, it does not make much sense to argue about whether adult educators *can* assist self-teachers or to declare that "for all practical purposes, self-education is beyond the range of responsibility of adult education, since it is an individual activity and affords no opportunity for an adult educator to exert influence on the learning process."<sup>2</sup> In fact, some adults already incorporate into their self-teaching a certain amount of instruction by others.

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<sup>1</sup>Verner, *op. cit.*, p. 31.

<sup>2</sup>*Ibid.*

The distinction between self-teaching and institutional education will blur even more as an increasing number of institutions attempt to increase the extent to which their students mix self-teaching with organized group instruction. Even in other institutions, however, many students enrolled in a course probably perform some of the tasks of self-teachers, experience similar difficulties, and obtain assistance from a similar variety of individuals. In actual practice it is often difficult to detect much difference between instruction by professional educators and assistance from "amateur" subject matter experts. What are the differences, for example, between being taught to swim by a professional swimming teacher and learning from a friend who is an expert swimmer?

The findings of the present study have several implications for secondary schools and colleges interested in increasing their students' desire for, and competence in, self-teaching throughout the rest of their lifetime. For example, teachers and professors should emphasize that self-teaching is an effective way to learn; their influence might eventually reduce the number of adults who consider the quality and procedures of their self-teaching somehow inferior to their undergraduate learning. In addition, students should be trained in self-teaching in order to become *competent* self-teachers. Probably a person who has been trained to identify the tasks and difficulties that confront a self-teacher will teach himself more effectively. He also may benefit from practice in performing each task for himself. Knowledge of the types of individuals who are especially helpful with each task plus practice in obtaining assistance from various individuals may also lead to success. Practice in learning individually from television, tape recorders, record players, and programmed materials may widen the scope of methods used by self-teachers; very few subjects in the present study used one of these methods. Training in choosing appropriate goals might reduce not only the many difficulties that surround this task, but also the number of projects that fail or are prematurely stopped.

The findings also have several implications for educational institutions interested in assisting students and adults who are already engaged in self-teaching. Because this study has demonstrated that self-teachers obtain a variety of assistance from several individuals, there seems to be little doubt that educators should not expect a person engaged in an independent study program, doctoral research, or other self-teaching project to work alone without assistance from the institutional staff. Instead, the institution should facilitate such self-teaching by making arrangements for him to obtain assistance with any self-teaching task from certain staff members or non-human resources. An educational counselor might be available to help him select his goals and plan his strategy, a subject matter expert to recommend sources of information and to help with difficult parts, and a librarian to help him select and find particular materials. Such assistants might be trained to identify, sympathize with, and assist with the various tasks of a self-teacher. Librarians in particular might benefit from such training; in the present study only seven subjects used a librarian but at least seven others probably could have progressed much more effectively if they had approached a helpful, competent librarian. In addition, the institution might provide printed materials such as workbooks and programmed materials, audiovisual materials such as films and records, and audiovisual equipment that are especially suitable for individual study.

Because this study was one of the first to investigate the tasks and difficulties of people who teach themselves, one of its purposes was to stimulate and

aid further research. The study has demonstrated that the major teaching tasks can serve as an effective framework for gaining insight into the activities, problems, and feelings of adult self-teachers. This framework might also be used to investigate independent study programs in colleges or the inquiry process among children. The tasks might also be useful for interpreting research into permissive, democratic, and student-centered teaching methods—methods that seem to combine self-teaching with professional instruction. Much of the writing about such methods sounds vague and confused because it fails to specify the various tasks and functions involved. One can interpret such writing more accurately by considering the extent to which each task was the responsibility of the learners or performed by the teacher.

### *Further Research*

It is hoped that the framework and findings in the present study will stimulate a few readers to speculate or investigate further. Some major questions and some promising research possibilities that became apparent during the study will now be outlined.

As the study progressed it became evident that, although the question of *how* adults go about teaching themselves something is very important, future research should also investigate *why*, *what*, and *how much* they teach themselves. What factors lie behind an adult's decision to learn something, and to do so himself instead of enrolling in a course? In certain populations, what sorts of knowledge and skill are most commonly self-taught? In a given year, what proportions of an adult's increase in knowledge and skill are due to professional instruction, to self-teaching, and to unintentional learning?

One surprising observation during the forty interviews was the great disparity between what an adult had actually learned and his perception of that learning. Why did so many of the interviewees grossly underestimate the amount they had learned during recent months and the scope and quality of their self-teaching project? Why did so many adults believe that their style of learning differed from that of everyone else? In what ways do these feelings influence an adult's participation in adult education? One also wonders how effectively the typical adult teaches himself and what factors are related to failure and premature quitting. Perhaps lack of success could frequently be traced to performing certain tasks inefficiently or without sufficient assistance.

Further research also might attempt to answer more precisely or comprehensively certain questions investigated in the present study. For example, such research might obtain more accurate estimates of the total amount of time spent at each self-teaching project plus more detailed descriptions of the difficulties, concerns, and their causes. Also, one or more of the tasks could be studied very intensively; tasks that might contain especially fruitful characteristics include deciding activities, choosing the goal (see Appendix B for detailed suggestions), obtaining resources, and estimating level. Further studies also might use larger samples that are representative of new parents, doctoral researchers, certain occupations, or other populations. In addition, one might study the additional tasks that arose during the present study, and one might ask whether these and the original twelve tasks are typically performed in a certain sequence or at certain stages. Such questions might be answered by inter-

viewing people at the beginning of a self-teaching project (with the subject matter chosen either by the person or the researcher) and every two weeks thereafter. These subjects might also keep a diary or complete a questionnaire each day during the self-teaching.

Once a general understanding of certain characteristics of self-teaching performed by a variety of individuals in a variety of projects has been developed, the next logical research step might be an examination of several factors that influence these characteristics. These factors may affect which tasks are performed, how much time they require, the amount and nature of difficulty and assistance, and the types of assistants. Certain factors may affect each other or may interact to produce certain sorts of influence. A list of factors that may be influential is presented in Appendix B.

The large amount of assistance and the large number of individuals who provided it were two surprising findings that probably should be investigated further. Why did the self-teachers obtain so much assistance? In exactly what ways are self-teachers assisted, and what sorts of additional assistance do they want? To what extent does a self-teacher himself perform each task and to what extent do other persons (even though not professional educators) really perform the tasks for him, rather than merely advising and assisting him? Other characteristics of the assistants, such as age, level of education, occupation, status, and geographical proximity, could be studied. A different classification scheme might be used for the assistants, and non-human resources such as printed materials, television, and displays could be included. Several possible research questions regarding the resources used by self-teachers are presented in Appendix B.

Perhaps the ultimate question to be tackled by future research into self-teaching is this: how can professional educators improve the quality and scope of the subject matter and the effectiveness of the methodology in self-teaching? In order to learn how to encourage, train, and assist self-teachers, educators first should study the similarities between self-teaching and the behavior of students enrolled in an educational institution. Educators also should study the ways in which adult self-teaching and participation in adult education programs are intertwined. Then various experimental programs could determine the especially effective ways of training and assisting self-teachers. For example, certain individuals might be told about the tasks, difficulties, and types of assistants in self-teaching and then might be given supervised practice in performing each task to see whether their self-teaching competence would increase. In the present study the forty subjects used no tape recordings, radios, and filmstrips, and only two television sets, one record player, and one motion picture; would practice in the individual use of a variety of methods alter this tendency? Frequent advice might be given by subject matter experts, librarians, and other individuals to determine the ways in which such assistance can facilitate self-teaching. Finally, educators might experiment with various sorts of printed materials and special facilities such as individual motion picture viewers to see whether these, too, can be made especially helpful for the self-teacher. By evaluating the effectiveness of such experimental programs, professional educators will learn how to stimulate, prepare, and assist people who continue learning throughout their adult years.