

CHAPTER IX

THE DETAILS OF EACH TASK

This chapter can greatly increase the reader's insight into the various decisions, actions, and problems of the self-teacher. However, since it presents a large number of detailed findings, readers wanting only an overview of the study, may wish to omit it.

Each of the 12 major teaching tasks performed during self-teaching is discussed as follows: (1) detailed aspects of the task that was performed, (2) the specific difficulties and concerns, (3) the sorts of additional assistance desired, and (4) deviations from the typical pattern of types of assistants.

One purpose of the study was to discover additional teaching tasks, not included in the original twelve, that might be important during self-teaching. A few of the additional tasks suggested by the subjects were related to one of the twelve tasks and will be discussed with that related task. The other additional tasks will be discussed in a separate section at the end of this chapter. The tasks are arranged in approximate order of relative importance, with the most important at the beginning of the chapter. This overall rank order of the 12 tasks was based on their rank on seven characteristics.¹

Deciding Activities

The first task in the overall rank order was that of deciding which activities (such as reading certain books or observing certain things) are necessary in order to learn the desired knowledge and skill. Every subject considered or made such decisions at least once. Many subjects found that they considered or decided activities quite frequently and that doing so required a large amount of time.

When asked to specify exactly what decisions regarding activities they had made, most subjects mentioned deciding which books and articles to read or which persons to ask for information and advice. Every one of the forty subjects read at least something during his self-teaching. Every subject also received some subject matter, or some advice about how to learn, from at least one other person.

In addition, twenty-two subjects included direct observation as part of their efforts to learn. These subjects observed such things as the Higher Horizons program in New York schools, division courts, packing materials used by professional movers, wiring in a friend's basement, ticker tape reports of stock prices, gardens, babies, skiers, golfers, tennis players, and people performing the desired skill (such as operating data-processing machines, chairing a meeting, and teaching adults). Watching a deliberate demonstration by one person was not included as "direct observation."

¹The detailed calculations and ranks are presented in Chapter VI of Tough, "The Teaching Tasks Performed by Adult Self-teachers."

Fourteen subjects learned partly by practice. Nine subjects went even further: they learned by "experimentation" or "trial and error" in that they deliberately tried certain actions or procedures in order to test their effectiveness. As part of the task of deciding activities, five subjects mentioned the necessity of considering which detailed aspects of the knowledge and skill should be learned next.

Certain methods of learning were not used in many of the forty self-teaching projects. For example, only two subjects watched television programs as part of their efforts to learn, only one watched a motion picture, and only one used phonograph records. No one listened to a tape recorder or watched a filmstrip.

Although the forty self-teachers assumed the major responsibility for planning and supervising their learning, nine of them also attended some group or engaged in some other activity organized by another person. These nine subjects do not include parents who regularly visited a pediatrician for information and advice. In no project did the organized or group activities play more than a minor role; otherwise the project would not have been included in the present study. The nine subjects performed the following nine activities, respectively:

1. attended a YMCA amateur guitar group;
2. attended a few meetings of a group in a Unitarian church in order to play the recorder and receive some amateur instruction;
3. attended meetings of an amateur ski club;
4. attended a lecture by a pediatrician during a hospital course for expectant parents;
5. received five driving lessons from professional instructors;
6. met about ten times with her boss and a few colleagues who were preparing for the same civil service examination;
7. attended two seminars, one dealing with the principles of adult learning and the other with how to lead a discussion;
8. attended five brief seminars sponsored by a professional social work association;
9. attended twelve case sessions at the hospital in which he worked.

Two other subjects *considered* obtaining private instruction in a particular sport, and another subject considered taking an economics course at a university.

Several subjects decided to, or were forced to, change part of their original plans for achieving the goal. For example, one subject found that the first book she chose was "dry" and irrelevant; another found that the first pediatrician he consulted was "a dud"; and a third could not reach the most important person from whom he had planned to obtain information.

One general impression seems important here. During the forty interviews a great range in self-consciousness and deliberateness was evident. A few self-teachers said that they learned almost automatically. "I didn't have to think or decide about these things; I just *knew* what to do," declared one woman. At the other extreme, a few self-teachers planned their learning very deliberately; one man planned a sequence of reading and other learning activities to extend over twelve months.

Deciding activities was clearly a very difficult task. Seventeen subjects chose it as one of their two most troublesome tasks. All but two subjects obtained assistance with it, and eighteen subjects would have liked more assistance than they did obtain.

When asked to describe the difficulty or concern involved in deciding activities, eleven subjects mentioned some aspect of choosing the books or people that would be the best sources of information. One woman complained that "it's very difficult to select materials on the basis of an unannotated bibliography"; a young father found that "it is very hard to judge which people were right when I got conflicting advice." Indeed, several subjects said that it had been necessary for them to detect poor advice regarding procedures, detect incorrect information, or decide which sources of information were reliable and which were not. One subject had to withstand pressure from at least one friend to join a recorder-playing group that was too advanced for her. Another woman, who was learning about a first baby, did not want to follow the advice given by a certain person, yet realized that this person would know that the advice was not being accepted. Two other subjects had to decide which sources of information were not reliable; one was learning about health services in Canada and the other was learning how to operate data-processing machines.

Eight of the subjects who found this task troublesome (and four other subjects) would have liked someone to *tell* them which sources of information were best. Four subjects found that their difficulty or concern revolved around deciding which details to learn or which aspects of their technique to improve; three of these subjects would have liked someone to tell them these things. The other two subjects who found this task troublesome did not know how to begin their project. One said, "I felt overwhelmed and lost at first"; the other said, "I was a beginner—and alone—in a complex field."

While deciding activities the self-teachers obtained more assistance from business-relationship experts and librarians than with any other task (Tables 11 and 12). Almost half (49%) of the 196 assistants were experts, sales people, and librarians; a separate analysis showed that 82% of the subjects who obtained assistance with this task used at least one such person. The subjects made less use of intimates than with any other task. In general, compared to other tasks, assistance was provided by experts and librarians, with relatively little assistance from intimates.

One additional task that may be important in some self-teaching projects is related to the task of deciding activities. Once the self-teacher has selected certain learning activities as potentially the most effective for reaching his goal, he may at some time have to deal with his lack of confidence in their effectiveness.

Estimating Level

The task of estimating level of knowledge and skill was performed very frequently; thirty-one of the forty subjects did so continuously or at least ten times. Many, but certainly not all, self-teachers spent a great deal of time estimating their level.

In describing which parts of this task they had performed, twenty-two subjects said they had looked back in order to remember a *previous* level of knowledge and skill or to estimate how far they had progressed. Twenty-six subjects mentioned estimating their *current* level; half of them recalled comparing themselves to other people. Twenty-three subjects had looked ahead in order to

estimate or consider some *future* level. Of these, six mentioned trying to estimate more precisely the desired or required level, and twenty mentioned estimating the gaps of the distance between their present level and some desired level. Four subjects recalled trying to estimate whether they had reached the desired level.

One subject mentioned that some self-teachers may have to deal with people who hold or state unrealistically high expectations of the level that the learner will achieve. This subject, for example, eventually had to discuss with her boss the fact that he frequently embarrassed her (and made her afraid that she would disappoint him) by saying that she would obtain a higher mark than anyone else on a certain examination.

Eleven subjects recalled some difficulty or concern with estimating their level. Several of those subjects mentioned the "lack of bench marks," the "vague and undefined standards," and the lack of peers with whom to compare themselves. Some subjects would have liked more people with whom to compare themselves. Other subjects wanted an expert who could estimate their current level, or the gaps between it and the desired level. One lawyer was especially worried about estimating correctly whether he had acquired enough knowledge to proceed in a case because his female client would have lost about \$125,000 if he had misjudged.

Although most self-teachers experienced little difficulty and concern while estimating their level, twenty-eight did obtain assistance. Indeed, a larger number of individuals (203) assisted with this task than with any other. The mean number of assistants per project was 7.2, which was 1.0 above the second highest mean. One reason for the large number of assistants is that many subjects estimated their current or desired level by comparing themselves to several individuals. Not all of the people assisted in this way, however; some of them, for example, *told* the subject how well he was progressing or what level he should try to achieve.

A large percentage of the assistants were acquaintances (Table 12). In fact, the mean number of acquaintances was 2.9, which is clearly greater than the mean for any other task and for any other type of assistant (Table 13). The tendency to use intimates less with this task than with most tasks is perhaps surprising. One might have expected that a self-teacher's spouse and close friends would be especially helpful in telling him how well he was doing and how much he had progressed. It is also surprising that the percentage of personal-relationship experts and the percentage of business-relationship experts are not above the means for all the tasks (Table 12); one might have expected that self-teachers would frequently compare themselves with such people.

Dealing with Difficult Parts

A self-teacher may sometimes deal with the problem of not being able to understand some part of the subject matter when he first hears it or reads it. Also, he may not be able to perform some part of a skill when he first reads about it or sees it demonstrated. The task of dealing with such difficult parts was not performed especially frequently, but it did usually require a fairly large amount of time.

While discussing this task, several subjects mentioned difficulties in understanding terms, concepts, and entire sections during their reading. Several

other subjects mentioned difficulties in performing some specific skill after first seeing it demonstrated. These specific skills included the following: certain strokes (especially the serve) in tennis, a golf swing, certain aspects of playing bridge, certain skiing techniques, parking a car, holding a baby properly in the bath, reproducing a certain picking sound on the guitar, and properly covering an awkwardly-placed hole on a recorder.

In dealing with their difficulties, eighteen subjects asked someone to explain or demonstrate, eleven subjects (including some of the same ones) read some material, three re-read the difficult material, and five continued practising. One man omitted any section of the book that he could not understand easily; another man asked several colleagues about each difficult point and then "if no one could answer it, I forgot about it because it probably wasn't important."

Sixteen subjects who did not grasp something at first found that dealing with this problem was one of their two most troublesome tasks. Only three subjects dealt with this task alone; the other twenty-nine subjects who dealt with difficult parts obtained assistance from a mean of 6.2 individuals.

Despite the relatively large number of assistants, several subjects experienced great difficulty in finding answers to their questions about difficult parts. Eleven subjects said that they would have liked more assistance in the form of some person (a subject matter expert) to answer their specific questions or at least tell them where to read the answers. Two other subjects who had difficulty grasping certain points experienced another sort of concern; one "felt stupid" and the other "wondered whether it was all right for me to ask so many questions." Four subjects found that putting certain skills into practice was especially difficult; two of them would have liked expert assistance.

When obtaining assistance in dealing with difficult parts, more self-teachers used business-relationship experts and more used personal-relationship experts than with any other task (Table 11). More than one-third of the assistants were of these two types (Table 12). In addition, a relatively high percentage of the subjects used sales people and fellow learners.

While discussing this task, several subjects mentioned an additional task that could be important in some self-teaching projects. This task is obtaining answers to questions that arise in the self-teacher's mind while he reflects on what he is learning. These questions are broader and more speculative than the questions that arise when he has difficulty grasping specific points. Several subjects mentioned that they had unsuccessfully sought answers to various major questions and issues that arose during their learning.

Obtaining Resources

Once a self-teacher has decided that he wants to use a certain person, book, or other resource, he must somehow reach or obtain that resource. This task is the only one that deals primarily with physical movement and with making arrangements to obtain physical objects. All of the subjects remembered obtaining (or considering how to obtain) resources. Almost half of the subjects spent at least six hours doing so.

When asked to specify how this task applied to their particular project, thirty subjects mentioned obtaining printed materials; two of them obtained photocopies of such materials. The importance of printed materials in the minds of some self-teachers is indicated by the eagerness with which several subjects offered to show the interviewer such materials.

Twenty-three subjects mentioned walking or traveling in order to talk with certain people, to observe, or to practise. Many of these subjects merely walked to an office near theirs or to a neighbor's house. One man, however, traveled from Toronto to New York City, another to Chicago and Niagara Falls, and a third to Ottawa. Five subjects also mentioned telephoning people or making arrangements to talk with someone.

Six subjects mentioned obtaining equipment and supplies. The equipment consisted of skis, data-processing cards for practising, tape recorders for tinkering, an automobile for learning to drive, pans and ingredients for cooking, and golf clubs and practice balls.

Of the eleven subjects who experienced some difficulty or concern with this task, seven mentioned the difficulty of obtaining one or more specific books. Three subjects found that certain books were out of print, one subject had to persuade a librarian to let him use the stacks, and one woman complained of fighting rush-hour traffic after work in order to reach a bookstore.

For four subjects the trouble revolved around obtaining information or other assistance from other *people*. One woman hesitated to ask people to teach her to drive without dual controls because she considered herself a dangerous driver. Another subject hesitated to ask questions when more than one person was present; one young father felt reluctant to "bother" people with too many questions. Another man described his difficulty as "getting up enough courage to go and ask someone a question."

About one-third of all those who helped the subjects obtain resources were approached primarily on a business or professional relationship (Table 14). Compared to other tasks, the percentage of business-relationship experts, of sales people, and of librarians were each quite high (Table 12). Probably the business-relationship experts lent or gave materials to the self-teachers, the librarians helped them obtain books, and the sales people helped them buy books and equipment.

Choosing the Goal

Only one subject could not recall considering and choosing his goal; that is, deciding what knowledge and skills he wanted to learn. Most subjects considered their goal fewer than ten times, usually near the beginning of the projects; nine subjects, however, considered the appropriateness of their goal throughout the project. Relatively few subjects chose their goal quickly; half of them considered it for at least one to five hours.

When asked to described how and why they had chosen the goal, most subjects stated that they began the project as a result of some specific impetus, although most of them also found the subject matter intrinsically interesting. Indeed,

ten subjects mentioned that their interest in the knowledge and skills had been present for several years.

Choosing the goal often caused *some* difficulty and concern (seventeen subjects), but rarely was one of the *most* troublesome tasks (only two subjects). The subjects who obtained assistance discussed their goal with, or received some other assistance from, a mean of six individuals. Almost half of these subjects felt that they "could not have performed the task successfully" without this assistance.

When asked to specify their difficulties and concerns while choosing their goal, the subjects gave a wide variety of responses. Three subjects were worried about the consequences of mistakes while learning; one of these was afraid of killing someone with her car, another of losing money on the stock market, and the third of harming his infant. One woman was worried about one possible consequence of *success*: she might be transferred to another office, which had "a terrible supervisor." Three subjects had identified a major problem with which they wanted to deal, but were not certain what knowledge and skills were required for solving the problem. Two young adults were not certain whether their choice of subject matter was appropriate because they were uncertain about what career to follow. Two subjects experienced a strong conflict between the lack of motivation for learning and the feeling that they should learn. Another subject wanted to learn to ski but was concerned at first that other activities and commitments would suffer. Only one subject mentioned any concern about how difficult the subject matter would be.

Most of the eleven subjects who would have liked more assistance wanted people to provide more encouragement and information regarding their tentative choice. A few wanted an authority to tell them what to learn.

When seeking assistance the self-teachers approached acquaintances and personal-relationship experts a little more frequently than with many other tasks (Tables 11 and 12).

When asked to suggest additional tasks that might be important during self-teaching, several subjects mentioned tasks that are related to that of choosing the goal. Perhaps, as part of choosing the goal, some self-teachers perform certain additional tasks that are themselves very important, and that are quite different from other aspects of choosing the goal. One of these additional tasks is making long-range career plans or leisure-time plans; the goals for particular self-teaching projects may arise from these long-range plans. Another additional task is selecting the knowledge and skills that the self-teacher wants to learn *first*; that is, selecting the immediate, highest-priority self-teaching project.

Making certain that the tentative choice of project is appropriate is another task related to choosing the goal. This task may involve estimating whether motivation, desire, and interest are sufficiently high; several subjects mentioned the importance of selecting knowledge and skills in which interest and motivation are strong. Trying out the area of knowledge and skill for a brief time to discover whether interest is likely to wane may also be a part of this task. Performing this task also may involve estimating the amount of time and money required, deciding whether those amounts of time and money are available, and deciding whether the goal is really worth those amounts.

Another task related to choosing the goal was mentioned by at least seven subjects. It is establishing a series of immediate goals that will lead to the ultimate goal. These immediate goals could be specific levels of knowledge and skill, or readings or topics to be covered, or other activities to be performed. The achievement of each intermediate goal produces visible progress toward the distant goal, and thus provides encouragement and satisfaction.

Deciding about Time

All but three of the subjects recalled making decisions about time. Most subjects made these decisions fairly frequently and quickly, but five subjects spent six hours or more doing so.

When asked to specify what decisions about time they had made, thirty-one subjects said they decided when to learn, thirteen decided how much time to spend, and four set one or more deadlines. During their consideration of when to learn, two women considered when there would be no interruptions at home, two subjects had to discover when facilities would be available, and one man tried to guess when no one would be around to see his mistakes.

Nine subjects found it difficult to achieve a satisfactory balance between the time required for the self-teaching project and the time that they wanted to spend (or felt obligated to spend) at various other activities. Some subjects were frustrated because they "couldn't find time" for their project; others (who were probably at least as busy) carefully decided how to spend their time, setting aside part of it for learning.

When asked to suggest additional tasks, at least six subjects mentioned the task of "finding time." In addition to *deciding* about time, a self-teacher must in actual practice reduce the amount of time spent at something else in order to have time for learning.

Dealing with Doubts about Success

A self-teacher may sometimes have to deal with his doubts about success. In particular, he may feel that he is progressing rather slowly, or is far behind others, or will never reach his goal. Such a feeling may create the temptation to quit or may arouse anxiety that hinders the learning. Twenty-seven subjects dealt with doubts about success at least once or twice; the other thirteen subjects did not recall ever being required to deal with these feelings. Dealing with these doubts was not an especially frequent or time-consuming task.

While discussing this task, seven subjects recalled feeling that there was an overwhelming amount to learn. Seven had felt that they were progressing rather slowly, and five had been aware of making errors.

In order to deal with their doubts about success, ten subjects reasoned with themselves or talked themselves out of it. Several of these told themselves that a beginner should not be expected to perform any better. Four subjects vigorously resumed their efforts to learn. Only one subject mentioned solving the problem by discussing her doubts with others.

Ten subjects found that dealing with their doubts about success was especially difficult, or caused some worry or concern. When asked to describe this concern, one woman said that when she made mistakes she "felt depressed for a few days." Another woman, who was learning to drive a car, said that she was nervous, lacked confidence, felt she did poorly, and made mistakes. Seven subjects would have liked more assistance in dealing with their doubts. Most of them wanted others to encourage them by saying they were really progressing quite well or were as competent as other beginners.

Dealing with Dislike of Activities

More than half of the subjects dealt at least once or twice with their dislike of the reading, practising, or other activities that were necessary in order to learn. The other subjects did not feel this way, primarily because of their interest and pleasure in the reading and other activities. Very few subjects dealt with dislike of activities fewer than three to nine times or spent less than between ten minutes and almost one hour doing so. At the other end of the scale, very few subjects dealt with this dislike continually or spent more than five hours doing so.

Varied reasons for disliking the reading, practising, and other activities were mentioned. Five subjects found the activities tedious or boring, three found them very difficult, two found concentration difficult when they were tired, and two would have preferred doing something else. One suffered from tired eyes when reading, one sometimes lacked the energy for exercising certain muscles (in preparation for skiing), and one found that she became very hot and tired when practising tennis.

The dislike of activities was dealt with in various ways. Seventeen subjects *forced* themselves to put forth the necessary effort or to concentrate. Five waited for a while, and one switched to other learning activities. Two tried to prevent the feeling by choosing especially interesting material to read, and one learned with another person.

Almost half of the self-teachers who dealt with dislike of the learning activities experienced some difficulty or concern while doing so; one-third chose this as one of their two most troublesome tasks. However, this task required relatively little assistance, and only three subjects would have liked more assistance. Of the ten subjects who found this task troublesome, seven had great difficulty in keeping at the reading or other necessary activities because they were tedious and boring, or because the amount to be learned seemed overwhelming. Two of these seven were also concerned about failing to meet a deadline if lack of motivation continued. Two subjects "felt badly" about their lack of interest in the subject matter and their need to force themselves to continue reading.

A relatively large percentage of the people who helped the subjects deal with their dislike of the activities were personal-relationship experts; the percentage of acquaintances was relatively small compared to the other tasks in Table 12. One might expect that a self-teacher would learn in company with one or more other learners in order to force himself to work hard or in order to make the activities more enjoyable. However, not one of the subjects, while dealing with dislike of activities, obtained assistance from a fellow learner.

Deciding about Place

More than half of the subjects decided what place would be suitable for their learning, or took some action to make the place suitable. The other subjects could not recall deciding where to learn; several of these "automatically" or "without thought" went to their desk or some other habitual place in order to read. When describing this task, every one of the subjects who had performed it mentioned deciding or discovering where to read, practise, observe, or conduct some other learning activity. Only two of these subjects had taken any action to make some place more suitable for learning; these were the only two who spent more than six hours at the task.

Many of the subjects who consciously decided about place did so frequently, but few subjects spent much time doing so. Three subjects, however, found that deciding about place was one of their two most time-consuming tasks. One of these subjects required quiet, good light, air conditioning, and plenty of space in order to store and work at his stamps. A second subject, who had just moved to the city, spent a great deal of time trying to find a tennis court. The third subject, along with several friends, spent two weeks choosing a ski slope, buying it, and building a tow.

Most subjects found that choosing a place was not very difficult and they sought little assistance. Of the eight subjects who had some trouble or wanted more assistance, three were looking for a suitable place in which to practise a sport (skiing, golf, tennis). Three others were concerned about finding or preparing a separate room at home for their learning, and one wanted permission to use a study desk in the stacks of a university library.

While deciding about place, the subjects sought assistance from extremely few experts, no sales people, and no librarians. Only 2% of all assistants were approached on a business or professional basis (Table 14). The percentage of acquaintances (56%) is far larger than any other percentage in Table 12.

Dealing with Lack of Desire

Seventeen of the forty subjects recalled dealing with a lack of desire for achieving their goal after they had begun the project. The other subjects could not recall ever having to deal with the loss of their motivation for learning the relevant knowledge and skills. Indeed, several subjects were so enthusiastic about their self-teaching project that they were amused by the thought of having to perform this task.

Twelve of the subjects who dealt with lack of desire also dealt with dislike of activities, a task that was discussed previously. Five subjects performed only the present task and nine dealt only with dislike of activities. In the minds and projects of at least fourteen subjects, there must have been a clear distinction between these two tasks, but the tasks are certainly related in that either feeling may tend to arouse the other.

Five self-teachers dealt with their lack of desire by considering whether the goal was worth the necessary time and effort. Five waited until their enthusiasm returned. Three sought support from their spouse.

At least three subjects were concerned about their lack of desire for learning something that they "should" be eager to learn; one said, "I felt guilty because I was not enthusiastic enough." Two of these subjects were learning to care for a first child; they were surprised by, and worried about, their occasional lack of motivation.

All of the thirteen subjects who obtained assistance with this task used at least one intimate, but only 38% used an acquaintance (Table 11). The proportion of acquaintances was also low (Table 15).

Deciding Whether to Continue

After reaching some goal or completing one major part of his project, the self-teacher may consider and decide what to do next. He may decide, for instance, to strive for a higher level, or to move into a related area, or to stop entirely. More than half the subjects performed this task at least once or twice. The others either had continued (or stopped) learning without consciously deciding to do so, or could not recall reaching a point at which a decision had been necessary.

Of the twenty-one subjects who consciously decided whether to continue or stop, all but one seem to fit into one of three categories. Eight subjects discontinued the learning because they had learned enough to complete a certain job or to make a certain decision; of these, three had passed an examination (one driving test and two career examinations). Most of these subjects felt that their interest would continue; consequently they would learn occasionally and casually, but without a definite goal and strong desire.

Eight other subjects had to decide whether to continue and when to stop because they were learning about a broad topic (Africa, psychoanalytic theory) or a general skill (a musical instrument, gardening, tennis, operating data-processing machines) with no specific desired level in mind. Four other subjects fitted into a third category: they were learning about their first child. For them, deciding to learn about another stage or another aspect of child development was influenced primarily by the age and problems of their own child. The one subject who did not fit into these three categories discontinued her efforts to learn when she felt that she had reached the end of the available printed material.

Very few subjects found that deciding whether to continue was difficult or required much assistance. Two subjects would have liked more encouragement to continue, and one wanted someone to say whether she and her guitar were capable of a higher level of performance.

Deciding about Money

Almost half of the forty subjects consciously decided how much money to spend, or obtained enough money for the expenses of the project. Several subjects did not spend any money on the learning; some of them received the necessary materials and equipment from their employer. Other subjects spent the necessary money without thought; two of them scarcely considered the expenses because they

knew that successful completion of the learning would result in a large payment or bonus.

Eight of the subjects who decided how much money to spend were considering the purchase of books or journals. Five considered the purchase of equipment and supplies, which consisted of a guitar, a tennis net, a pair of skis, tape recorder parts, and ingredients for new recipes. Six considered the cost of expert advice or instruction. Only three subjects mentioned *obtaining* money for the project. One of these borrowed money with which to buy skis, another arranged for someone to give her a gift subscription to a journal, and the third obtained money from his employer for a thousand-mile observation trip.

Compared to other tasks, deciding about or obtaining money was not especially difficult and required little assistance. Three subjects, however, did find the expenses of their learning a very important concern. One lawyer was worried about asking another lawyer to be a consultant because if this were unnecessary "I would be throwing away two thousand dollars." One woman experienced a great deal of worry between the time she realized that she had bought the wrong type of guitar and the time she discovered that the store would refund her money. Another woman had to borrow money in order to obtain expert advice concerning her infant.

Four of the subjects who obtained assistance received some of that assistance from a sales person (Table 11). It is not surprising that self-teachers approached a sales person when considering the cost of buying a musical instrument, sports equipment, or rare stamps. Some tendency to discuss financial decisions with intimates was also evident. Of all the assistants, 41% were spouses and other intimates whereas only 8% were experts (Table 12).

Additional Tasks

The twelve tasks used as a framework for studying self-teaching have just been described in detail. It is possible that other important tasks were not mentioned in the literature dealing with teaching tasks, and consequently were not contained in the original set of twelve tasks. It seemed appropriate, therefore, to attempt to discover any additional tasks that might be relevant during self-teaching. Such additional tasks may provide a more complete description of just what an adult does while teaching himself, and may be useful in future research.

At the end of each interview the subject was asked to mention any tasks that had been performed in addition to the twelve that he had already discussed. He was encouraged to include any decisions that he had made, any emotions and problems with which he had dealt, and any other actions that he had taken. The subjects' responses stimulated and helped the writer to produce a list of additional tasks that may be important in some self-teaching projects. Those that have not already been described are as follows:

1. Dealing with a lack of the fundamental knowledge necessary to begin a project. Before beginning to learn about economics, for example, it might be necessary to learn certain principles and procedures in mathematics.

2. Developing, regaining, or maintaining certain learning skills, such as concentrating, understanding new material, and remembering. One fifty-five-year-old woman felt "rusty" and inept at concentrating and remembering, compared to her days as an undergraduate. Another woman of the same age felt that perhaps she was too old to learn a new field. A forty-six-year-old man was the third to mention this additional task.
3. Dealing with the frustration that arises when learning about an area of knowledge that contains only issues and opinions and policy positions, not clear-cut answers. This task was mentioned by the man who was producing a radio program and discussion pamphlet dealing with health services in Canada.
4. Applying the knowledge in real life situations. In certain self-teaching projects the adult must take this additional step after mastering certain subject matter.
5. Finding and joining one or more fellow learners or experts who can provide companionship, stimulation, and encouragement, and with whom the self-teacher can share experiences, emotions, and ideas. One subject felt very strongly the need for performing this task; she did not like being alone every time she practised the guitar. The other subject who learned to play a musical instrument felt that it was important to practise with a group, regardless of whether instruction was provided in that group. A third subject who mentioned this additional task said that it enabled him to become stimulated, to develop confidence, and to have a model. A fourth man felt it was important to discuss the subject matter and "try out your ideas."
6. Persuading one or more individuals to cooperate with the project, or at least to refrain from blocking it. For example, it might be necessary to persuade an individual to cooperate with certain physical arrangements, or to alter the time at which something is done (eating dinner, for example), or to give up some time with the self-teacher or otherwise make fewer demands on his time. Two subjects mentioned persuading their husband and wife, respectively, to cooperate in one of these ways, and a third subject mentioned her grandmother. As part of this task, the self-teacher might decide which people could assist with one or more tasks (either directly or by offering advice), and then might obtain that assistance.
7. Dealing with the problem of being "slowed down" or frustrated by a fellow learner "who asks stupid or elementary questions." The words in quotation marks were used by a woman who met occasionally with some colleagues who were preparing for the same civil service examination. This task would arise only in a group.
8. Overcoming "laziness" or inertia (despite the subject's desire and interest).
9. Dealing with (or avoiding) unpleasant physical consequences of the learning, such as the smell after practising a new recipe or aching muscles after practising tennis.

One of the most time-consuming activities during self-teaching—performing the learning activities, such as reading, listening, watching, observing, practising, and memorizing—has deliberately been omitted from the original twelve

teaching tasks and from the list of additional tasks. Performing such activities has not been considered one of the teaching tasks because only the learner can perform them. No one else, including a professional teacher, can read, listen, practise, memorize, or perform any other learning activity for him. By definition, a teaching task *can* be performed by a teacher or other educator for the learner.