# Teaching Students to Teach Themselves

**Anne Davis Toppins**

Give me thirty minutes and I can convince most graduate students that they are self-directed learners. Make it forty-five and they also get a background of adult learning theory. Stretch the time to an hour and they start planning their next learning adventures.

In my previous work as an educator in nonschool settings, I routinely had involved the learners in setting objectives. When I began teaching university graduate classes ten years ago, I expected to include the students in planning how to meet the objectives outlined in the syllabus. I was prepared to modify the design to build on their knowledge of the subject and to fit their needs. But the students resisted my efforts to share the process. They clearly held me responsible for all that went on in the class. Years of traditional academic experience had conditioned my graduate students to be passive, dependent learners.

Such an attitude was contrary to the content of the course I was teaching, Foundations of Human Resource Development (HRD). Human resource development is based on the belief that people should participate as much as possible in making decisions that affect them because the decision will be better, not just that the people will be more satisfied (Sergiovanni and Starratt 1983). I developed this exercise because I believe that the classroom should demonstrate congruence between what is taught and how it is taught. If I want my students to use principles of HRD in their work settings, I have to model those principles in the classroom.

**For those students preferring more direction, the exercise offers reassurance that they have learned on their own in the past and can do so again.**

So I persisted. The breakthrough came when I introduced a unit on adult learning with an exercise based on the theories of Malcolm Knowles (1975) and Allen Tough (1979). The students in that class saw that they actually had planned and directed much of their significant adult learning. Then they were eager to join in the process of modifying the course objectives. Was this group a fluke? I tried the exercise again with the next class. The results were similar.

I now begin each new group of students with this exercise, even in courses without a unit on adult learning. The exercise and our discussion convey my expectations of graduate students. For those students who secretly would like to have more control in their learning, the exercise introduces a different class norm and gives them "permission" to express novel ideas about how the class should be run. For those students who would prefer more direction, it offers reassurance that they have learned on their own in the past and have the ability to do so again.

Using an indepth interview procedure, Tough (1979) found that almost every adult engages in at least one major learning project a year—the average is eight. Many persons are unaware of the learning because the process does not take place in a classroom directed by a teacher. This type of self-directed learning forms the basis of Knowles' (1975) model of adult learning, which is based on assumptions that sharply contrast with the traditional pedagogical model used by most educators. Teacher and students share responsibility for diagnosing needs, setting goals, designing, implementing, and evaluating the learning plan. The principles of natural adult learning exposed by Tough are incorporated into the classroom experience.

### Self-Directed Learner Exercise

The exercise begins by asking the students to list eight to ten significant things they have learned, positive ways they have deliberately changed, since they became adults, or in the last five years. (See Figure 1 for the sequence of questions to ask.) It helps to model the

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**Figure 1. Sequence of Questions to Discover Past Learning Patterns**

STEP I: List eight to ten significant things you have learned or positive ways you have changed since you became an adult. For each item on your list ask yourself:

1. Was the learning a change in attitude, behavior, skill, or knowledge? (Check all that apply.)
2. Did you spend less than 7, between 7 and 50, between 51 and 99, or mor than 100 hours on each learning project?
3. What learning process did you use? Did you ask friends, consult experts, practice, read related material, or watch someone perform the task?
4. Was the learning related to civic, community, family, leisure, personal growth, or work activities?
5. Were you motivated by curiosity, interest, the desire to achieve, financial need, job demands, or family pressure?
6. Was the learning project planned by a friend, teacher, resource person, or by yourself?
7. Was the learning rewarded with a certificate, grade, money, promotion, status, or self-satisfaction?
8. Was physical or emotional risk involved?

STEP II: Circle any items on your list that you did not realize you were learning while you were engaged in the process. (The awareness came later.)

STEP III: Look for patterns in your learning.

1. Which columns contained many or few check marks?
2. Write a paragraph describing what you discovered about your significant learnings.

process by telling of some personal significant learnings and why they were significant.

Assure the students that they do not have to share their lists with anyone. Encourage them to think of skills, hobbies, attitudes, job requirements, recent activities, and major problems or decisions faced. Another possibility is to list what previous groups have mentioned, such as scuba diving, learning to care for a child, operating a computer, bird watching, hanging wallpaper, playing the banjo, developing listening skills, and learning a foreign language. This list is helpful to those persons who have difficulty in the beginning.

After completing their lists, students answer the questions asked on the chart by checking all the spaces that apply to each learning. Learning to use a microcomputer is the first item in the completed example shown in Figure 2. All four categories of learning may have been involved, but the primary result was the development of a new skill. How many hours were spent learning that skill? Definitely more than 100. What process was used? Four methods were checked: asking friends, reading, practicing, and consulting a computer expert.

The learning was work related. The learner was primarily motivated by job demands, but curiosity and a desire to achieve played a part also. The next question is who planned the learning project. In this case, the learner bought a computer and a couple of books and found a friend who had recently learned the skill, but essentially planned the learning process herself. How was the learning rewarded? Learning to use the microcomputer provided some status and a definite degree of self-satisfaction.

The last question about risking is included because I believe that significant learning requires risk. Attempting to learn to use a computer was an emotional risk.

When the checking is completed, the students circle any items they learned without being aware they were engaged in a learning process. That is, the procedure was so natural that they did not realize learning was taking place until later. Next they look for patterns in their learning (as evidenced by columns containing many check marks or omissions). They write a brief statement describing the patterns. For instance, the learner in our example noted:

> "Most of my significant learning is self planned and rewarded by self satisfaction. The learning process I use most often is practicing, closely followed by reading. Six items on my list required more than 100 hours each. I am motivated most by the desire to achieve, curiosity or interest. The learning I was not consciously pursuing, and therefore not aware of, involved changes in attitude."

Students share their statements (not their lists unless they choose to do so) and draw inferences about how adults learn. These inferences are compared to the findings in Tough's research.

**SIGNIFICANT LEARNINGS**

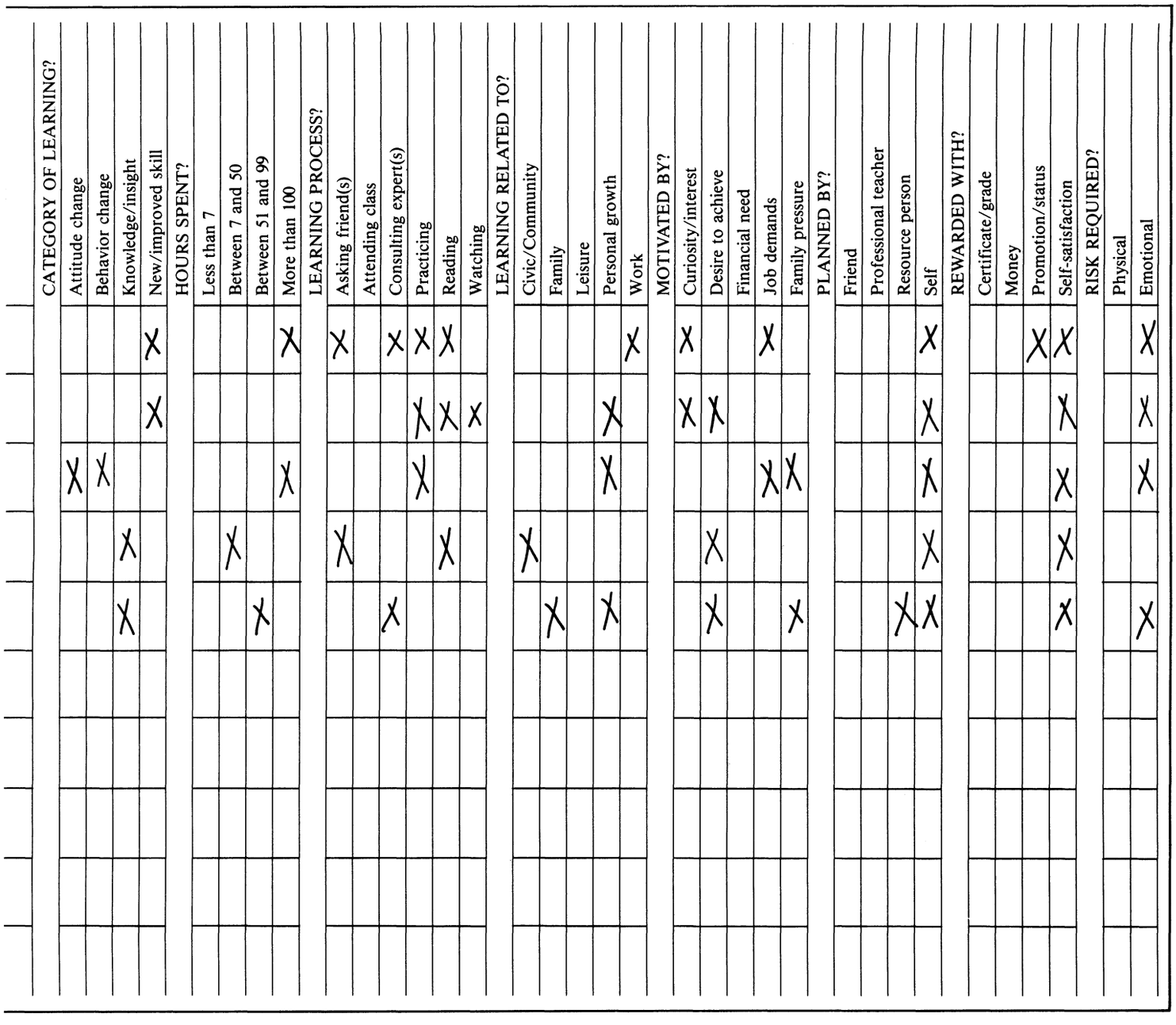
Think about what you have learned since you became an adult (or in the last five years). List below eight to ten significant (to you) learnings or positive ways you have changed.

to use microcomputer
to speak Spanish
to control my temper
parliamentary law
how to listen
to make biscuits
to water ski
to play golf
to budget money
to live in other countries

**Figure 2. One Student's List of Significant Learnings**

## Self-Directed Learners Do Their Own Planning

The generalizations made by students in my classes over the last few years have been remarkably similar to Tough's findings about adult learning projects. He defines a learning project as "a sustained, highly deliberate effort to learn." It consists of "a series of related episodes, adding up to at least seven




hours," in which "more than half of the person's total motivation is to gain and retain certain fairly clear knowledge and skill, or to produce some other lasting change in himself" (p. 7).

The students' learning projects fall into the same four major categories of learning as described by Tough. They changed their attitudes and behaviors, gained new knowledge and understanding, and developed or improved skills. They say that they spent more than seven hours on each learning project; in fact, most of their projects took more than 100 hours. Tough found that the average time per learning project was 104 hours.

Students are surprised to find that the other processes of learning are checked more often than attending class. Most projects include several processes. Students are also surprised to see that much of their learning was related to something other than their work and that they were motivated by curiosity and a desire to achieve as often as by financial need, family pressure, and the demands of their jobs.

Tough's research does not specify the life situation related to the learning project, but he did discover that the motivation to undertake learning projects was highly practical—a desire to make a good decision, to build something, to carry out some task related to one's job, home, family, sport, or hobby—or because of curiosity, interest, and enjoyment. In Tough's sample, credit toward a degree or certificate accounted for less

than 5 percent of the motivation, a stunning disclosure for graduate students.

But the greatest surprise is found in the question of who planned the learning project. Students say that they planned most of their learning projects themselves. Tough found that 73 percent were planned by the learner, 7 percent by a peer or a friend, and 20 percent by a professional.

This exercise helps graduate students realize that they can direct their own learning. When they are reminded that they have demonstrated self-directed learning in the past, they are more willing to transfer those activities to the classroom. For many, the exercise simply validates what they already know about themselves, but for others it is a surprising and pleasant discovery.

### Importance of Focusing on the Process

Tough's research emphasizes the adult's control in deciding and planning for learning. Knowles' work suggests how to do it. I use Tough's information to get the participants to look back to see how they have learned in the past and Knowles' procedures to plan for the future. For example, if 73 percent of adult learning projects were planned by the learners themselves, 20 percent by professionals, and 7 percent by friends, what implications does this fact have for a course syllabus prepared by the professor alone?

The course objectives must be met, but how they are met is negotiable. Must this course fall in the "planned by professionals" bracket or could some of the planning be done by the students themselves? We go over the objectives and generate questions the students wish to explore in order to accomplish the objectives. What can students be responsible for and what must be left for me?

We discuss how the information about their own learning patterns can be used in the conduct of the course. What strategies did they use to learn in the past? How can those same strategies be applied in this course? Another example: if self-satisfaction is the major reward in most of their adult learning projects, what can be done to provide a measure of self-satisfaction in accomplishing the course objectives? For one group in a course on staff development, that meant not just learning about the components of a well-developed workshop and producing plans for one, but actually holding workshops and evaluating the results.

Several students have field tested research instruments developed from supervisory theories. One school principal, intrigued by a new method of teacher evaluation described in the literature, developed a pilot portfolio analysis project with the teachers in his school. As shown in Figure 3, the activities of the class seldom resemble the traditional term papers and book reports.

The transition from the students' lists of self-directed learning activities and the course requirements is crucial if this process is going to work. Otherwise it is just an enjoyable, confidence-building exercise. Students may need help in drawing connections. And that is one responsibility that the professor must assume. It is easy to be misled by the immediate responses of the students who catch on quickly. There will be some who have a hard time trying to understand what scuba diving has in common with a course in supervision, sociology, business management, or engineering.

The focus must be on the process of learning, not the subject learned. Very specific questions that force the students to tie their past learning experiences to the present tasks must be asked. The contract format (Knowles 1986) helps students structure their learning plans.

Self-directed learning has been effectively used in courses in human development, adult learning, social work, nursing education, management, communications, gerontology, and educational administration. My experience has been with graduate students, but Knowles (1986) reports good results with undergraduates as well. It may not be applicable to every subject.

Knowles notes that other methods appear to be more suitable for the development of precise psychomotor skills and

**Figure 3. Self-Directed Learning Projects Developed and Implemented by Adult Students**

| Occupation | Project |
|---|---|
| School principal | Teacher portfolio analysis for teacher evaluation |
| Head nurse | Method to assess and reward accurate administration of patient medication |
| Training director | Analysis of the corporate culture of an organization |
| Therapist | Use of psychodrama with elderly nursing home patients |
| School supervisor | Analysis of teacher motivators using the critical incidents technique |
| Junior college department chair | Application of Likert's organizational systems research to junior colleges |
| High school teacher | Videotape on American politics |
| Elementary teacher | Workshop on teaching art activities to adults |
| College administrator | Slide program on communication |
| School supervisor | Development of assertiveness |
| Teacher | Herzberg's motivation hygiene theory applied to elementary teachers |
| Principal | Job attitudes in teachers—perceived deficiencies in need fulfillment |
| College professor | Preparing a manuscript for publication in a professional journal |
| High school teacher | Producing an oral history |

for subject matter that is completely strange to the learners. He also feels that the method does not suit interpersonal skills courses, but several of my students have been successful in contracting to develop assertiveness and listening skills. Knowles has found it necessary to spend several sessions at the beginning of a course preparing students to accept the use of learning contracts. My exercise speeds up the process.

The application of adult learning theory to college classrooms requires some flexibility by the professor and a well-developed syllabus containing clear course objectives and a list of references and resources. The professor must be willing to risk giving some of the control of the course to the students, be prepared to assist and encourage them as they develop their skills of investigation, and be able to veto with clear explanations any suggestions that are less than should be expected from graduate students. The role of the professor changes from one who imparts knowledge to one who assists in the discovery of knowledge.

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