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ABSTRACT

What anticipated benefits motivate adults to continue a major learning effort? This study empirically tested a conceptual framework that emphasizes chains of linked benefits from learning. A diagram of this framework was given to 100 adults in Toronto. They were asked to imagine that their total motivation for one of their learning projects was 10 units, and then to allocate those 10 motivational units to the appropriate locations on the diagram. Pleasing others was not as strong a motivation as enhancing pleasure and self-esteem. Benefits from using the knowledge and skill were more important than direct benefits from the learning activities themselves, or benefits from simply possessing (but not using) the knowledge and skill. Using the conceptual framework as a tool for collecting data on motivation is suggested for further research. (Author/KC)

ANTICIPATED BENEFITS FROM LEARNING

PRELIMINARY REPORT

1980

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Anticipated [illegible]s from Learning

ABSTRACT

What anticipated benefits motivate adults to continue a major learning effort? This study empirically tests a conceptual framework that emphasizes chains of linked benefits from learning. A diagram of this framework was given to 100 adults. They were asked to imagine that their total motivation for one of their learning projects was 10 units, and then to allocate those 10 motivational units to the appropriate locations in the diagram. Pleasing others was not as strong a motivation as enhancing pleasure and self-esteem. Benefits from using the knowledge and skill were more important than direct benefits from the learning activities themselves, or benefits from simply possessing (but not using) the knowledge and skill. Using the conceptual framework as a tool for collecting data on motivation is a highly promising approach for further research.

THE PROBLEM

In recent years several researchers have focused their attention on the adult's learning projects. A review (3, postscript) of 20 surveys of this phenomenon found that most adults, during the year before the interview, conducted at least one highly deliberate effort to gain and retain certain definite knowledge and skills. The typical learner conducted 5 distinct learning projects and spent a total of 500 hours doing so. Most of these major learning efforts were planned by the learner (73%) or by some other unaided means (7%). Only 20% were professionally planned (13% in a group with a designated or paid instructor or leader, 7% with such a person in a one-to-one situation, and 3% guided primarily by programmed instruction, library records, or some other nonhuman resource).

Why are major learning efforts so common and widespread? Why do people choose to spend an average of 500 hours a year at highly intentional learning? What benefits do they anticipate?

Answers to the question of why men and women set out to learn are extremely important. It is hard to develop better help or effective public policy for adult learners without understanding their reasons for learning.

Many studies have focused on why people participate in adult education courses and classes. But such participation now turns out to be only 10% of the total participation of adults in major learning efforts. It seems important, then, to study their motivation for the entire range of intentional learning. This focus was chosen for the research project reported here.

Various approaches and conceptual frameworks are available for studying why people learn. The authors of the present study chose to focus on the benefits that learners anticipate from their learning

efforts. These anticipated benefits are present in the person's awareness when beginning and continuing the learning. The benefits may be intellectual, material, psychological, or emotional.

The authors had three reasons for focusing on consciously anticipated benefits. First, exploratory interviews indicated that anticipated benefits constitute a large portion of the person's total motivation for learning. Environmental stimuli may be influential, as are subconscious forces deep within the person. In most learning projects, however, the person's clear anticipation of certain likely benefits is probably even more influential.

Second, the appropriateness of this approach is supported by a view of human nature that is becoming more widespread in psychological literature (1). According to this view, people are often active, energetic, free, and aware. They often choose their goals, direction, and behavior actively, and are not always pushed and pulled by the environment or by unconscious inner forces.

Third, by definition (3), a major learning effort or learning project is a series of episodes in which the person's primary intention is to gain and retain certain fairly clear knowledge and skill: the person has some definite reasons for engaging in these episodes. It seems natural, then, to focus on those clear conscious reasons as a means of arriving at an answer to the question of why people engage in the total learning project.

In an early study (2) of conscious reasons for learning, a literature review and several exploratory interviews generated a list of 13 distinct reasons. Intensive semi-structured interviews with 35 adults then tested the list. While reflecting on the data from that study, it became evident that it would be useful to study the chains of anticipated benefits.

Whereas the early study was simply a list of the conceptual framework for the present study is based on c icipated consequences. This conceptual framework was presented in de Adult's Learning Projects (3, chap. 5), but has never been tes lly until now. In order to collect data for the present study nal diagram (3, Figure 2) was simplified.

The resulting diagram is shown in Figure 1 ndicates how various events and benefits are linked. People begin a major learning effort because they anticipate several desired events and benefits that are interrelated. Figure 1 shows the various possible chains of positive consequences that a learner might anticipate when deciding to begin or continue a learning project. Each rectangle represents a major link in a chain. An arrow indicates that the event at the tail of the arrow produces the event or benefit at the arrow's point. Each of the 14 circles is the end-point or final benefit in an anticipated chain of events or benefits. (The numbers in the circles will be explained later.)

METHODOLOGY

In order to collect data on anticipated benefits from learning, Figure 1 was used, but with the 14 circles empty. This diagram was used to collect data from 102 adults. (Two of these interviews were discarded because the instructions had not been followed correctly.)

Data were collected from five groups of adults in Metropolitan Toronto. Four of the groups were continuing education classes in a university or in a community college. One class was for parents or teachers of children attending primary school. Two classes were for day care workers who were working part-time towards certification in their field. The fourth was a

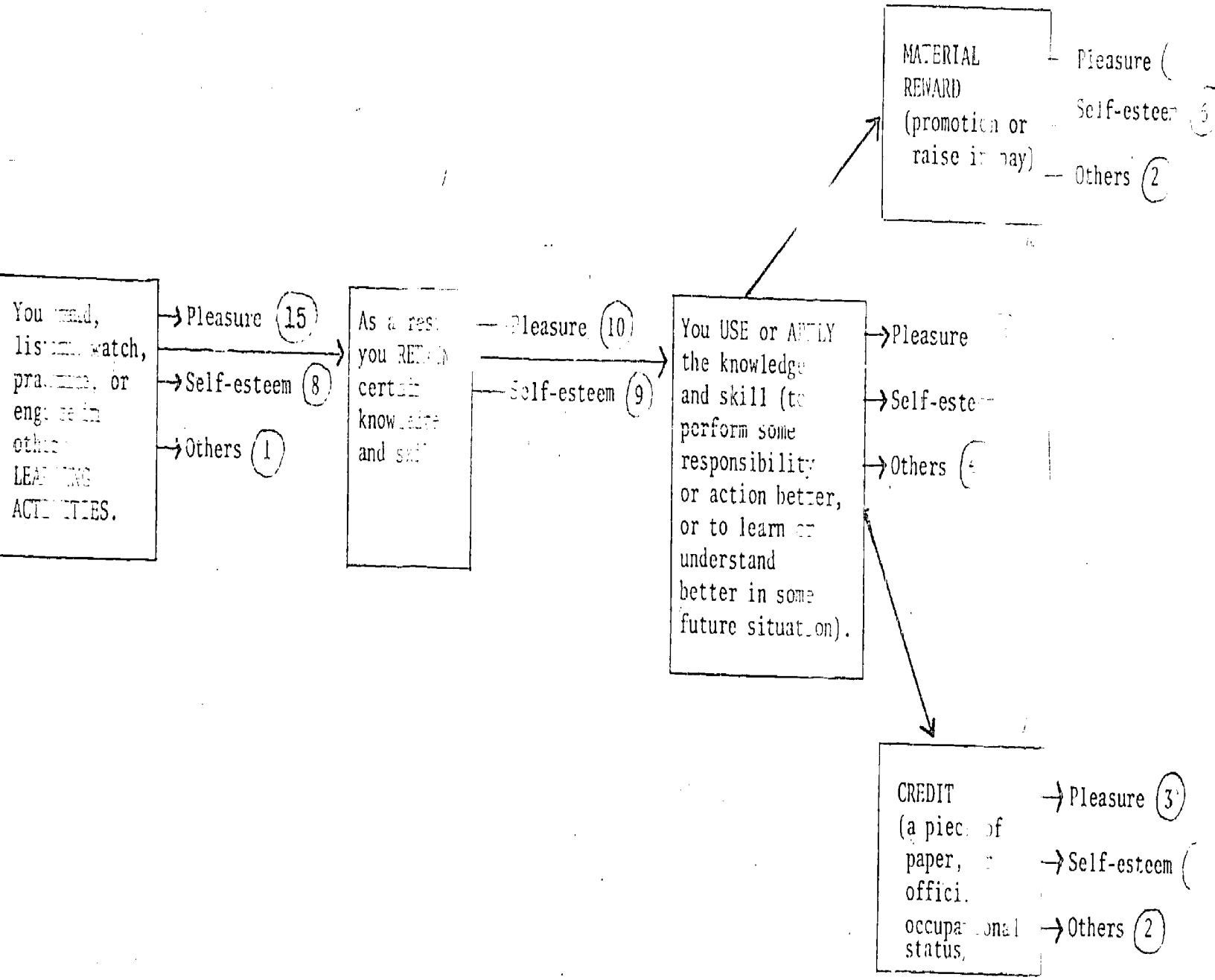

Figure 1. Anticipated benefits from learning, shown as percentages of total motivational units.

university class in administrative studies. The fifth group was selected from a university residence known for the number of mature students which it attracts.

Sessions took between 2[illegible] and 30 minutes and began with a description of the sort of learning effort which the project was investigating. People were asked to select an learning effort that they were enthusiastic about and that was still in progress. They were to choose a credit course only if they were stuck for an example. A list of approximately 140 examples of areas in which people might have sought some knowledge or skill was printed on the reverse side of the diagram. To aid recall, people were encouraged to refer to this if they were having difficulty remembering or choosing a project. Only six people had difficulty with this task, and the researcher (L.O.) provided individual help.

In order to explain the diagram, the researcher described how the diagram might work in the case of two or three learning projects of his own. He found that describing the diagram was the most challenging and time-consuming part of each session, yet no participant seemed to have difficuly grasping the idea and the content of the diagram.

Each of the 14 circles on the diagram was labelled "Pleasure" or "Self-esteem" or "Others." These labels were defined at the bottom of the diagram as follows: "'Pleasure' can include an increase in happiness, satisfaction, enjoyment, or feeling good -- or avoiding some unpleasant feeling. 'Self-esteem' means you regard yourself more highly, feel more confident, maintain your self-image, or avoid damaging your self-esteem. 'Others' means other persons regard you more highly, praise you, like you more, feel pleased with you, or feel grateful to you."

The respondents were asked to imagine that their current total motivation for continuing their learning project was equivalent to 10 motivational units. Then they were asked to distribute their 10 units on the diagram in whatever pattern would best reflect the anticipated benefits that actually motivated them to continue this learning effort. That is, they allocated a total of 10 units to the circles that best represented the relative importance of various reasons (anticipated benefits) for learning.

After the explanations, the researcher offered to answer questions individually while others were filling in their diagrams. The most common question dealt with the appropriateness of the learning project which the respondent had selected. Allocating motivational units across the diagram took about five minutes.

At this point, four unique characteristics of this study are evident.

1. It studied motivation for all types of learning efforts, not just courses.
2. It used a diagram of linked benefits, not just a single list.
3. The methodology involved sharing the conceptual framework with the respondents as a basis for data collection.
4. It allowed the respondents to weight their responses freely, not simply to say "yes" or "no" to each possible reason.

The 100 respondents were also asked to indicate the present stage of their learning effort on a linear scale 3" in length. One end was labelled "just started" and the other end "almost finished." Each response was later classified according to whether it fell in the first, middle, or last third of the line.

The diagram also had a space for the person to record "knowledge or skill acquired." These responses were subsequently coded into one of the eight categories used by Waniewicz (4).

The participants were asked to make sure that the sum of the units on their diagram was 10. Following a brief scanning of the completed forms, the researcher asked six persons to complete another diagram because they had allocated 10 units to each of the five rectangles instead of across the whole diagram. Data from two persons were arbitrarily discarded later: one person had used decimal fractions instead of integers, and the other person had allocated 11 units instead of 10.

PRESENTATION AND INTERPRETATION OF DATA

Number of Benefits

The typical person put at least one motivational unit in approximately 5 of the 14 possible circles. Both the mean and the median number of circles was 4.7 (Standard Deviation: 2.0). Clearly, then, the motivation for a major learning effort is quite complex: a mixture or variety of reasons is almost always present. It is relatively rare for an adult learner to be motivated by only one or two anticipated benefits. Only 4 of the 100 persons in this study reported that they were learning for a single benefit, and only 10 reported just two benefits.

The mean of 4.7 benefits was not as high as the mean in the earlier study (2), which was based on intensive one-to-one interviews. In that study, the mean number of benefits per project was 5.6 for beginning and 6.6 for continuing; the lowest number of reasons for any one project was 3. The data from both studies point up the inappropriateness of trying to generalize too simply about why adults learn, since the typical adult learner is motivated by a diversity of anticipated benefits.

Pattern of Benefits

Each of the 100 persons in the present study distributed 10 motivational units, giving a total of 1,000 units. The numbers in the circles of Figure 1 show the percentage of the total units allocated to each circle. For example, looking at the top left-hand circle, 15% of the total motivation was provided by pleasure arising directly from the learning activities.

One pattern that stands out clearly is the small proportion of the total motivation that comes from the desire to please and impress others. The sum of the 4 circles labelled "others" is only 9%. In contrast, the sum for the 5 circles labelled "pleasure" is 50%, and the sum for the 5 circles labelled "self-esteem" is 41%. Even the benefits from a promotion, a raise in pay, or a piece of paper are largely pleasure and self-esteem rather than pleasing and impressing others.

It is also clear in Figure 1 that the desire to use or apply the knowledge and skill is a major factor in adult learning. The person invests some time in learning in order to perform well at some task or responsibility such as raising children, making a decision, completing an assignment on the job, teaching a course, building or repairing something at home, or writing an examination. All but two persons allocated at least one unit somewhere among the three right-hand rectangles: that is, 98 respondents anticipated using the knowledge and skill to some extent. The three right-hand rectangles account for 57% of the total motivational units, compared to 24% flowing directly from the learning activities themselves and 19% from merely retaining or possessing the knowledge and skill.

The importance of some anticipated use of the knowledge and skill is also suggested by an examination of the number of respondents who allocated at least 50% of their units to the three right-hand rectangles. Fifteen

respondents allocated exactly half of their units to those rectangles, and 55 allocated more than half.

Some readers may be interested in knowing, for each of the 14 benefits in turn, just how many person allocated at least one unit to that benefit. In addition, the mean number of units those persons allocated to that benefit is shown in parentheses. For the three benefits flowing directly from the learning activities, the three N's were (from the top of the diagram to the bottom) 71 (2.1), 43 (1.9), and 8 (1.2). For the "retain" rectangle, the N's were 52 (1.9) and 50 (1.8). For the "use or apply" rectangle they were 59 (2.5), 54 (2.6), and 18 (2.2), for "material reward" 32 (2.2), 29 (2.1), and 12 (1.7), and for "credit" 11 (2.7), 23 (1.7), and 10 (2.0).

Subject Matter

Let us turn now to the areas of knowledge and skill into which the learning projects were categorized. The number of projects in each category is shown in the left-hand column of Table 1.

Each row of the table presents data for one subject matter area. Of all the motivational units assigned to projects in the given area of knowledge and skill, what proportion was assigned to each rectangle? The central figure in each cell answers this question. The bottom corner of each cell shows the number of persons who assigned at least one motivational unit to that rectangle.

The distribution of the five means varies significantly from one subject matter area to another ($\chi^2_w = 9.91$; df = 4, $p < .05$).

We were also interested in any relationships between subject matter category and the distribution of units to pleasure, self-esteem, and others.

TABLE 1

PROPORTION OF MOTIVATIONAL UNITS ASSIGNED TO EACH RECTANGLE WITHIN EACH SUBJECT MATTER CATEGORY

Subject Matter Category	n	Activities	Retain	Use	Reward	Credit	Total
1. Vocational	34	.21* (24**)	.18 (24)	.26 (28)	.18 (20)	.18 (19)	1.00
2. General	17	.25 (14)	.12 (9)	.31 (12)	.20 (9)	.12 (7)	1.00
3. Hobby & recreational	19	.30 (18)	.22 (18)	.30 (17)	.15 (9)	.02 (2)	1.00
4. Home & family	8	.18 (5)	.16 (6)	.38 (7)	.29 (5)	0 (0)	1.00
5. Religion	2	.15 (1)	.20 (1)	.65 (2)	0 (0)	0 (0)	1.00
6. Community	3	.20 (3)	.47 (3)	.23 (3)	.10 (1)	0 (0)	1.00
7. Personal	16	.24 (14)	.20 (12)	.50 (16)	.02 (2)	.04 (3)	1.00
8. Other	1	.40 (1)	.40 (1)	0 (0)	0 (0)	.20 (1)	1.00
Average value of motivational units for each rectangle		.235	.190	.328	.153	.094	1.00
Number of persons deriving benefit from rectangle		80	74	85	46	32	

* Proportion of motivational units for each subject matter category.

** Number of persons assigning at least one motivational unit to the rectangle.

There was no significant relationship between the mean benefits from pleasure, self-esteem, or others and category of subject matter ($F = 1.936$, $df = 2$ & 14, $p > .05$).

Stages of Learning

Three respondents failed to indicate how long they had been involved in the project. Of the remaining 97 individuals, 31 indicated they were within the first third of their project, 33 were in the mid-third of the project, and 33 estimated they were in the final third of their project.

The relation of the distribution of units across the five rectangles to stage of learning (Table 2) was examined to study the question, "Do the anticipated benefits vary by stage?" In the present study, the answer depends on whether one considers the mean number of motivational units or number of persons.

The mean number of motivational units assigned to both the learning activities and to use of the knowledge and skill decrease as persons approach the end of their projects (3.2 to 2.6 and 4.6 to 3.2 respectively) while the mean for reward (promotion or raise in pay) is greater (2.0 to 3.8) for the final stage.

In contrast, when one looks at the number of persons benefiting from each rectangle, no significant difference was found ($\chi^2_w = 6.67$; $df = 8$, $p > .05$).

In each of the three stages, the highest mean number of motivational units was allocated to pleasure, followed by self-esteem and others in that order. That is, there was no shift in the relative importance of these three types of motivation as individuals move closer to completing their learning project.

TABLE 2

MOTIVATIONAL UNITS ASSIGNED TO EACH RECTANGLE AT EACH STAGE OF LEARNING

Stage in Learning Project	Activities	Retain	Use	Reward	Credit
1st third	3.2 *25*	2.6. *23*	4.6 *28*	2.0 *8*	2.7 *6*
2nd third	2.8 *28*	2.7 *25*	3.5 *27*	3.3 *17*	3.0 *11*
Final third	2.6 *25*	2.5 *25*	3.2 *27*	3.8 *19*	2.9 *15*

There are slight differences in the number of benefits selected by people at the three stages. In the first stage, a mean of only 4.29 benefits were selected. This increases to 5.12 for those in the middle third of their learning project, compared to 4.76 for the final third. Why Adults Learn (2) also found a higher mean number of reasons for continuing than for beginning: 6.6 compared to 5.6. Apparently the learner sometimes discovers an additional benefit as he or she proceeds with the learning.

FURTHER RESEARCH

The authors have three suggestions for further research.

Using the conceptual framework as a tool for collecting data on motivation has turned out to be a highly promising approach for further research. Consequently, one suggestion is to replicate the study (perhaps adding certain variables) with a variety of populations in North America and elsewhere. Fascinating differences and similarities might emerge.

Second, it would also be very useful to conduct leisurely, probing, dialogic interviews with one person at a time, based on the same diagram as the present study. These in-depth interviews would uncover any misconceptions about the diagram and its wording. They would also ascertain whether one gets similar data through the two different approaches. In addition, intensive individual interviews could add to our detailed insights into the anticipated benefits; for example, the particular aspects that provide the pleasure or self-esteem. One of the authors (D.A.) is already supervising such a study on a small scale.

Third, the authors hope that other researchers will fundamentally challenge the conceptual framework used in this study. Does this relatively simple diagram really manage to include all of the major

motivations for trying to learn something? On the one hand, the 100 respondents in this study raised ramarkably few questions, encountered few difficulties, grasped the framework readily, and found a good fit between the diagram and their learning project. On the other hand, the diagram probably fails to include altruistic benefits in which some other person benefits in some way (happiness, money, well-being, learning, etc.) from the learner's enhanced performance. The definition of "Others" should be broadened to include this. Perhaps other modifications are needed as well. As a result, we hope other researchers will feel challenged to modify our conceptual framework.

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