

DOCUMENT RESUME

ED 143 375

95

IR 005 187

AUTHOR Penland, Patrick R.  
 TITLE Librarian Client Learning Projects. Final Report.  
 INSTITUTION Pittsburgh Univ., Pa. Graduate School of Library and Information Sciences.  
 SPONS AGENCY Office of Education (DHEW), Washington, D. C. Library and Information Sciences Branch.  
 PUB DATE 9 Jan 76  
 GRANT G007500621  
 NOTE 52p.; For related documents see ED 128 016 and ED 129 247

EDRS PRICE MF-\$0.83 HC-\$3.50 Plus Postage.  
 DESCRIPTORS \*Adult Learning; \*Behavior Patterns; \*Educational Resources; Independent Study; \*Learning Characteristics; \*Learning Motivation; Libraries; \*Library Research; \*Library Role

ABSTRACT

This study examined the selflearning and educational patterns of selected respondents in Allegheny County, Pennsylvania who have used library resources on a continuing basis. The content of learning projects emerged from real-life negotiations and ranged across the transactional environment. Episodes--consulting people, reading, browsing, searching, viewing, and listening--were linked to form sequential learning projects exceeding the definition of seven hours spread over three days. Respondents tended to use a combination of four major types of resources for information and planning: self as resource, non-human resource (e.g., library materials), another person (e.g., a librarian), or a group. This study found implications for the librarian in the role of learning consultant developed around the psychology of actual learning patterns rather than instructor's methods or library use training. (Author/KP)

\*\*\*\*\*  
 \* Documents acquired by ERIC include many informal unpublished \*  
 \* materials not available from other sources. ERIC makes every effort \*  
 \* to obtain the best copy available. Nevertheless, items of marginal \*  
 \* reproducibility are often encountered and this affects the quality \*  
 \* of the microfiche and hardcopy reproductions ERIC makes available \*  
 \* via the ERIC Document Reproduction Service (EDRS). EDRS is not \*  
 \* responsible for the quality of the original document. Reproductions \*  
 \* supplied by EDRS are the best that can be made from the original. \*  
 \*\*\*\*\*

ED143375

U.S. DEPARTMENT OF HEALTH,  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-  
DUCED EXACTLY AS RECEIVED FROM  
THE PERSON OR ORGANIZATION ORIGIN-  
ATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT  
OFFICIAL NATIONAL INSTITUTE OF  
EDUCATION POSITION OR POLICY.

LIBRARIAN CLIENT LEARNING PROJECTS

University of Pittsburgh

FR005 187

LIBRARIAN CLIENT LEARNING PROJECTS

Final Report, 9 January 1976

PROJECT DURATION: July 1, 1975 - December 31, 1975

FY/75 FUNDING: \$17,772 GRANT NUMBER: G007500621

PROJECT OFFICER: Henry T. Drennan PROJECT NUMBER: 475AH50046

The number of adult learners in the world independently conducting learning projects is estimated in the millions. The public library in the United States; and elsewhere, is a prime support site for such adults. This first approach studies in depth the selflearning and educational patterns of individuals who have used library resources on a continuing basis among selected respondents. (N-128) from the library service outlets of Allegheny County (Metropolitan Pittsburgh).

The elements and patterns of selfplanned learning employed among these respondents are similar to findings of other survey research in independent learning projects. The content of learning projects emerges from real-life negotiations and ranges across the transactional environment. Motivation, as the behavioral reciprocal of content, is not necessarily limited to inferred hidden persuaders. Episodic behavior varies in length of time around function: consulting people; browsing, searching; viewing, listening, reading. But, induced by motivations similar to those found in other surveys, episodes are linked together to form sequential learning projects exceeding the minimum definition of seven hours spread over three days.

The tendency of respondents was to use a combination of all four major types of resources for information and planning: self as resource; non-human resource (e.g. library materials); another person (e.g. a librarian); or a group. The findings of this study appear to have implications for such helping professions as librarianship. The role of librarian as learning consultant could be developed around the psychology of actual learning patterns rather than stem from the way instructors teach or librarians train laymen in library use.

Report Submitted by: Patrick R. Penland

Graduate School of Library and Information Sciences

University of Pittsburgh

# LIBRARIAN CLIENT LEARNING PROJECTS

Final Report, 9 January 1976

Principal Investigator: Patrick R. Penland

Graduate School of Library and Information Sciences

University of Pittsburgh

## I. INTRODUCTION

The number of adult learners in the United States independently conducting learning projects is estimated conservatively to be in the millions, well over 35% of all adult learners (Johnstone and Rivera 1965).<sup>\*</sup> The present study has been developed within the framework of observable patterns of these episodic and sequential learning projects. An initial and provisional model of an independent self-study project was taken from the findings of previous survey research (Tough 1971, Fair 1973, Peters, 1974, Farquharson 1975).<sup>\*</sup>

This study has sought to lay the basis for a psychology of intrapersonal information processing as distinct from the developmental tasks/values approach upon which so much of the traditional service patterns of the librarian/information specialist are based. It has investigated the patterns employed by independent self-learners in planning and in designing individual learning projects. More specifically, the study addresses itself to the questions of whether the independent learning projects of library patrons differ from self-learning projects conducted

---

<sup>\*</sup>For full citations, please consult the bibliography, Appendix G.

under other auspices, and whether the librarian/information specialist clients differ from self-learners who do not use library and information centers.

The role of the librarian/information specialist was not investigated directly but only obliquely as it was perceived by the respondent. Primary attention was given to the patterns in which respondents employed library and other resources in developing self-learning projects. It was not a user survey in the traditional sense where the subject interest distribution of a population serves as a guide to deploy the infrastructure resources (NCLIS 1974).

The study was an indepth investigation of how individuals go about planning an independent learning project and using resources to conduct that project to completion. As a precedent in library/information science research, the study has made a start on a line of investigation proposed several years ago (Asheim 1957) but not until now given serious attention by the profession: how does the individual learn? And, how are library resources employed in self-learning patterns?

## II. METHODOLOGY

A main purpose of this study was to investigate the behavior and motives of independent self-learners in planning and in designing their own individual learning projects. The subjects were selected from the patrons of the Carnegie Library of Pittsburgh both in the central city and adjacent suburbs in the county. Reader services librarians were asked to identify individuals who fit the definition of a continuing self-learner, namely an individual who

uses library resources to plan and carry out an independent learning project. As a minimum for the purposes of the study, planned and sustained attention to one topic was taken to include seven hours spread over three days.

Such a project is a sequential learning experience on a topic chosen by the learner who may or may not be directly assisted by a librarian in using library and/or other resources. The focus of this study was upon the independent self-learner, and on the librarian only to the extent that the self-learner perceived librarian-assistance to be useful. Each selected independent learner was interviewed in depth about one or more independent learning projects undertaken in the past 9-12 months. The most recently completed project received the major emphasis in the interview.

The persons interviewed were secured by requesting the adult services librarian at each of the branches of the Carnegie Library of Pittsburgh and district libraries adjacent to the core city but well within the county to compile a list of people fitting the category of respondents for the study. An abridged copy of the original research proposal as well as Exhibit A (attached) were employed by the project director in a series of orientation sessions with the public librarians.

The sample of subjects for the interviews was the population of continuing self-learners as identified by reader services librarians of the public libraries. The respondents came from the libraries in the central city of Pittsburgh and its adjacent suburbs, well within the limits of Allegheny County. Although the nature of the study precluded any formal sampling procedure, the librarians were asked to make an effort to secure as diverse a group of cases as possible.

A briefing sheet (Exhibit B) was prepared in cooperation with the public librarians as the basis for initial contact with library clients; additional orientation was provided on an individual basis. The cooperation of the patron was obtained to serve as a respondent to be interviewed. Respondents were contacted by the interviewers and arrangements made to schedule the interview. The interviews were conducted in a private setting, minimizing interruptions, and where portable recording equipment could be employed. While the length of the interviews varied, the typical interview averaged about one hour in length.

Exhibits A and B help to articulate the idea of continuing education through use of library resources which included both staff and materials. They also describe in a general manner the way in which the interview was to be conducted and indicated the general nature of the questions that would be asked. This first statement was sent in advance to those who agreed to be interviewed. These items thereby served as devices to avoid or reduce tension, to diminish explanations at the interview itself, and to stimulate the respondents to think about the subject on which they were being interviewed.

An interview instrument was developed and tested in a pilot sample of the continuing self-learners identified by the librarians of the Carnegie Library of Pittsburgh. The instrument was examined for clarity and comprehensiveness by specialists in instrument construction and in continuing education. Instrument development occurred in three phases as indicated by Exhibits C, D, E. Exhibit C includes a listing of the components within categories as abstracted from the literature of research findings about independent learning projects. Exhibit D demonstrates the second stage in the process of transforming research findings into a data and pattern-gathering device.

Exhibit E was employed as an interview guide with the respondents, and was the instrument employed for the survey. The interviewers were encouraged to make notes during the interviews in order to relieve respondent anxiety over interviewer forgetfulness. In as many instances as permitted by respondents, the entire interview was audio recorded to provide the indepth data base required by the study.

The final interview schedule may appear to be a rather brief and simple instrument. But it was designed this way as a communications device, and after the interviewers had been trained and led through the process which cumulated in this final schedule. Anything more complicated may have hampered the interviewers and certainly would have confused the respondents. In fact the interviewers were instructed to keep a very simple structure in mind, though sophisticated in its implications, should the appearance of the interview instrument seem to inhibit the respondent: 1) Why did you get started? 2) What helped you develop the project? 3) How did you know when to stop?

With this structural outline in mind, the interviewers were surprisingly flexible in helping the respondent describe the patterns and details of her/his own learning project. By coupling these considerations with an understanding of the framework out of which it was developed, the interviewers were able to organize their notes taken in the interview. Since 71, or 55% of the total 128 interviews were audiotaped, the investigator had a solid base upon which to compare subsequent reports with actual interviews.

The research advisory committee recommended that more than the two interviewers be employed which had been planned for in the original proposal. Given thorough orientation and training, the reports of several interviewers

were considered to be more likely to include all the elements required by the survey. It was also considered more likely that in this way more information would be obtained suggested of additional hypotheses not considered at the initiation of the survey. In total, eleven interviewers were recruited and trained. This turned out to be a wise decision, in view of the limited time span of the study and the extensive follow-up time consumed in establishing contact with each individual respondent and in conducting the interviews.

Based on recommendations of the research advisory committee, the interviewers were not only trained to administer the instrument but also involved in the process of developing it. In addition to four training sessions, pilot interviews were conducted and recorded verbatim on audiotape and in summary narrative format by the interviewer. The narrative report was compared by the project investigator with the audio record as a check on the summary report. All the pilot interviews were audio recorded as an essential component in the training. In all, interviews were collected from 128 individuals who were identified by professional librarians as being those who were dedicated to continuing self-learning employing library resources.

### III. COLLECTION OF DATA

The instrument used in this study was designed on the basis of the research findings of learning psychology and upon the findings of survey research into the independent study projects of citizens in the community. The interviewers were oriented to the theoretical background of the study.

Their training included involvement with the three variants of the instrument as it was being developed in consultation with the research advisory group.

Pre-tests were conducted at each stage of instrument development and the audiotape record was critiqued for interviewer style. In addition, the written reports of the trial interviews were compared with the tape record for objectivity, balance and representativeness. These various processes led to revision and the changes required were included in the research schedule. Since each of the interviewers was involved in this staged training experience, the final reports of each survey interview were considered highly reliable as data reporting devices.

A brief informal conversation often took place after each interview drew naturally to a close. This dealt with an expression of thanks for the time given and any "second thoughts" the person might have. Since many of the interviews were audiotaped, the respondent was asked if the machine had been troublesome and whether there might be something else of interest to be added to the interview. Finally, a note was made of those who wished to have a summary version of the report on the project.

When the respondent departed, the interviewer reviewed the notes taken during the interview. Interviewers were instructed to take notes during the interview not only to insure accuracy of report writing but also as a communication device to assure the respondent that the interviewer was carefully following her/his learning project. In addition, the interviewer noted any facts about the respondent and either wrote or roughed out a report of the interview.

The 128 interviews upon which this study is based were in most instances conducted in the library service outlet nearest the respondent's home. A few were held in the subject's home. Several others were scheduled in offices of the Graduate School of Library and Information Sciences, University of Pittsburgh, particularly with respondents who used the Bookmobile and some of those from the suburbs around Pittsburgh but well within Allegheny County.

The interview setting was as relaxed as possible. The average interview was about three-quarters of an hour, although the range was from five minutes to one and a quarter hours. A brief preliminary conversation was held to establish rapport and to answer any questions which may have emerged since the initial telephone call scheduled the interview. The subject was encouraged to talk freely while the interviewer saw to it that the "agenda" or points in the research schedule were dealt with.

#### IV. ANALYSIS OF DATA

Since no research of this nature to this investigator's knowledge has been conducted into librarians client learning projects, it was considered desirable to collect some demographic information about the respondents. Although no formal sampling procedure was used, an effort was made to recruit as wide a range of respondents as possible. Since not much is known about the distribution of continuing learners in library user populations, this kind of data may serve as a preliminary body of information about those who fall into the category of independent self-learners employing library resources (Table 1).

N = 128

<u>Education</u>		<u>Age</u>	
Grades 1-7	0	Under 20-	6
Grades 8-11	7	21-30	28
H.S. diploma	44	31-40	24
College	50	41-50	29
Graduate	27	51-60	22
		Over 60	19
<u>Income</u>		<u>Race</u>	
Under \$6,000	31	Black	17
\$6 - 12,000	45	White	111
\$12 - 18,000	29		
\$18 - 30,000	17		
\$30 - 50,000	6		
Over \$50,000	0		
		<u>Sex</u>	
		Female	83
		Male	45

Table 1. Demographic Characteristics

9  
12

These demographic data by kind and range may also be typical of findings from the usual library survey of user patrons. In considering these data, it should be noted that neither the demographics nor the "subject" interests of the respondents were the central concern of this study. The use of library indexes and documents was not conceptualized on the basis of how librarians analyze content, nor index and store it for retrieval, such as the model of employing classification as a method of thinking. Instead the actual learning habits and patterns of respondents were studied from the manner in which they naturally process information in episodes and then link these episodes into sequential learning projects.

The demographic data are scarcely representative of the population distribution in Pittsburgh and Allegheny County. But it should be remembered that in general the distribution of library users is not representative of the population. A more appropriate question might be the representativeness of this group of respondents to library users. But no one seems to be certain how to sample out a group of self-learners who use libraries from those who presumably use libraries for other purposes. Nor can it be accurately determined whether the casual user of today may not be the continuing self-learner on the morrow.

Self-learners do not necessarily develop their independent learning projects along the lines of the abstract subject categories of library collections. Instead, there is presumed to be a closer relationship between an orientation to learning interests and the totality of real life concerns within which any one individual is immersed. The occupations of the

N = 128			
<u>Occupation</u>		<u>Interview</u> <u>Project Interest</u>	
Craftsman	6		
Operatives	3	Home and Family Life	11
Managerial	7	Making a Living	7
Service Worker	10	Civic Interest and Responsibility	19
Professional	33	Recreation, Creative Use of Leisure	21
Sales	9	Religion and Inspirational	15
Clerical	11	Cultural Pursuits	26
Student	6	Environment and Quality of Life	29
Housewife	25		
Retired	11		
Unemployed	6		
Volunteer	1		

Table 2. Real-life Concerns and Interests

respondents and the general topic of one learning project of each respondent are listed in Table 2. However, two factors should be pointed out. Occupation is not necessarily an indicator of one's concerns and interests. The respondent was interviewed in depth about only one learning project. More often than not, the respondent may have been involved with other learning projects which for the purposes of this study were not emphasized.

There has been some work done on the value of occupation as a social index of the distribution of other interests and concerns in the population. Perhaps the findings of this study will prove useful if a national survey is mounted of citizens' self-learning projects. It should also be noted that no attempt was made to exclude individuals not now in the labor force. Even though Table 1 shows few respondents below the age of twenty, an effort was made to have as wide a range as possible of individuals in the population. However, the interviews had to be conducted with the respondents who were willing to be interviewed.

The learning history of the respondents has been considered to be a valuable element in previous surveys of independent learning projects. Data of this nature were collected in this study in order to determine whether the learning patterns of respondents who use libraries are different from independent learners in the general population. In terms of the number of projects and the time spent on the one topic being surveyed, the findings of this study are comparable to previous surveys (Table 3).

There is however one exception. Tough (1971) and others report a distribution in the duration of episodic behavior with mode and mean points. But in this study it was found to be nearly impossible to collect that kind of

N = 128			
<u>Number of Projects</u>		<u>Time Spent on Interviewed Project</u>	
1 per year	11	7-15 hours	21
2 " "	42	16-30 "	19
3 " "	32	31-49 "	31
4 " "	23	50-75 "	29
Over 5	20	76-100 "	16
		Over 100 "	12

Duration of Episodic Behavior

Episodic Behavior Varies by Function and Context:

Consulting people	5-30 minutes
Browsing, searching	15-45 minutes
Reading, viewing, listening	30-120 minutes and often more

Table 3. Learning History

data. Invariably, the respondent reported that "it depends." For this group of respondents, episodic behavior varied by function and context.

In general, an information process episode is shorter than a study episode in a learning project. Indeed some respondents (6/128, or 5%) reported reading periods of up to 4-5 hours in length.

In preparing for a further analysis of the patterns of independent learning projects, the investigator read the report of each interview. Initially, an effort was made to resist comparisons as attention was focused on the report from each individual respondent. All the cases were then read again with the themes for analysis in mind. In general, the themes corresponded to the questions of the interview schedule. Depending on response, some questions could be combined into a single theme and others were rearranged or discarded as unproductive for that particular interview.

As each case was analyzed, relevant items concerning each theme were recorded from wherever they might appear in the interview. Direct statements from the interviewer's report were used to illustrate the range or elements in each theme. Since the general purpose of this study was to determine whether librarian clients develop independent learning in the same way as other people, it should be noted that the first six themes are comparable to the categories employed in other surveys. The final one however is unique and may be considered as the singular contribution of this study.

#### Stimulus Conditions

The behavior of a person within his world can be seen as a specific transaction with particular and concrete phenomena in a real situation whether cultural or environmental. The imperatives of daily life are

processes and procedures which place the library client as well as every person under constant pressure to adapt and master environmental and cultural situations relevant to survival and progress in living.

✓ From the context of the individual, the patron apprehends these transactional areas through perception. Under some stimulus set, the perception is vague and uniquely informal. The stimuli are undifferentiated and may produce a vague uneasiness or interest. The individual not only responds to stimuli but also uses them as resources for increasing his competence in self control. The psychological term "stimulus" is almost equivalent to the "surprise" value of data as considered in information theory.

The stimuli become increasingly differentiated into opportunities and constraints. The thrust or vector in a cycle of behavior is towards cognitive control regardless of how emotionally disturbed the individual may have been under the initial stimulus set. What may be of little interest to one person may be highly pertinent to another. In a similar vein, a stimulus to one person may of necessity have to be concrete; to another, it may have to be more intellectual and abstract.

The literature on adult and continuing education have considered the episode as a way of describing the response of people to stimuli which cause them to pay attention. An episode is a definable period of time held together by similarity of intent, by the activity itself or the sequence of ideas and actions which occur in it. Each episode can be remembered as having a beginning and end, and range in length of time from 15 to 20 minutes to two hours or more.

The respondents in this survey appeared to be no different from other human beings. The following statements taken from the reports of the interviews with respondents appear to be similar to the stimuli conditions identified in the literature:

Television programs such as the English and American historical series influence a person's attitudes.

Specialty radio programs such as those of the western and classical stations in Pittsburgh even though they may be tuned in out of habit.

Part-time volunteering such as contributions to Junior Achievement raise imperatives for the volunteers.

News events in the daily papers and on television or radio talk shows influence the person's desire for more information.

Passtime reading and browsing in bookstores and libraries cause people to pay attention even though an intent to learn has not yet developed.

Personal record collection acquisitions lead to the reading of biographies and further information about composers and performers.

Subscriptions to one or more special-audience magazines may lead to further activities.

Friendly conversations may precipitate followup behavior even though the original desire may have been for relaxation.

Health problems, or a death in the family can lead to continuing preventative measures.

Outdoor life may lead to a subtle and pervasive interest in the quality of environmental conditions.

#### Episode Linking Motivations

Human behavior may be random, but it is more often organized into an episode when confronted with the surprise value of information. No person is exempt from the cycle of adaptive behavior when confronted with a concern or interest. In addition, episodes are sometimes linked together

in sequence to achieve a more underlying purpose or to satisfy a more pervasive interest. Such a linkage may not occur immediately but develop over a period of time.

The linking together of episodes into patterns of related activities requires both motivation and planning. The individual may or may not always be deliberately aware of these components. The cut-off point in practice may be difficult to establish but there is a point beyond which the individual does not presently have the motivation to go. His interest may be lost in the welter of other episode which demand immediate attention. She may return and pick up the interest again, or she may be motivated to do so in some encounter with a friend, an acquaintance or perhaps a sensitive and perceptive helping professional.

The literature of continuing education gives considerable attention to these episode linking motivations. The following examples taken from reports of respondent interviews were particularly important to identify not only for research purposes but also as the sources of her/his decision to terminate a project:

The "cause," including women's rights and interests, as well as black culture and history led to action-oriented learning projects. It is interesting to note that in these instances a wide range of resources were sought.

Personal satisfaction including the development of self-confidence, better interpersonal relations and skills grew out of such stimulus conditions as leafing through Psychology Today.

Being well informed enough to share information with other people may be a more socially approved sublimation of the urge to gossip but in one instance at least a husband was helped to communicate better with his wife.

The desire to see the end results or use the finished product featured as a strong episode linking motivation to some respondents.

Satisfaction in reading when everyone else is asleep and because a book is started there is an urge to want to finish it.

Impending travel outside the country, close relations working overseas, or traveling on a reduced budget was related to a desire for knowledge.

Inflation and the cost of living lead some people to a converted attempt to be more self-sufficient through gardening or better nutrition on a reduced budget.

Boredom may be intense enough to promote a search for the creative use of leisure time.

Self-esteem of the person with self-learner status may offset the frustrations an individual feels with the confusing deviations of group processes.

Reading activity may be an end in itself particularly with those who still resist mass media communication.

When a person does not have a clear picture of what she/he wants to learn or a definite goal to guide some desired behavior change, it is motivations like these that carry her/him past uncertainty. As a result, instead of focusing on a feeling of tension or incompleteness in one episode, the individual becomes interested in several related episodes usually spread out over a period of time. If reasons can be specified for undertaking a project, then these are related to the articulated reasons for ceasing work on it (Table 4).

It ought to be clear from the above examples that there is little if any relation between these episode linking motivations and the so called psychic probings which arouse so much aversion in the minds of some professionals. It is hard to imagine that a conversation about any of the above motivations could be offensive to anyone. No one in their right senses would directly attack the articulation of the unexamined assumptions

If people spend time learning, they usually do so because of some "environmental" influence.

Some people like being involved, i.e. the process itself is enjoyable.

Some people like to get results, i.e. they want to achieve a goal(s).

Some people like to acquire knowledge, i.e. they just want to know more about the subject.

If people terminate a learning project, they usually do so for one or all of three reasons:

They are satisfied (satiated) with the amount of knowledge or skills learned.

Their enthusiasm for the project has begun to wane or has evaporated.

Their new knowledge or skill has impressed or benefited all those they wanted to influence with it.

Table 4. Behaviors and Motivation

underlying these client motivators because of the fear that such a "frontal" approach would be a "scary" experience to the average library patron.

#### Resources for Planning and Execution

The planning and developing of sequential learning episodes can be a complex and difficult set of tasks for the majority of citizens. Only rarely will a self-learner sit down at the beginning of a project and deliberately plan a detailed strategy for the entire effort. It is much more likely, as shown by this study and by previous survey research, that the individual will get involved with a number of negotiations whose place in the proposed sequence may only dimly be perceived, at least initially.

With ears cocked to a deeply felt motivation, the individual begins to articulate that need while keeping the environment under surveillance for possible leads. These leads become the sources from which planning help and information are sought in what only retrospectively can be seen as a sequential process. Thus, learning projects are essentially transactional in nature.

Previous survey research as well as the present study have grouped these resources into four categories. However useful this may be for the purposes of analysis, it should be remembered that in real life, continuing learners may be negotiating with one or all of these types one after another if not in some instances almost concurrently. In any event, these four transactional areas appear to constitute the whole cohort of resources to a patron involved in real life contexts.

(1) Self-learners: In many instances, learners retain the major responsibility for day-to-day planning and decision making. Such a learner tries to detect specific errors in current knowledge, or specific weaknesses in current skill or style. This person studies her/his own particular needs and decides on the criteria to be used in selecting a particular resource. She/he also gathers information on the advantages, weaknesses, accessibility, level and suitability of certain resources or activities. The following statements, obtained in the study, are characteristic:

Grabs books off the shelves of a bookstore or library and selects by publishing date, table of contents, index and in a rapid reading those titles which seem literate and substantive.

Rapid reads contents and uses footnotes for related references until the information begins to repeat itself.

Browses in newstands and then follows up at the card catalog in the library, then browses at shelves selecting on the basis of "maturity" and recency.

Keep my eyes and ears open while involved with television, newspaper articles or conversations; one book leads to another as I browse on the library shelves and take notes.

Recent pamphlets or magazine articles more up to date than books are coupled with sources among my friends who are more creative than library help.

(2) Non-Human Resources: On some occasions, much of the detailed direction regarding what to learn or do in each episode comes from some object or nonhuman resource. Recordings, a series of television programs, a set of programmed instruction materials, a workbook or other printed materials can provide a blueprint for change. At other times, the learner may find a set of directions in one kit that will lead to other closely related episodes such as the following examples:

Unless one reads just for the sake of it, then not many books, perhaps 4 or 5, were used supplemented by other sources.

Programmed text on how to run a meeting was bought with outlines for reading and discussion suggested other books which my wife borrowed from the library.

Being retired I visit museums and bookstores and either pick up leaflets or write to many places for information.

Kit on how to install a fireplace was purchased and I wrote to the manufacturer for more information about heating conservation.

Nature walks help me to observe the environment and give me examples of abuses to follow up on with readings and audiovisual materials.

Television program "Washington in Review" is a regular source of information and a guide to what to look for in magazines.

Bookstore is preferable to the library because it is easier to find recent material and when bought in hand I can write in them or tear them apart and do not have to take them back.

Specialized magazines on Melville and Shakespeare give me all the information I need for our discussion group.

(3) Human Resources: The planning or deciding on details may come from another person who helps the learner in a one-to-one situation as a human resource who can provide guidance and advice. There is a need for this kind of helper to fill the gap between the individual's level of competence and the skills necessary to access appropriate resources.

Learners may know the sort of person they need or the kind of knowledge such a person will have, but they are often unable to think of a particular individual. They are clear about their needs, but cannot think of an acquaintance who will fit those requirements, or whether such a person is in fact, readily available to the learner, such as:

Friend gave me a book which started me off before going to books and magazine articles; other friends helped me get information on nutrition and food.

IRS toll-free phone got me started, and friends who knew of my interest and recommended documents and articles.

Practical work of camping showed me what I had to know; my friends helped as well as magazine articles and books.

Ophthalmologist who tested my eyes suggested some readings to overcome embarrassment at wearing bifocals and then I tested it out among my friends.

Curator was helpful when I talked to him on a visit to the museum.

Community resource people helped me to lay out and develop the topic before researching my ideas to see if they match knowledge.

County agent tested a soil sample and gave me several pamphlets to read.

People piggy-backing from one to another after I find one or two people in the phone yellow pages.

Specialists located in Who's Who in Science that I write or phone or on occasion visit them.

Neighbor next door is a gardening freak and put me onto newspaper articles, television programs and even books.

(4) Group Resources: Sometimes learners attend a group or conference.

In this instance, the group (or its leader) decides the activities and detailed subject matter from one session to the next. The interviewers helped respondents focus on informal group experiences and not those designed as courses for credit. Informal group meetings can help the learner estimate the current level of her/his knowledge or the progress being made in acquiring some skill as indicated by respondents:

Investment club requires group planning even though there is a lot of individual follow through.

Animal care and welfare group plan out a program for the year which the program secretary follows.

Toastmasters makes it necessary for me to survey a lot of information to use while I am learning to speak on my feet.

Drama club responsibilities require me to dig up a lot of things and use them in producing a play.

Professional association meetings occur on a monthly basis and the concerns are spelled out in related meeting agendas.

Course at the Recreation Department helped me to learn to play and develop tennis playing as well as in selecting the proper equipment.

The help-seeking process is not always rational and straightforward in a logically programmed manner. Sometimes the learner takes a certain step without thinking it through. Often a learner receives unexpected help from some resource. He may seek one kind of help and obtain several others in addition. Sometimes he does not even seek the resource in the first place; he may happen to notice a book in the browsing collection, or may bump into some relevant person. As soon as he sees the resource and particularly when he becomes familiar with it, he may realize that it can help.

Obviously there is a considerable role for a helping professional to perform in assisting independent self learners. When and if that role is developed, the prompt questions used on the survey instrument may serve a useful purpose, such as:

Deciding whether to proceed with the learning--deciding what to learn--deciding how to learn--deciding where to get help--seeking advice about these decisions from other people or from printed materials--traveling to some learning activities, such as a meeting or practice session or library--arranging appropriate conditions for learning--choosing the right book or person for the actual learning--obtaining that book or reaching that person.

In the face of all these decisions, one may well wonder why any individual continues to pursue recurrent self education. But the imperative probably grows out of the transactional nature of the situation and the fact that satisfaction is but a transitional state for any adaptive control organism. The individual is "compelled" to activity both by his needs and his interests: he is motivated to participate and to continue by his nature as a psychological organism.

In some instances, these respondents initially seemed to be little better in ability than children and youth in identifying and in following up on a topic in a directly planned and organized manner. In other words, there was a considerable period of what seemed like random motion until they had "made up their minds." Making up one's mind apparently is in deciding how a felt need is relevant enough to spend time on it. Instead of being random, it is a process of successive approximations by means of which the individual becomes more formally aware of what she/he is doing (Figure 1).

People who have an interest they are pursuing do not do much deliberate planning. Instead of planning they browse and trust to luck to lead them. On the other hand, people who are doing their learning in order to solve a problem or meet a need are the ones who plan. The same person can be a planner for one learning project and a browser for another. A time limit or deadline does not seem to determine how much planning is involved either. In other words, it is not the sort of person and his/her individual habits that decide how much planning will be done, but the reason that the learning project has been undertaken.

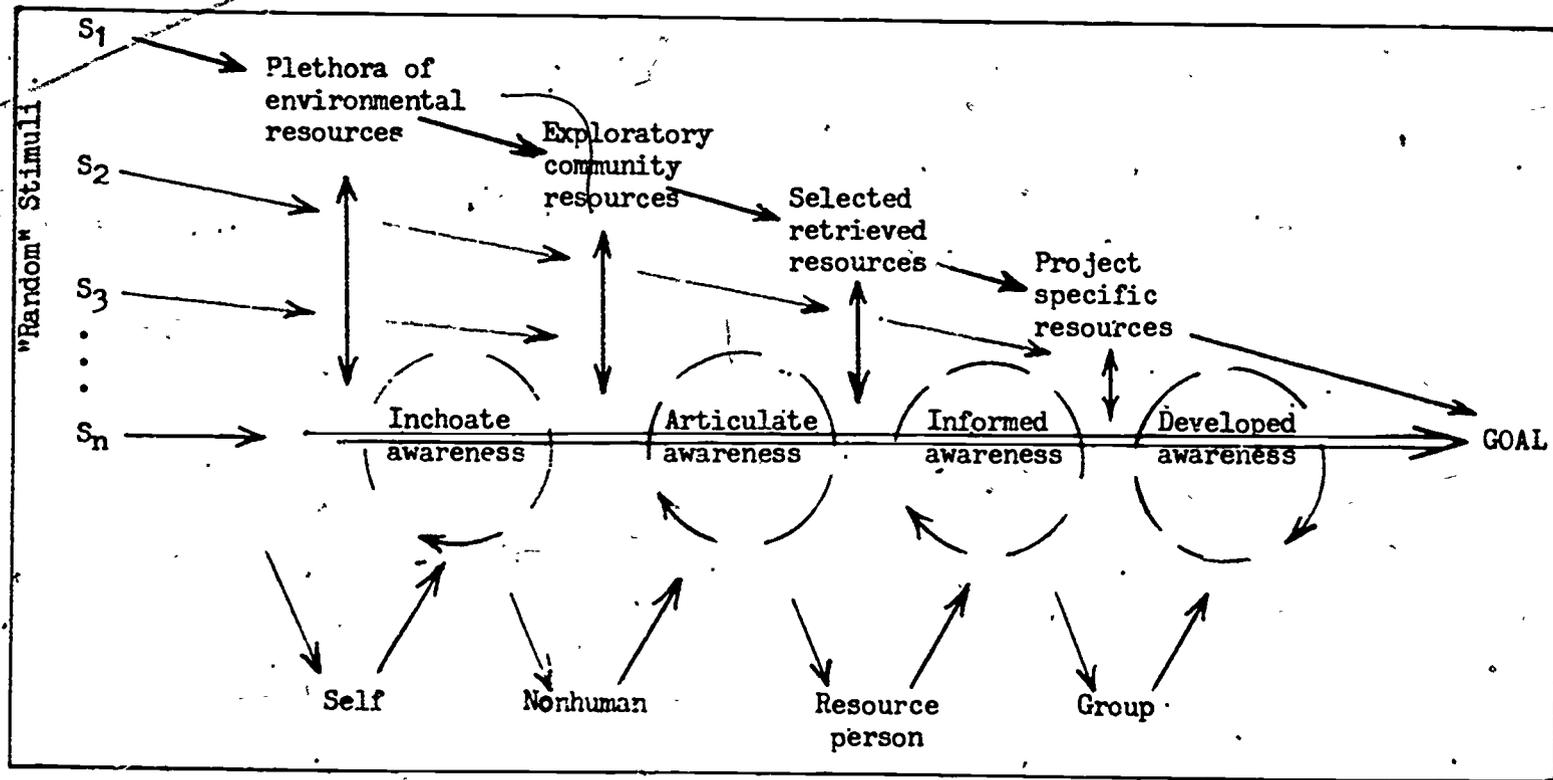


Figure 1. Project Awareness and Selfcontrol

The steps taken in the learning project were very difficult for these respondents to articulate. No one actually had a written plan except for perhaps a list of things to be done that day--including items like check bookstore, look up article in Britannica. It appears that when information was needed for one's own satisfaction, then the respondent was content with browsing and reading. But if the information was needed for action, such as giving a speech or making a presentation at a meeting, then the respondent tended to seek a wider range of sources including talking to several people in order to firm up developing ideas.

The instances in which respondents indicated an action orientation to their information seeking were actually few in number. The impression is left that the respondents who use these libraries do so for personal development and not directly for the arena of community life. Some respondents worked on fewer projects over a longer period of time than others. Many found it more difficult to say when one project stopped and another began. They tended to read a great deal even to the maintaining of "scheduled" reading periods such as every night before going to sleep. They gave the impression of keeping several related information seeking processes going at the same time and they enjoyed the process.

Even though most subjects tended to see themselves as typical of the adult learner in general, most people who had one discernable learning project also thought of and mentioned several others in the course of the interview. A friend seems to be much more influential in helping get a new project started than family members. In some cases, it almost seemed to be (for women) a way of asserting one's own individuality from the spouse. Few respondents seemed to be aware that their goals had been modified or changed.

in the process, although certainly many wished that more information were available on certain subjects. To respondents, a change in goal direction is a change in the project itself. Respondents had not thought about the episodic nature of their learning projects until asked about them.

#### Library Resource Center

One of the purposes of this study was to determine if people using library resources, learned in the same way as do others identified by previous survey research. The respondents to this study design and develop their self-planned learning in similar pronounced patterns as do other independent learners. So strong are these learning elements and patterns that they carry over in the patron's expectations for library use. Indeed, there appears to be a curious mixture of attraction to the library as well as a dissatisfaction with its resources.

The resources of the library as a learning center are only partially being exploited. Most of the people interviewed seemed to be self planners--that is they did not rely totally on lectures or a programmed text. Rather they used a variety of sources. While several described the library as being very helpful, no one gave the impression that the library actually led them into new heights of learning--perhaps through browsing, certainly not through the helping role of the librarian. The following statements may be more suggestive of what the librarian could do than what is actually being done:

Card catalog helps me locate information by and about author's books; then I look up news and reviews and sometimes buy books without worrying about return.

Branch books were all read easily and then I had to go downtown to the business branch for more.

Librarian is questioned about the indexes and good books on the topic; catalog is a last resource.

Card catalog gives me similar numbers for me to use in browsing every lunch hour; then the table of contents and the index helps me decide what to read.

Browsing in the cookbook section gives me some good ideas which I use in natural food catalogs and magazine indexes to make my ideas more specific.

Depend on the librarian's recommendations for about a dozen books; then I used some government documents, newspaper clippings and the picture file.

Librarian took two books from the closed shelf which thrilled me; never used catalog, but librarian ordered some books from central.

Not conscious of planning, but I walked into the library and followed my nose to get an overview through the browsing areas, periodical indexes and the encyclopedia for background.

Librarian taught me how to use the reference sources and the bibliographies which lead to other sources.

Never use the card catalog; the librarian always gets the material for me even though you have to bring the books back before I completed the hobby project.

Use the children's section for a quick general knowledge about a new subject; then I browse on the shelves and eventually asked a librarian.

Card catalog is of no use; only the librarian can point out the real areas such as the reference books for quick answers.

Spend every Saturday morning; my ideas lie dormant until I go browsing at the library to activate them.

Library is right across the street from my home where I get into discussions with other regular users and follow up by reviewing the shelves and the new magazines.

Librarians are apparently perceived, based on reported use patterns, as being helpful when one needs to unlock the "secrets" of indexes, card catalog, shelf location. None of the persons interviewed reported ever

V  
using or even thinking of having librarians help them think out (i.e. describe, analyze and diagnose) their need for information. Perhaps librarians can give this kind of help; patrons at least do not perceive them as having this capacity.

Those who use libraries extensively may not surprisingly turn out to be the methodical plodders. Several respondents indicated that the library could be used as a place for serious research, but not as an idea center or environmental stimulus for creative planning of learning projects. All respondents had used the library although perhaps not as often as the recruiting libraries may have thought. Their expectations for it were very low--to find an interested librarian who seems to care would to many be the height of service expected. In most cases the library was only one source in a continuum of sources used; and in several others the library was of no help or very little help for a particular learning project.

Since those interviewed were selected because they are library patrons, it might well cause one to wonder what the expectations of the man-on-the-street would be of library service. The pattern of how the library was used seemed to be that whenever possible, the respondents preferred to find their own material. Whether this was because of a need to be independent or because of the formidable nature of the librarian was not easily ascertained. As one interviewer noted: "People are extraordinarily patient with the library, delighted when it does produce something; not surprised at all when it doesn't."

#### Interviewing as Process

After the interviews were complete and all of the data had been collected, the principal investigator held a conference with each of the

interviewers. They had been carefully trained in both the process of interviewing and in the purposes and design of the study. Therefore, it was thought that they would have some points of significance to contribute. The following may serve as examples of this reflection:

Learners' projects seem very practical. They want to build something, or raise kids, or play some sport. At first they seem defensive about their planning. They all do it in some way or another, but they have a hard time saying what all the steps are.

While all the subjects were independent learners per se, many of my interviewees relied heavily on expert advice with very structured material. My guess would be about 30% were structured as opposed to 55% non-structured with the remaining subjects alternating or taking advantage of both structured and non-structured materials.

Of the interviews I conducted it seemed that people who undertake learning projects are largely self-motivated. They may be introduced to the skill or subject by a friend. But it is doubtful that the friend talked them into getting involved. Most adult learners seemed to have a problem with time; that is they lead busy lives and seem to thrive on periods of relative inactivity when they tend to pile up a new interest.

Most of the people I interviewed seemed to be self planners--that is they did not rely totally on lectures or a programmed text. Rather they used a variety of sources. While several described the library as being very helpful, no one gave the impression that the library actually led them into new heights of learning--unless through browsing, certainly not through the helping role. Apparently there is little awareness of the episodic nature of learning projects on the part of librarians, and a cynic might say that it will require a good deal of re-education of existing staff as well as a new approach to teaching adult service in library schools to effectively incorporate the client's approach.

Interviewing was a revelation to me. I think I got a whole new perspective on how people learn by themselves. People have so many sides when you get them talking about what they like to do. The word "learning project" sounded scary to most of them until they began to talk about it in their own way.

In some cases, the learning project is primarily associated with problem solving (i.e. purchased dog; needed to train). Very few of the people I talked to saw their interest as pure "escape". Even the escapist could usually relate their project to some life long interest, e.g. "My interest in Sherlock Holmes has improved my knowledge of late 19th century England."

I did not find anyone who had not started out with one goal in mind and later revised, modified the goal--although certainly many wished that more information were available on certain subjects. Again people are extraordinarily patient with the library, delighted when it does produce something; not surprised at all when it doesn't.

Why can't we interview people who don't use libraries. This kind of interviewing could help us give better service to people. When we really get into people's learning, its not just a list of activities. They really do think about how to get what they want.

The "quick learner" should not be disregarded; he may be fast, but not superficial. I suspect there are many and, in fact, would go so far as to say that those who do use libraries in depth may tend to be methodical plodders. My interviews certainly showed that the library was seen as a place for serious research, but not as an idea center or stimulus for creative planning of learning projects.

Real closeness developed in the interview and they shared something like an adventure. I really see how people need some help, any kind of help that doesn't turn them off. Most people have a thing about the librarian, almost like a love-hate for her sitting back there behind the desk like a sphinx.

Most interviewees had used the library. Their expectations for it were very low. For many, any interested librarian who seemed to care would be the height of service expected. In most cases the library was only one source in a continuum of sources used, and in many cases the library was of no help or very little help for a particular learning project.

The pattern of library use seemed to be that whenever possible, patrons preferred to find their own material whether this is because of a need to be independent, or because of the formidable nature of the librarian was not easily to ascertain. I suspect a little of both. Many patrons find the card catalog difficult to use--particularly difficult when 2 systems (Dewey and LC) are employed at once.

From these interviews, the interviewers seemed to develop a new perspective on human learning behavior. Instead of seeing it as teacher-oriented situations, they observed that in a self-planned project the learner does it--setting objectives, deciding on or choosing resources, finding resources, evaluating progress and dealing with problems that come up. Obviously no real life learning project was ever as neat as these few words may seem to imply. Yet in the process, the interviewers appeared to develop a certain tolerance and even patience in listening with a "third ear" to what the respondent really wanted to say.

The interviewers also developed some sophistication in internalizing the interview schedule and thus increasing their flexibility in the interview itself. The combination of pretest interview and comparison of written report with the audiotape record proved to be an effective method of training. What started as a methodological procedure turned out to be a demonstration of the value of a mini-practicum for training purposes.

It was only after the interviews were completed that the interviewers recognized this development of personal competencies.

#### Summary

The planning of sequential learning appears to be a complex and delicate set of tasks for the respondents in this survey. Many of the arrangements which have to be done and the decisions to be made are difficult because the learner is operating in an area that is new. In no instance did the learner sit down at the beginning of a learning project and plan a detailed strategy for the entire enterprise.

Sometimes a person will approach another individual such as a friend, acquaintance or possibly a family member looking for help even

when she/he does not specifically know what really is needed or even wanted. The intention may be to find out what kind of help, if any, this source could provide. Or, it may be that the learner needs someone to talk to and out her/his ideas in verbal form to hear what they sound like.

Help with planning (and with subject matter) comes from many resources, not just from one or two individuals or objects and other non-human resources. A certain chronological sequence of events seems to be fairly common in the process of seeking help, even though Figure 1 is as close to a "flow-chart" as it is possible to come. Keeping this in mind, the following elements appear to be developmental steps in the behavioral cycle of the help-seeking process: 1) the learner develops a general awareness of the need for help; 2) the learner becomes fairly specific about just what he needs; 3) she/he selects a particular resource, perhaps after seeking advice about this decision; 4) she/he decides how to approach the individual or obtain the resource; 5) she/he takes some action.

To a perfectionist, it may seem that people "ought" to be able to plan better than they do in undertaking a learning project. This may have been the case in the classical world of objective knowledge where the subject categories could be arranged with balanced symmetry. But in the real world of the late 20th century, the planning which does occur despite the odds against it seems to be a noteworthy achievement and a credit to the remarkable potential of the human individual. In any event, the following elements observed in this study are listed in summary format:

Most people undertake at least one or two self-planned learning projects a year in order to satisfy a personal interest, have something informative to communicate to others, or meet some action oriented imperative (solve a problem).

A great deal of random activity is generated in, and by the individual person as she/he responds to, and attempts to overcome socioenvironmental imperatives.

Motivations as behavioral competencies engender satisfaction and enhance the individual's self-worth in spite of what otherwise appears to be an increasingly complex and overwhelming sociocultural environment.

Patrons who use libraries learn in the same way as do the other self-learners in the population who do not use libraries --an individually developmental set at variance with organized knowledge.

Learning resources include everything in the environment which either can stimulate and focus individual awareness or provide informative data for planning and developing a project.

The environmental set of the person in a self-planned learning project is so strong that individuals have difficulty exploiting a subject oriented resource environment with facility and ease.

The components and patterns of how adults actually do conduct self-planned learning projects may constitute a more relevant "psychology" of (adult) learning than the way teachers teach or librarians instruct in library use.

## V. CONCLUSIONS AND EXTRAPOLATIONS.

The purpose of this study has been to observe the behavior of people who learn continuously and who also used library resources. The data on behavior have been collected from what people say they do in a self-learning mode. The patterns in this behavior have been identified in the findings of the study. These findings suggest an actual complexity and sophistication among humans to which theories have pointed.

### Motivations and Objectives

Human beings behave in real ways that can not always be theoretically defined. A case in point may be taken from the various speculations about

the motivations which drive behavior. If one took the literature at face value, it would seem that motivators are discrete drives which if triggered will have direct results. Observable behavior would suggest that while motivation may be obvious, the resulting behavior may be extremely complex.

Such a statement seems a paradox, but unless a person is aware of and can discuss motivation, the potential remains latent. In another context, probing professionals may try to accomplish such self-awareness among patients. It is obviously just as useful for healthy people to also articulate motives and to define goals as they seek to satisfy their information needs. This is the role of the helping professional in librarianship.

At the least, the approach to articulated motivations may help to offset the almost universal tendency to stereotype and prejudge people; this person is goal oriented; that person is activity oriented; another one is content oriented. How can any real human being avoid having all of these orientations. Surely any learner has a goal, an activity and a content, albeit perhaps not all at the same moment of time.

An orientation to behavior would seem to include a variety of behaviors in dynamic combinations which may be deduced from the processes involved. Process does have one advantage in that its observable characteristics can be discussed and changed if necessary to meet the circumstances. Consequently, the following characteristics of motivation in process appear to be closer to the transactional nature of real life than are particular types of individuals:

Concern and Interest Satisfaction: A person may look forward to learning episodes because they satisfy curiosity about something, or discover answers to particular questions. Indecision, ambiguity, and doubt or unhappiness may be reduced. Self-esteem or even impressing others may also result.

Content Enjoyment and Satisfaction: Learning content provides pleasure by an answer to curiosity or in the process finding it interesting, fascinating and stimulating. Practically anything can be enjoyable to one or another of communication function to present numerous stimuli and data which serve as effective motivators.

Skill Enjoyment and Satisfaction: This may come from practice rather than from learning content. The learner may be trying to improve golf, inter-singing in local opera, acting in neighborhood plays, building a hot-line center, or participating effectively in a group. The "reasons" for such enjoyment may be for fun, to feel great, or the challenge of something new and different.

Process Enjoyment and Satisfaction may offer a considerable amount of enjoyable and mentally stimulating experiences. A "significant other" such as a friend or intimate may be impressed by the learning activities.

Learning Completion or the desire to finish apparently urge some people, for example, to complete the reading of a book. Indeed, some people feel the need to complete any sort of task or project they have started. In the past, librarians have built circulation figures around such an urge.

Extraneous Satisfactions are benefits that could just as easily be obtained through other activities. These benefits are not closely related to the activity of learning or to the particular knowledge and skill. Some people find in the learning environment a meaning which has no necessary connection at all with the stated purposes of the activity.

Such motivators are not some set of hidden persuaders over which the communications elite exert some esoteric and malevolent force. Any or all of them can be initiated in a real human being as a result of some quite common and ubiquitous initiators. Any given human being might get her/himself involved in any number of such episodic occurrences as the following every day:

Conversations, reading, television, radio, movies, drama, and travel influence the person's information and attitudes even though they may be motivated by immediate pleasure, habit, sociability, or a desire for relaxation and entertainment.

Observing the world around them help people learn even when the intent to learn is not as strong as other motivations such as curiosity or desire for immediate enjoyment of art, sports event, or other common events in the everyday environment.

Home repair, running a meeting or supervising children may be the primary motivation for certain activities have some by-product of acquired knowledge and skill.

Marriage partner, joining a group, or participating in a neighborhood project may produce some changes in participants. Unintended occurrences such as embarrassing moments or a traffic accident may influence behavior.

Environmental influences can be pervasive, including the people with whom one interacts, the appearance and resources of city or town, the political climate, the expectations and norms of society and employer.

Whether any of these episodic initiators will ever lead into learning projects is quite another question. In real life, the individual mulls them over in her/his mind. They may lie dormant for weeks and the strength of their interest dissipates if the stimulus is not reinforced. A person is not likely to be changed by one occurrence or by the reading of one book. If, however, the individual has been under siege as it were from several stimuli, she/he may induce her/himself to become involved with such motivational processes as these.

### Tactics and Strategies

Learning projects can be grouped into categories according to the source which directs them. That is, a person's efforts to learn can be classified according to the one (including the self) who was responsible for the day-to-day planning. One can look at who planned or decided exactly what and how the person should learn during each episode. For example, there are four kinds of sources which decide what the person should read or hear, or what else he should do in order to learn:

Learner her/himself retains the major responsibility for the day-to-day planning and decision-making. She/he may get advice from various people and use a variety of materials and resources. But she/he usually decides just what detailed subject matter to learn next, and what activities and resources to use next. Instead of turning the job of planning over to someone else, she/he makes these day-to-day decisions.

Nonhuman resources can guide the learning project of an individual and provide the detailed directions regarding what to learn and do during each episode such as recordings, a series of television programs, a set of programmed instruction materials, a workbook or other printed materials.

Personal help by one other individual either in a developmental or tutorial situation where the planning or deciding of the details is handled by one helper, who assists the learner in a one-to-one situation. That is there is only one learner, and these two persons interact face-to-face, or through correspondence or the telephone.

Group help may be provided by a class or conference and its leader or instructor who decide the activities and detailed subject matter from one session to the next. A group may be of any size from five persons to several hundred.

The respondents in this study did not consider themselves limited to any one particular source. In other words, they saw themselves as self-learners employing whatever resources and methods seemed to be necessary in the dynamics of a developing learning project. Thus one must conclude that, with few exceptions, these respondents took the responsibility of planning and executing independent study projects into their own hands.

Since these respondents were all library users, it may be that their self-independence was in part a product of that library use. The library has traditionally been whatever the patron wants to make of it, if indeed she/he bothers to use it at all. In any event, this self-orientation to learning projects, vehemently defended on occasion by respondents, offered a unique opportunity to begin an analysis of the innate learning processes of the individual.

Learning in real life is closely related to the environment out of which it grows in an organic and developmental manner. Humans learn to respond effectively to other people, objects and events around them by using selective perception and differentiation, forming patterns or concepts and seeing relationships, and organizing information into outcome competencies or products. In other words, the individual articulates perceptions; analyzes situations for opportunities and constraints, and maximizes desirable relationships with retrieved data in order to produce some outcome which enhances self-esteem or impacts favorably on the environment.

Several factors can be identified which facilitate independent learning, including engagement (arousal of interest), competence to deal with new information, the use of ideas to organize that information and to apply it to some concrete real life situation. In the process, new competencies are built by observing and receiving "instruction" from environmental imperatives; trial performances before making adjustments to feedback; and by growing more flexible and independent. The emphasis on independence and the paucity of projects done for action results may be taken as added evidence of the fact that few respondents employed group resources in their projects.

For the purposes of the interview, the respondent had to turn outward from her/his intrapersonal states of disequilibrium, indicate the solicitations for assistance made to a resource and articulate the steps taken in a series of sequential episodes. Since one cannot get inside the "black box" of another person's head, the following patterns may be taken as indicative of intrapersonal information processing:

Naming and describing an area not only separates it from other areas but allows the individual to concentrate, screen out interference and in general "get a handle" on things.

Analyzing the referent situation into constraints and opportunities helps the learner to get going without coming up immediately with a full-blown statement of the topic, or problems of interest.

Free associations, not inhibited by outside expectations, allows the individual to "play around" with any variety of if-then "taxonomies" about the nature, effects and conclusions implied by her/his concern.

Overt questions, tasks or "shopping" lists of things to do indicate that the learner is ready to "go public" about her/his project and talk with other people about it.

Blueprint emerges from "going public" including articulations about wants (goals) and activities which in practice remain undifferentiated.

Satisfaction occurs when the learner tries something out and finds that feedback is favorable where feedback is largely nonverbal supported perhaps by a brief word of appreciation, or where feedback is just a feeling of "that's enough."

Improved communication skills can help the client not only to articulate more effectively but also to perceive that articulation as essential to the learning process. Greater learning and thus more satisfaction can occur when the client is led to examine his own experience. The ability to articulate, whether orally or in outline format, requires the organization of various parts into more coherent wholes which help accomplish some purpose. Articulation helps to facilitate learning by engendering information processing in the individual at the neurological, sensory, perceptual, and conceptual levels. Learning may of course occur in episodic behavior; but at other times, the client may want to be encouraged to achieve deeper satisfaction in her/his efforts in sequential learning projects.

### Learning Environments

The potential of library resources to constitute settings for exploring learning to a large extent lies dormant. The resources apparently exist according to the accounts of respondents, but they are in balanced equilibrium. The resources are too orderly and reposed to encourage such usage. If the librarian does become helpful, it occurs when the patron has her/his project pretty well in hand, and as an interpreter of the classified index structure.

In other words the librarian stands on professional principle-- her/his role is to interpret the collection to the user. The collection is classified and indexed, and the patron has to be in a receptive mood to be instructed in its use. Information processing is that which the classification and indexing schemes speaking through the librarian say it ought to be. They imply that information processing is not something which is discovered as the patron moves uncertainly into some area of knowledge with partly defined objectives.

On the basis of reactions of the interviewers, it would appear that the interviewing process could be for librarians an adjunct to their inservice training in client services. It would give them a hands-on experience in how real people actually learn, not how the theoreticians say they do. It would also help them to reconceptualize more concretely the subject categories with which they are constantly involved, and overcome an occupational hazard--the failure either to identify or to become immersed in the referent base of the subject concepts routed by their classification and indexing schemes.

Librarians may initially be resistant to the interview approach to professional service. But, there are emerging community imperatives to which traditional service cannot respond. Admittedly the present study is unique; but the process of internalization of a method through a mini-practicum could be a desirable form of inservice training. Once rapport has been established with respondents and the learning project fairly well identified, the librarian interviewer might want to ask some other questions. How has this library been helpful to you? How could the librarian be more helpful to you? Suppose there was an ideal librarian, how could he/she have helped you?

The most important thing to do is to help people choose the things needed for learning; help them with what to learn and with how. All too often librarians have fallen into the same trap as educators. Instead of facilitating the actual learning itself, educators run courses. They do not help participants with the planning, they do all the planning. Librarians have been the same. They say, "Here are the materials you can use in learning; come and get them!"

Eventually the role of learning consultant may become more widely acceptable among librarians. Broader based consultants will help people sort out and plan their learning projects. Probably they will start with a modified form of the survey questionnaire we have been talking about and develop a helping "conversation" around other points which remain embedded in the instrument. The helping professional will look at patterns, identify the gaps, and facilitate the learning librarian that emerges.

It should be pointed out that the role of learning consultant requires that the librarian's function of readers advisor be enriched with learning and communication principles. Instead of the standardized advice on library catalogs and materials that is provided the patron by the librarian, a more professionally helping role would involve the following guidance considerations:

Engagement as arousal or excitement implies connection. An individual is engaged when interested, curious, fascinated, inspired or involved. When the learner and the facilitator work together and connect well, they are mutually interested in an area of inquiry. Engagement facilitates learning because it seems to activate information-processing and reduces the self-doubt and fear that may accompany first attempts at independent work.

Learner competence develops in dealing with the challenges of self-directed learning. Groundwork for this can be done by exploring the extent of a learner's familiarity with the area of interest. If a field is totally new, then the need to use data-gathering skills becomes apparent. If the learner understands basic facts or principles and theories, then she/he can feel secure about tackling more complex questions.

Mental organizers such as concepts or theme structures can serve in guiding the client towards examination and reporting. In employing such techniques, the facilitator can more easily guide the conversation by referring to an internalized picture of the blueprinting process. Knowing the essential goal of each step, she/he can structure specific requests and reactions according to the quality of interaction and activate them within the learner.

Knowing the need for an articulated plan, the learner can move from generating alternatives to the bringing about of closure, using the main points in the project's plan as retrieval descriptors. The organizers should be the ones which the learner wants to use and elicited and named when the interest area is broken down into parts, and clarified when the goal statement is formulated.

Non-specific catalyzers are open-ended questions that allow the client to use her/his own terminology, selectively and creatively. Non-specific questions can activate the reporting of relevant observations which provide a referent base for the "evaluation" of feedback.

Practice enables the learner to grow more confident of her/himself, less concerned with basic skills and details, and more adept at effectively motivating goal-oriented responses. This is especially true when self-directed learning involves skill-building. By pointing out how the learner can grow more effective at observing, analyzing, questioning, and reporting, the facilitator reaffirms the ways in which commitment and effort pay off. This assumes that the helper has had extensive experiences in real-life groups and communities in addition to just reading about them.

These possibilities may have to await realization until the library profession becomes more responsive to community change. Certainly there is nothing in the model of the self-learner and its professional reciprocal which is antithetical to the traditional concept of library service. The communications model (not a flow-chart) described in this report has been developed out of the learning needs the components and patterns of independent self-learners who use library resources (Figure 2). If the library profession is to remain vital and dynamic, it must incorporate this model not only into its philosophy but also into its day to day relationship with the people it serves.

#### Summary

To most respondents, the term "learning project" seemed to be much too formal to describe the continual information gathering and digesting which they enjoyed doing naturally. A helping professional could build on this natural enthusiasm, help the patron reduce "random" activity and find the information and competence to plan an entire learning sequence. The choice of a particular resource seems to be based primarily on emotional or

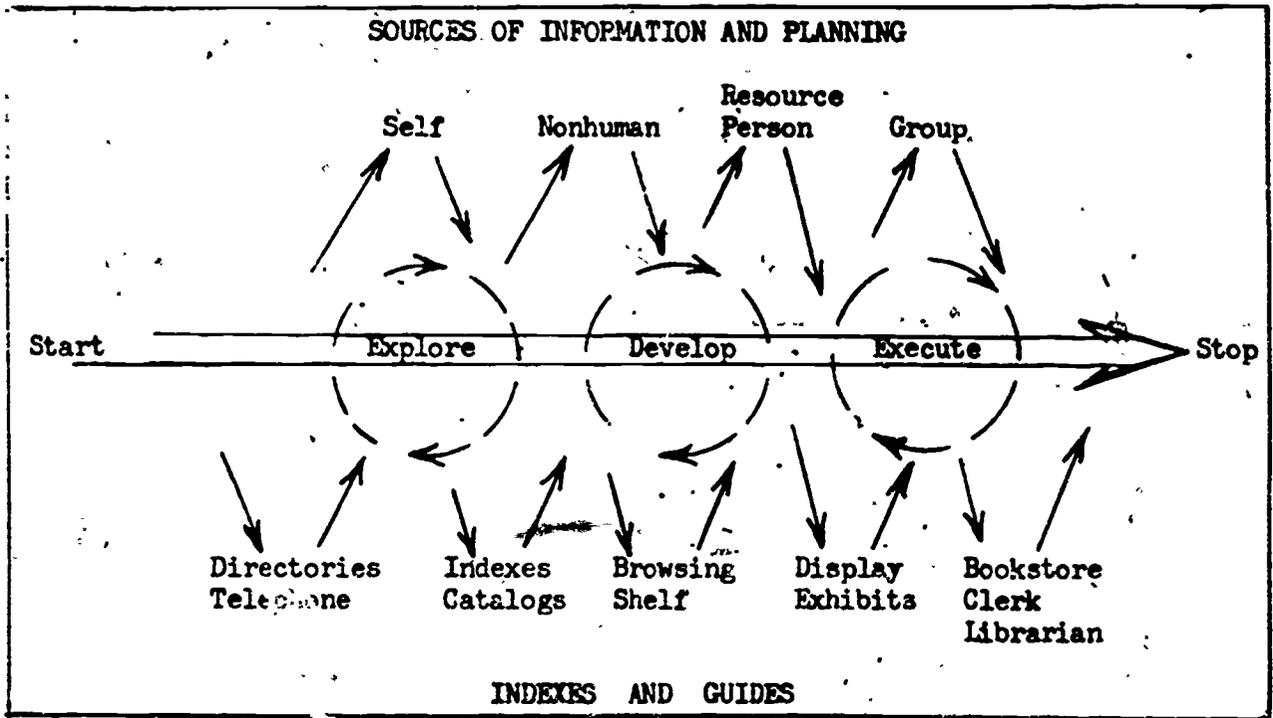


Figure 2. Independent Selfplanned Learning

nonrational considerations. For in a new field, how can the individual know what resources are most useful? How can she/he predict the emotional blocks, the required skills and other problems that may arise later in the project?

In the context of a role as learning consultant, librarians could help the patron to consider the everyday situation from which her/his concern or interest emerged. These interests or concerns could be examined for immediate antecedents and possible consequences in order to identify the constraints to be overcome and the opportunities to be realized. In so doing, the librarian would operate on two levels of needed interpersonal encounter: one to solve the immediate need of the patron for congruence between his visceral state and an informed state; and the larger goal to develop a total personality as outlined in the communicative aims of the agency, as well as in the communications profession as a whole. Objectives such as these can be abstracted from the following concluding recommendations:

Place staff inservice training in a framework of continuing education aimed at developing librarians who are themselves at least as "expert" in self-planned learning as the patrons they serve.

Promote a behavioral approach to (adult) learning by including an interviewing practicum in staff inservice training programs.

Re-examine the traditional methods of "training laymen in library use," or conforming patrons to classified knowledge, in relation to a learning "psychology" of independent study.

Develop and focus public relations on the librarian as a learning consultant in order to realize more effectively the profession's traditional philosophy of service to individuals.

Identify all community resources for information and learning, and organize access to them around behavioral principles such that the transition to subject classified resources does not appear so formidable to the average person.

Revamp library architecture so as to ease and thus enrich the entry transition from the outside to the inside world with more environmentally concrete referents such as nonverbal and audiovisual messages.

Expand administrative and supervisory liaison such that policy matters articulate the emerging sociocultural expectations of all citizens rather than the flow diagrams and PERT charts based on traditional "standards" and institutional status.