

MICROCOMPUTER BASED APPLICATION

TO .

THERAPEUTIC RECREATION:

A

BEHAVIOR ASSESSMENT INFORMATION SYSTEM

A THESIS

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DEDICATION

To Jack and Mary Ann
my parents

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CHAPTER I

INTRODUCTION TO THE STUDY

It is the belief of this investigator that current trends in the economy indicate a need for expanding the use of microcomputers within the field of therapeutic recreation. This belief is based on the following:

1. A need in therapeutic recreation to become increasingly more accountable and cost effective.
2. An increasing use of low cost computer systems by small businesses and municipal agencies in order to enable their personnel to provide more cost effective services to clients.

Connolly (1980) addressed the problem of accountability in stating "the good intentions of our services are no longer sufficient to justify our existence" (p. 1). Whereas the profession indeed has risen to the call, accountability still becomes a burden buried beneath the already existing piles of demanding paperwork.

Current business practices are beginning to resolve the problem of paperwork through the use of the minicomputer. As one survey pointed out:

The growth of business departmental minicomputer applications continues to outpace all others as evidenced by the rising use of commercially oriented programming languages such as COBOL and BASIC...there is a general downtrend in simple batch processing accompanied by an increase in usage of multiprogramming, particularly by small business systems users. (Grumman, 1980, p. 37)

In reviewing the trends in hospital administration, a similar developmental process can be seen. Initially, adaptations for computer technology involved repetitive task orientated operations; yet when computer use in management became a realization, it allowed for current, accurate, and timely information to be accessed and applied in the decision-making process. As one automated information user pointed out, "it is apparent that originally the computer was primarily task oriented and had minor impact on management, however, it is seen today as a powerful planning and control tool" (Doyle, 1980, p. 88).

Furthermore, as accurate record keeping of therapeutic recreation practices and procedures increases, actual "hands-on" contact with the clients decreases along with a corresponding decline in the quality of care. Automated information recording and retrieval systems are foreseen as

a viable means to alleviate this problem: to reduce the time required to fill out forms and convert that time into patient contact hours (Tague, Note 1).

In conclusion, current economic trends show a continual decrease in the cost of computer systems. While the cost may not decrease for microcomputers as drastically as was seen in the market of hand-held calculators, the capabilities of the microcomputer continues to improve. This trend, coupled with the need for accurate and effective record keeping, should stimulate therapeutic recreators to take advantage of microcomputer assistance. This study was designed to identify a means to assist therapeutic recreation professionals in their continual effort to minimize the time spent on record keeping and client assessment and thereby increase patient contact hours.

Purpose of the Study

The purpose of this study was to develop an interactive computer program designed for a microcomputer which may be used to assist the therapeutic recreator in the provision of therapeutic recreation services.

Statement of the Problem

The problem addressed by this study was to develop an interactive computer program designed for a microcomputer

which would assist therapeutic recreators in processing data gathered by the Recreation Behavior Inventory (RBI). The RBI, originally developed by Berryman and Lefebvre (1980), was initially designed as an assessment instrument, an activity analysis method, and a computer-based prescriptive system.

In following the system flow of the RBI, the Assessment Information System (AIS) program was developed to perform the following tasks: (a) store demographic information on each client; (b) generate client profile information; (c) generate client summary sheets; and (d) assist in targeting client program goals and objectives.

The AIS program was written for operation on a 48k Apple II microcomputer with one disk drive and a printer. Each category of information generated by the AIS is based on the structure of the RBI.

Research Questions

The research questions addressed in this study were:

1. Can the data produced as a result of assessing clients with the RBI be recorded successfully with the microcomputer?
2. Can the AIS program successfully produce client information as required by the RBI?

Definitions and/or Explanations

For the purposes of clarification, the following definitions and/or explanations of terms have been established for use throughout the study.

Computer System

Refers to any set of computer operations which collectively process data.

Microcomputer

A general purpose computer that is small(portable), not very expensive, and easy to use (Doerr, 1979, p. 2).

Automated Information Systems

A collective term used to describe computer systems which are able to store and process written documents.

Recreation Behavior Inventory

A process of assessing client functioning capability which, when used in conjunction with activity analysis, is an effective recreation programming tool.

Activity Analysis

A process of determining the human functional requirements demanded by an activity.

Automated Behavior Inventory System

A system which utilizes the data management capabilities of the microcomputer, combines information

obtained by the RBI and client records, and aids the user in developing recreation program goals and objectives.

Data Management Systems

The process of using computer capabilities to store, assimilate, and retrieve data.

Software

A series of instructions, written in a programming language, which direct the computer to perform a desired sequence of tasks that will produce a desired outcome (Shelly & Cashman, 1980).

Interactive Computer Program

A software program which when executed will allow the user to make selections or choices. These choices will in turn alter the final output produced by the program.

Limitations of the Study

The proposed study was subject to the following limitations:

1. The availability and capability of an Apple II 48k microcomputer system with one disk drive and a printer.
2. The ability and knowledge base of the user to operate the microcomputer.

CHAPTER II

REVIEW OF THE LITERATURE

A survey of related literature indicated that this study did not duplicate any known investigation. The following review of related literature was limited to the application of computer technology in the therapeutic treatment setting and to the use of automation in recreation and leisure service agencies.

Applications in Computer Technology

Comparatively, " the use of automation to assist in the delivery of health services is a new phenomenon" (Crawford, 1980, p. 119). While it has been applied to many of the administrative tasks, its use to interact with physicians and therapists during the treatment process can also be noted (Harold & Lionel, 1978).

Crawford (1980), in a discussion on automated behavioral rehabilitation systems, stated:

Computer technology has been applied to facilitate the organization of medical records, to develop data bases for epidemiological research, to link disparate service delivery organizations in order to track clients' movement and coordinate

treatment, to assist in the scoring of psychological assessments, to structure hand-written nurses' notes, to generate clinical diagnosis, to predict behavior such as suicide, and to assist in utilization review and program evaluation. (p. 119)

An early example of the computers' use in therapy can be seen in the automatic history-taking system project undertaken in 1972 to investigate the feasibility of using the computer as a screening device in child psychiatry (Coddington & Thomas, 1972). In this example, Ohio State University and its College of Medicine utilized the IBM 360 computer. Extensive use was made of Computer Assisted Instruction (CAI) programs, which were used as a basis for the history-taking program that was designed. Also, IBM 1052 tele-processing terminals were located in both the pediatric and the psychiatry departments.

The computer used in this study was programmed to teach the procedure, introduce the staff as the psychiatrists posing the questions, and identify the child by given name and sex. In the questions that followed the name or pronoun (he, she) was used. Branching logic was used in writing the program so that the answers to a given question determined which question would be presented next. All questions were

answerable with responses of yes (y), no (n), don't know (dk), or don't understand (du). This last response was seldom used, but when it was, a brief explanation was presented. Two hundred thirty questions were stored in the computer. At the completion of the history-taking session, subjects were asked several questions about the questions themselves.

Two distinct patient populations were used in the project. One group was from the Children's Hospital. This group was comprised of mothers employed by the hospital who had children admitted to the clinic. The other group consisted of mothers who were seeking professional help for their children at the Child Psychiatry Clinic.

The results of the screening method revealed that none of the participants had any trouble understanding the process or the language used in the screening program. Representatives of every social class concurred on this point. Women with typing skills felt somewhat restricted by the limited response of "yes/no" type answers and wanted to answer with more complete sentences. In one instance, the study disclosed a subject who continued to type out complete sentences despite their rejection by the computer. Coddington and Thomas further explained:

Half of the mothers felt that communication with the computer was as easy as talking with their doctor; 37.5 percent thought it was harder; 67.5 percent said they were able to be as frank with the computer as they usually were with their doctor; and 15 percent felt they could be more frank. No one failed to complete the task. The entire procedure took an average of 45 minutes (range = 26-67), during which time the mothers were presented with an average of 113 questions (range = 77-181). (pp. 56-57)

The investigators concluded that the procedures for screening clients was generally acceptable to the mothers, and the data proved useful in distinguishing normal controls from a patient group. Also it was determined that this procedure was indeed a feasible use of the computer.

One of the first instances of utilizing the computer for data retrieval in facilitating services to the developmentally disabled occurred in 1974. This computer system was developed at the Hartford Regional Center in Connecticut. The basic objective of the program was to bring together, in one place, a complete file on each client's characteristics. Additional objectives were to aid the Center in providing the maximum probability of a

successful placement of clients in foster homes and to provide current, and up-to-date statistical information.

The study used a time sharing computer system as well as a data retrieval software package which was able to search on 91 different variables for each client served. Various types of statistical information could also be retrieved from the medical records. In addition, past and present records could be reviewed in such a way as to provide forecast and planning information.

Soforenko (1974), in a discussion on the advantages of the Hartford Regional Program system stated:

While this [the computer system] allows for more efficient use of professional time, it is only the beginning. Since the computer is capable of comparing various data items, it can offer projections when there is a significant correlation between items. This could help in identifying factors which would enhance the success of foster home placement. Carried a step further, these factors could be ranked-ordered according to the significance of the specific factor. With little modification this system can be utilized to assist in many other areas of service and research. (p. 41)

In addition, Soforenko reported that a computerized client-data program utilizing the time-shared computer systems available, would increase the efficiency and ability of the staff to serve more individuals. Soforenko also projected a decrease in programming overlap delays and other system impediments that one finds while trying to develop programs.

The Logo Group at the Artificial Intelligence Laboratory of Massachusetts Institute of Technology dedicated much of its efforts to therapy and assistance for the handicapped. Goldenburg (1977) in a paper discussing the work completed by the Logo Group stated that:

Computers can be used to provide a radical improvement in the scope and quality of life for a large class of people whose autonomy is seriously diminished by handicaps such as deafness, autism or cerebral palsy. (p. 5)

Goldenburg also voiced the opinion that while the technology available to various professions can assist the therapist in the treatment process for increasing the quality of life for the handicapped individual, the real assets are realized when the computer is actually used as a prothesis. This occurs when devices are developed to meet specific needs of the individual as in the case of daily

living aids or communication devices. Goldenburg explained two novel input devices for the computer which can be employed in exciting and creative ways as objects to or replacements for other forms of therapy for handicapped individuals. One input device used is the electromyometer (EEM) and the other is a speech analyzer. The EEM provides accurate and continuous measurements of the electrical activity of a muscle or portion of a muscle. Properly used, it has helped patients learn to reduce muscular tension, control the processes leading to migraine headaches, reduce their blood pressure, and regulate circulation. Selective and sensitive response to the inputs from multiple biosensors is a task that is impractical or impossible for a human monitor, but easy for a computer.

In addition to the use of input devices which may assist handicapped persons to access the computer, the Logo Group developed computer software that expands the capability of these individuals to communicate more freely and to gain an ever growing sense of autonomy. These developments then, clearly show the possibilities of using the computer as an intelligent monitor in numerous settings.

Automation is also assisting health care services by means of systematizing entire hospital operations. McNeil

(1979) reported on how the Problem Oriented Medical Information System (PROMIS) was used to coordinate all aspects of a health care facility. The PROMIS system has been in existence since 1968 and in actual use in a hospital unit at the Medical Center Hospital of Vermont since 1970. The long range goal of the system is the creation of a computerized problem-oriented medical information system that records, manipulates, and retrieves all the health data on individual patients over time. This system will include inpatient and outpatient data and will allow entry and retrieval of data at any time and any place within the health-care complex.

Automation within a health-care facility can provide valuable and timely information. The PROMIS system allows the thoroughness, reliability, analytic sense, and efficiency of the nurse to be measured, and, when necessary, corrected for the benefit of the patient and provider alike. The PROMIS system also uses as its framework another design called the "problem-oriented medical record (POMR) which was developed to include inpatient and outpatient data. McNeil (1979) summed up this model in stating that:

Since the data are problem-oriented, this concept links all areas and components of the health-care system by cutting across physical and

organizational boundaries. The patient, not the health-care provider is the focus of the PROMIS system. (p. 34)

Computers are also being used to meet regulatory demands in institutions for the mentally retarded. Schnitker and Boeker(1980) explained one approach that was developed to meet such demands. The authors reported that an automated information system was utilized to assure programming consistency required by Intermediate Care Facilities for the Mentally Retarded (ICF-MR). The information system enabled key staff to coordinate all programming resources and methods over time. It was felt that a written "Individual Program Plan" (IPP) could only serve as a common reference document in that it specified "who" was responsible for training, "what" time the training was to take place, "what" objective will be sought, "where" the training was to take place, and "how" this training was to be conducted. But once the IPP was agreed upon, there were few accountability safeguards to assure that it would be consistently implemented. It was the authors' view that any information system developed for accountability in teaching students in residential institutions should be designed to assimilate and analyze large volumes of data on both student and staff performance. The computerized data

system discussed here was developed to exemplify such an information system. Each attendant-teacher involved in a training program recorded numerical data about the student and served as a control for every other teacher who was working with the student on the same task. This system enabled program monitors to intervene discriminatively by either supportive or corrective action to assure that all staff were working in a consistent fashion.

Whereas this information system was developed for an ICF-MR facility, the authors pointed out that with a few modifications, other facilities such as group homes could use the system. Furthermore, the authors stated that "efficient computer usage can bring consistency and accountability to training programs" (p. 307).

The goals of therapeutic recreation as well as other treatment team objectives were integrated into the Automated Behavior Rehabilitative System (Crawford, 1980). Crawford explained the problem the automated information system was designed to eliminate:

The process of client management is one of the most time consuming, difficult, and important functions of the clinical team. The basis of this management process is information. Since formalized modalities for entering and retrieving

client information are not often available, little systematic patient management occurs. Staff often do not know the client's skills, active programs, or responses to previous treatments.

In order to effectively accomplish client management, the elements of the treatment plan must be documented. Moreover, the data elements must be stored in a system that can provide those persons responsible for the care of the patient with the information needed to manage the rehabilitation process. It is in this area of information retrieval that automation vastly enhances the implementation of the clinical process. (p. 121)

Recreation and Leisure Service Usages

Automation when utilized in the recreation and health professions assumes various names, yet essentially accomplishes the following three major tasks: (a) clerical, (b) tactical, and (c) strategic operations (Unkel, 1975).

Briefly, Unkel defined each task respectively as:

(a) data manipulation and collection for simple reports; (b) data utilized from equipment or site utilization to effect change and assignment

of personnel; and (c) data usage to estimate or forecast future needs and changes. (p. 36)

Unkel and Vandoren attempted to explore the state of computer use in parks and recreation agencies in a study completed in 1974. In this investigation, questionnaires were sent to 196 park and recreation agencies throughout the United States. Analysis of the data was based on 142 responses. Supplementary information was obtained from interviews and from reviews of published material on computer use by park and recreation agencies, other governmental agencies, and industry. The following findings were highlighted:

1. Seventy-seven (54 %) of the 142 responding agencies identified themselves as computer users.
2. All agencies serving a population of over 1 million reported use of computers, whereas only 9% of the agencies serving populations less than 50,000 reported such use. Generally, computer use seemed to increase slightly with the size of the population the agencies served.
3. Fifty-six percent reported that computer use improved and expanded data analysis, resulting in more accurate and up-to-date information.

4. Forty-two percent said they benefited from the computers capacity to handle large volumes of data efficiently.
5. Twenty-seven percent stated that computers increased accuracy of reports and improved accounting control.
6. Eighteen percent experienced a reduction in personnel hours and costs.
7. Sixteen percent listed other benefits, such as increased convenience in data storage.

The management information system (MIS) also exemplifies the application of computer technology in recreation. Unkel (1975) discussed its use and misuse and mentioned how various systems could benefit recreation departments. Unkel stated:

A clerical system is usually concerned with data collection and basic data manipulation to produce simple reports, such as those concerning community center utilization. A tactical system could then use the data on community center utilization to effect changes in personnel assignment to the various centers or to suggest changes in operation hours. A strategic system could utilize the data

to provide estimates and forecasts of the future utilization of or the need for community centers.

(p. 36)

The Recreation Registration and Statistics System (RPRSS) was developed and first used in 1977 by the Wilmette Park District in Illinois. Szillat (1980) explained the factors that caused this district to utilize a computer system:

Serving a community of 32,000, the Wilmette Park District, an agency north of Chicago, had grown financially from a budget of \$750,000 in 1972 to over 4.5 million in 1980. An increase in the number of user fee facilities, parks, and recreation programs prompted the purchase of a Basic Four Corporation minicomputer in 1976, primarily for financial reporting application. In 1977, with two community centers operations, offering over 1,500 classes of 500 types annually, the burden of manual registration of program applicants became critical. Over 8,000 separate enrollments were recorded in 1977. (p. 18)

The RPRSS was designed to provide the following benefits: (a) reduce or eliminate waiting time; (b) shorten or eliminate the queue [group registration]; (c) reduce or

eliminate crowds; (d) reduce the use of regular staff; (e) reduce the need for constant onsite availability of supervisory staff; (f) limit registrant involvement with point of entry equipment; (g) avoid increasing staff or equipment; and (h) retain first come-first served seniority. Furthermore, Szillat stated that the two significant differences between use of a computer and manual systems are in labor requirements and in the abilities to recover statistical information.

One initial use of the minicomputer in recreation and leisure services was found at the Johnson County, Kansas Parks and Recreation District. The in-house computer system utilized in this study was integrated into the parks system in 1978. The need for such a system became necessary in response to the increasing population needs in the Johnson County area. Coupled with this was the demand to remain accountable to the public in the wise use of tax dollars.

The computer system developed for the Johnson County Park Department was typical of that used in many large companies in the private sector. The ability of the system to reduce much of the human error in data management and to lower the time in clerical tasks were immediately realized. Shirley (1980) stated that:

The increased accuracy of the reports enabled supervisors at the operational level to improve their planning and to direct their attentions to areas where improvements could be made. (p. 60)

In conclusion, this review of the literature summarized the various ways in which computer technology is able to aid the therapist, client, or recreation professional. Whereas direct application of microcomputers to therapeutic recreation had not been made at the time of this study, the investigator supported the premise that advances made during recent years in computer technology could assist the profession in increasing the quality of therapeutic recreation services.

CHAPTER III

PROCEDURES OF THE STUDY

The present study was designed to develop an interactive microcomputer program to assist therapeutic recreators in processing the information gathered by the Recreation Behavior Inventory (RBI). This chapter describes the procedures followed in the development of the study; these are presented under the following headings: (a) Preliminary Procedures; (b) Computer Program Development; and (c) Preparation of Final Written Report.

Preliminary Procedures

Prior to designing the AIS program, a number of preliminary procedures were performed. All available information pertinent to the study was collected, reviewed, and assimilated.

A tentative outline was developed for the study and submitted to the members of the research committee for revision. Suggestions made by the thesis committee were incorporated into the revision of the outline. The revised outline was filed as a prospectus in the Office of the

Provost of the Graduate School at the Texas Woman's University.

Computer Program Development

The design and development of the AIS program involved six separate steps. Each step is described below.

Step one, in the development of the AIS program, was to determine what content was to be produced as output. It was decided that the output options should correspond to each form that was necessary to complete the RBI if it were processed manually. Therefore, the output options for the AIS reflect those of the RBI Profile Sheet and the Client Performance Summary Form (see Appendix B, Forms B and C). In addition, it was determined that each behavior test, as listed in the functional categories of the Client Performance Summary form, should be listed in descending order of priority as determined by the Priority List for Prescriptive Programming contained in the RBI (see Appendix B, Form D).

The second step, that of identifying the data structure created by the RBI, was then completed. After reviewing the test scoring scheme, it was decided that the score names and values of "cannot perform", "minimumly performed", and "no instruction needed", 1, 2, and 3 respectively, would be retained in the AIS. However, a change was made in respect

to the score value recorded for those tests in which the client did not respond. This score was changed from a "0" to a "4".

The third step was to determine the stages necessary to complete the processing of the RBI data. The following stages were identified.

1. Stage One: As new clients become residents at a facility, certain clerical tasks must be accomplished. These include recording demographic information, assigning a room, and/or assigning a medical number to the client. Also, it may be necessary to reassign rooms to existing clients, or out-process clients, being sure to store the client's medical records for further reference.
2. Stage Two: When the RBI is "run" on a group of clients, certain information must be kept with each particular run. For example, the date of the RBI run, the name of the facility, and the list of clients processed at that time would need to be recorded. In addition, at the time of the RBI run, the clients would be charted as an ordered number (see Appendix B Form 3), ie., the first name will always be the same whether

the observer is entering the test score value for behavior test 121, 122, or 41.

3. Stage Three: After the RBI run is complete, a profile sheet (see Appendix B Form B) must be filled out for each client. This is done by translating the scores from each behavior test by name (listed on Form 3, Appendix B).
4. Stage Four: Once the Profile Sheet is finished, the Performance Summary Sheet can be completed. This is done by sorting each behavior test into its corresponding test score value. For example, all scores of "1" would be listed in the "cannot perform/needs assistance" category.
5. Stage Five: Before the objectives or goals can be established for the client, performance summary information must be listed in order of priority in reference to the priority of human development.

Step four included developing a flow chart (see Figure 1) of the AIS program logic and translating it into Applesoft Basic Code. The flow chart followed the stages necessary to complete the RBI as listed in Step 3 above, with additional output options that would not be easily attainable if the RBI forms were filled out manually for

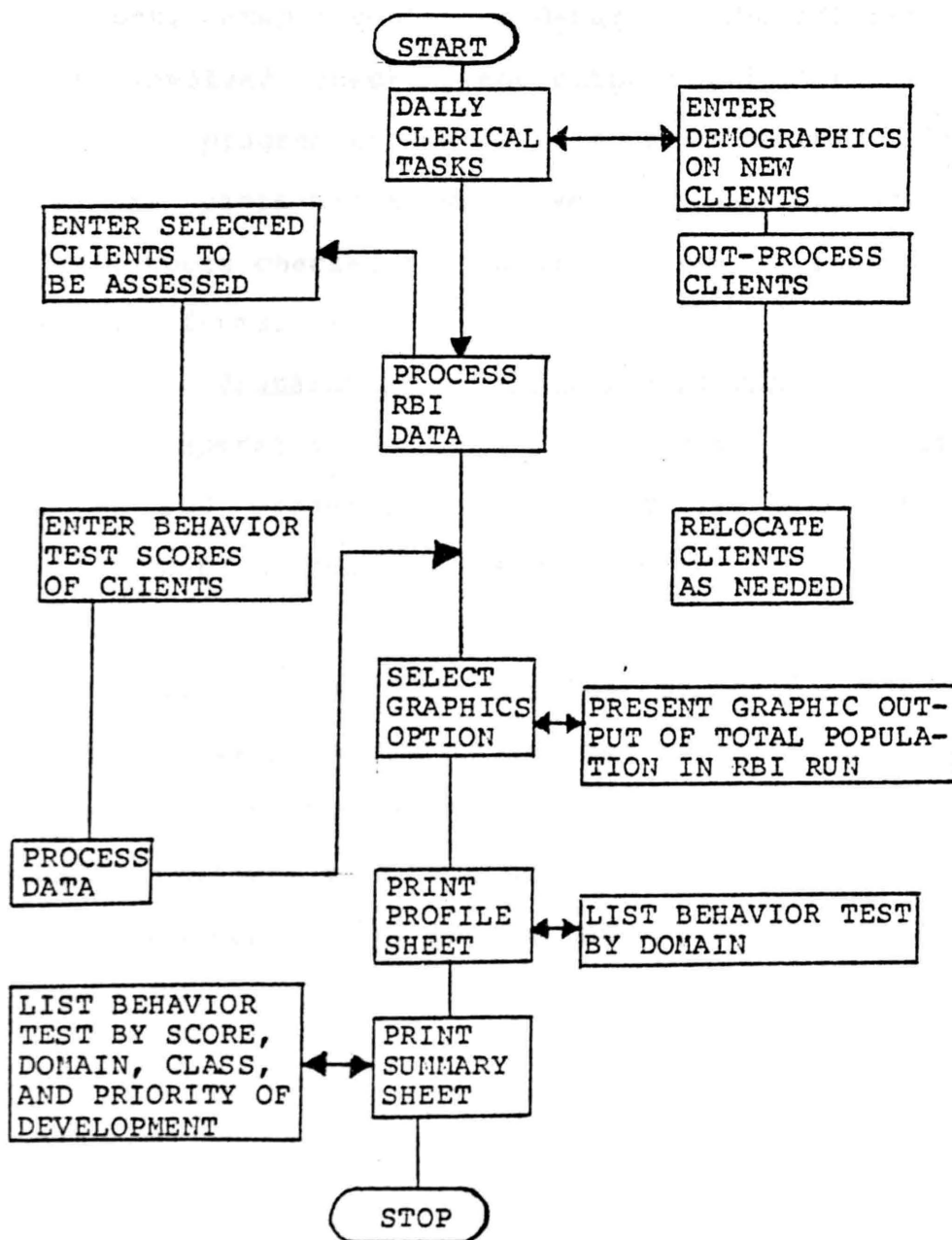


Figure 1. Assessment Information System Flowchart

each client. Step 5 contained debugging the AIS program and Step 6 involved checking the outputs and user interaction with the AIS program to assure its flexibility. At this point, the users manual was developed (see Appendix A) and program outputs checked for their accuracy in respect to the RBI summary forms.

Preparation of the Final Report

The preparation of the final report consisted of gathering and presenting all the material pertinent to the study. A users manual was assimilated and is presented in Appendix A.

A discussion on the results of the AIS program was developed and is presented in Chapter IV under the title of Presentation and Interpretation of the Findings. This section is followed by a discussion, summary, conclusion, and recommendations for further study; these are presented in Chapter V.

CHAPTER IV

PRESENTATION AND INTERPRETATION OF THE FINDINGS

The purpose of this study was to develop an interactive computer program designed for a microcomputer which could assist the recreational therapist in the processing the Recreation Behavior Inventory scores. The findings of this study are presented in the following discussion.

The initial purpose of the study was to review existing data base management systems to determine if in fact such a system could successfully manage the information required by the RBI. This decision was based on the following criteria. (a) Is the management system structurally large enough to manipulate the 87 behavior assessment scores as well as the demographic information on 100 clients as requested by the RBI? (b) How easily can the user retrieve a list of behavior scores from the data base? (c) Can the management system be modified easily to then guide the therapist through the processing of the RBI assessment scores? (d) Is the system flexible enough to manage not only numerical data but also textual information? (e) Does the system have the capability to act logically on the data to sort scores, produce statistical information, and

retrieve data randomly? (f) What types of output devices can the the management system utilize to display requested information to the user? (i) Can the system safeguard the information as to provide back-up copies and protect against accidental deletion of data?

Two directing factors were involved as research on the data management systems proceeded. One factor was securing current literature on computer software packages which could explain the necessary details of the system in respect to the criteria listed above. Products in the computer market are constantly appearing and being revised making it difficult to secure relevant information.

The second directing factor was the actual cost of the data management system. In selecting a system, it becomes critical that not only does the user determine his or her needs for the system but that they determine how well the system can perform in meeting those needs. This can only be accomplished by actually operating the system itself, which can be costly in terms of renting the software, hardware, or visiting the site where the equipment is used. Whereas these factors may have hindered the study to a degree, it became apparent to this investigator that a pre-packaged data management system would be excessively cumbersome and

time consuming to utilize for the specific purpose of maintaining and processing data for the RBI.

The results of this research prompted the development of a unique data management system to meet the above criterion. It was determined that the microcomputer program developed should follow the same system flow as the RBI, thereby allowing the user to interact with the program as assessment scores were recorded and processed into individual assessment summaries. It was also determined that the program be designed specifically to prompt and direct the user in as helpful and directive manner as possible; this would decrease the need for extensive peripheral documentation.

Structuring the program was accomplished as to allow the user to access various kinds of information easily and quickly. In the first stages of development, it was found that as the options available to the user increased, the speed of the output display was decreased. To increase the speed of program displays and access to various types of information, a restructuring of the system flow was performed. It was then found that the output options and display time speed could be maintained at a desirable level.

Two major divisions of the program were developed in designing the final system. One division was the manner in which the program prompted the user to input demographic information on each client that would be assessed by the RBI. These prompts required clear and directive wording while at the same time allowing access to in-depth explanations should the user request them.

A second division was the various types of displays and formats in which the assessment information could be retrieved. One format was developed which would mirror the Profile Sheet presented in the RBI. This form required the program to gather the raw data scores from a maximum of 99 clients then sort these scores into the Sensory, Cognitive, and Perceptual Motor domains and allow the user to request the information relatively quickly on any of the 99 clients. This format also required easy access to demographic information and allowed the user to select printed or video display outputs of the information interchangeably.

Another form of output was designed to specifically assist the user in developing prescriptive programs for each client from the processed RBI assessments. To accomplish this, the program was structured to sort the RBI scores into categories by value, then sort each value in accordance with

the developmental model as presented in the RBI. With this structure the user can select results on Domain, Class, and Behavior tests to gain direction in providing accurate prescriptive programs. Again, the information can be obtained in video or printed output.

Finally, the program was reviewed to assure that each display was clear and provided accurate information. In addition, it was necessary to assure that the user could maintain a wide range of options and that the program maintained its flexibility and could easily aid the user in the processes required to complete the RBI assessment forms.

CHAPTER V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

The need for therapeutic recreation to become increasingly more accountable in its delivery of services has prompted the profession to take a closer look at the efficiency and accuracy of its record keeping practices. While new and more reliable methods of assessing clients and designing prescriptive programs have been rapidly developing in recent years, they have tended to produce an added burden of maintaining larger volumes of paperwork. The tasks have been further increased if the therapeutic recreator is indeed to be concerned for the quality of care to the recipients of recreational services. Patient contact hours suffer when the therapist is required to maintain a balance of well planned prescriptive programs; hands-on patient contact; and accurate, accountable client records.

The computer has offered a wide range of expanded capabilities to government, business, and individuals. Automation which first proved itself in the ability to rapidly manipulate figures in accounting and mathematical applications has been assisting in a multitude of

applications ranging from monitoring extensive hospital operations to small business and home applications.

There is little doubt that the computer can expand the speed, efficiency and accuracy of many types of systematic operations. Automation has continued to display its abilities in a multitude of human interactions (Jeffrey, 1978). Unfortunately, whereas the technology has existed to diminish much of the perceived difficulties in human services, the cost and complications of obtaining a computer system has limited its use. With the advent of the microcomputer, low cost, portable computing power has placed the technology nearer to the individuals who could greatly benefit.

This study was undertaken to develop a microcomputer program which could assist the recreational therapist in processing assessment information gathered on clients through the use of the Recreation Behavior Inventory. The structure of the RBI was used as a guideline for developing the Assessment Information System program. The microcomputer used was a 48k Apple II Plus with one disk drive and a printer. The program was frequently redesigned to allow the user the optimum access to assessment information on each client and to assist in structuring individual prescriptive programs.

Summary of the Findings

This study was designed to develop an interactive microcomputer program to assist the recreational therapist in processing the Recreation Behavior Inventory assessment scores. The findings of the study are summarized below relative to the research questions presented in Chapter I.

Can the data produced as a result of assessing clients with the Recreation Behavior Inventory be recorded successfully with the microcomputer? Many data base management systems were limited in the amount of information that could be easily recorded and retrieved. The AIS program was designed to maintain two separate data types and extensive list of demographic information as well as the 87 individual behavior test scores. The memory capacity of the microcomputer used was quite capable in managing these data.

Can the AIS program successfully produce client information as required by the Recreation Behavior Inventory? There were two categories of information that the RBI was designed to produce once the raw data from the RBI assessment were gathered. The Profile Sheet was one category of information which displayed an overview of the range of test scores by behavior and human domains (ie., Sensory, Cognitive, and Perceptual Motor). The second

category of information was presented in the form of sorted behavior scores, listed in order of the human development model discussed in the RBI. Therefore, all behavior score values of 1 under each domain would be listed in order of human development from highest priority to the lowest. In addition, this information included a complete listing of the individuals demographic information as well as handicapping condition codes and activity limitations. The AIS can successfully produce each of these documents once the raw assessment data scores have been entered for the entire population assessed. Furthermore, the AIS can generate graphic displays on the entire assessed population, store group scores for individual assessment runs, and allow random access to individual information records.

Discussion

This study was conducted because of the need for recreational therapists to maintain accurate records on individual clients and to provide high quality prescriptive programs. It was also believed that whereas behavior assessments on clients would demand an increase in the amount of time devoted to paperwork, a microcomputer program which processed the most time consuming tasks of the RBI could assist the therapist in maintaining adequate patient contact hours. The microcomputer program (AIS) was designed

so that it could (a) store demographic information on each client; (b) generate the RBI, Profile Sheet information; (c) generate RBI, Summary Sheet data; and (d) assist in targeting client program goals and objectives.

Once the AIS program was developed, it was frequently reviewed to assure that each input request could be easily followed by the user. Furthermore, each output display was checked for its accuracy in concordance with the RBI structure.

The use of the AIS program is dependent upon access to a 48k Apple computer system with one disk drive and a printer. The program can be run without the use of the printer; however, the output display will be limited to the TV or monitor screens only.

Conclusion

Based on the findings, it can be concluded that the interactive microcomputer program developed in this study has been able to produce the necessary information required by the Recreation Behavior Inventory. The AIS program utilizing the capabilities of the microcomputer can be viewed as a viable means to process the raw assessment data produced by the RBI.

Recommendations

This investigation represents the first attempt to utilize the capabilities of a microcomputer to assist the recreational therapist in processing and maintaining assessment data on individual clients. Based on the findings of the study, the following directions for further research are recommended:

1. Long-term field testing of the AIS program against conventional methods would determine the extent to which the microcomputer could assist the therapeutic recreation profession.
2. The automated approach to systematic operations as demonstrated in the AIS program should be applied to other areas of therapeutic recreation such as evaluation, activity analysis, and inventory control.
3. A comprehensive evaluation of various aspects on the use, response, and comparative analysis of the AIS program to other similar methods should be conducted using a random sample of Recreational Therapist.

APPENDIX A
ASSESSMENT INFORMATION SYSTEM
USERS' MANUAL

AIS PROGRAM
ASSESSMENT INFORMATION SYSTEM

FIRST EDITION
May 1982

Steven M. Herbst
Texas Woman's University

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CHAPTER I

INITIAL SET UP

1.1 Equipment Requirements

To utilize the AIS program to its fullest capacity, you will need to have the following list of equipment: A 48k Apple Computer with Applesoft BASIC; one disk drive; a monitor or TV with a RF modulator; and a printer. The graphics portion of the program will display information in various colors, therefore you will need a color monitor for the color to be distinguished; however, it is not critical to utilizing the program. The AIS program can be utilized without the printer but then the output displays will be limited to the screen.

1.2 Setting Up the Equipment

This section describes the directions for connecting the hardware together to operate the AIS program. If this is your first contact with the Apple, it is recommended that you first consult the users' guide. This guide will direct you on the specific use and care of the Apple Computer. This section is only provided for a quick reference to use when running the AIS program.

1.2.1 Setting Up the Apple Computer

Set the Apple computer on a flat surface with adequate room for the TV monitor, the printer, and the disk drive unit. Connect the Apple to a grounded 110 volt outlet. The grounded outlet is necessary to protect the computer and the user from harm.

1.2.2 Hooking Up the Monitor

A monitor or TV can be used to see the outputs of the AIS program. The monitor is specifically designed to be used with the computer and only requires a video cable to be connected between the computer and the monitor. This connection is made from the jack marked VIDEO OUT (on the right rear of the Apple) to the input jack on the monitor.

If you are using an ordinary TV, you will have to install an RF modulator. The modulator is easy to install by lifting the lid on the top of the Apple and inserting the modulator in the appropriate slot as indicated in the users' guide. The modulator has a jack marked for the video output. The video cable will connect from the modulator to the back of the TV.

Once the video cable is connected, the monitor or TV will also need a grounded 110 volt outlet.

1.2.3 Hooking Up the Disk Drive

A Disk Operating Instruction Manual is provided with the disk drive. The instructions on how to set up the disk drive and the proper care of it are explained in detail in this booklet. This manual assumes that you have read the Disk Operating Manual and have inserted the controller card in Slot # 6. The AIS program is designed for the 3.2.1 version of the Disk Operating System (DOS). If you have the 3.3 version of DOS you should consult your manual for the procedures to update the AIS program to your version of DOS.

1.2.4 Setting Up the Printer

Each printer has its own individual characteristics with which you must acquaint yourself. However, the first step in setting up the printer is to insert the interface card into Slot #1 of the Apple. The AIS program will instruct you with the commands necessary to obtain printed outputs when that option is available.

1.3 Use and Care of the Equipment

1.3.1 Handling Diskettes

There is one diskette, that is used to store information, which has been supplied with the manual; this information may be the AIS program itself or may be the RBI assessment information that you wish to process with the program. The information is stored in the same manner as

verbal recordings on magnetic tape and therefore requires some important considerations to protect the information from being destroyed.

There are two points to consider with the data stored on the diskette. One point is the handling of the diskette itself. The magnetic material is covered with a pliable plastic coating on the outside of the diskette. On the plastic portion, a label is placed designating the top side of the diskette. Always hold the diskette by the top portion and never touch the exposed portion of the diskette. It is important to keep dirt or oil from your fingers off of the magnetic material.

The second consideration is where you place the diskette when it is not in use. The data on the diskette can be destroyed by magnetic fields, heat, and dirt. In some places magnetic fields can be found are TVs, electric motors, and of course magnets. Heat also includes sunlight. Dirt, even that of lint and dust, must be avoided by keeping the cover on the diskette when it is not being used.

1.3.2 Inserting the Diskette into the Disk Drive

The diskette must be inserted into the disk drive with the label portion or top side up. To insure this, hold the diskette with the right thumb over the label while inserting it into the disk drive. Open the door on the disk drive and

insert the diskette being careful not to force it at any time. If the diskette is in properly, the door will close easily. Never force the door closed or open the door while the "in use" light is on. Again, this could irreparably destroy the diskette and the information on it.

1.3.3 Operating the Apple

This section assumes that the Apple you are using is an Apple Plus II with Applesoft BASIC and auto start ROM. The auto start ROM is used to automatically begin reading the information on the diskette when the Apple is turned on.

The first step in starting the Apple is to have the AIS program diskette in the disk drive before the Apple is turned on. Then, turn on the power switch which is located at the left rear of the Apple. When this is done, the Apple will beep and the "in use" light on the disk drive will turn bright red. This means that the disk drive is operating. The "in use" light should stay on for approximately 15 seconds. If it stays on longer than that, turn off the Apple and repeat the previous steps to insure everything is set up properly.

1.3.4 The Apple Key Board

The key board on the Apple is very similar to a typewriter however, there are some added keys. The keyboard will only type in uppercase so there is no need to use the

shift key unless there is a top character on the key that you would want to type.

The unusual keys include the CTRL key, the ESC key, the RESET key, and the ARROW keys. The Control key marked CTRL is operated like a shift key in conjunction with another character key. Control key commands allow you to control the execution of the program being run. Two common control key commands that can be used with the AIS program are CTRL S and CTRL Q. To give a control command you must hold down the CTRL key while you press the appropriate letter key. Pressing the control key alone will not effect the program. The CTRL S command allows you to freeze the screen so that you can read the text without it constantly moving and scrolling off the screen. The CTRL Q command unfreezes the screen and allows new text to be printed. The control key commands should be used very carefully. Some of the control key commands are very powerful and can terminate the execution of a program and erase all your input from the memory.

The second special key on the key board is the ESCAPE key marked ESC. This key is not used in the AIS program but will be read by the program if you should press it when asked for input. Therefore, you should avoid pressing this key.

The third special key is the RESET key. The RESET key terminates the program that is being executed and clears all information from the Apple's memory. The RESET key has the same effect as turning the Apple off. Never press the RESET key when you are using the AIS program unless you wish to begin the program anew.

If the reset key is pressed, you will lose all the data you have entered and the program you were using will be erased from memory. Your only alternative will be to turn the Apple off and begin again.

The final special keys are the right and left arrow keys. The right key is used in programming to move existing text to the right and serves no useful function in the AIS program. The left arrow key acts like a delete key. Pressing the left arrow key will move the cursor (the white blinking box that shows you where you are on the screen) back one space. If you spell a word wrong, you can back space over it and then retype the word correctly. The left arrow key can be used in the AIS program to correct mistakes. The left arrow key will only work on the line you are on; you cannot use the left arrow key on a line once you have pressed the RETURN key.

In addition, your response to the AIS program prompts are not read until you press the RETURN key. This will

allow you to retype a response before the computer accepts it into the program.

1.3.5 Specially Defined Keys

The AIS program will, at various points, interpret the '*' as a response from you that you want to stop and return to the most previous list of options available to you. You will be given the option at many times throughout the program to stop or re-enter a value that you may have entered incorrectly. Therefore you should remember that it is generally not necessary to "panic", hit the RESET key, and start all over if you have entered the wrong data.

CHAPTER II

THE AIS PROGRAM

2.1 Overview of the AIS Program

The AIS program is designed to assist in preparing the summary documents which complete the RBI. Therefore, AIS will follow the general flow that would be necessary for you to follow if you were to process the RBI assessment data manually. The AIS has also been structured to store information, by way of room identification numbers, on each person that has been assessed. Room numbers can be assigned for each person ranging from 1 to 99. If the clients that are being assessed do not reside in rooms structured in this manner, then you may think of the room number scheme in terms of record numbers and assign a number to each person accordingly.

The steps necessary to process the RBI data can be grouped into the following categories: (a) gather demographic information on each client who has been or will be assessed, (b) record RBI data for each client, the date of the assessment, and where the assessment took place, (c) process the RBI data into individual profile sheets and sorted summary sheets.

Whereas these steps do follow a general flow, it is not imperative that you complete each one before going on to the

next. In fact, this program has a number of options that will allow you to change existing information, add information, or delete the information that has been entered. Since AIS will structure each assessed person under room numbers, you have the option of moving a person from one room to another, or to take the person out of a room altogether and store the information in a past records file. The file that contains the current information is called the Medical Records file and the RBI data is stored in the file called Assessment Information. These files also reside on the diskette provided with this manual.

2.2 Using the AIS Program

There are many prompts that you will see on the screen when you run the AIS program. At many points, if at the prompt it is not clear to you as to what to do next, you will also be told that it is possible to enter a '?' for an expanded explanation of what the prompts mean.

2.3 Running the AIS Program

This section assumes that you have read Chapter I of this manual and have already connected the proper hardware together. At this point you are now ready to precede through each of the following sections.

2.3.1 The Main Menu

Insert the diskette (label side up) into the disk drive. Close the drive door and turn on the Apple. The drive "in use" light should light and will go out in approximately 15 seconds. If it does not, turn off the Apple and re-check the preceding steps. The program will greet you and ask if you need in-depth instructions. Pressing a 'y' at this point will give you an explanation on the use of the program. Pressing a 'n' will take you to the first "menu". A menu is a list of options from which you may choose. Depending on the stage at which you are in terms of processing the RBI data, you will choose different options. This first menu is referred to as the Main Menu throughout the rest of this manual.

2.3.2 Review Medical Records

This option refers to Category A of the steps necessary to process the RBI data mentioned in Section 2.1. Once you select this option, the drive "in use" light will stay on for approximately 30 seconds. This option runs a subprogram that maintains the Medical Records file, allows you to review the processed scores (ie., the profile sheet or summary sheet), and allows you to delete or add new clients to the file. When the in-use light goes out you will be shown another menu specific to the reviewing of the medical

records file and may select each option as prompted. Again, by entering the '?' you will receive an expanded definition on each option given.

2.3.2.1 Medical Records Addition

This option will allow you to add the demographic information on clients who have been or will be assessed by the RBI. You cannot process any RBI data until you have first entered the demographic information on the clients you wish to process.

You will then be prompted to enter the demographic information on each person by room number. Again, if you do not have each client classified by room number you will need to assign each one a unique number from 1 to 99. You then will refer to this client by his or her room number when prompted to enter data scores or other information.

2.3.2.2 Update or Review

This option will allow you to choose the following options: (a) review the information already entered on a client in a particular room; (b) review the profile sheet which contains the raw RBI data scores; (c) review the summary sheet which contains the sorted RBI scores; (d) mark a client to be assigned a different room number; (e) mark a client to be deleted from the Medical Records file; or (f) alter the information for a particular client.

Each of these options will allow you to make a printed copy of the information if you so desire. Also, it is possible to obtain printed copies of some information and then to return back to the screen to search for other information before having it printed.

Clients are only marked to be moved or deleted at this point. When Option 2 is selected from the main menu, then a search is conducted for those records which have been marked and if found, the procedure for moving or deleting records is then carried out.

2.3.2.3 Status

The Status Option is used to check which room numbers have not been assigned. In using this option, you may check just one room number or sort through all of the rooms for a list of those that are open or filled.

2.3.2.4 Review Past Records

This option will allow you to look into the Past Records file and retrieve information from records that you may have deleted previously. Again, you may obtain a printed copy by selecting the proper response.

2.3.2.5 Exit

As with the other exit options, this choice will place you back to the most previous menu.

2.3.3 Update Medical Files

As mentioned in Section 2.3.2.2, this option will search each room number that you have entered and look to see if you have marked it to be moved or deleted. If you have marked the record to be deleted, it will take that record out of the Medical Records file and place the information in the Past Records file.

The records that have been marked to be moved will actually be moved when this option is chosen. The program will not check to see if the record you are moving will go to a room that has been previously filled, therefore you should check the status option first before executing this option.

2.3.4 Initiate Assessment Data

When you select this option, you will be greeted with a menu of three choices as follows: (a) initialize assessment data; (b) enter assessment data; and (c) process assessment data.

2.3.4.1 Initialize Data

Option 1 is used when you wish to enter the date of the RBI run, the facility in which the RBI was utilized, and the room numbers which correspond to the clients who have been assessed. As the prompts will indicate, if you are not

satisfied with the information that was once entered, you may change it.

While entering the room numbers of each client, you will want to enter them in the computer in the same order in which they are listed at the top of the RBI individual observation sheets. At another point in the program, you will be asked to enter the score for the client by room number and by behavior score. This order will be the same for every behavior score, therefore, to save time and insure accurate entering of the scores, you should see that each client maintains the same order for all 87 behavior test scores on the 34 observation sheets.

2.3.4.2 Enter Assessment Data

Option 2 is used when you are satisfied with the information that the previous options requested and you have the RBI observation test scores ready to be processed. This option will display each of the 34 activities, the behavior test name and number, and prompt you to enter the score for the client in a particular room. When you have entered each score for every client in a certain activity, the program will ask if you want to change any of the values. If so, you can first check all the scores for that behavior or check just one score to see if it is correct. You can check and alter the values as much as you like. When you are done,

the information will then be stored in the Assessment Information file, however, it is not processed until you select Option 3 of the main menu.

You do not have to enter all of the RBI scores at one time, or even on the same day. If you have already entered some scores and select Option B, then you will be asked at which behavior score you wish to begin. At this point, enter the behavior number that precedes the behavior test as listed in the RBI. The program will check to be sure you have entered the correct number and then ask if you want to begin automatically or manually. This refers to the order the program will follow in prompting you to enter the the next behavior score. For example, if you said you wanted to enter the scores for behavior test 21 (Identify Animal Sounds) and then selected the automatic option, when you have entered all the test scores for everyone under test 21 you would then be prompted to enter the test scores for number 22 (Identify Human Sounds). If you had selected the manual option, then when you had completed entering the test scores for everyone under test 21, the program would go back to prompt you to another test score, at which time you could enter test scores for 101 (Match Objects). By using the Manual Option it is possible to correct a list of scores for

a behavior test or to enter the scores for a test that you might have "skipped over".

2.3.4.3 Process Assessment Data

When Option 3 is selected, the program will search for every behavior score that was entered for each room number. It will then place these scores in the individual client's medical record file. You can review these scores for each client by selecting Option 1 from the main menu.

2.3.5 Update Assessment Files

In actuality, selecting this option is the same as Option 3 of the Main Menu. The division here is to aid the user in deciding which option is to be used at various times. In this case, if you wanted to go back to the assessment file and change a complete list of behavior test scores then you would select this option. Once you are given the list of options, you would select Option 2 and precede as discussed in Section 2.3.4.2 above.

2.4 Summary

This manual has been provided to assist in guiding you through the AIS program. You will learn and become more comfortable with the program as you begin working with each section. Use the manual as an aid and then try to follow the prompts as they are provided by the program.

Remember to relax while you are using the program. Do not get impatient if you happen to enter the wrong data. The program is structured to allow you to change and rechange every area of information entered. If you feel apprehensive about utilizing the computer, then practice for awhile until you get used to learning how to correct your mistakes; then when you need to process the "real" data you can feel at ease with the program.

APPENDIX B
RECREATION BEHAVIOR INVENTORY FORMS

OBSERVATION SCORES FORM A

Observer Date	Center	Activity: DIRECTIONALITY	Names.....	Comments
<p>Scoring: The activity leader will inform you what behavior you are observing. When the tasks associated with that behavior have been completed, the leader will so indicate to you. You should then assign a score (1, 2, or 3) for each participant based on the criteria provided and the participant's performance on the specified tasks.</p> <p>If for some reason the participant is not assessed, score a one (1) and comment in the appropriate space.</p>				
<p>Behavior: 201 Crossing the Midline</p> <ol style="list-style-type: none"> 1. Could not cross midline; or drew left half with left hand and right half with right hand; or pivoted body to avoid crossing the midline 2. Could cross the midline, but had difficulty when hand was on opposite side of midline (e.g. false starts; pauses and confusion) 3. Could cross the midline with ease; used one hand; did not show extreme hesitation 				
<p>Behavior: 211 Know Directions of the Body - Observe participant perform the seven tasks and assign rating on over-all performance</p> <ol style="list-style-type: none"> 1. Could not perform one or more of the tasks; or had marked hesitancy 2. Showed some hesitation; or corrected himself 3. Responded to all commands correctly with little or no hesitation 				
<p>Behavior: 212 Know Direction of Objects from Body - Observe participant perform the seven tasks and assign rating on over-all performance</p> <ol style="list-style-type: none"> 1. Could not perform one or more of the tasks; or had marked hesitancy 2. Showed some hesitation; or corrected himself 3. Responded to all commands correctly with little or no hesitation 				

PROFILE SHEET FORM B

Name _____ Center _____ Rating: 1 - Cannot perform/Needs instruction
 Assessment Date _____ Group Leader _____ 2 - Minimally performed/Could benefit from some instruction
 3 - No instruction needed

S	Tactile I.D.	Aud. I.D.	Aud. Loc.	Aud. Recall	Color I.D.	Visual Loc.	Visual Recall
E	(11) shape	(21) animal	(11) locate	(41) single	(51) color I.D.	(61) static	(71) objects
U	(12) texture	(22) human	mov. sound	(42) sequence		(62) moving	(72) actions
D	(13) comb.	(23) object					
C	Symbol Match	Symbol I.D.	Reading	Writing	Arithmetic	Follow Aud. Sign.	
U	(101) objects	(111) objects	(121) sing.	(131) sentences	(141) count	(151) single	
G	(102) letters	(112) letters	(122) spell.		(142) rank	(152) series	
M	(103) numbers	(113) numbers	(123) phr. & sent.		(143) add		
I	(104) actions	(114) actions			(144) mult.		
T	Follow Vis. Sign.	Oral Comm. Struct.	Oral Comm. Unstruct.				
V	(161) single	(171) sing.	(181) sing.				
E	(162) series	(172) 1-J sent.	(182) 1-J sent.				
		(173) 4+ sent.	(183) 4+ sent.				
P	Gross Midline	Inflectionality	Body Image	Balance	Manipulation	Form Percept.	
E	(201) cross midline	(211) dir. from body	(221) ident. body parts	(231) static	(241) large	(251) trace	
R		(212) obj. from body	(222) rela. body parts	(232) dynamic	(242) medium	(252) copy	
C		(213) obj. from obj.	(223) body space		(243) small		
E		Two Hand Throw	Stat. Catch	Stat. Catch	Kick-Stat. Obj.	Kick Mov. Obj.	
F	(261) lg. at. tar.	(265) lg. at. tar.	(281) lg. obj.	(283) lg. obj.	(291) stat. kick	(293) stat. kick	
T	(262) lg. mov. tar.	(266) lg. mov. tar.	(282) sm. obj.	(284) sm. obj.	(292) mov. kick	(294) mov. kick	
U	(263) sm. at. tar.			(285) lg. obj. bknds.			
A	(264) sm. mov. tar.						
L		Stat. Strike w/Hand	Strike w/Implement	Dribble	Horizontal Locomotion	Vertical Locomotion	
M	Stat. Strike w/Hand	(301) lg. mov. obj.	(311) sm. stat. obj.	(321) stat.	(331) crawl	(341) run	
U	(302) sm. mov. obj.	(304) sm. mov. obj.	(312) stat. person	(322) mov.	(332) walk	(342) jump	
T			(313) sm. mov. obj.		(333) slide	(343) leap	
O			(314) stat. person		(334) rotate	(344) hop	
R			(315) sm. mov. obj.			(345) gallop	
			mov. person			(346) skip	

RECREATION BEHAVIOR INVENTORY PROFILE SHEET

SUMMARY SHEET FORM C

RECREATION BEHAVIOR INVENTORY

Client Performance Summary Form

Demographic Information

Name _____ Sex _____ Date of Birth _____
Primary Disability _____ Chrono-logical Age _____ Mental Age _____

Handicapping Conditions _____

Activity Limitations _____

Comments _____

Form Completed by _____ Date _____

Performance Summary - Functional Categories

Performance Satisfactory	Minimal Performance - Could Benefit from Instruction/Practice	Cannot Perform - Needs Instruction
--------------------------	---	---------------------------------------

PRIORITY LIST FORM D

PRIORITY LIST FOR PRESCRIPTIVE PROGRAMMING

PERCEPTUAL-MOTOR DOMAIN

<u>Class I</u>	<u>Class II</u>	<u>Class III</u>
Crossing the Midline	Manipulation	Strike with Hand
Directionality	One Hand Throw	Strike with Implement
Body Image	Two Hand Throw	Dribbling _
Balance	Stationary Catch	
Horizontal Locomotion	Moving Catch	
Vertical Locomotion	Kicking	
Form Perception		

SENSORY DOMAIN

<u>Class I</u>	<u>Class II</u>
Tactile Identification	Auditory Recall
Auditory Identification	Visual Recall
Auditory Location	
Visual Location	
Color Identification	

COGNITIVE DOMAIN

<u>Class I</u>	<u>Class II</u>	<u>Class III</u>
Symbol Matching	Reading	Arithmetic (Addition,
Symbol Identification	Writing	Multiplication)
Follow Auditory Signals	Arithmetic (Counting,	
Follow Visual Signals	Ranking)	
Oral Communication		

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