DEVELOPMENT AND VALIDATION OF A COMPUTERIZED INFORMATION MANAGEMENT, RETRIEVAL, AND ANALYSIS SYSTEM FOR A UNIVERSITY READING CENTER

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C O P Y R I G H T

by

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CHAPTER I

INTRODUCTION

The application of computers, especially microcomputers, in the field of education has been supported recently with great enthusiasm. Grabowski (1984 p. 27) stated "Computers are proving to be one of the most important technological breakthroughs in education to date". Shively (1984 p. 24) observed that "Regardless of funding source, increasing numbers of computers are being purchased and many computer programs are being designed and produced for education". Over the past few years the number of computers has doubled each year (Bork, 1984). National spending for microcomputers for instruction continues unabated. State departments of education reported expenditures in 1985/86 of an estimated $550 million for computer hardware, with an additional $130 million for software, and higher levels of spending are expected to be reported for 1986/87 when those figures become available (Reinhold, 1986).

Taylor (1980) views computers as vehicles for instruction (tutor), assistance (tool), and creative problem solving (tutee); However, if the microcomputer is to be utilized to its full potential, it must have good software to perform the various tasks (Thomas and McClain, 1983). "Many thousands of microcomputers have been sold by the software. . .the hardware and software together provide a tool to increase productivity and instructional effectiveness. . . ." (Thomas

and McClain). Software, besides the system programs and languages, can be divided into the following three groups: a) courseware b) word processing, and c) tools (Thomas and McClain, 1983).

Courseware, that is, the teaching materials with which students interact when they're taught by computers "is done not to replace teachers but to free them from mechanical or time-consuming activities" and to "extend our resources to give more students individualized care that produces excellence" (Keller, 1987). A powerful tool for both teachers and students engaged in creating text, word processing is a computer application whose potential is just beginning to be tapped (Strickland, Feeley, and Wepner, 1987). Software as a tool can serve many functions related to management, administration, and instruction.

Significance of the Study

One of the best uses of a computer is to rid the user of the overburdening mountains of paper work (Huntington, 1983). Most universities and colleges maintain a large volume of records in a manual filing system. After many years, this system becomes cumbersome. The file storage area often becomes cluttered and wastes space in a time when space is at a premium. The computer is most useful for storing and analyzing data for statistical and diagnostic purposes. Despite the proliferation of an amazing array of microcomputer software packages, it may still be difficult to find a package which meets a specific need in a particular setting (Tally, 1983). This study is intended to meet a specific need - that of a clinical situation such as Oklahoma State University's - wherein masses of records have been been accumulated over a period of time.

Purpose of the Study

The purpose of this study was the development and validation of a Computerized Information Management, Retrieval, and Analysis System for Oklahoma State University Reading Center. This system was tested through the use of clinical evaluation records and is capable of storing, retrieving, analyzing, and reporting sixteen (16) diagnostic tests.

Limitations of the Study

This study is limited to the capability of storing and retrieving of demographic data and information, calculation of the lowest score, and the analysis of the statistical central tendency functions of MEAN, and MEDIAN. The menu driven application program will allow the user to do the following:

1. Add New Evaluations.
2. Edit Existing Evaluations.
3. Mark Evaluations for Deletion.
4. Recall Evaluations.
5. Permanently Remove Marked Evaluations.
6. View Existing Records.
7. Print Student Detail Reports based on selected criteria with sorting capability (See Appendix A.).
8. Print Student Name Listing Reports based on selected criteria with sorting capability (See Appendix A.).

The utilization of this computer application is restricted to the preceding functions and requires the following mandatory steps:

1. CAPS-LOCK key MUST be on. All data entry must be done in upper case letters only.
2. The printer must be turned on and ON-LINE at all times.
3. At least ONE RECORD should be entered into the program BEFORE attempting program calculations.

Assumptions

It is assumed that IBM or IBM compatible hardware will be used. It is also assumed that sorts will only be based on the five logical operations, < , > , = , And, and Or. However, a combination such as (Age: > 6 but < 10) is not provided for and must be done as individual operations.

Definitions

Hardware. The physical computer equipment. This includes such items as the monitor, the keyboard, disk drives, and the printer.

Software. The learning package that is loaded into the computer. This contains the programming or code that tells the computer what to do.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to present a review of literature related to aspects of this study. Research has documented much about computer usage in public schools and higher education including student access to computers, computer related courses, the characteristics of students in these courses, and types of computer applications. Therefore, this review of literature will examine studies primarily concerned with potentials of computers in education, computer utilization in education, availability of adequate software, characteristics of good software, and the future of educational computing. Since computer technology and its implications on education and educational management is changing so rapidly, this chapter was chosen to give background information to the reader.

The Potential of Computers in Education

Both the public and educators perceive a considerable potential for the application of the computer in the classroom, but computer technology has not yet substantially changed education (Norton, 1982). Educators who acquired computers with the expectation that they were the answer to all educational problems have been largely disappointed (Tetenbaum and Mulkeen, 1986). The mere existence of a microcomputer in a classroom does does not guarantee a quantum leap toward effective

instruction or positive learning. As with any technology, a microcomputer is not good or bad in and of itself. It can be misused, inappropriately used, even neglected. But its potential as an instructional tool is enormous (Hill, 1980). By looking at the underlying instructional goals and searching for areas where the capabilities of the computer can make a unique contribution to learning the promise of computer technology can be realized. Effective strategies for realizing the potential promise of computer technology begin with the educator (Norton, 1980). The educator must understand the computer's potential, for the appropriate implementation of microcomputers in instruction can provide a broad range of new experiences in learning and thinking atypical of the convergent style of thinking traditionally prevalent in education (Steffin, 1981). According to Ignatz (1985) the computer has the potential to:

1. Provide practice sessions to enable students to sharpen needed skills.
2. Drill endlessly and patiently as well as provide immediate feedback, encouragement, and reinforcement.
3. Develop problem solving skills.
4. Stimulate students to recall, apply, and integrate knowledge.
5. Break down concepts into manageable steps.
6. Encourage students to focus on one phase of the concept at a time until understanding occurs.
7. Go beyond what the teacher does in the classroom.
8. Provide additional help to students who need it.
9. Promote knowledge processing and application strategies.
10. Promote the development of problem solving skills.
11. Permit experiments that require expensive or not readily available equipment or chemicals to be performed.
12. Provide opportunities for students to learn science concepts processes which otherwise might not be possible due to such factors as the shortage of qualified teachers, overcrowded classrooms, and limited teacher preparation time.

With the use and application of systems computer education can provide the means for transcending the "facts" and "skills" of the

industrial model of education. As John Dewey wrote, "the purpose of education is to enable a person to come into possession of all his powers."

Computer Utilization in Education

Learning to communicate with and through computers, and learning to command their services in meeting human needs have become essential new goals of our school programs. The most profound point to be recognized by schools and teachers is that microcomputers not only aid in accomplishing established skill and concept objectives but create needs and goals for schooling (Hill, 1980). Fiske (1984) reported that the use of computers range from single drill and practice to simulations of the theory of relativity.

In determining instructional requirements Thomas and McClain (1983) have identified fourteen activities in which microcomputers may be used:

1. Drill
2. Tutorial
3. Problem Solving
4. Programming
5. Simulations
6. Testing
7. Computer Managed Instruction (CMI)
8. Data Analysis
9. Information Retrieval
10. Word Processing
11. Laboratory Device Control
12. Teaching Aids
13. Electronic Blackboards
14. Computer Literacy

Since 1977 we have seen phenomenal growth in the educational uses of computers. All colleges and universities have microcomputers, and most elementary and secondary schools have them, too. According to

Technological Horizons In Education Journal (1987-1988) there are more than 1.5 million computers in our nation's 100,000 primary and secondary public schools. Universities have an installed base of approximately 3 million microcomputers, with 22 institutions further requiring students to own their own. In a recent survey conducted by T.H.E. Journal, educators indicated they plan to spend more than $1.4 billion this year on computer devices.

Availability of Adequate Software

After several years of microcomputer use in school classrooms, there are indications that this technology has so far been less effective than expected in helping to resolve the instructional problems it was hoped it would address. It is proposed that many microcomputer courseware materials have been insufficient to the task, and that methods used to develop courseware are the source of many of the problems and limitations (Roblyer, 1983). Increased use of systematic instructional design methods are suggested to help improve the overall quality and usefulness of coursework. While systematic methods are currently in common use in business, industry and military training settings, they have had limited acceptance in education because of certain characteristics and constraints of the education environment (Roblyer, 1983). Critical to the continuing and increasing use of computers in schools is the development of quality educational software. Currently, teachers are dissatisfied with the educational software available. A 1981 survey of computer use revealed that educational software was viewed as little more than electronic flash-cards and workbooks. There was a general sense among teachers that

software was dull, unimaginative, and of questionable pedagogical soundness (Ingersoll, Smith, & Elliot, 1983). Similarly, a 1983 survey of teachers using computers revealed that the majority were dissatisfied with the amount and quality of software available (National Education Association, 1983). Currently, such software frequently are authored either by programmmers who have little background in education or by educators who have little background in programming. Too often the result is educational software that is inappropriate or technically unsound (Gold, 1984).

Bork (1984, p.94) describes several factors that characterize poor software:

1. Failure to use adequately the interactive capabilities of the computer.
2. Failure to use the individualizing capabilities of the computer.
3. Use of extremely weak forms of interaction such as multiple choice.
4. Heavily text-dependent presentations.
5. Heavily picture-dependent presentations, where the pictures play no important role in the learning process.
6. Screens treated like the page of a book.
7. Material that is entertaining or attractive, but with no, or vague, discernible educational objective
8. Games which are nothing but games.
9. Long sets of "instructions" at the beginning of programs, difficult to follow even by the teachers, and even more difficult to recall.
10. Dependence on auxiliary print material.
11. Small pieces of material, lacking context.
12. Material which does not hold the student's attention.

Instructional computing with microcomputers is a relatively new field, but it is evolving and expanding rapidly. Currently available materials and methods seem to be making little important impact on the instructional problems which plague classroom teachers. There are many reasons for this lack of success, but one of the most readily identifiable seems to be deficiency in the quality and range of available

software.

Characteristics of Good Software

The entire design and development process of instructional computing materials can be improved if both the author and the programmer have something more than a casual awareness of the other's area of expertise. However, it is not often that the author and programmer are one and the same person, with expertise in both programming and a given academic area (Culp and Nickles, 1986). Very few educators have high proficiency in programming techniques and strategies. Likewise, few programmers know the intricacies of learning theory, instructional design, and research methodology.

Wade (1980) relates Gagne and Briggs (1974), "instructional events" to the characteristics necessary in a good computer instructional program. These events or components of instruction can provide a framework for classifying characteristics of instructional programs:

1. Gain attention
2. Informing the learner of the objective
3. Stimulating recall of prerequisite learnings
4. Presenting the stimulus material
5. Providing "learning guidance."
6. Eliciting the performance
7. Providing feedback about performance correctness
8. Assessing the performance
9. Enhancing retention and transfer

If microcomputers are to realize their promise of revolutionizing classroom teaching methods, a major concern must be to establish standards and system approaches to educational and instructional courseware materials. Innovative methods, as well as familiar ones, must be directed toward the same goals as all instruction: Primarily, increasing student learning, and secondarily, facilitating teacher use

of software (Roblyer 1981).

Future of Educational Computing

Early use of computers by educational institutions occured at the end of the 1950s at which time universities began using computers for administrative purposes. At the same time, people began using computers for instructional research. PLATO, one such research application project, introduced a large, time-shared instructional system (Alessi and Trollip, 1985). Projects such as the PLATO system focused attention on the potential of the computer as an educational device, but cost and inaccessibility prevented widespread adoption (Berg and Bramble, 1983). Other computer-based instruction projects were begun and developed at this time. Seymour Papert at MIT began research on teaching children by having them program computers (Papert, 1971).

In 1977, the first fully assembled microcomputer appeared on the market. With the introduction of microcomputers, it became possible for the individual university researcher or public school teacher to buy one and to start using it for educational purposes (Alessi and Trollip, 1985).

Today there are individuals who advocate teaching computer programming beginning in the elementary schools, and continuing this education throughout all grade levels. Still others suggest that computer literacy education is not required. These individuals suggest that computers are being so rapidly integrated into our society that using a computer will be as common as using a telephone or a video tape recorder, and that special education or training will not be necessary (Shelly and Cashman, 1986).

Berg and Bramble (1983) predict that significant hardware and software innovations will occur in the mid-1980s and continue until the turn of the century. These changes, they suggest, will include the following:

1. Educational computing systems will decrease in price as several companies become dominant in the microcomputer hardware market. The microcomputers of the late 1980s will be less expensive and far more powerful.
2. Digitized voice output will become an important part of computer assisted instruction as microcomputer memory capability increases and costs decline.
3. Instructional materials will become available which will utilize computers as one of the several media in the instructional program. Educators and instructional developers will become much more sophisticated in the art of applying an appropriate technology to instructional problems.
4. During the late 1980s, new developments in memory storage will make available inexpensive hand-held computers which can be downloaded from a larger computer system. Students will take assignments home in the computer's memory and download their work to the classroom computer the next morning.
5. Classroom management software will allow for close individual tracking of student skill levels. Teachers will be able to monitor and adjust learning activities. Computers will also expose students to more learning activities in a school day than in the past. Computerization may automate previously inefficient aspects of the traditional classroom, allowing more education to take place in a given timeframe.

Summary

To describe the impact of the microcomputer as explosive is perhaps to understate the case. Microcomputers are everywhere and there is no question that microcomputers have been meeting, and will continue to meet, a very real need in the future. With the combined efforts of educators and procedures of educational software the area of instructional computing can realize the promise of revolutionizing the classroom.

CHAPTER III

DESIGN OF THE STUDY

This study assesses the need for quality educational software for educational purposes. The review of literature clearly documents the status of the microcomputer in education and the quality of past and present instructional computing software use for teaching and learning in an educational setting.

In this study, a computerized information management, retrieval, and analysis system was developed and validated for the purpose of storing, retrieving, analyzing, and managing a collection of clinical evaluation records. This computer program is intended to meet the needs of a clinical situation such as Oklahoma State University's Reading Center, and has practical applications for every major university and college.

Instruments

A computerized information management, retrieval, and analysis program was utilized as the storage and analysis instrument. This program will analyze and retrieve data and information recorded on the following sixteen clinical tests in Reading:

1. Nelson Reading Test
2. Roswell-Chall Diagnostic
3. Wechsler Preschool & Primary
4. Wechsler Adult Intelligence Scale
5. Wechsler Intelligence Scale For Children Revised

6. Durrell Analysis of Reading Difficulty
7. Gray Oral Reading Test
8. Ray Test of Reading Performance-Level A
9. Gates - McKillop (1962)
10. Peabody Picture Vocabulary Test
11. New Sucher-Allred Reading Placement
12. Illinois Test of Psycolingustic Abilities
13. Bond-Balow-Hoyt Silent Reading Diagnostic
14. New Development Reading Test
15. Lyon-Carnahan Informal Reading Inventory
16. Ray Informal - Level 1

Materials/Apparatus

The system was programmed using the dBASE III Plus application package. Information and data for the sixteen tests was stored on an IBM PC computer capable of reading a 360KB diskette. An additional 30 megabyte hard disk was installed for the purpose of mass storage, and color monitor and printer utilized for display and report generation.

Procedure

Twenty-five (25) random subjects were selected from a population of 1500 to 2000 male and female elementary students who had been tested by the Oklahoma State University Reading Center over a period of 29 years. These test results were entered into a computerized information management, retrieval, and analysis system. After all information had been entered and stored, statistical analysis and reports were generated in order to validate and test the accuracy and reliability of the developed application. The data used to test the system was the Wechsler Preschool & Primary (WPPSI), Wechsler Adult Intelligence Scale (WAIS), and Wechsler Intelligence Scale For Children Revised (WISC-R).

Treatment of Data

The data selected and used for the study was stored, analyzed, and

tested using the developed computer program and the capabilities of an IBM microcomputer. The menu driven and user friendly software application program allows for the following operations: (See Appendix A.)

1. Add new evaluations.
2. Edit Existing Evaluations.
3. Mark Evaluations for Deletion.
4. Recall Evaluations.
5. Permanently Remove Marked Evaluations.
6. View Existing Records.
7. Print Student Detail Reports (Sorting can be done based on a number of criteria).
8. Print Student Name Listing Reports (Sorting can be done based on a number of criteria).
9. Statistical calculations are also generated.

Summary

The computerized Information management, retrieval, and analysis system, adequately performed each task and operation in accordance to specifications provided. The median, mean and lowest statistical computation for each of the tested clinical records proved to be accurate. The program was demonstrated to be appropriate and consistent for massive record storage and analysis. (See Appendix B.)

CHAPTER IV

ANALYSIS OF DATA

Results

The analysis of data for this particular study involved the successful recording, storing, analyzing and retrieving of data as computed and displayed by using the developed computerized information management, retrieval, and analysis system. The reliability and validity was tested by entrance of twenty-five WISC-R clinical evaluation records from Oklahoma State University's Center of Education Reading Center.

This program was not designed to perform detailed interpretive analysis of each of the various sixteen individual clinical tests. The use of the program is limited to storing and retrieving information and to performing calculations of mean, median, and lowest score.

Summary

A most obvious goal in software design is that the execution of solutions meet the stated requirements. Four properties that are sufficiently general to be accepted as goals for the entire discipline of software programming are modifiability, efficiency, reliability, and understandability. Through structured modular programming in which individual programs are called or combined you are given easy access or modification ability. In the normal course of coding several updates

must be possible. The program design is such that future changes in the program can be made when needed simply by changing or adding program segments (source code). Program efficiency is demonstrated by the way it handles information. It also reduces time necessary for performing task manually and provides easy access. The reliability was observed by the yielding of the same results on repeat trials.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Although there is much enthusiasm for computer use in schools and although research does imply a positive impact of computers on education, educators still have many concerns regarding the development and quality of educational software.

Most of the software currently available does not utilize microcomputers effectively. Much of this software and is no more than an electronic workbook. Those involved in commercial courseware development, primarily publishing houses and computer manufactures, often lack expertise with regard to the instructional issues involved in designing educationally sound courseware (Bailo and Erickson, 1985).

Consequently, if microcomputers are to be valuable instructional tools, courseware must be developed which is based upon sound instructional design techniques that incorporate the capabilities of the microcomputer. These include the ability to:

1. Customize instruction to meet the needs of individual learners by using branching and feedback that remediates based upon specific errors.
2. Create an interactive environment in which the learner is given opportunities to control various aspects of his or her work.
3. Motivate the learner through the use of interesting and informative graphics and audio which are embedded in the contents.
4. Track learner performance by storing records on disk.

This study was intended to bring to light the need for good quality software in education and attempted to develop an application program to meet the needs of a clinical situation such as Oklahoma State University's Reading Center. The design of this system should have practical applications for any university or college.

Conclusions

A computer program tailored to perform specific tasks of information storage, retrieval, and analysis can be developed for the discipline of Reading using dBase III Plus.

The program will perform the following functions:

1. Add New Evaluations
2. Edit Existing Evaluations
3. Mark Evaluations for Deletion
4. Recall Evaluations
5. Permanently Remove Marked Evaluations
6. View Existing Records
7. Print Student Detail Reports (Sorting can be done based on a number of criteria
8. Print Student Name Listing Report (Sorting can be done based on a number of criteria)
9. Statistical calculations are also generated

The program may be used successfully with the following tests:

1. Nelson Reading Test
2. Roswell-Chall Diagnostic
3. Wechsler Preschool & Primary
4. Wechsler Adult Intelligence Scale
5. Wechsler Intelligence Scale For Children Revised
6. Durrell Analysis of Reading Difficulty
7. Gray Oral Reading Test
8. Ray Test of Reading Performance-Level A
9. Gates - McKillop (1962)
10. Peabody Picture Vocabulary Test
11. New Sucher-Allred Reading Placement
12. Illinois Test of Psycolingustic Abilities
13. Bond-Balow-Hoyt Silent Reading Diagnostic
14. New Development Reading Test
15. Lyon-Carnahan Informal Reading Inventory
16. Ray Informal - Level 1

Recommendations

The following recommendations are made on the basis of this study.

1. Minor enhancements should be made in order to provide for interpretative results of the sixteen clinical reading tests.

2. Special hardware and software interfaces should be obtained in order to use the program on the Apple and other computers.

3. To achieve increased speed and access time a math co-processor should be used.

4. Additional security measures should be devised and implemented.

A SELECTED BIBLIOGRAPHY

Alessi, Stephen M. and Stanley R. Trollip. Computer Based Instruction, New Jersey: Prentice-Hall.

Bialo, Ellen R. and Lisa R. Erickson. "Microcomputer Courseware: Characteristics and Design Trends." AEDS Journal, Vol. 18 (Summer, 1985), p. 233

Berg, Paul and William J. Bramble. "Computers and the Future of Education." AEDS Journal, Vol. 17 (Fall/Winter, 1983), pp. 101-108.

Bork, Alfred. "Education and Computers, The Situation Today and Some Possible Futures." THE Journal, Vol. 12 (Oct., 1984), pp. 92-97.

Culp, George H. and Herbert L. Nickles. "What Are Your Intentions?" An Apple For The Teacher. California: Brooks/Cole, 1986.

Fiske, E. "Computers Alter Life of Pupils and Teachers." The New York Times, April 4, 1984, p. 42.

Gagne, R. M. and L. J. Briggs. Principles of Instructional Design, New York: Holt, Rinehart and Winston, 1974.

Gold, Patricia Cohen. "Educational software -- New Guidelines for Development." AEDS Journal, vol. 18 (Fall, 1984), pp. 41-50.

Grabowski, Barbara and William Aggen. "Computers for Interactive Learning." Instructional Innovator, Vol. 29 (Feb., 1984), pp. 27-30.

Ignatz, Mila E. "Suggestions for Selecting Science Educational Software." Journal of Computers in Mathematics and Science Teaching, Vol.5 (Fall, 1985), pp. 27-29.

Ingersoll, G., C. Smith and P. Elliot. "Microcomputers in American Public Schools: A National Survey." Educational Computer, Vol. 2 (Oct., 1983), p.28.

Keller, Arnold. When Machines Teach Designing Computer Courseware New York: Harper and Row, 1987.

National Education Association. A Teacher Survey NEA Report: Computer in The-Classroom. Washington D.C., 1983.

Norton, Priscilla. Computer Potentials and Computer Educators: A Proactive View of Computer Education, Massachusetts: Classroom News, 1982.

Roblyer, M. D. "Toward More Effective Microcomputer Courseware Through Application of Systematic Instructional Design Methods." AEDS Journal, Vol. 17 (Fall/Winter, 1983), pp. 23-32.

Shively, Joe E. "Computer Utilization in Education: Problems and Prerequisites." AEDS Journal, Vol. 17 (Spring, 1984), p.24.

Steffin, Sherwin A. "Computer Simulations: A Key to Divergent Thinking." Media and Methods, Vol. 7 (Oct., 1981), pp. 12-13.

Strickland, Dorothy S., Joan T. Feeley and Shelly B. Wepner. Using Computers In The Teaching of Reading, New York: Teachers College Press, 1987.

Tamir, Pinchas. "Current and Potential Users Of Microcomputers In Science Education." Journal of Computers in Mathematics an Technology, Vol. 5 (Winter, 1986), pp. 18-28.

Taylor, Robert P. The Computer In The School: Tutor,Tool,Tutee, New York: Teachers College Press, 1987.

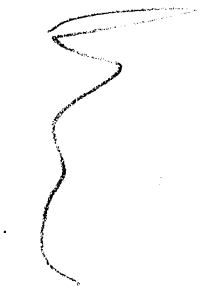
Tetenbaum, Toby J. and Thomas A. Mulkeen. "Computers as an Agent of Change." Computers in the Schools, Vol. 2 (Winter, 1986), pp. 91-103.

Thomas, David B. and Donald H. McClain. "Selecting Microcomputers for the Classroom: A Rethinking After Four Years." AEDS Journal, Vol. 17 (Fall/Winter., 1983), p. 20.

Vockell, Edward L. and Robert H. Rivers. Instructional Computing for Today's Teachers, New York: Macmillan Publishing Company.

Wade, T. E. "Evaluating Computer Instructional Programs and Other Teaching Units." Educational Technology, Vol. 20 (Nov., 1980), pp. 32-35.

APPENDIXES



APPENDIX A

USER DOCUMENTATION MANUAL

C L I N I C A L E V A L U A T I O N
I N F O R M A T I O N R E T R I E V A L
D A T A B A S E P R O G R A M

U S E R D O C U M E N T A T I O N M A N U A L

by

ROY STUBBS, JR.

Summary:

The following pages show the programs flow through use of user prompted screens.

The manual takes you through each selection of the menus, following each selection through completion, then returning you to the menu for the next selection. This follows the exact flow of the program.

An explanation of each screen is included in this manual. Find the screen that you need explained and the next page will include a description of that particular screen.

This program is extremely user friendly, therefore, the casual user should be able to look at the screen to determine what to do next with out any assistance from written documentation.

This program is based demographic information is entered one time. Test data may be entered when the demographic information data is entered or at anytime when they wish to edit the students information.

Note: To add additional to an existing student you MUST use the edit selection.

Mandatory Steps:

1. **CAPS-LOCK key MUST be on. All data entry must be done in upper case letters only.**
2. **The printer must be turned on and ON-LINE at all times.**

Initiation of Program:

1. **Check that mandatory steps have been completed.**
2. **At the DOS prompt type 'SCHOOL' and press return.**
3. **Wait for logo to appear and press any key.**
4. **Main Menu will appear.**

Saturday CLINICAL EVALUATION MAIN MENU March 19, 1988

1 - Data Entry File
2 - Reports and Listings

0 - Exit System

: : Enter Choice

Clinical Evaluation Main Menu

Choice 1 -- Takes you to Clinical Evaluation Records

This will allow you to do the following:

Add New Evaluations
Edit Existing Evaluations
Mark Evaluations For Deletion
Recall Evaluations
Permanently Remove Marked Evaluations
View Existing Records

Choice 2 -- Takes you to Report Menu

This will allow you to do the following:

Print Student Detail Reports
Print Student Name Listing Reports

Choice 0 -- Exits the Clinical Information Retrieval Database

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE

Clinical Evaluation Records

From Choice 1 of Main Menu

Choice 1 -- Allows addition of new records

Choice 2 -- Edits existing records or adds new test scores to existing records

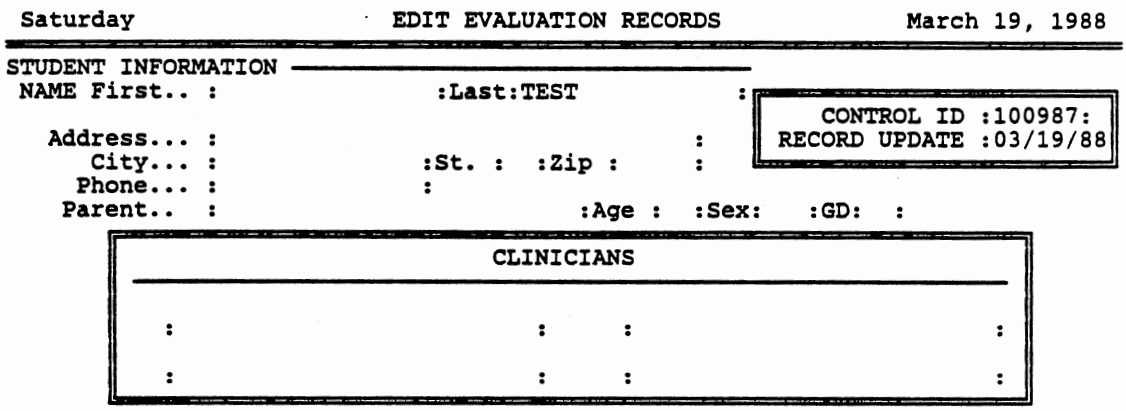
Choice 3 -- Marks records for deletion (this removes record(s) from editing/reporting/calculating in the database but allows record(s) to be unmarked if necessary)

Choice 4 -- Permanently removes all marked records from the database (after record has been permanently removed the record may NOT be undeleted)

Note: Doing this step on a regular basis will improve the overall performance of the database retrieval system.

Choice 5 -- Allows you to view all records that have not been marked for deletion

Choice 0 -- Returns you to the Main Menu



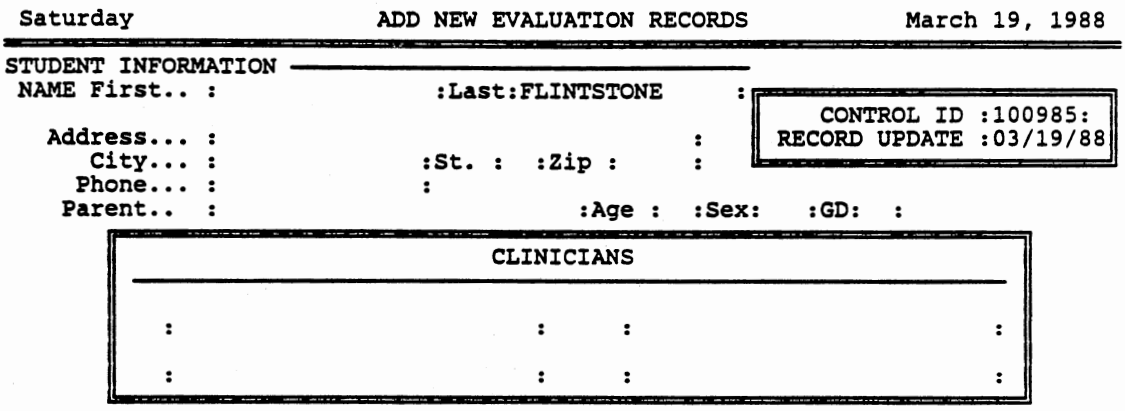
Edit Evaluation Records

Input the last name of the student you wish to edit.

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE



Add New Evaluation Records

(Student Information Screen)

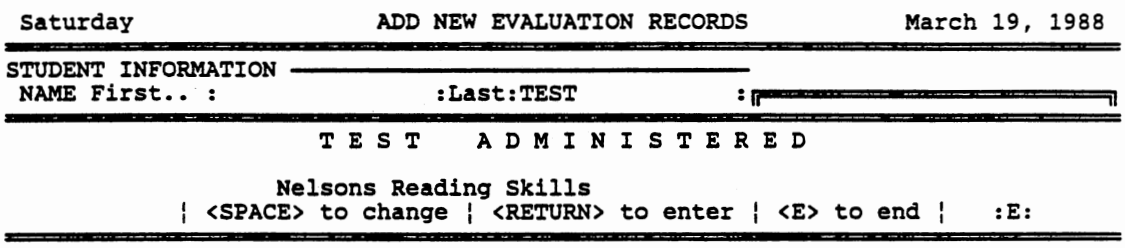
Enter in the Students demographic information.

Notes:

Initials should be included with the Students first name.

GD -- Grade level i.e. 1st grade, 2nd grade, etc.

Control Id Number is automatically assigned to each student, this is a unique number used to process the student information.



Enter the new Students last name : :

Add New Evaluation Records

To enter next student, enter students name, press return, this will return you to the student information screen.

Leave blank, press return to return to Clinical Evaluation Records menu.

```
There are multiple records for TEST
 id     lname           fname           address
 100987 TEST
 100989 TEST

To select:   Enter a Student's ID number
To abort :   Press Function Key F9
Otherwise:   Press the Return Key  :      :
```

Multiple Record Selections

In the event that more than one student shares the same last name, the multiple records selection screen will appear.

Choose the appropriate id number and press return to continue.

```
 Saturday                    EDIT EVALUATION RECORDS                  March 19, 1988
═══════════════════════════════════════════════════════════════════════════════
STUDENT INFORMATION ──────────────────────────────
 NAME First.. :                 :Last:TEST              :╔═══════════════════════
═══════════════════════════════════════════════════════════════════════════════
                          T E S T    A D M I N I S T E R E D

                          Nelsons Reading Skills
                 ¦ <SPACE> to change ¦ <RETURN> to enter ¦ <E> to end ¦    :?:
═══════════════════════════════════════════════════════════════════════════════
Nelson  Reading Skills
Roswell-Chall Diagnostic
Wechsler Adult Intelligence Score
```

Edit Evaluation Records

This screen shows all test that have been administered.

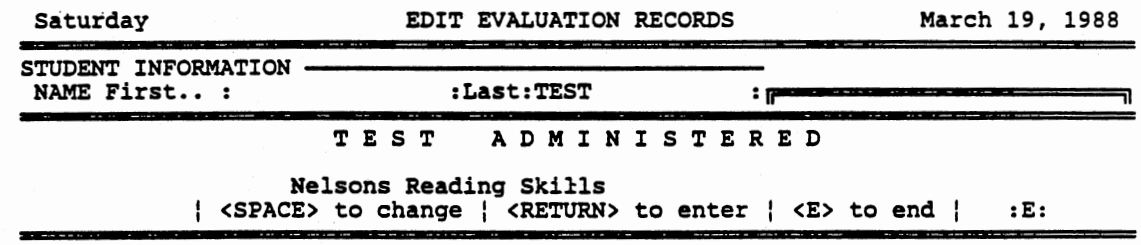
Notes:

Press the spaces bar to select any one of sixteen tests.

Nelson Reading Test
Roswell-Chall Diagnostic
Wechsler Preschool & Primary
Wechsler Adult Intelligence Score
Wechsler Intelligence For Children Revised
Durrell Analysis of Reading Difficulty
Gray Oral Reading Test
Ray Test of Reading Performance-Level A
Gate - McKillop (1962)
Peabody Picture Vocabulary Test
New Sucher-Allred Reading Placement
Illinois Test of Psycolingustic Abilities
Bond-Balow-Hoyt Silent Reading Diagnostic
New Development Reading Test
Lyon-Carnahan Informal Reading Inventory
Ray Informal - Level 1

Press return to administrate the selected test.

Type 'E' to exit.



Nelsons Reading Skills
Roswell-Chall Diagnostic
Wechsler Adult Intelligence Score

Enter the Student's Last Name : :

Edit Evaluation Records

To enter next student, enter students name, press return, this will return you to the student information screen.

Leave blank, press return to return to Clinical Evaulation Records menu.

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE

Saturday DELETE/RECALL EVALUATION RECORDS March 19, 1988

Person to be deleted/undeleted : :

Delete/Recall Evaluation Records

Enter persons name to be deleted/undeleted and press enter.

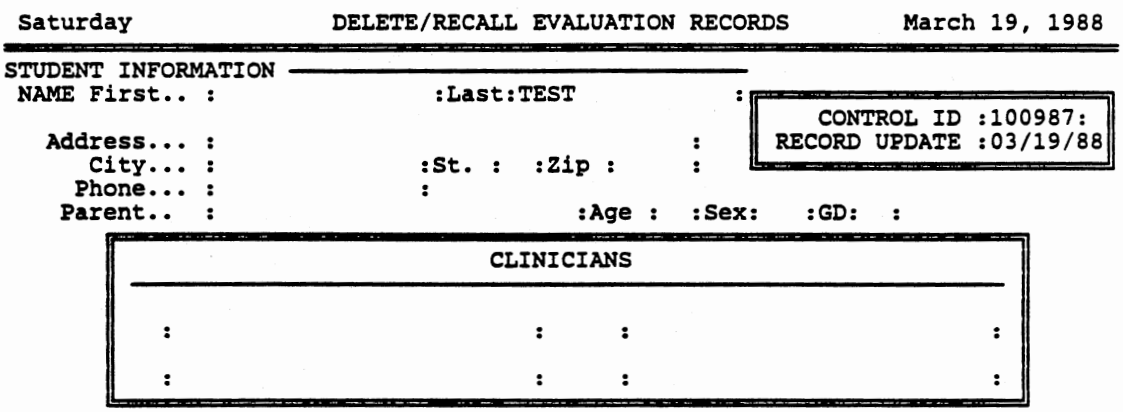
```
There are multiple records for TEST
 id     lname           fname           address
 100987 TEST
 100989 TEST

To select:   Enter a Student's ID number
To abort :   Press Function Key F9
Otherwise:   Press the Return Key  :      :
```

Multiple Record Selections

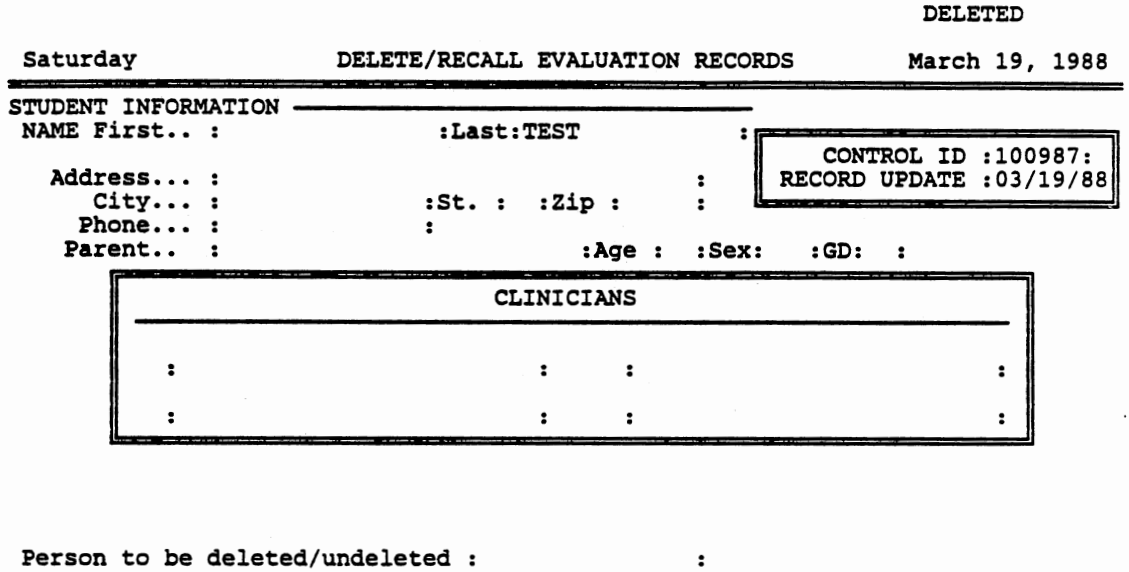
In the event that more than one student shares the same last name, the multiple records selection screen will appear.

Choose the appropriate id number and press return to continue.



Delete/Recall Evaluation Records

If this is the correct student to mark for deletion, press 'Y' otherwise press 'N' to return to Delete/Recall Screen.



Delete/Recall Evaluation Records

To delete/undeleted next student, enter students name, press return, this will return you to the delete/recall information screen.

Leave blank, press return to return to Clinical Evaulation Records menu.

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE

```
 Saturday            PERMANENTLY REMOVE DELETED RECORD        March 19, 1988
```

```
Searching for deleted records
The following Records are marked for deletion
 lname           fname           address
*TEST
```

```
Remove these records (Y/N) ?  : :
```

Permanently Remove Deleted Record

This will list all student records marked for deletion. To permanently delete these records press 'Y' and return.

Note:

This PERMANENTLY removes all records marked for deletion. After this step, records cannot be undeleted.

Doing this step on a regular basis will improve the overall performance of the database retrieval system.

Saturday ADD NEW EVALUATION RECORDS March 19, 1988

STUDENT INFORMATION
NAME First.. : :Last:TEST :

T E S T A D M I N I S T E R E D

Nelsons Reading Skills
| <SPACE> to change | <RETURN> to enter | <E> to end | :?:

Nelson Reading Skills
Roswell-Chall Diagnostic
Wechsler Adult Intelligence Score

Add New Evaluation Records

This screen shows all test that have been administered.

Notes:

Press the spaces bar to select any one of sixteen tests.

Nelson Reading Test
Roswell-Chall Diagnostic
Wechsler Preschool & Primary
Wechsler Adult Intelligence Score
Wechsler Intelligence For Children Revised
Durrell Analysis of Reading Difficulty
Gray Oral Reading Test
Ray Test of Reading Performance-Level A
Gate - McKillop (1962)
Peabody Picture Vocabulary Test
New Sucher-Allred Reading Placement
Illinois Test of Psycolingustic Abilities
Bond-Balow-Hoyt Silent Reading Diagnostic
New Development Reading Test
Lyon-Carnahan Informal Reading Inventory
Ray Informal - Level 1

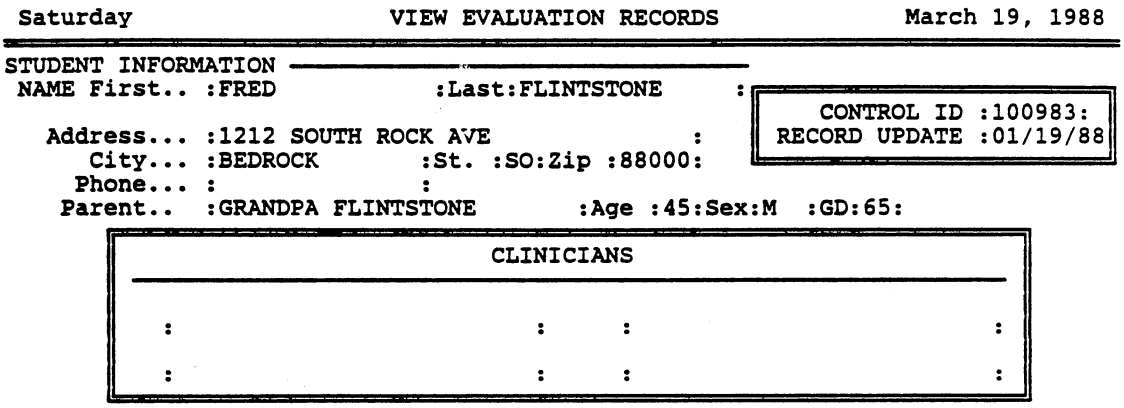
Press return to administer the selected test.

Type 'E' to exit.

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE



View Evaluation Records

This will allow you to display demographic data of each student on the screen.

Saturday CLINICAL EVALUATION RECORDS March 19, 1988

1 - Add New EVALUATION Record
2 - Edit EVALUATION Record
3 - Delete/Recall EVALUATION Record
4 - Permanently Remove EVALUATION Record
5 - View Existing Records
0 - RETURN TO MAIN MENU

: : ENTER CHOICE

Saturday CLINICAL EVALUATION MAIN MENU March 19, 1988

1 - Data Entry File
2 - Reports and Listings

0 - Exit System

: : Enter Choice

Report Menu

Choice 1 -- This will print a detailed student report with Final Totals.

(Final Totals are calculated upon selected criteria.)

Choice 2 -- This will print a report of student demographic data.

Saturday R E P O R T M E N U March 19, 1988

1. PRINT STUDENT DETAIL REPORT
2. PRINT STUDENT NAME LISTING
3. RETURN TO MAIN PROGRAM

:0: ENTER CHOICE

```
      ENTER SELECTION CRITERIA, PRESS CTRL W WHEN FINISHED.
   ID # : =:         0:
  FNAME : =:              :          LNAME : =:                :
   CITY : =:              :          STATE : =:  :  ZIP : =:     :
    AGE : =: 0:
                                                 TEST SCORE       TEST DATE
                      NELSON READING TEST  : =:          0:  : =:  /  /  :
                 ROSWELL-CHALL DIAGNOSTIC  : =:          0:  : =:  /  /  :
             WECHSLER PRESCHOOL & PRIMARY  : =:          0:  : =:  /  /  :
         WECHSLER ADULT INTELLIGENCE SCORE  : =:          0:  : =:  /  /  :
WECHSLER INTELLIGENE FOR CHILDREN REVISED   : =:          0:  : =:  /  /  :
  DURRELL ANALYSIS OF READING DIFFICULTLY   : =:          0:  : =:  /  /  :
                  GRAY ORAL READING TEST    : =:          0:  : =:  /  /  :
  RAY TEST OF READING PERFORMANCE-LEVEL A   : =:          0:  : =:  /  /  :
                  GATE - McKILLOP (1962)    : =:          0:  : =:  /  /  :
          PEABODY PICTURE VOCABULARY TEST   : =:          0:  : =:  /  /  :
      NEW SUCHER-ALLRED READING PLACEMENT   : =:          0:  : =:  /  /  :
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES   : =:          0:  : =:  /  /  :
BOND-BALOW-HOYI SILENT READING DIAGNOSTIC   : =:          0:  : =:  /  /  :
             NEW DEVELOPMENT READING TEST   : =:          0:  : =:  /  /  :
 LYON-CARNAHAN INFORMAL READING INVENTORY   : =:          0:  : =:  /  /  :
                  RAY INFORMAL - LEVEL 1    : =:          0:  : =:  /  /  :
                            AND/OR LOGIC     =  :O:
```

Search Criteria Screen

Determine criteria needed to produce the report desired.

Input that information in to the appropriate fields.

Press CTRL-W when finished to produce report.

Note:

If no criteria is selected CTRL-W will produce a report that will include the ENTIRE database.

Equal signs can be replace with < or > to achieve even more detailed reporting results.

And/or logic will allow greater flexibility in reporting. Use 'O' for or logic, use 'A' for and logic. Or logic will include this field "or" that field. And logic will include this field "and" that field.

PLEASE WAIT ....

DATABASE IS PRINTING.

D E T A I L R E P O R T

ID # : 100989

NAME : TEST,
ADDRESS :
CITY :
AGE : 0 PARENT : PHONE # :
TEACHERS :

NELSON READING TEST	:	0	/ /
ROSWELL-CHALL DIAGNOSTIC	:	0	/ /
WECHSLER PRESCHOOL & PRIMARY	:	0	/ /
WECHSLER ADULT INTELLIGENCE SCORE	:	0	/ /
WECHSLER INTELLIGENCE FOR CHILDREN REVISED	:	0	/ /
DURRELL ANALYSIS OF READING DIFFICULTLY	:	0	/ /
GRAY ORAL READING TEST	:	0	/ /
RAY TEST OF READING PERFORMANCE-LEVEL A	:	0	/ /
GATE - McKILLOP (1962)	:	0	/ /
PEABODY PICTURE VOCABULARY TEST	:	0	/ /
NEW SUCHER-ALLRED READING PLACEMENT	:	0	/ /
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES	:	0	/ /
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC	:	0	/ /
NEW DEVELOPMENT READING TEST	:	0	/ /
LYON-CARNAHAN INFORMAL READING INVENTORY	:	0	/ /
RAY INFORMAL - LEVEL 1	:	0	/ /

F I N A L T O T A L S

	MEAN SCORE	LOW SCORE	MEDIAN SCORE
NELSON READING TEST .....:	0.00	0	0
ROSWELL-CHALL DIAGNOSTIC.....:	0.00	0	0
WECHSLER PRESCHOOL & PRIMARY.....:	0.00	0	0
WECHSLER ADULT INTELLIGENCE SCORE.....:	0.00	0	0
WECHSLER INTELLIGENCE FOR CHILDREN REVISED:	0.00	0	0
DURRELL ANALYSIS OF READING DIFFICULTLY...:	0.00	0	0
GRAY ORAL READING TEST.....:	0.00	0	0
RAY TEST OF READING PERFORMANCE-LEVEL A...:	0.00	0	0
GATE - McKILLOP (1962).....:	0.00	0	0
PEABODY PICTURE VOCABULARY TEST.....:	0.00	0	0
NEW SUCHER-ALLRED READING PLACEMENT.....:	0.00	0	0
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES.:	0.00	0	0
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC.:	0.00	0	0
NEW DEVELOPMENT READING TEST.....:	0.00	0	0
LYON-CARNAHAN INFORMAL READING INVENTORY..:	0.00	0	0
RAY INFORMAL - LEVEL 1.....:	0.00	0	0

Saturday R E P O R T M E N U March 19, 1988

1. PRINT STUDENT DETAIL REPORT
2. PRINT STUDENT NAME LISTING
3. RETURN TO MAIN PROGRAM

:0: ENTER CHOICE

```
        ENTER SELECTION CRITERIA, PRESS CTRL W WHEN FINISHED.
    ID # : =:          0:
  FNAME : =:                :          LNAME : =:                :
   CITY : =:                :          STATE : =:  :  ZIP : =:     :
    AGE : =: 0:
                                                  TEST SCORE        TEST DATE
                        NELSON READING TEST  : =:          0:  : =:  /  /  :
                    ROSWELL-CHALL DIAGNOSTIC : =:          0:  : =:  /  /  :
                WECHSLER PRESCHOOL & PRIMARY : =:          0:  : =:  /  /  :
            WECHSLER ADULT INTELLIGENCE SCORE : =:          0:  : =:  /  /  :
WECHSLER INTELLIGENE FOR CHILDREN REVISED     : =:          0:  : =:  /  /  :
  DURRELL ANALYSIS OF READING DIFFICULTLY     : =:          0:  : =:  /  /  :
                    GRAY ORAL READING TEST    : =:          0:  : =:  /  /  :
  RAY TEST OF READING PERFORMANCE-LEVEL A     : =:          0:  : =:  /  /  :
                    GATE - McKILLOP (1962)    : =:          0:  : =:  /  /  :
          PEABODY PICTURE VOCABULARY TEST     : =:          0:  : =:  /  /  :
     NEW SUCHER-ALLRED READING PLACEMENT      : =:          0:  : =:  /  /  :
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES     : =:          0:  : =:  /  /  :
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC     : =:          0:  : =:  /  /  :
            NEW DEVELOPMENT READING TEST      : =:          0:  : =:  /  /  :
 LYON-CARNAHAN INFORMAL READING INVENTORY     : =:          0:  : =:  /  /  :
                    RAY INFORMAL - LEVEL 1    : =:          0:  : =:  /  /  :
                                AND/OR LOGIC    =   :O:
```

Search Criteria Screen

Determine criteria needed to produce the report desired.

Input that information in to the appropriate fields.

Press CTRL-W when finished to produce report.

Note:

If no criteria is selected CTRL-W will produce a report that will include the ENTIRE database.

Equal signs can be replace with < or > to achieve even more detailed reporting results.

And/or logic will allow greater flexibility in reporting. Use 'O' for or logic, use 'A' for and logic. Or logic will include this field "or" that field. And logic will include this field "and" that field.

```
   ID#:  100983
 NAME:   FLINTSTONE       ,  FRED
ADDRESS: 1212 SOUTH ROCK AVE
 CITY:   BEDROCK          STATE:  SO  ZIP:  88000  PHONE:
```

```
   ID#:  100985
 NAME:   FLINTSTONE       ,
ADDRESS:
 CITY:                    STATE:      ZIP:         PHONE:
```

```
   ID#:  100989
 NAME:   TEST             ,
ADDRESS:
 CITY:                    STATE:      ZIP:         PHONE:
```

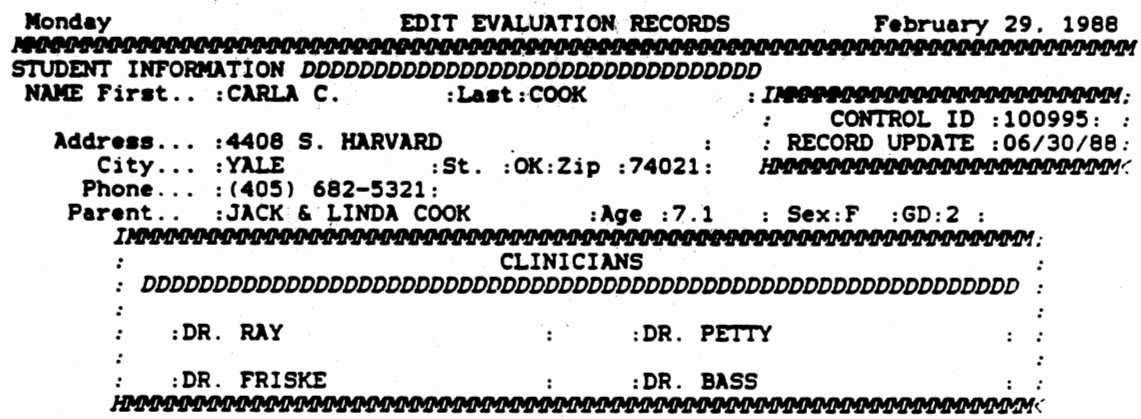
Saturday R E P O R T M E N U March 19, 1988

1. PRINT STUDENT DETAIL REPORT
2. PRINT STUDENT NAME LISTING
3. RETURN TO MAIN PROGRAM

:0: ENTER CHOICE

APPENDIX B

PROGRAM PRINTOUTS


Monday
EDIT EVALUATION RECORDS
February 29, 1988
STUDENT INFORMATION
NAME First.. :CARLA C.
:Last:COOK
CONTROL ID :100995:
Address... :4408 S. HARVARD
RECORD UPDATE :06/30/88:
City... :YALE
:St. :OK:Zip :74021:
Phone... :(405) 682-5321:
Parent.. :JACK & LINDA COOK
:Age :7.1
: Sex:F :GD:2 :
CLINICIANS
:DR. RAY
:DR. PETTY
:DR. FRISKE
:DR. BASS

```
 Monday                        EDIT EVALUATION RECORDS          February 29, 1988
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
STUDENT INFORMATION DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
  NAME First.. :CARLA C.        :Last:COOK             :IMMMMMMMMMMMMMMMMMMMMMMMMMM;
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
                          T E S T    A D M I N I S T E R E D

                        Wechsler Intelligence for Childern Rev.
              ¦ <SPACE> to change ¦ <RETURN> to enter ¦ <E> to end ¦    :?:
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
Wechsler Intelligence for Childern Rev.
Illinois Test of Psy Abilities - Rev.
```

Monday EDIT EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :CARLA C. :Last:COOK :

Wechsler Intelligence Scale for Children-Revised

Test Date :07/20/76:

Verbal Test	Raw Score	Scales Score	Age Score
Information	:9 :	: 12.00:	: :
Vocabulary	:13 :	: 7.00:	: :
Arithmetic	:6 :	: 8.00:	: :
Similarities	:8 :	: 10.00:	: :
Comprehension	:12 :	: 12.00:	: :
Digit Span	:4 :	: 5.00:	: :

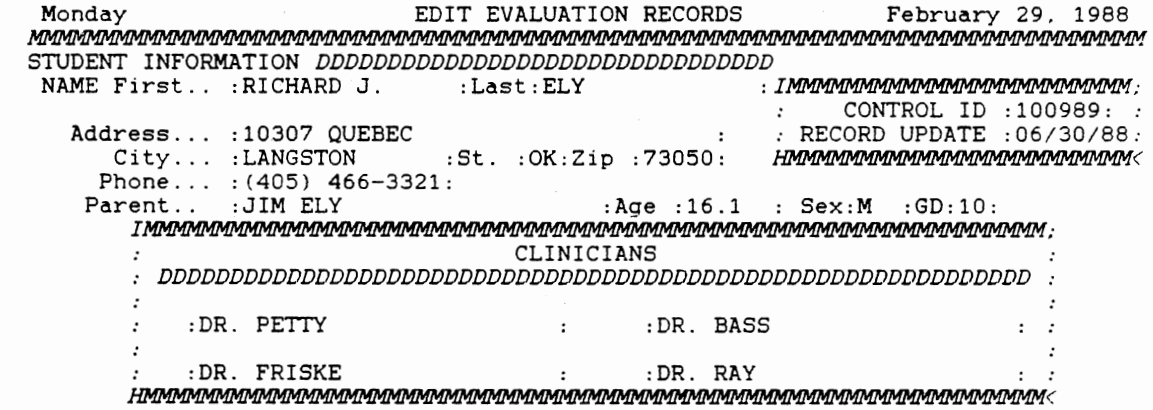
Monday EDIT EVALUATION RECORDS February 29, 1988

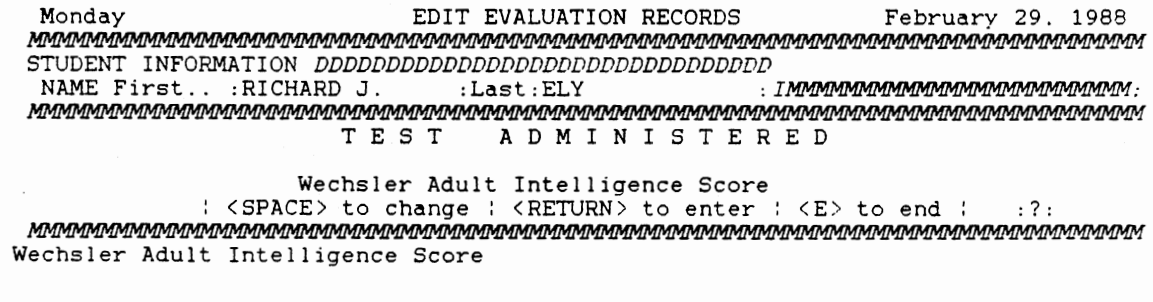
STUDENT INFORMATION

NAME First.. :CARLA C. :Last:COOK :

Performance Test	Raw Score	Scaled Score	Age Score
Picture Completion	:12 :	: 9.00:	: :
Picture Arrangement	:26 :	: 14.00:	: :
Block Design	:21 :	: 13.00:	: :
Object Design	:22 :	: 14.00:	: :
Coding	:32 :	: 8.00:	: :
Mazes	:25 :	: 18.00:	: :

	Scaled Score	IQ
Verbal Score	:49 :	:98 :
Performance Score	:58 :	:111 :
Full Scale	:107 :	:104 :





Wechsler Adult Intelligence Score

Monday EDIT EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :RICHARD J. :Last:ELY

Wechsler Adult Intelligence Score

TEST DATE :01/17/70:

Subtest			
Verbal Test	Raw Score	Scales Score	Age Score
Information	8	6.00	
Vocabulary	32	9.00	
Arithmetic	7	7.00	
Similarities	15	11.00	
Comprehension	16	9.00	
Digit Span	8	6.00	

Monday EDIT EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :RICHARD J. :Last:ELY

Performance Test	Raw Score	Scaled Score	Age Score
Digit Symbol	41	8.00	
Picture Completion	15	11.00	
Block Design	38	11.00	
Picture Arrangement	25	10.00	
Object Assembly	34	11.00	

	Scaled Score	IQ
Verbal Score	48	94
Performance Score	51	103
Full Scale	99	97

```
 Monday                        EDIT EVALUATION RECORDS          February 29, 1988
MMMM
```

Monday EDIT EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :MAYNARD :Last:FABER :

Wechsler Intelligence Scale for Children-Revised

Test Date :06/19/81:

Verbal Test	Raw Score	Scales Score	Age Score
Information	:6 :	: 6.00:	: :
Vocabulary	:14 :	: 6.00:	: :
Arithmetic	:6 :	: 6.00:	: :
Similarities	:5 :	: 6.00:	: :
Comprehension	:8 :	: 7.00:	: :
Digit Span	: :	: . :	: :

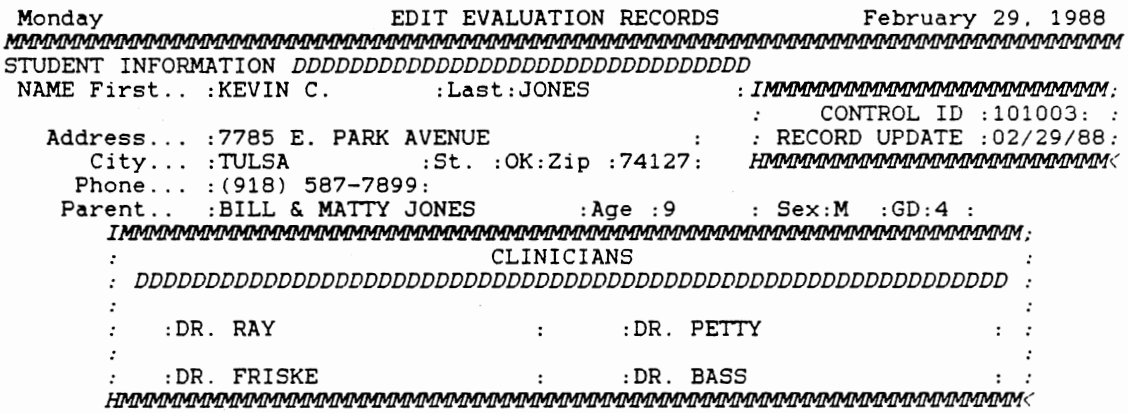
Monday EDIT EVALUATION RECORDS February 29. 1988

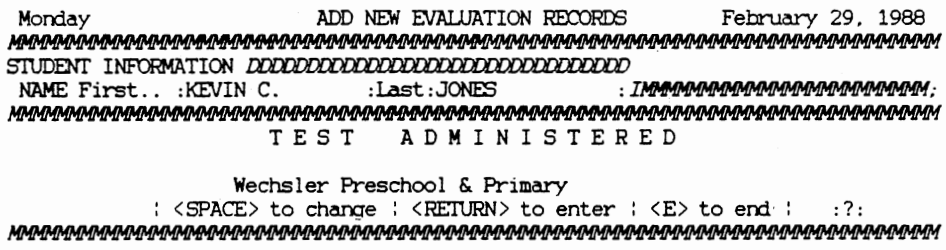
STUDENT INFORMATION

NAME First.. :MAYNARD :Last:FABER

Performance Test	Raw Score	Scaled Score	Age Score
Picture Completion	:14 :	: 10.00:	: :
Picture Arrangement	:4 :	: 4.00:	: :
Block Design	:6 :	: 7.00:	: :
Object Design	:9 :	: 7.00:	: :
Coding	:29 :	: 6.00:	: :
Mazes	: :	: . :	: :

	Scaled Score	IQ
Verbal Score	:31 :	:77 :
Performance Score	:34 :	:78 :
Full Scale	:65 :	:76 :


Monday
EDIT EVALUATION RECORDS
February 29, 1988
STUDENT INFORMATION
NAME First.. :KEVIN C.
:Last:JONES
CONTROL ID :101003:
RECORD UPDATE :02/29/88:
Address... :7785 E. PARK AVENUE
City... :TULSA
:St. :OK:Zip :74127:
Phone... :(918) 587-7899:
Parent.. :BILL & MATTY JONES
:Age :9
: Sex:M :GD:4 :
CLINICIANS
:DR. RAY
:DR. PETTY
:DR. FRISKE
:DR. BASS


Monday ADD NEW EVALUATION RECORDS February 29, 1988
STUDENT INFORMATION
NAME First.. :KEVIN C. :Last:JONES
TEST ADMINISTERED
Wechsler Preschool & Primary
: <SPACE> to change : <RETURN> to enter : <E> to end : :?:

Monday ADD NEW EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :KEVIN C. :Last:JONES :

Wechsler Preschool and Primary Scale of Intelligence

Test Date :07/03/84:

Subtest	Raw Score	Scales Score	Age Score
Verbal Test			
Information	:19 :	: 4.00:	: :
Vocabulary	:34 :	: 16.00:	: :
Arithmetic	: :	: . :	: :
Similarities	: :	: . :	: :
Comprehension	: :	: . :	: :
Sentences	: :	: . :	: :

Monday ADD NEW EVALUATION RECORDS February 29, 1988

STUDENT INFORMATION

NAME First.. :KEVIN C. :Last:JONES :

Performance Test	Raw Score	Scaled Score	Age Score
Animal House	:42 :	: 5.00:	: :
Picture Competition	:16 :	: 10.00:	: :
Mazes	: :	: . :	: :
Geometric Design	: :	: . :	: :
Block Design	: :	: . :	: :
Animal House Retest	: :	: . :	: :

	Scaled Score	IQ
Verbal Score	: :	: :
Performance Score	: :	: :
Full Scale	: :	: :

ID#: 100989
NAME: ELY , RICHARD J.
ADDRESS: 10307 QUEBEC
CITY: LANGSTON STATE: OK ZIP: 73050 PHONE: (405) 466-3321

ID#: 100991
NAME: LOVE , J. K.
ADDRESS: 511 LATIMER
CITY: PONCA CITY STATE: OK ZIP: 74050 PHONE: (405) 377-5821

ID#: 100993
NAME: DAVES , GEORGE
ADDRESS: 926 N. WILSON
CITY: TULSA STATE: OK ZIP: 74129 PHONE: (918) 587-7890

ID#: 100995
NAME: COOK , CARLA C.
ADDRESS: 4408 S. HARVARD
CITY: YALE STATE: OK ZIP: 74021 PHONE: (405) 682-5321

ID#: 100997
NAME: FABER , MAYNARD
ADDRESS: 4146 E. 36 PL
CITY: CLEVELAND STATE: OK ZIP: 74131 PHONE: (405) 283-8900

ID#: 100999
NAME: GABEL , DAWN
ADDRESS: 1201 W. 2ND
CITY: VINITA STATE: OK ZIP: 74301 PHONE: (918) 256-8990

ID#: 101001
NAME: IRWIN , BEN S.
ADDRESS: 4707 E. 2ND
CITY: STILLWATER STATE: OK ZIP: 74075 PHONE: (405) 624-4600

ID#: 101003
NAME: JONES , KEVIN C.
ADDRESS: 7785 E. PARK AVENUE
CITY: TULSA STATE: OK ZIP: 74127 PHONE: (918) 587-7899

D E T A I L R E P O R T

ID # : 100991

NAME : LOVE, J. K.
ADDRESS : 511 LATIMER
CITY : PONCA CITY OK 74050
AGE : 9.8 PARENT : HENRY & LINDA LOVE PHONE # : (405) 377-5821
TEACHERS :
DR. RAY DR. PETTY
DR. FRISKE DR. BASS

	SCORE	DATE
NELSON READING TEST :	0	/ /
ROSWELL-CHALL DIAGNOSTIC :	21	06/27/84
WECHSLER PRESCHOOL & PRIMARY :	45	07/30/83
WECHSLER ADULT INTELLIGENCE SCORE :	0	/ /
WECHSLER INTELLIGENCE FOR CHILDREN REVISED :	85	06/26/83
DURRELL ANALYSIS OF READING DIFFICULTLY :	0	/ /
GRAY ORAL READING TEST :	0	/ /
RAY TEST OF READING PERFORMANCE-LEVEL A :	0	/ /
GATE - McKILLOP (1962) :	0	/ /
PEABODY PICTURE VOCABULARY TEST :	0	/ /
NEW SUCHER-ALLRED READING PLACEMENT :	0	/ /
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES :	0	/ /
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC :	13	07/05/84
NEW DEVELOPMENT READING TEST :	0	/ /
LYON-CARNAHAN INFORMAL READING INVENTORY :	0	/ /
RAY INFORMAL - LEVEL 1 :	0	/ /

D E T A I L R E P O R T

ID # : 100989

NAME : ELY, RICHARD J.
ADDRESS : 10307 QUEBEC
CITY : LANGSTON OK 73050
AGE : 16.1 PARENT : JIM ELY PHONE # : (405) 466-3321
TEACHERS :
DR. PETTY DR. BASS
DR. FRISKE DR. RAY

	SCORE	DATE
NELSON READING TEST :	0	/ /
ROSWELL-CHALL DIAGNOSTIC :	0	/ /
WECHSLER PRESCHOOL & PRIMARY :	0	/ /
WECHSLER ADULT INTELLIGENCE SCORE :	99	01/17/70
WECHSLER INTELLIGENCE FOR CHILDREN REVISED :	0	/ /
DURRELL ANALYSIS OF READING DIFFICULTLY :	0	/ /
GRAY ORAL READING TEST :	0	/ /
RAY TEST OF READING PERFORMANCE-LEVEL A :	0	/ /
GATE - McKILLOP (1962) :	0	/ /
PEABODY PICTURE VOCABULARY TEST :	0	/ /
NEW SUCHER-ALLRED READING PLACEMENT :	0	/ /
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES :	0	/ /
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC :	0	/ /
NEW DEVELOPMENT READING TEST :	0	/ /
LYON-CARNAHAN INFORMAL READING INVENTORY :	0	/ /
RAY INFORMAL - LEVEL 1 :	0	/ /

D E T A I L R E P O R T

ID # : 100993

NAME : DAVES, GEORGE
ADDRESS : 926 N. WILSON
CITY : TULSA OK 74129
AGE : 7.6 PARENT : W. L. & SUE WILSON PHONE # : (918) 587-7890
TEACHERS :
DR. RAY DR. PETTY
DR. FRISKE DR. BASS

	SCORE	DATE
NELSON READING TEST :	0	/ /
ROSWELL-CHALL DIAGNOSTIC :	0	/ /
WECHSLER PRESCHOOL & PRIMARY :	0	/ /
WECHSLER ADULT INTELLIGENCE SCORE :	0	/ /
WECHSLER INTELLIGENCE FOR CHILDREN REVISED :	0	/ /
DURRELL ANALYSIS OF READING DIFFICULTLY :	0	03/30/77
GRAY ORAL READING TEST :	0	/ /
RAY TEST OF READING PERFORMANCE-LEVEL A :	0	/ /
GATE - McKILLOP (1962) :	0	/ /
PEABODY PICTURE VOCABULARY TEST :	76	11/03/76
NEW SUCHER-ALLRED READING PLACEMENT :	0	/ /
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES :	0	/ /
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC :	0	/ /
NEW DEVELOPMENT READING TEST :	0	/ /
LYON-CARNAHAN INFORMAL READING INVENTORY :	0	/ /
RAY INFORMAL - LEVEL 1 :	0	/ /

D E T A I L R E P O R T

ID # : 100995

NAME : COOK, CARLA C.
ADDRESS : 4408 S. HARVARD
CITY : YALE OK 74021
AGE : 7.1 PARENT : JACK & LINDA COOK PHONE # : (405) 682-5321
TEACHERS :
DR. RAY DR. PETTY
DR. FRISKE DR. BASS

	SCORE	DATE
NELSON READING TEST :	0	/ /
ROSWELL-CHALL DIAGNOSTIC :	0	/ /
WECHSLER PRESCHOOL & PRIMARY :	0	/ /
WECHSLER ADULT INTELLIGENCE SCORE :	0	/ /
WECHSLER INTELLIGENCE FOR CHILDREN REVISED :	130	07/20/76
DURRELL ANALYSIS OF READING DIFFICULTLY :	0	/ /
GRAY ORAL READING TEST :	0	/ /
RAY TEST OF READING PERFORMANCE-LEVEL A :	0	/ /
GATE - McKILLOP (1962) :	0	/ /
PEABODY PICTURE VOCABULARY TEST :	0	/ /
NEW SUCHER-ALLRED READING PLACEMENT :	0	/ /
ILLINOIS TEST OF PSYCOLINGUSTIC ABILITIES :	265	07/20/76
BOND-BALOW-HOYT SILENT READING DIAGNOSTIC :	0	/ /
NEW DEVELOPMENT READING TEST :	0	/ /
LYON-CARNAHAN INFORMAL READING INVENTORY :	0	/ /
RAY INFORMAL - LEVEL 1 :	0	/ /

VITA

Roy Stubbs, Jr.

Candidate for the Degree of

Doctor of Education

Thesis: DEVELOPMENT AND VALIDATION OF A COMPUTERIZED INFORMATION MANAGEMENT, RETRIEVAL, AND ANAYLSIS SYSTEM FOR A UNIVERSITY READING CENTER

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born in Guntown, Mississippi, May 13, 1946, the son of Sammie and Clara Stubbs.

Education: Graduated from Lowes High School, Guntown, Mississippi; received Bachelor of Science degree from Lane College, Jackson Tennessee in 1968; received Master of Education degree from Mississippi State University, Starkville, Mississippi, in 1973; completed coursework toward Master of Science, Memphis State University, Memphis, Tennessee, 1984; completed requirements for the Doctor of Education degree at Oklahoma State University, Stillwater, Oklahoma in July, 1988.

Professional Experience: Chairperson,Department of Mathematics, Carver High School, Tupelo, Mississippi, 1968-70; Director of Adult Education, Guntown, Mississippi, 1971-73; Instructor, Tupelo High School, Tupelo, Mississippi, 1970-76; Assistant Director, Upward Bound Program, University of Mississippi, University, Mississippi, Summers, 1973-76; Adjunct Assistant Professor and Director - Administrative Assistant to President for Planning Management and Evaluation, Lane College, Jackson, Tennessee, 1976-84; Director of Management Information System and Coordinator of Computer Science, University Center at Tulsa, Tulsa, Oklahoma, 1985 to present.