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An evaluation of the usage of the career information system of Iowa in secondary subscriber schools as reported by C.I.S.I. contact personnel

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Abstract

The Career Information System of Iowa (C.I.S.I.) has been a functioning part of the Department of Public Instruction (D.P.I.) since August 1, 1974. Its primary function has been "to provide each school's staff with information and assistance in order that the challenging career education task may be accomplished." (Eilbert & Crowley, 1975, p. 1)

AN EVALUATION OF THE USAGE OF THE CAREER INFORMATION SYSTEM OF IOWA IN SECONDARY SUBSCRIBER SCHOOLS AS REPORTED BY C.I.S.I. CONTACT PERSONNEL

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Chapter 1

THE PROBLEM

Introduction

The Career Information System of Iowa (C.I.S.I.) has been a functioning part of the Department of Public Instruction (D.P.I.) since August 1, 1974. Its primary function has been "to provide each school's staff with information and assistance in order that the challenging career education task may be accomplished." (Eilbert & Crowley, 1975, p. 1)

Responding to the career education movement of the seventies, the D.P.I. created C.I.S.I. after two previous pilot programs attempted to provide students with occupational information. The IOWAscript model and the Computerized Vocational Information System were both projects implemented by the Career Education Division of the D.P.I. for a demonstration period of three years from 1971 to 1974. The need for a more extensive and personalized occupational information system was realized by the D.P.I. as this time period came to an end, and C.I.S.I. was instituted as a subdivision of the Guidance Services Section in order that the dissemination process be formalized and expanded to reach throughout the state. In 1979 C.I.S.I. moved to the folds of the Career Education Division of the D.P.I. where the idea for a career

information system was conceived. Throughout this time period from 1974 to 1981, C.I.S.I. has continued to be the prime career information system offered by the state.

C.I.S.I. is an adaptation of a career information model used on a statewide basis in Oregon. In particular, Iowa bought the rights to the Occupational Information Access System of the Career Information System from Oregon. Iowa officials felt this model could be implemented much easier on a statewide basis than could the two systems--IOWAscript and the Computerized Vocational Information System.

The Career Information System of Iowa is composed of two parts, each named for their career education developmental function. The program AWARE, Awareness of Work Activities and Related Exploration, is offered to upper elementary students. It relates the study of self with awareness and exploration into the work world. PROCESS, Process of Reviewing Options Through Career Exploration and Self Study, is the more widely used secondary school program which offers the student a chance to relate self with various attributes and characteristics of occupations. Further, the varying parts of PROCESS allow the user to identify occupations that correspond to his/her personal traits, and the user can get access to job descriptions, employment outlooks, working conditions, community resources and educational opportunities regarding any of 293 occupations listed in the C.I.S.I. files.

Purpose and Importance of the Study

Considerable time, effort and expenditures have been devoted to developing and implementing C.I.S.I. programs within the school systems of Iowa. Several full-time officials in C.I.S.I. have labored hard to serve thousands of students' career education needs in the past seven years since the implementation of C.I.S.I.. Also, hundreds of counselors, teachers and other school staff in the state have spent uncountable hours learning about and administering C.I.S.I. activities to the students of their schools.

The role of C.I.S.I. in serving the career education needs of Iowa school children seems quite apparent in the directive set forth by the state legislature in 1975, the year after the C.I.S.I.'s inception. This legislation is listed below.

> 280.9 CAREER EDUCATION. The board of directors of each local public school district and the authorities in charge of each nonpublic school shall incorporate into the educational program the total concept of career education to enable students to become familiar with the values of a work oriented society....
>
> Essential elements in career education shall include, but not be limited to:
>
> 1. Awareness of self in relation to others and the needs of society.
>
> 2. Exploration of employment opportunities and experience in personal decision making.
>
> 3. Experiences which help students to integrate work values and work skills into their lives. (Code of Iowa, 1975)

Indeed, the presence of the three essential elements within the framework of C.I.S.I. could suggest "ex post facto" legislation designed to incorporate C.I.S.I. into the state's schools by fact of

law. With the burden of career education on the shoulders of Iowa's school districts, the implementation of C.I.S.I. has come quickly into vogue, because C.I.S.I. has been viewed as a convenient, inexpensive and approved manner of offering a career education package and satisfying a state mandate. C.I.S.I. figures showed that as of January, 1977, 360 subscriber schools were being served by C.I.S.I. personnel directly or by representatives in the state's fifteen Area Education Agencies. Today (1981) the number of C.I.S.I. subscriber schools has risen to 485.

For the past seven years since 1974 the official C.I.S.I. commitment has been "to continually expand and improve its services to C.I.S.I. user schools to insure the positive career development of each student in order that all may be fully functioning citizens." (C.I.S.I. Leaders' Guide, 1981)

Although huge amounts of man-hours have been expended in the development and administration of C.I.S.I. activities by the various people involved, only a modicum of information is available about the amount and scope of its usage. Investigation into the statewide usage of C.I.S.I. seems to be an imperative issue to assure all parties involved that the state's prime career information body has a positive functioning purpose.

Is C.I.S.I. a valid, functioning and useful career education vehicle? Are there any appropriate settings where C.I.S.I. is not being utilized? Who is using C.I.S.I.? To what degree is C.I.S.I. being used? These are all questions that need addressing for this state

funded system charged with a prime career education function for Iowa's youth.

Statement of the Problem

This study is an attempt to determine various aspects of the use of the Career Information System of Iowa by secondary schools in the state that subscribe to C.I.S.I.. Answers to the four main questions that follow are of primary importance. The specific questions asked in the subgroupings below will be addressed directly in this study.

1. Who uses C.I.S.I. at the secondary level?
   a. How many subscriber schools use C.I.S.I.?
   b. What is the grade level usage of C.I.S.I.?

2. Who implements the use of C.I.S.I. at the secondary level?
   a. Who is the person(s) to conduct the C.I.S.I. program in the school in terms of working with students?

3. How are C.I.S.I. materials used within the secondary school setting?
   a. What is the usage of C.I.S.I. within the school setting?
   b. Where is the PROCESS User Handbook used in the school?
   c. What part of the career education program is C.I.S.I.?

4. What is the extent of C.I.S.I. usage in the secondary schools?
   a. To what extent is the PROCESS User Handbook used by students?
   b. How is C.I.S.I. used as compared to three years ago?
   c. How will present usage of C.I.S.I. compare with future usage of C.I.S.I. in the next three years?

Each of the above subquestions will be examined from several perspectives as factors such as type of school and size of school are used as discriminators for the study.

Data retrieved for the study come from a survey completed by C.I.S.I. contact personnel in subscriber secondary schools in Iowa during the spring of 1981. The survey instrument used was a twenty-five

item questionnaire which was the result of a cooperative effort by the researcher and C.I.S.I. personnel. Specific item questions within the survey instrument were designed to address the purpose of this study, while other item questions were included for use by C.I.S.I. internally.

The importance of this study is reflected in the aforementioned official C.I.S.I. commitment. C.I.S.I. usage is an important issue from the standpoint of C.I.S.I. personnel who are striving to expand and improve their services. To do so they must operate with a conception of the state of the present day C.I.S.I. before they can successfully move ahead. For the C.I.S.I. user school this study offers comparative and supportive data to best evaluate the inschool C.I.S.I. role. Ultimately, the results of this study could have the most effect upon students who could better use C.I.S.I. as the system's formulators and implementors better serve their career development needs.

Limitations of the Study

This study deals with only the general usage of C.I.S.I. at the secondary level. No attempt has been made to evaluate its use at the elementary level with the AWARE program. Neither has any attempt been made to process and evaluate information about the specific parts within the secondary PROCESS program. Specific survey questions concerning the OUEST process and the various User Handbook activities were asked and could become the subject for further study.

Another limitation of the study involves the survey procedure. The survey questionnaire, although carefully designed, was not pilot tested.

The survey instrument used represented only one-half of a C.I.S.I. initiated study. The other half of the study was based on a survey instrument administered directly to students. Thus, the perspective of C.I.S.I. usage in this paper will come from C.I.S.I. contact persons and could be considered as an indirect source of information since student responses were not solicited. It was believed that the C.I.S.I. contact people may have the advantage in evaluating C.I.S.I. usage since they most often have the responsibility for the system.

The response selection could be criticized by the pure researcher for not offering highly quantified responses for all questions. No attempt was made to quantify C.I.S.I. usage into hours, but rather, attempts were made to produce a survey instrument that was practical and would appeal to respondents, thus gaining the advantage of high returns.

One limitation to the study dealt with the chapter on the review of literature. Information for this section was limited simply because C.I.S.I. has only been in existence for seven years at the statewide level in Iowa. Only a few studies have been undertaken regarding C.I.S.I. and those were of a small scale. Discussion in this chapter was therefore limited to comparative and parenting systems.

Assumptions

The major assumption of this study centers around the correlation between C.I.S.I.'s usage and its usefulness. If one can assume that C.I.S.I. is being used statewide to a high degree, then it will be assumed that C.I.S.I. is being used because the implementors feel that

it is serving a useful function for the student. In other words, the validity for C.I.S.I. is created when the use of the program is justified by its implementors. Certainly, it is possible for C.I.S.I. to be used because it is simply convenient or because of a lack of other systems, but for the purposes of this study, trust will be put in the decision of the implementor to use C.I.S.I. to benefit the student.

Definitions

Implementor. The person or persons in a school district who adminster part or the whole of the C.I.S.I. activities to the user.

User. Any person who makes use of C.I.S.I. for career development; in this study for the most part, it refers to the secondary student.

Contact person. The individual within the school who receives C.I.S.I. materials and communiques.

AWARE (Awareness of Work Activities and Related Exploration). The C.I.S.I. program for upper elementary students.

PROCESS (Process of Reviewing Options Thru Career Exploration). The C.I.S.I. program for secondary students.

PROCESS User Handbook. The handbook of exercises containing career education exercises and information that is the structural base for the PROCESS part of C.I.S.I..

Chapter 2

REVIEW OF THE LITERATURE

Introduction

This study concerns the various qualitative and quantitative aspects of usage of the Career Information System of Iowa. To accurately review this system charged with serving the occupational information needs of the students of Iowa, it is important to review several perspectives of authors who deal with occupational information. Therefore, the contents of this chapter will seek to review the literature to identify (1) the need for occupational information, (2) the need for occupational information systems, (3) the types of occupational information sources and systems, and (4) the types of computer-based occupational information systems. Further, information will be presented from different authors' viewpoints as to the parameters, goals and usefulness of C.I.S.I..

The Need for Occupational Information

The need to define occupational information is basic to a study dealing with disseminating information concerning vocational decisions. Authors agreed that occupational information is information about work

designed to broaden the individual's scope of knowledge. However, Robert Hoppock believed that occupational information must have a more definite goal. He defined occupational information as "any and all kinds of information regarding any position, job or occupation, provided only that the information is potentially useful to a person who is choosing an occupation." (Hoppock, 1967, p. 6)

Carroll Shartle's definition of occupational information was somewhat longer and more philosophical, as stated below.

> Occupational information is essentially a description of man's work and its related conditions. It is not primarily a study of the characteristics of man himself, but rather of his environment. Of course man himself is a part of this environment and therefore the study of the world of work necessarily includes the human climate as well as the physical conditions in the work situations. (Shartle, 1959, p. 2)

The literature on the need for occupational information is extensive and historical in nature. Plato, the ancient philosopher, was probably the first author in this area when he discussed the need for information in making vocational choices in his "Republic" work. Pascal, in 1670, was said to have stated the importance of learning about a wide choice of information for future decisions. (Brewer, 1918)

More recently, Baer and Roeber (1958) professed occupational information to be an educational essential. They stressed the need for occupational information, no matter what the condition of the labor market may be. In times of unemployment the need for useful occupational information programs is quite apparent as jobs are not easy to obtain. However, these authors maintained that occupational information may be of even greater value in prosperous times when the

individual is deluged with job possibilities. Decisions in this set of circumstances would warrant quality information to sort vocational choices.

Hoyt (1968) commented that good occupational information programs would be used by counselors. However, he argued that there were deficiencies in much of the information being dispensed, and therefore, he felt new information and new modes of delivery were needed.

The Need for Occupational Information Systems

One of the first authors who recognized the need for a system of organizing and delivering occupational information was John M. Brewer (1918). He believed that state governments should have the responsibility for collecting and dispensing occupational information from a central office.

Today that need has been realized through a federal mandate under the 1976 Education Amendments (PL 94-482) which charge the states with implementing an occupational information system to serve the occupational training and employment programs within the states. In particular, this legislation led to the development of State Occupational Information Coordinating Committees (SIOCC's) under the direction of the National Occupational Information Coordinating Committee (NIOCC). These committees have fostered the development of new systems within the various states, and they serve as vital links of communication between states. (Fretwell, Morgenthau & Morton, 1979)

Occupational information systems developed in the local school districts, by private corporations and with the cooperation of the NIOCC and SIOCC committees have evolved to be inclusive of more areas than just occupational information. Many authors tend to refer to these modern-day systems as career information systems which include occupational information plus a much broader range of topics dealing with self-awareness and preparation for the work world. Campbell and King view the essentials of a workable career information system as follows:

1. Information that is current, relevant in other communities or locations and usable by students on an individual basis. To have personal relevance, career information must tell the individual what the worker does, how he does it, what the work environment is like, and something about the characteristics of the worker in that work setting.

2. Information that is useful for instructional purposes, and in a guidance setting.

3. Information that is presented through a structured approach to developing and presenting "knowledge about work," in order that students can recognize ways of ordering a maze of information from the environment, and to insure a balance in the information the student receives from the environment. All types of workers, level of workers and work settings should receive fair consideration. (Campbell & King, 1975, p. 4)

The Types of Occupational Information Sources and Systems

The dissemination of occupational information has historically been accomplished in a non-system mode. Occupational information has been packaged into various forms to include books, audio-visual materials, simulation materials and kits which tend to be sources of informa-

tion as opposed to information systems.

The federal government pioneered work in 1939 involving the classification and description of 40,000 occupational titles in its "Dictionary of Occupational Titles" (D.O.T.), which has served as the base for several information projects both public and private in nature. Baer and Roeber (1958) describe the four components of D.O.T. job definitions as (1) the occupational titles; (2) the industrial designation or work activity with which the occupation is identified; (3) classification by code number; and (4) a brief description of the duties of the occupation. Updated editions of the "Dictionary" are published periodically as the book is used as a base for occupational clustering.

The "Occupational Outlook Handbook" is another government source of occupations that is published biennially by the United States Bureau of Labor Statistics. Hoppock (1967) reports the "Handbook" as the most widely used of all sources of occupational information including job descriptions about nature of work, where workers are employed, training, advancement, employment outlook, earnings, working conditions and where to go for more information.

Some early attempts were made at utilizing the audio-visual mode of packaging and delivering occupational information. Kenyon (1952) reported the use of recorded tapes as an occupational information source in the early fifties, while Beachley (1959) chronicled the use of closed-circuit television as a method of disseminating occupational information by the end of that same decade. Chick (1970) reported the

synthesis of occupational briefs onto five-to-ten minute tape-recordings developed by Magoon in 1968, and also, the development of twenty job films in that same year by Laramore.

Simulation modes of disseminating occupational information came into vogue in the sixties using the adage that "experience is the best teacher." The Life Career Game developed at John Hopkins University in 1962 was the pioneer of career information simulations. Combining a simulation of the features of the labor market with other crucial career decision areas, the Life Career Game stressed student involvement into the information gathering process. Chick (1970) chronicled that a field test showed this simulation program to be a realistic model with significant motivational effects.

Another popular simulation program is MOLD (Making of Life Decisions). This program described by Johnston (1972) was designed to dispense occupational information and to help formulate career decision making. This approach was developed in 1971 in San Francisco to facilitate small group exploration for middle school students. Simulation activities of MOLD ask students to construct profile sheets and make tentative decisions about their future careers. Then small group discussions serve to focus plans for investigation into various jobs.

The Career Information Kit developed by Science Research Associates, Inc. is an example of a well-used occupational information source. This kit first marketed in 1965 is a collection of over 600 publications on occupations. The occupational information found in the kit is coded into 212 labeled folders to comprise a condensed accessible file for

student usage. (Hoppock, 1967)

More recent attempts at providing occupational information have centered on the systems approach. Key to the systems approach is the process which students must move through in order to obtain information and make decisions concerning their future. To distinguish a system from a source, it appears two conditions must be met. First, there must be someone or something to facilitate the system's process with the student. Second, it is essential that the information be relevant and personalized to the needs and characteristics of the individual student (Campbell, et al, 1973).

Filing systems for providing occupational information have existed for several decades. Many efforts have been made to create filing systems that would serve students' occupational information needs. Hoppock (1967) described several plans that have been realized for operating a file of unbound occupational information. The most prominent example discussed was the Chronicle Guidance Publication filing system using nine major occupational categories to house 700 occupational briefs. However, these types of filing systems hardly qualify as a system in the modern sense of the word because there is no real facilitation involved and no personalization of the information. Therefore, the traditional filing systems are, in fact, sources of occupations rather than true systems.

One of the first real occupational information systems initiated on a large scale was developed in San Diego County for high school students. VIEW (Vocational Information for Education and Work) is an

up-to-date, localized systems of disseminating occupational information developed in 1963. Key to the system is its implementation by microfilm and its ability to process current information on a large scale. VIEW has been available to over 100,000 students in San Diego County, and the system has been adapted for use in several areas of the country. (Chick, 1970)

The GUIDPAK System is an example of a multi-media resource system developed at the University of Oregon by John W. Loughary and Murray Tondow in 1967. This system utilizes films, recordings, charts, booklets and printed materials to assist students in acquiring entry job information. Supported by Instructional Systems Corporation, GUIDPAK allows the student to evaluate his/her personal attributes and explore occupations in a counselor facilitated environment. (Chick, 1970)

Computer-Based Occupational Information Systems

Authors concurred that the most popular occupational information systems today employ computer technology to disseminate information. As of 1969, a study by Perone and Thrush under the direction of the National Vocational Guidance Association showed that some eighteen computer-based projects were underway to distribute occupational and career educational information (Chick, 1970). Since that time the national and state coordinating committees for disseminating occupational information (NIOCC and the SIOCC's) have fostered information system development on a state by state basis, most of whom are using the computer as their base (Fretwell, Morgenthau & Morton, 1979).

The following statement describes the rationalization for using the computer to help disseminate occupational information as stated by Robert E. Campbell and associates (1973, p. 85).

> For students to make sound vocational and educational decisions, it is important to have relevant information about self, and about educational and occupational possibilities. This means that large amounts of information must be collected, stored and made available upon demand. The computer can be an effective tool for storing and manipulating this information.

A plethora of literature exists on computer-based occupational information systems. However, the literature concentrates on a few operational systems suggesting that these systems are the most widespread and respected models in use. Coverage in this section will therefore be given to these established occupational information systems in their approximate order of development.

The Computerized Vocational Information System (CVIS) is the computer-based system described by Drier as being composed of elements of (1) vocational exploration, (2) information on colleges, (3) local job search, (4) financial aid, and (5) user registration (1980, p. 140). This system was developed for students at Willowbrook High School in Illinois in 1966, and by 1974, Herr reported CVIS usage at twenty locations across the nation.

The Educational Career Exploration System (ECES) was developed privately by International Business Machines in 1966. This system is designed to (1) broaden the student's knowledge of work and inform him of its many opportunities, (2) permit college bound students to explore curriculum and then relate it to their occupational potential, and

(3) help the student narrow his search for post-high school training institutions which meet his career goals and personal preferences. Pilot-tested in Montclair, New Jersey, with 200 high school students, this system has expanded to offer its program at several schools across the country. (Herr, 1974, p. 392)

The Information System for Vocational Decisions began development in 1966 with a grant from the United States Office of Education. David V. Tiedeman and Robert O'Hara headed the research team from Harvard University that delivered the prototype of ISVD in 1969 for use in secondary schools. The computer-based program was designed so that the student could first link with the computer in an educational dialogue, and then interact with the counselor for interpretation and evaluation of occupational information. The goal of ISVD was described as seeking to create an environment for decision-making. (Chick, 1970)

The System for Interactive Guidance and Information (SIGI) is a computer-based system with the main objective to "enhance the student's freedom of choice, and to increase his competence in the process of making informed and rational career decisions." The SIGI System is composed of four main parts: values, information, prediction and planning. Supported by the Carnegie Corporation, this system was designed for usage with junior college students. (Herr, 1974, p. 392)

The Occupational Information Access System (OIAS) as described by Pierce is the parent system for the Career Information System of Iowa. Developed within the Career Information System (CIS) of Oregon in 1969 by Bruce McKinlay, this system seeks to provide students with contin-

uously updated and localized occupational information in a manner that is more enticing than books. Financed by a grant from the United States Department of Labor, the OIAS of the CIS was reported to be serving the forty junior and senior high schools in the Eugene area in 1972. (Pierce, 1972)

Kroll described the six components of the total Career Information System, all of which are interrelated, as follows:

1. QUEST: an introductory questionnaire which helps students explore occupations related to their self-assessed interests and abilities.

2. DESCRIPTIONS: brief 300-word summaries about each of the 230 occupations in the system. These descriptions emphasize local as well as state and national labor market information and cover the nature of the job, working conditions, employment qualifications, employment prospects, major employers, and training opportunities.

3. EDUCATION AND TRAINING: identifies educational and training opportunities in Oregon for each of the occupations in the System.

4. BIBLIOGRAPHY AND BOOKS: refers students to the most pertinent general and specific publications for each occupation in the System.

5. CASSETTES: taped interviews with people in various occupations which give a "feel" for what the work is like.

6. VISITS: names of local people available to discuss their respective occupations with interested individuals. (Kroll, 1973, pp. 8-9)

Other occupational information systems mentioned to a lesser degree in the literature include (1) the Vocational Guidance in Education Program (VOGUE) used in the state of New York; (2) the Computer Assisted Occupational Guidance (CAOG) system developed at Pennsylvania State University; (3) the Information Needed for

Occupational Entry (INFOE) system developed at Tennessee Department of Education; (4) the Guidance Information System developed by Interactive Learning Systems, Inc. of Boston, Massachusetts; and (5) the Wisconsin Occupational Information System (WOIS) developed at the University of Wisconsin.

A Perspective on C.I.S.I.

The delivery system of the Career Information System of Iowa closely pa-allels the Occupational Information Access System of the Career Information System pioneered in Oregon. The Oregon model was adapted for use in Iowa in an effort to offer a highly personalized system of delivering up-to-date occupational information. A short excerpt from the C.I.S.I. Leader's Guide (1981) appears below to outline the inception and original purpose of C.I.S.I..

> In 1971, two exemplary career education projects--IOWAscript, Iowa's adaptation of VIEW (Vital Information for Education and Work) and the Computerized Vocational Information System (CVIS)--were funded by the Division of Career Education of the Department of Public Instruction to provide students with much needed occupational information. While both of these projects, each employing a unique delivery system, enjoyed success, they were only funded for a demonstration period of three years.
>
> Recognizing the importance of this occupational information dissemination concept, a new unit, the CAREER INFORMATION SYSTEM OF IOWA (C.I.S.I.) was created in the Guidance Services Section of the Department of Public Instruction in August of 1974. The intent of this action was to insure that the career information made available to students by the earlier projects would be maintained and expanded, and offered throughout the state on a continuing basis. (C.I.S.I. Leader's Guide, 1981, p. 5)

The components of the Career Information System of Iowa closely match those of the Oregon model. However, a few alterations were made

to adapt the system to the particular needs of Iowa students. The major components of C.I.S.I. follow.

1. A questionnaire called QUEST designed to sort occupations by use of computer or needle-sort deck.

2. A brief description of each of the fifteen occupational clusters in the program (adapted from clusters suggested by the U.S. Office of Education), and a listing of the occupations in each cluster.

3. An alphabetical listing of each of the 293 job titles with a brief description of each available in printed or microfiche form.

4. Post-secondary educational information files in printed or microfiche form.

5. General career activities and work oriented information. (Leader's Guide, 1981)

Components are administered on the secondary level through the use of the PROCESS User Handbook. Users proceed through the ten step career decision-making process outlined in the handbook. These steps, along with a short explanation, appear below.

STEP 1: Exploring Yourself - self-awareness activities designed to explore abilities, feelings and self-concept.

STEP 2: The World of Work - identifying and reviewing the fifteen occupational clusters.

STEP 3: You in the World of Work - exploring work in relation to the nature of work, personal abilities, physical activity of the work, preparation for the work, earnings of the work, location of the work and working conditions.

STEP 4: QUEST - answering the 21-item questionnaire concerning preferences and abilities.

STEP 5: Listing Occupational Interests - composing a list of occupations that interest the user from the Index of Occupations in the handbook.

STEP 6: Sorting the Occupations - using the computer mode or needle-sort mode to create a list of occupations as determined by the QUEST.

STEP 7: Exploring Occupations - identifying additional sources of information to further explore occupations.

STEP 8: Occupations and You - comparing the user's list of interesting occupations with personal values.

STEP 9: Your Decisions - making a tentative career decision based upon the first eight steps if the user feels ready.

STEP 10: Plan of Action - formulating a plan of action to carry out the decision in the step above.
(C.I.S.I. PROCESS User Handbook 1981-82)

A 1978 study of C.I.S.I. by Robert Koranda was one of two studies uncovered by a review of the literature. Koranda's research on the effect that C.I.S.I. had on users as compared to non-users polled 460 students at fiften schools within Iowa (one school from each of the Area Education Agencies). He concluded that C.I.S.I. did very little to alter the career preparedness of the user when compared to the career preparedness of the non-user. Also, he concluded that the C.I.S.I. user was no more likely to be able to identify postsecondary plans than the non-user would be. (Koranda, 1978)

A small 1980 C.I.S.I. study conducted by C.I.S.I. personnel showed consistently high usage of the various parts of C.I.S.I. as reported by a sample of 75 school C.I.S.I. contact persons. The contact personnel surveyed reported that the QUEST and PROCESS User Handbook activities were of significant help to their students. (Henrichs, 1981)

Summary

The review of literature tends to suggest a set of beliefs concerning occupational information. First, the need for occupational information is undeniable. Means of gathering and disseminating occupational information have changed and probably will change, but the need for current, accurate occupational information is a constant. Second, many authors felt that a systems approach to occupational information allowed for maximal student interaction and personalization, while also providing the most up-to-date information network. Third, the computer-based occupational information system showed the most potential for growth and development in the future. A large share of the literature in the past decade dealing with occupational information points out the appropriateness of computer technology to assist in the storage and dissemination of the growing amounts of occupational information.

A description of the design of the study on the usage of the Career Information System of Iowa will follow in the next chapter. The procedures will be detailed that will lead towards the analysis of the information describing how the occupational information needs of Iowa's youth are being met by C.I.S.I..

Chapter 3

DESIGN OF THE STUDY

Source of the Data

This study regarding the usage of C.I.S.I. in the state of Iowa elicited information from C.I.S.I. contact personnel in the secondary schools that subscribe to C.I.S.I.. This study was initiated and completed by the researcher. However, extensive cooperation was received from C.I.S.I. staff in the planning and administration of the survey.

The research for this study of C.I.S.I. usage commenced with a survey which was one of two survey instruments mailed simultaneously to every secondary school in Iowa that subscribed to C.I.S.I.. Both survey instruments were mailed May 14, 1981, with a cover letter explaining the scope and content of the C.I.S.I. study. (see Appendix A) One survey elicited student responses and was handled separately by C.I.S.I. personnel. (see Appendix B) The survey instrument for this study asked for responses from the C.I.S.I. contact person in each school. (see Figure 1)

Figure 1

C.I.S.I. Contact Person Questionnaire

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
Career Information System of Iowa
Grimes State Office Building
Des Moines, Iowa 50319

CISI - 2
Due:June 5
Page 1 of 3

C.I.S.I. COUNSELOR/TEACHER EVALUATION

Complete the information below and return it to: Career Information System of Iowa, Department of Public Instruction, Grimes State Office Building, Des Moines, Iowa 50319.

D
(6-7) 1. AEA No. _____ AEA Name _____

(8) 2. Circle the letter which best describes your work assignment. (Circle only one).

a. Full-time counselor
b. Counselor/teacher
c. Part-time counselor
d. Teacher
e. Media center worker

(9) 3. Circle the letter which best describes the school in which you work. (Circle only one).

a. Junior/senior high school
b. Junior high school
c. Senior high school

(10) 4. Circle the letter which best represents the average number of students per grade level in your school. (Circle only one).

a. 1-50
b. 51-100
c. 101-150
d. 150-up

(11) 5. Circle the letter which best represents the years you spent as an educator. (Circle only one).

a. 1-2 years
b. 3-5 years
c. 6-up years

(12) 6. Does your school make use of the Career Information System of Iowa? (Circle the letter).

a. Yes
b. No

IF YOU ANSWERED YES TO QUESTION NO. 6 ABOVE, PLEASE PROCEED TO QUESTION NO. 7 BELOW. IF YOU ANSWERED NO TO QUESTION NO. 6 ABOVE PLEASE SKIP TO QUESTION NO. 23.

7. Circle all the grade levels that make any use of CISI materials in your school. (Circle all that apply).

(13) a. 7th grade
(14) b. 8th grade
(15) c. 9th grade
(16) d. 10th grade
(17) e. 11th grade
(18) f. 12th grade

(19) 8. Circle the one grade level that makes the most use of CISI materials in your school. (Circle only one).

a. 7th grade
b. 8th grade
c. 9th grade
d. 10th grade
e. 11th grade
f. 12th grade

E

(6) 9. Circle the response which best describes how CISI is used in your school. (Circle only one).

a. Used as a counselor resource
b. Used as part of a course
c. Used both as part of a course and as a counselor resource

10. Circle the letter for the person who conducts the CISI program in terms of working with students. (Circle all that apply).

(7) a. Counselor
(8) b. Teacher
(9) c. Principal
(10) d. Media specialist
(11) e. Trained students
(12) f. Other (describe)

(13) 11. To what extent is the **CISI Leader's Guide** used in your school. (Circle only one).

a. Used extensively in career education
b. Used occasionally in career education
c. Used as a manual for CISI Process
d. Almost never used
e. Not available in the school

(14) 12. To what extent do the students use the **Process User Handbook** in your school. (Circle only one).

a. Extensive use is made of most of the exercises and information
b. Extensive use is made of specific exercises and information
c. Some use is made of the exercises and information
d. Some use is made of specific exercises and information
e. Little or no use is made of the handbook

13. Rate the materials and User Handbook activities. Circle each item's usefulness on a scale of 1 of 5. Use the following key: 1 = least use and 5 = greatest use. Use N if you do not use that activity or the material.

(15) N 1 2 3 4 5 a. "That's Me" and/or My Feelings" activity (p. 6-9)
(16) N 1 2 3 4 5 b. World of Work Cluster (p. 10)
(17) N 1 2 3 4 5 c. World of Work Activities (p. 11-19)
(18) N 1 2 3 4 5 d. QUEST (p. 20-24)
(19) N 1 2 3 4 5 e. Sorting of Occupational Titles (manual or computer) (p. 25)
(20) N 1 2 3 4 5 f. Exploring Occupations on Interest (p. 28)
(21) N 1 2 3 4 5 g. Exploring Occupations in Relation to Self (p. 42)
(22) N 1 2 3 4 5 h. Options vs. Values Exercise and/or Matrix (p. 43-44)
(23) N 1 2 3 4 5 i. Make A Career Decision (p. 46)
(24) N 1 2 3 4 5 j. Develop a Plan of Action (p. 46)
(25) N 1 2 3 4 5 k. Occupational Briefs
(26) N 1 2 3 4 5 l. PROCESS microfiche

14. Circle as many of the responses that describe the situations in which the Process User Handbook is used in your school. (Circle all that apply).

(27) a. Used in classroom setting
(28) b. Used in small groups (non-classroom)
(29) c. Used with individual instruction by the implementor
(30) d. Used by students on their own time

(31) 15. Circle the delivery system you use in your school for the QUEST program of CISI. (Circle only one).

a. Needle-sort deck
b. On-line computer
c. Microcomputers
d. QUEST is not used

16. Circle the changes you would like to see leading up to, during and after the QUEST program. (Circle all that apply).

(35) a. Expanded list of occupations
(36) b. Use of another clustering system
(37) c. Revision of the QUEST questionnaire
(38) d. More up-to-date information
(39) e. Developments of supplements as to the **Process User Handbook**
(40) f. More extensive educational files
(41) g. Other (describe)

F
(6) 17. Circle the statement which best reflects the usage of CISI in your school as compared to three years ago. (Circle only one).

a. CISI is used more
b. CISI is used less
c. CISI is used the same

(7) 18. Circle the statement that best describes the way you plan to use CISI in the next three years. (Circle only one).

a. CISI will be used more
b. CISI will be used less
c. CISI will be used the same

(8) 19. How would you classify the usage of the CISI program in your school? (Circle only one).

a. The whole of the career education program
b. A large portion of the career education program
c. A small portion of the career education program
d. A seldom used resource

(9) 20. How important do you feel the CISI program is to the total career education program in your school? (Circle only one).

a. Essential
b. Important
c. Relatively unimportant
d. Unimportant

21. Please comment below on one or more positive aspects of any specific part of or the total CISI program. *(Use the back if you need more space).*

22. Please comment below on one or more negative aspects of any specific part of or the total CISI program. *(Use the back if you need more space).*

*** IF YOU HAVE ANSWERED QUESTIONS NO. 1-22 PLEASE STOP AT THIS POINT AND ENCLOSE THIS SURVEY IN THE PROVIDED ENVELOPE.

FOR THOSE WHO MARKED THE "NO" RESPONSE FOR QUESTION NO. 6 PLEASE ANSWER QUESTIONS NO. 23-25 THAT FOLLOW.

23. Circle the responses that describe why the CISI program is not used in your school. (Circle all that apply).

(10) a. The program has been found to be ineffective or unusable in some respect
(11) b. There is little or no knowledge of the program or materials
(12) c. Time limitations prohibit the use of the program
(13) d. The program is used at different grade level in another school in the district
(14) e. The expense of the program is prohibitive

(15) 24. Would your school be interested in becoming more familiar with the CISI program? (Circle the letter).

a. Yes
b. No

25. Please list any specific criticisms of CISI or comment on the reasons why you have found CISI to be ineffective and/or unusable. *(Use the back if you need more space).*

PLEASE STOP AT THIS POINT AND ENCLOSE THE SURVEY IN THE PROVIDED ENVELOPE. THANK YOU!

Description of the Data Gathering Instrument

The twenty-five item questionnaire used was key-responsed to gather information about both users and nonusers of C.I.S.I.. Of the twenty-five items on the questionnaire, twenty-one were of a multiple choice variety, three were free response and one made use of a Likert scale. Fourteen of the items on the questionnaire were utilized by this study to serve the specific purposes outlined in Chapter 1, while the other items were used by C.I.S.I. for departmental evaluation. The survey instrument was designed by the researcher with the aid of Grant Wood Area Education Agency personnel and C.I.S.I. staff.

The survey questionnaire was sent to the total 485 C.I.S.I. subscriber schools on the secondary level in Iowa. A total of 435 responses to the survey were collected out of the 485 instruments mailed for a ninety percent return.

A computer was used within the D.P.I. to compile the data. Demographic data concerning the classification of the C.I.S.I. contact person, the type of school and the size of school were tabulated, as were C.I.S.I. usage data. Correlations were run on the computer comparing various demographic data with usage data for better qualitative usage information. Tables were constructed to illustrate the tabulated information in the form of raw figures, percentages and mean values. These results are shown in Chapter 4 of this study.

Chapter 4

FINDINGS OF THE RESEARCH

Information will be presented in this chapter that will identify the various aspects of the usage of the Career Information System of Iowa within the state's secondary schools as reported by C.I.S.I. contact persons. Demographic information will first be presented to identify who the C.I.S.I. contact persons are and what different types and sizes of schools they represent. Then the four main questions and the specific subquestions posed earlier will be addressed in separate sections of this text. Reference to Figure 1 (pp. 25-27) will be helpful to identify the wording of particular survey questions.

A total of 435 responses were gathered from 485 survey instruments mailed to contact persons of C.I.S.I. subscriber schools in the state of Iowa on May 14, 1981. The rate of return was ninety percent. Information for this study of C.I.S.I. usage was taken from fourteen of the twenty-five questionnaire items which matched the purposes of this study. The instrument was designed by the researcher with the cooperation of C.I.S.I. staff and Grant Wood Area Education Agency personnel.

Demographic Information

The following demographic information summarizes the 435 surveys completed and returned. The information concerning the type of school and size of school herein contained will be used in correlations with specific C.I.S.I. usage information rendered from this study.

Work Assignments of C.I.S.I. Contact Persons

Table 1 shows that 64% of C.I.S.I. contact persons surveyed were employed as full-time counselors. A total of 19% of respondents categorized themselves as a counselor/teacher, while another 12% put themselves in the part-time counselor category. Only 4% of respondents were teachers only, and a bare 1% were media workers.

Table 1

Work Assignments of C.I.S.I. Contact Persons in Iowa Schools

Assigment of Contact Persons	Number of schools	Percent of schools
1. Full-time counselor	276	64
2. Counselor/teacher	83	19
3. Part-time counselor	53	12
4. Teacher	18	4
5. Media center worker	5	1

N=435

Type of School Represented
by C.I.S.I. Contact Persons

Table 2 indicates that 49% of the respondents were supplying data for junior/senior high schools, 15% were reporting solely for junior high schools and 36% were reporting solely for senior high schools.

Table 2

Type of Schools Represented by
C.I.S.I. Contact Persons

Type of school	Number of schools	Percent of schools
1. Junior/senior high schools	213	49
2. Junior high schools	66	15
3. Senior high schools	155	36

N=434*
* One respondent failed to report this item.

Size of School Represented
by C.I.S.I. Contact Persons

Table 3 shows the size of the schools in the sample as determined by the number of student per grade level. A total of 41% of the schools surveyed reported their per grade populations at between 1 and 50 students per grade. The 51-100 students per grade level category included 25% of the surveyed schools. A total of 10% of the schools polled reported their school size as between 101 and 150 students per grade level, while 24% of the schools polled reported that their grade levels averaged 151 students or more.

Table 3

Size of Schools Represented by
C.I.S.I. Contact Persons

Size of school	Number of schools	Percent of schools
1. 1-50 students per grade level	177	41
2. 51-100 students per grade level	111	25
3. 101-150 students per grade level	43	10
4. 151-up students per grade level	104	24

N=435

Who Uses C.I.S.I.?

The following information deals with who is using C.I.S.I. within the subscriber schools of Iowa. Survey questions 6, 7 and 8 all pertain to who is using C.I.S.I..

How Many Subscriber Schools Use C.I.S.I.?

Question 6, in particular, identifies how many schools made use of C.I.S.I.. These results are shown in Table 4. All but 13 schools of those 435 responding to the instrument answered that they made use of C.I.S.I.. In other words, 97% of respondents claim they made use of C.I.S.I., while only 3% claim to be non-users of C.I.S.I..

Table 4

Use of C.I.S.I. in Iowa Secondary Schools That Subscribe to C.I.S.I.

Schools	Number of schools	Percent of schools
1. Users of C.I.S.I.	422	97
2. Non-users of C.I.S.I.	13	3

N=435

What Is the Grade Level Usage of C.I.S.I.?

Information in this section deals with the use of C.I.S.I. materials across grade levels within the schools surveyed. Also, the specific grade level that makes the most use of C.I.S.I. materials in the schools surveyed will be analyzed. Grade level usage information in both categories will then be correlated with the type of school to yield more specific information.

Usage of C.I.S.I. materials across grade levels. Respondents to question 7 were asked to mark all the secondary grade levels that made any use of C.I.S.I. materials in their schools. Table 5 shows these results in four forms--raw figures, percent of total responses, percent of total user schools and mean values. Percent of total responses show the amount of use per grade level compared to the total usage of all six grade levels. The percent of total user schools indicate how many of the 422 user schools made any use of C.I.S.I. materials at each grade level. The mean values show how each grade level compares with

the mean grade level usage score of 284.

Table 5

Usage of C.I.S.I. Materials Across Grade Levels as Reported by User Respondents

Grade level	Number	Percent of total responses	Percent of total user schools	Mean Value
1. 7th grade	168	10	40	.59
2. 8th grade	220	13	52	.77
3. 9th grade	318	19	75	1.12
4. 10th grade	330	19	78	1.16
5. 11th grade	344	20	82	1.21
6. 12th grade	324	19	77	1.14

N=422

Results show mean values of more than 1.00 for grades nine through twelve with the eleventh grade showing the highest instance of at least some usage of C.I.S.I. materials (82% of user schools utilize C.I.S.I. materials in the eleventh grade). Conversely, the least usage of C.I.S.I. materials was found at grade levels seven and eight where only 40% and 52%, respectively, of user schools made use of C.I.S.I. materials.

Correlation of C.I.S.I. usage with type of school. Further grade level information was obtained when data from question 7 were correlated with question 3 data concerning type of school. Information on grade level usage at the junior/senior high schools, junior high schools and the senior high schools is summarized in Table 6. The information in

Table 6

Usage of C.I.S.I. Materials Across Grade Levels in the Different Types of Schools as Reported by User Respondents

The use of C.I.S.I. in different grade levels as reported by jr./sr. high schools								The use of C.I.S.I. in different grade levels as reported by junior high schools								The use of C.I.S.I. in different grade levels as reported by senior high schools							
Number of schools	Grade level						Percent of schools	Number of schools	Grade level						Percent of schools	Number of schools	Grade level						Percent of schools
	7	8	9	10	11	12			7	8	9	10	11	12			7	8	9	10	11	12	
7					11	12	3	7			9				11.5	2					11		1.5
1				10	11		.5	1			9	10			1.5	3					11	12	2
12				10	11	12	6	4		8					6.5	1				10			.5
3			9				1.5	6		8	9				10	1				10	11		.5
1			9	10	11		.5	1		8	9	10	11	12	1.5	35				10	11	12	23.5
42			9	10	11	12	20	4	7						6.5	1			9				.5
3		8					1.5	1	7				11		1.5	1			9		11		.5
1		8		10			.5	2	7		9				3.5	1			9		11	12	.5
2		8	9	10			1	14	7	8					23	1			9	10			.5
34		8	9	10	11	12	16	19	7	8	9				31	6			9	10	11		4
1	7					12	.5	2	7	8	9	10	11	12	3.5	58			9	10	11	12	38.5
2	7				11		1									2		8			11		1.5
2	7			10	11	12	1									1		8		10	11		.5
2	7		9				1									4		8		10	11	12	3
1	7		9		11		.5									1		8	9			12	.5
2	7		9	10	11	12	1									1		8	9	10	11		.5
1	7	8			11	12	.5									9		8	9	10	11	12	6
1	7	8		10	11		.5									23	7	8	9	10	11	12	15.5
3	7	8	9				1.5																
1	7	8	9	10			.5																
1	7	8	9	10	11		.5																
86	7	8	9	10	11	12	41																
209	50	63	85	89	92	90	100%	61	71	77	65	--	--	--	100%	151	--	--	68	93	97	89	100%
Total N	Percent usage for each grade level						Total percent	Total N	Percent usage for each grade level						Total percent	Total N	Percent usage for each grade level						Total Percent

this table is shown in the form of correlation matrices for each of the three types of schools. The correlation matrix for each type of school shows the number of responses for the various grade level combinations of C.I.S.I. usage as reported by C.I.S.I. contact personnel.

Table 6 points to the fact that C.I.S.I. materials are used at several grade levels within all three types of schools. At the junior/senior high schools, 41% of those responding to the survey reported C.I.S.I. materials being used at all six grade levels. A total of 16% of reporting junior/senior high schools reported using C.I.S.I. materials in grades eight through twelve, while another 20% used C.I.S.I. materials in grades nine through twelve. The eleventh grade showed the highest usage of C.I.S.I. materials (92.5%) in this type of school supporting earlier usage information for that grade level.

The correlation matrix comparing junior high school responses with grade level usage of C.I.S.I. materials shows more diverse results. Once again, however, results indicate that C.I.S.I. was used at multiple grade levels as opposed to one grade level only. The two highest raw figures (14 and 19) represent 31% and 23%, respectively, of junior high schools surveyed and show multiple grade level usage. A modicum of responses were collected representing grade level usage at the senior high school grade levels from respondents at the junior high level. It would seem apparent that respondents in these cases answered for grade levels outside their own school but within their own school district.

Respondents at the senior high school level reported usage of C.I.S.I. materials at several grade levels. A total of 38.5% of those

responding said C.I.S.I. was used at all grade levels in high school, and this figure could be increased to 60% if those respondents are added who erroneously included their junior high usage. Also, another 23.5% of senior high C.I.S.I. contact persons answered that they use C.I.S.I. materials at grades ten through twelve, and some of these schools were undoubtedly attendance centers for grades ten through twelve. The eleventh grade was once again seen as the highest user of C.I.S.I. materials (97%).

Specific grade level usage of C.I.S.I. materials. Respondents to question 8 were asked to specify the one grade level in their school that made the most use of C.I.S.I. materials. Table 7 shows these results in three forms--raw figures, percent of total user schools and mean values. The percentage figures shown represent the proportion of schools that make the greatest use of C.I.S.I. materials at that particular grade level in their school. The mean values show how each grade level compares with the mean grade level usage score of 69.66.

Results show mean values of more than 1.00 for grades nine through eleven. Grade nine showed the highest percentage figure (25%) indicating that one of four secondary schools polled reported that they made the most use of C.I.S.I. materials in the ninth grade. The tenth and eleventh grade gathered 21% and 19% of the responses to the specific grade level usage item. Only 13% of the schools surveyed responded that their twelfth grade level was the grade level making the most use of C.I.S.I.. Prime usage of C.I.S.I. materials at the seventh and eighth grade levels was found to be significantly less than the senior high

grade levels when the total survey population was viewed. A total of 16% of schools surveyed reported their eighth grade made the most use of C.I.S.I. materials, while only 6% reported prime usage for their seventh grade.

Table 7

Specific Grade Level Usage of C.I.S.I. Materials as Reported by User Respondents

Grade level	Number of schools	Percent of schools	Mean value
1. 7th grade	25	6	.09
2. 8th grade	65	16	.97
3. 9th grade	105	25	1.51
4. 10th grade	89	21	1.28
5. 11th grade	78	19	1.12
6. 12th grade	56	13	.80

N=418*

* Four respondents failed to report this item.

Correlation of specific grade level usage with type of school.

Further prime grade level usage information was obtained when data from question 8 were correlated with question 3 data concerning type of school. Information on specific grade level usage of C.I.S.I. at the junior/senior high schools, the junior high schools and the senior high schools is shown in Table 8. Once again, the data for these three types of schools are represented in three forms--raw figures, percent of total user schools and mean values.

Table 8

Specific Grade Level Usage of C.I.S.I. Materials
in the Different Types of Schools
as Reported by User Respondents

	Jr./Sr. high schools			Junior high schools			Senior high schools		
Grade level	Number of schools	Percent of schools	Mean value	Number of schools	Percent of schools	Mean value	Number of schools	Percent of schools	Mean value
1. 7th grade	9	4	.26	16	26	.80	--	--	--
2. 8th grade	37	18	1.07	22	36	1.10	--	--	--
3. 9th grade	50	24	1.45	22	36	1.10	33	23	.92
4. 10th grade	37	18	1.07	--	--	--	52	36	1.44
5. 11th grade	41	20	1.19	--	--	--	36	25	1.00
6. 12th grade	33	16	.96	--	--	--	23	16	.64
	N=207			N=60			N=144		

* Eleven responses could not be correlated.

Junior/senior high school results reinforced the statistics given for specific grade level usage of C.I.S.I. in Table 7. Grades eight through eleven show mean values of over 1.00 compared to a mean grade level usage score of 34.5. A total of 24% of the schools in this category reported using C.I.S.I. materials most at the ninth grade level. Again, the seventh grade percentage was the lowest at 40%.

Specific grade level usage of C.I.S.I. at the junior high school level was more distributed through the three grades, although mean values of over 1.00 were shown for the eighth and ninth grade when compared to a mean grade level usage score of 20. Both grades totaled 36% of the junior high responses for prime grade level usage of C.I.S.I., while 26% of the respondents felt C.I.S.I. was used most at the seventh grade level.

At the senior high schools polled, it was found that the tenth grade was the specific grade level that made the most use of C.I.S.I. materials. A total of 36% of the high schools reported prime usage of C.I.S.I. at the tenth grade yielding a mean value of 1.44 compared to a mean grade level usage score of 36. Ony 16% of user schools in this category reported prime usage of C.I.S.I. materials at the twelfth grade.

Who Implements the Use of C.I.S.I.?

The following information identifies who is conducting the C.I.S.I. program at the secondary schools who subscribe to C.I.S.I.. Survey question 10 pertains to who is implementing C.I.S.I..

Who Conducts the C.I.S.I. Program in the School?

Information in this section deals with identifying who is conducting the C.I.S.I. program in the secondary schools that subcribe to C.I.S.I. in terms of who actually works through C.I.S.I. activities with the students. Information will first be presented dealing with the total 422 contact persons in the user schools. Then information will be presented showing the correlation between the size of school and the implementation of C.I.S.I..

Who is the person(s) who conducts the C.I.S.I. program in terms of working with students? The classifications of implementors of C.I.S.I. in question 10 include counselor, teacher, principal, media specialist, trained student and other. Table 9 shows the results of who is conducting the C.I.S.I. program in the schools. Results are shown in three forms--raw figures, percent of total responses and percent of total user schools. The percent of total responses figures are measured against the total 640 responses to question 10, where the respondent could include more than one implementor choice. The percent of total user schools figures are measured against the total 422 user schools to determine the percentage of schools who make use of each implementor type.

The results show that the counselor conducts the C.I.S.I. program at the majority of school surveyed (93%). Teachers were found to be a sizable implementor of C.I.S.I. with 40% of user schools making use of

the teacher in the C.I.S.I. program. Both media specialists and trained students were reported to be implementing C.I.S.I. in 7% of the schools surveyed. Principals as implementors represented only 1% of the total response.

Table 9

Implementation of C.I.S.I. in the School as Reported by User Respondents

Classification of implementor	Number of responses	Percent of total responses	Percent of total user schools
1. By counselor	394	62	93
2. By teacher	170	27	40
3. By principal	8	1	2
4. By media specialist	31	5	7
5. By trained student	29	4	7
6. Other	8	1	2

N=640

Correlation of C.I.S.I. implementation with size of school.

Further C.I.S.I. implementor information was obtained when data from question 10 were correlated with question 4 data concerning size of school. Information from respondents on who is conducting the C.I.S.I. program in the different sized schools in Iowa is summarized in Table 10. The data shown in this table are given in three forms--raw figures, percent of total responses and percent of total user schools. Percent of total responses figures are measured against the total number of responses from each size of school. Percent of total user

Table 10

Implementation of C.I.S.I. in Different Sized Schools
as Reported by User Respondents

Classification of implementor	Schools averaging 1-50 students per grade level			Schools averaging 51-100 students per grade level			Schools averaging 101-150 students per grade level			Schools averaging 151 or more students per grade level		
	No.	Percent of total N	Percent of total user schools	No.	Percent of total N	Percent of total user schools	No.	Percent of total N	Percent of total user schools	No.	Percent of total N	Percent of total user schools
1. By counselor	162	66	92	108	64	97	37	55	86	87	55	84
2. By teacher	53	22	30	45	27	41	22	32	51	50	31	48
3. By principal	4	1.5	2	3	2	3	0	0	0	1	.5	1
4. By media specialist	11	4	6	7	4	6	4	6	9	9	6	9
5. By trained student	14	6	8	5	3	5	3	4	7	7	4.5	7
6. By other	1	.5	.5	0	0	0	2	3	5	5	3	5
	N=245			N=168			N=68			N=159		

schools figures are measured against the total number of schools in each school size category.

Results concerning small schools averaging 1-50 students per grade level show that counselors are conducting C.I.S.I. in 92% of these schools. Counselor responses account for 66% of all the responses in this category. Teachers are used as implementors in 30% of the small schools followed by trained students at 8%.

In schools averaging 51-100 students per grade level the counselor is used as an implementor by 97% of the schools. This represents 64% of the total responses for this school size category. Teachers are used as implementors in 41% of these schools, while 6% of the schools made use of media specialists to conduct C.I.S.I. activities.

Counselors were found to be conducting C.I.S.I. activities in 82% of schools averaging 101-150 students per grade level, while teachers were found to be used as implementors in over half (51%) of the schools of this size. Media specialists were utilized by 9% of the schools in this category as implementors.

Large schools averaging 151 students or more per grade level showed results very similar to schools averaging 101-150 students per grade level. A total of 84% of schools of this size listed counselors as implementors representing 55% of the total responses. Teachers were used in 48% of the large schools, and media specialists were utilized by 9% of these schools.

How Are C.I.S.I. Materials Used Within the Secondary School Setting?

Survey questions 9,14 and 19 all deal with how C.I.S.I. materials are being utilized and what their roles within the secondary schools are. Information qualifying the usage of C.I.S.I. and the PROCESS User Handbook will be presented as will information on the role of C.I.S.I. in the schools' career education programs.

What Is the Usage of C.I.S.I. Within the School Setting?

Question 9, in particular, asked the respondent to classify the usage of C.I.S.I. in their school. Table 11 gives information concerning if C.I.S.I. is used as a counselor resource, as part of a course or both as a counselor resource and as part of a course. A total of 26% of respondents reported using C.I.S.I. as a counselor resource, while 9% reported using C.I.S.I. as part of a course. However, the majority of those polled (65%) used C.I.S.I. as both a counselor resource and as part of a course.

Table 11

The Use of C.I.S.I. in the Schools as Reported by User Respondents

Use of C.I.S.I.	Number of schools	Percent of schools
1. As a counselor resource	111	26
2. As part of a course	38	9
3. As both a counselor resource and part of a course	273	65

N=422

Where Is the PROCESS User Handbook Used in the School?

Survey question 14 elicited information from C.I.S.I. contact persons on the scope of usage of the PROCESS User Handbook. Responses included using the PROCESS User Handbook in the classroom setting, in small groups (non-classroom), with individual instruction by the implementor and by students on their own time. Respondents could report with as many responses as were applicable to their school. Results are shown in Table 12 reported in the three forms--raw figures, percent of total responses and percent of total user schools. The percent of total responses figures are measured against the total 1022 responses to the item question. The percent of total user schools figures are measured against the total 422 user schools.

The use of the PROCESS User Handbook appeared to be spread out among the response choices. The majority of schools tend to make use of the handbook in the classroom setting (71%), with individual instruction (62%) and by students on their own time (68%). The use of the handbook is least in small non-classroom groups (only 17% of total responses), but the handbook still is used by 41% of the reporting schools in small non-classroom groups.

Table 12

The Use of the PROCESS User Handbook in the Schools as Reported by User Respondents

The use of PROCESS User Handbook	Number of schools	Percent of total responses	Percent of total user schools
1. Used in classroom settings	299	29	71
2. Used in small groups (non-classroom)	173	17	41
3. Used with individual instruction by the implementor	263	26	62
4. Used by students on their own time	287	28	68

N=1022

What Part of the Career Education Program is C.I.S.I.?

Survey question 19 asked respondents to classify the usage of C.I.S.I. in their by identifying what part C.I.S.I. played in their school's career education program. Results from this question are shown in Table 13. A total of 59% of user schools reporting felt C.I.S.I. served as a large portion of their career education program. Another 37% of those polled classified C.I.S.I. usage as a small portion of their career education program. Only 2% of C.I.S.I. contact persons described C.I.S.I. as the whole of their career education program within their school. Conversely, only 2% of respondents classified C.I.S.I. as a seldom used resource.

Table 13

C.I.S.I. Role in the School's Career Education Program as Reported by User Respondents

C.I.S.I. role	Number of schools	Percent of schools
1. As the whole of the career education program	7	2
2. As a large portion of the career education program	250	59
3. As a small portion of the career education program	156	37
4 As a seldom used resource	7	2

N=420*

* Two respondents failed to answer this item.

What Is the Extent of C.I.S.I. Usage in the Secondary Schools?

Survey questions 12, 17 and 18 all deal with the extent that C.I.S.I. is used in the secondary schools of Iowa. First, information on the student usage of the PROCESS User Handbook will be presented. Also, present C.I.S.I. usage will be compared both to C.I.S.I. usage of the past and to C.I.S.I. usage in the future as determined by respondents. Finally, information on C.I.S.I. usage will be correlated with both type of school data and size of school data to yield further qualitative information on the extent of C.IS.I. usage.

To What Extent Is the PROCESS User Handbook Used by Students?

Question 12 asks to what extent do students use the PROCESS User Handbook. Results are shown in Table 14. Over one-fourth of user schools (27%) reported that extensive use is made of most of the

exercises and information in the handbook. Over one-third of user schools (35%) responded that some usage was made of exercises and information. A total of 22% of the schools polled reported making extensive use of specific exercises and information in the handbook, while another 11% reported making some use of specific exercises and information. Only 5% of user schools responded that little or no use was made of the PROCESS User Handbook.

Table 14

Student Usage of the PROCESS User Handbook
as Reported by User Respondents

Usage of the handbook	Number of schools	Percent of schools
1. Extensive use made of most of the exercises and information	114	27
2. Extensive use made of specific exercises and information	94	22
3. Some use made of exercises and information	145	35
4. Some use made of specific exercises and information	47	11
5. Little or no use made of handbook	19	5

N=419*
* Three respondents failed to answer this item.

How is C.I.S.I. Used as Compared to Three Years Ago?

Information in this section will compare the present usage of C.I.S.I. at the time of the survey (spring of 1981) with the past usage of C.I.S.I. three years earlier (1978). First, comparitive information

will be discussed for the total 422 secondary subscriber schools who responded to the survey. Then the data will be viewed in correlation with type of school and size of school data.

Present C.I.S.I. usage compared to C.I.S.I. usage of three years ago. Question 17 asked respondents to compare their present usage of C.I.S.I. with their usage of C.I.S.I. three years ago. Results are shown in Table 15. The majority of user schools (57%) reported using C.I.S.I. more presently than three years ago, while only 5% reported using C.I.S.I. less. A total of 38% of schools polled responded that C.I.S.I. is used the same presently as it was three years ago.

Table 15

Comparing Present C.I.S.I. Usage with C.I.S.I. Usage of Three Years Ago as Reported by User Respondents

C.I.S.I. usage	Number of schools	Percent of schools
1. C.I.S.I. is used more	239	57
2. C.I.S.I. is used less	22	5
3. C.I.S.I. is used the same	157	38

N=418*

* Four respondents failed to answer this item.

Correlation of past and present C.I.S.I. usage with type of school. Further information was obtained when data from question 17 were correlated with question 3 data concerning type of school. Table 16 shows how present C.I.S.I. usage compares to C.I.S.I. usage three years ago

Table 16

Comparing Present C.I.S.I. Usage with C.I.S.I. Usage of Three Years Ago in the Different Types of Schools as Reported by User Respondents

C.I.S.I. usage	Jr./Sr. high schools		Junior high schools		Senior high schools	
	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools
1. C.I.S.I. is used more	115	55	38	63.5	86	57.5
2. C.I.S.I. is used less	12	6	5	8	5	3
3. C.I.S.I. is used the same	81	39	17	28.5	59	39.5
	N=209		N=60		N=150	

* Three responses could not be correlated.

in junior/senior high schools, junior high schools and senior high schools.

In junior/senior high schools results indicated that C.I.S.I. is used more when compared to three years ago. A total of 55% of C.I.S.I. contact persons said C.I.S.I. was used more in their schools presently than three years ago. A total of 6% said C.I.S.I. was used less, and 39% of reporting junior/senior high schools said C.I.S.I. was used the same as three years ago in 1978.

The majority of junior high schools who use C.I.S.I. (63.5%) responded that more use was being made of C.I.S.I. presently as compared to three years ago. A total of 8% of junior high schools reported less usage, and 28.5% reported the same usage.

When comparing present C.I.S.I. usage with C.I.S.I. usage of three years ago, 57.5% of senior high schools polled used C.I.S.I. more presently. Only 3% of senior high schools reported less usage, while 39.5% reported the same usage over the three year period.

Correlation of past and present C.I.S.I. usage with size of school. Question 17 data were also correlated with question 4 data concerning the size of schools surveyed. Table 17 shows how present C.I.S.I. usage compares to C.I.S.I. usage of three years ago in Iowa's different sized schools on the secondary level.

A total of 53% of small schools averaging 1-50 students per grade level reported that more use is made presently of C.I.S.I. (1981) than three years ago in 1978. Only 6% of small schools said C.I.S.I. was

Table 17

Comparing Present C.I.S.I. Usage with C.I.S.I. Usage of Three Years Ago in the Different Sizes of Schools as Reported by User Respondents

C.I.S.I. usage	1-50 students per grade level		51-100 students per grade level		101-150 students per grade level		151-up students per grade level	
	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools
1. C.I.S.I. is used more	89	53	67	61	22	55	61	62
2. C.I.S.I. is used less	10	6	3	3	2	5	7	7
3. C.I.S.I. is used the same	70	41	40	36	16	40	31	31
	N=169		N=110		N=40		N=99	

* Four responses could not be correlated.

used less, and 41% responded that C.I.S.I. was used the same.

In schools averaging 51-100 students per grade level, 61% used C.I.S.I. more presently than three years ago. A total of 3% of schools in this size category reported less usage, and 36% reported the same usage of C.I.S.I. presently as compared to three years ago.

A total of 55% of schools averaging 101-150 students per grade level reported using C.I.S.I. more than compared to three years ago; 5% of schools in this size category reported less usage; 40% of schools in this size category reported the same usage over the past three years.

In large schools averaging 151 students or more per grade level, 62% responded that C.I.S.I. was used more presently than three years ago. A total of 7% of these schools reported less usage, while 31% reported usage that had not changed over the past three years.

How Will Present Usage of C.I.S.I. Compare with Future Usage of C.I.S.I. in the Next Three Years?

Information in this section will compare present usage of C.I.S.I. with usage of C.I.S.I. in the next three years as perceived by C.I.S.I. contact persons. First, comparative information will be discussed for the total 422 secondary subscriber schools who responded to the survey. Then the data will be presented in correlation to type of school and size of school.

Present C.I.S.I. usage compared to C.I.S.I. usage in the next three years. Question 18 asked respondents to compare their present usage of C.I.S.I. (spring 1978) with the way they plan to use C.I.S.I. in the next three years. Results are shown in Table 18. A total of 49% of user schools responded that C.I.S.I. will be used more in the next three years than presently. Another 49% said C.I.S.I. will be used the same in the next three years. Only 2% of the schools that use C.I.S.I. reported they would use C.I.S.I. less in the next three years.

Table 18

Comparing Present C.I.S.I. Usage with C.I.S.I. Usage in the Next Three Years as Reported by User Respondents

C.I.S.I. usage	Number of schools	Percent of schools
1. C.I.S.I. will be used more	206	49
2. C.I.S.I. will be used less	9	2
3. C.I.S.I. will be used the same	206	49

N=421*

* One respondent failed to answer this item.

Correlation of present and future C.I.S.I. usage with type of school. Further information was obtained when data from question 18 were correlated with question 3 data concerning type of school. Table 19 shows how present C.I.S.I. usage compares to predicted C.I.S.I. usage in the next three years in junior/senior high schools, junior high schools and senior high schools.

Table 19

Comparing Present C.I.S.I. Usage with C.I.S.I. Usage in the Next Three Years in the Different Types of Schools as Reported by User Respondents

C.I.S.I. usage	Jr./Sr. high schools		Junior high schools		Senior high schools	
	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools
1. C.I.S.I. will be used more	100	48	24	40	82	54
2. C.I.S.I. will be used less	4	2	2	3	3	2
3. C.I.S.I. will be used the same	106	50	34	7	66	44
	N=210		N=60		N=151	

* One response could not be correlated.

In the junior/senior high schools surveyed results closely mirrored results shown in Table 18 when comparing present C.I.S.I. usage with predicted C.I.S.I. usage in the next three years. A total of 48% of schools in this category responded that C.I.S.I. will be used more in the next three years, while only 2% said C.I.S.I. will be used less. One-half of the user junior/senior high schools reported that C.I.S.I. will be used the same in the next three years.

When the present usage of C.I.S.I. was compared to the predicted usage of C.I.S.I. in the next three years in junior high schools, 40% of those schools surveyed reported that C.I.S.I. will be used more, 3% reported that C.I.S.I. will be used less and 57% reported that C.I.S.I. will be used the same.

In the senior high schools polled it was found that 54% of the schools in this category predicted that C.I.S.I. will be used more in the next three years. Only 2% of user senior high schools said C.I.S.I. will be used less in the next three years, while 44% said C.I.S.I. will be used the same.

Correlation of present and future C.I.S.I. usage with size of school. Information from question 18 was also correlated with data from question 4 concerning size of school. Table 20 shows how present C.I.S.I. usage compared to the predicted use of C.I.S.I. in the next three years in the four different size categories of schools as determined by the average number of students per grade level.

When present C.I.S.I. usage was compared to predicted C.I.S.I. usage in the next three years, 51% of small schools averaging 1-50

Table 20

Comparing Present C.I.S.I. Usage with Projected C.I.S.I. Usage in the Next Three Years in the Different Sizes of Schools as Reported by User Respondents

C.I.S.I. usage	1-50 students per grade level		51-100 students per grade level		101-150 students per grade level		151-up students per grade level	
	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools	Number of schools	Percent of schools
1. C.I.S.I. will be used more	87	51	53	48	20	55	46	46
2. C.I.S.I. will be used less	4	2	1	1	2	5	2	2
3. C.I.S.I. will be used the same	80	47	57	51	18	45	51	52
	N=171		N=111		N=40		N=99	

* One response could not be correlated.

students per grade level responded that C.I.S.I. will be used more. Only 2% of small schools reported that C.I.S.I. will be used less in the next three years, while 47% reported that C.I.S.I. will be used the same.

In schools averaging 51-100 students per grade level, 48% reported that C.I.S.I. will be used more in the next three years. A total of 51% of these schools said C.I.S.I. will be used the same in the next three years, while only 1% responded that C.I.S.I. will be used less.

One-half of the schools averaging 101-150 students per grade level responded that C.I.S.I. will be used more in the next three years. A total of 45% reported that C.I.S.I. will be used the same, while 5% of the schools in this size category reported that C.I.S.I. will be used less in the future.

A majority of large schools averaging 151 or more students per grade level (52%) reported that C.I.S.I. will be used the same over the next three years. A total of 46% of these large schools reported C.I.S.I. will be used more in the future, while only 2% reported that C.I.S.I. will be used less in the next three years.

Summary

The data described in this chapter will be dealt with further in the next chapter. The discussion chapter will seek to analyze the information to draw together the most important information herein. Efforts will be made to interpret various data deemed as important to the purposes of this study.

Chapter 5

DISCUSSION

This study has concerned itself with researching the various qualitative and quantitative aspects of C.I.S.I. usage within the secondary schools of Iowa that are C.I.S.I. subscribers. The results of this study will be discussed further in this chapter to identify important data and to explain specific considerations.

In response to the question of who uses C.I.S.I., a total of 97% of those surveyed claimed to be users of C.I.S.I.. This result could be expected since surveys were mailed to active C.I.S.I. subscriber schools only. Most schools that paid for subscriptions to C.I.S.I. could be expected to be users unless they found a replacement system during the year or abandoned the use of C.I.S.I. for some deficiency of the system.

More vital to the question of who uses C.I.S.I. was the matter of determining which grade levels within the schools made use of C.I.S.I.. It was found that several grade levels in the user schools utilized C.I.S.I. regardless of the type of school. The highest percentages of C.I.S.I. usage were found when all grade levels of each particular type of school were considered. Further, the information suggests that

C.I.S.I. is used most at grade levels nine, ten and eleven. Specifically, the eleventh grade showed the most usage of C.I.S.I. (82%) when respondents reported all grade levels that made any use of C.I.S.I.. When asked which specific grade level makes the most use of C.I.S.I., the ninth grade responses were the highest totaling 25% of all surveyed schools. When only senior high schools were considered, the tenth grade was the specific grade level that made the most use of C.I.S.I. accumulating 36% of the responses. Significantly lower levels of usage were reported at grade levels seven and eight, and the twelfth grade level of C.I.S.I. usage was somewhat lower than the other senior high school grade levels.

The greatest implementor of C.I.S.I. in the schools surveyed was the counselor. A solid majority of these schools (93%) reported that the counselor was involved in C.I.S.I. implementation. Teachers were also significant implementors of C.I.S.I. being utilized in 40% of user schools. Some schools made use of media specialists (7%) and trained students (7%) to conduct C.I.S.I. activities with students. These results show incidences of implementation of C.I.S.I. by more than one person in a sizable number of schools. When the size of the school was correlated with who was implementing C.I.S.I., it was found that smaller schools were somewhat more likely to use the counselor as implementor than were the larger schools. This could be attributed to the fact that the counselor/student ratio is higher in the larger schools allowing less time for counselor implementation.

The study showed that a majority of schools polled (65%) used

C.I.S.I. both as a counselor resource and as part of a course within the school setting. Results suggest that more use may be made of C.I.S.I. as a counselor resource than as part of a course. This is due to the data which showed that 26% of the schools surveyed viewed C.I.S.I. as a counselor resource, while only 9% of user schools viewed C.I.S.I. as part of a course.

Survey results point to the fact that the PROCESS User Handbook has been used extensively in a variety of settings within the school. A total of 71% of user schools reported using the handbook in the classroom setting; a total of 68% of user schools said that the students use the handbook on their own time; a total of 62% of the schools surveyed responded that the handbook was used with individual instruction by the implementor. The lowest usage of the handbook was reported in small groups, and still, usage there was reported by 41% of the schools polled.

When respondents were asked how they viewed the C.I.S.I. role in their school's career education program, a majority (59%) related that C.I.S.I. was a large portion of their career education program. Another 37% of schools reported that C.I.S.I. was a small portion of their career education program. Only a sparse 2% responded to the choice that C.I.S.I. was a seldom used resource in their career education program. Conversely, only 2% of reporting schools were willing to view C.I.S.I. as the whole of their career education program.

In determining the extent of C.I.S.I. usage, a large percentage of respondents (27%) reported that they made extensive use of most of the

exercises and information in the PROCESS User Handbook. This significant figure was supplemented by another 22% of user schools that stated they made extensive use of specific exercises and information in the handbook. Another 34% of user schools made some use of exercises and information in the handbook, while the remaining 16% of schools reported less usage.

Present C.I.S.I. usage was also compared to past C.I.S.I. usage to determine the extent to which the system was being used. A majority of user schools (57%) responded that they use C.I.S.I. more presently than they did three years ago (1981 compared to 1978), while only 5% said they used C.I.S.I. less than they did three years ago. A total of 37% of user schools reported utilizing C.I.S.I. the same over the past three years. When correlated with the type of school, it was found that junior high schools were making somewhat more use of C.I.S.I. as compared to three years ago than were senior high schools. The size of school appeared to have no significant correlation to C.I.S.I. usage in the last three years.

Respondents were also asked to compare present C.I.S.I. usage with future usage of C.I.S.I. in the next three years. Overall results show that nearly half (49%) of schools surveyed plan to use C.I.S.I. more in the next three years. Only 2% of the polled schools reported that they would make less usage of C.I.S.I. in the next three years, while another 49% responded that they plan to make the same usage of the system during this time period. When the specific type of school was considered, it appeared that senior high schools plan to make significantly increasing

use of C.I.S.I. in the next three years as compared to junior high schools. The size of school showed no significant correlation for C.I.S.I. usage in the next three years.

Chapter 6

CONCLUSIONS, RECOMMENDATIONS AND SUMMARY

Purpose of the Study

The Career Information System of Iowa has strived to serve the career education needs of Iowa's schools during the past seven years. However, very little definitive information has been obtained over this time period to discover the extent and the kind of usage of C.I.S.I.. The purpose of this study was to take an in-depth look at C.I.S.I. in order to qualify and quantify the various aspects of C.I.S.I. usage. In particular, this study sought to determine who uses C.I.S.I., who implements the use of C.I.S.I., how C.I.S.I. materials have been used within the school setting and what has been the extent of C.I.S.I. usage within the secondary schools of Iowa.

Design of the Study

The data for this study were obtained through the use of a questionnaire sent to all 485 C.I.S.I. contact persons in Iowa's secondary schools. The twenty-five item questionnaire was designed by the re--earcher in cooperation with C.I.S.I. staff members and Grant Wood Area Education Agency personnel. C.I.S.I. staff distributed the instrument and tabulated information from the 435 respondents in the spring of 1981.

Fourteen of the items on the questionnaire were used directly to serve the purposes of this study. Correlations with vital demographic data were accomplished with aid of computer by C.I.S.I. staff in cooperation with D.P.I. research personnel.

Conclusions

The following conclusions can be drawn from the findings of this study on C.I.S.I. usage in the secondary schools that subscribe to C.I.S.I.:

1. C.I.S.I. is used to varying degrees at the secondary level by virtually all subscriber schools in the state of Iowa (97%).

2. C.I.S.I. usage is highest at the ninth, tenth and eleventh grade levels of the surveyed subscriber schools in Iowa. Less usage is made of C.I.S.I. at the seventh and eighth grade levels (junior high) and at the twelfth grade level.

3. The counselor is at least one of the persons involved in conducting the C.I.S.I. program at 93% of the schools surveyed in terms of working with students. The counselor is somewhat more likely to be the implementor of C.I.S.I. in the smaller schools as compared to the larger schools.

4. Teachers are utilized as implementors of C.I.S.I. in 40% of the schools surveyed. Therefore, it can be concluded that teachers and counselors work together as implementors of C.I.S.I. in a sizable number of schools. Other implementors such as media specialists, trained students and principals were found to be used very sparingly.

5. The majority of schools (65%) combine the use of C.I.S.I. as part of a course and as a counselor resource. It would seem apparent that significantly more use is made of C.I.S.I. as a counselor resource than as part of a course.

6. C.I.S.I.'s role is considered a large portion of the career education program by a majority of the secondary user schools polled (59%), but it is not considered as the whole of the career education program in many schools.

7. The PROCESS User Handbook is used by a majority of schools in a variety of settings. The majority of the schools use the handbook in the classroom setting (71%), by the students on their own time (68%), and with individual instruction by the implementor (62%).

8. Extensive use is made of at least some of the exercises and information in the PROCESS User Handbook by nearly one-half of the user schools polled (49%). Conversely, very few reporting schools make little or no use of the handbook (5%).

9. A majority of schools (57%) reported that they made more use of C.I.S.I. at the time of the survey (spring 1981) than they did three years earlier. This compares to only 5% of schools that reported less usage of C.I.S.I. over the same time period.

10. Expanded use of C.I.S.I. at the secondary level can be expected as 49% of user schools predict more usage of C.I.S.I. in the next three years, while only 2% of user schools predict less usage of C.I.S.I. over the same time period.

11. C.I.S.I. has been used to the same degree by a sizable number of schools (37%) when comparing 1981 usage to usage three years later, and C.I.S.I. will continue to be used to the same degree by 49% of user schools in the next three years.

12. Junior high school usage of C.I.S.I. increased significantly since the time period three years before the survey (1978), but the future rate of increase will drop critically if the predictions hold true.

Recommendations

The recommendations for C.I.S.I. that follow appear to be important for futher study and/or action. Precedence should be given to these recommendations in the order that they are listed.

1. It is recommended that a needs assessment be conducted within the C.I.S.I. and its support personnel in the area education agencies to plan for the possibility of expansion as predicted by results of planned usage over the next three years. Program, staff and funding expansion are all possibilities to prepare for if future usage of C.I.S.I. continues to grow.

2. It is recommended that research be conducted to determine the reasons for the lower level of C.I.S.I. usage at the twelfth grade level. It seems essential that C.I.S.I. view these data carefully since C.I.S.I. activities are designed to include the advanced career education needs of older students.

3. A study to determine if C.I.S.I. is serving the needs of junior high school students should be undertaken since junior high

school usage was reported to be significantly lower than senior high usage. Alternatively, research could be conducted to determine if a more suitable program could be instituted to better serve the career information needs of junior high school students.

4. It is recommended that the format of the PROCESS User Handbook be left unaltered in order to facilitate continued multiple usage of the handbook. High levels of handbook usage were reported in the classroom setting, by the students on their own time and with individual instruction by the implementor pointing to its positive multiple usage function.

5. For schools with a high counselor/student ratio it is recommended that a training model be designed to develop skilled implementors to assume traditional counselor roles in C.I.S.I. administration.

6. It is recommended that the reading and interest level of the PROCESS User Handbook be evaluated to determine if the materials therein are suited to grade levels nine through eleven where usage has been found to be the greatest. Also, an interesting study could be centered around how the present reading and interest levels affect the usage of the PROCESS User Handbook in specific and C.I.S.I. in general.

Summary

The results of this study of C.I.S.I. usage point to the fact that C.I.S.I. does have a positive functioning purpose within the secondary schools of Iowa. The multiplicity of C.I.S.I. usage across grade levels, within the various settings and within the different sizes and

types of schools shows the versatility of the system. Also, the extent of C.I.S.I. usage is undeniable as one views the levels of usage of the system's handbook, and compares the past usage of the system to present usage. Keeping in mind the basic assumption of this study, it can be determined that the Career Information System of Iowa is a useful system and should be kept intact as a prime career education tool of the state of Iowa.

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APPENDIX A

6300-D59973-5/81

STATE OF IOWA • DEPARTMENT OF PUBLIC INSTRUCTION
GRIMES STATE OFFICE BUILDING • DES MOINES, IOWA 50319

ROBERT D. BENTON, Ed.D., STATE SUPERINTENDENT
David H. Bechtel, M. S., Administrative Assistant
JAMES E. MITCHELL, Ph.D., DEPUTY SUPERINTENDENT

Iowa
a place to grow

May 14, 1981

Dear C.I.S.I. Contact Person/Counselor:

The C.I.S.I. staff is requesting your assistance in conducting an evaluation of C.I.S.I. by our users (students). We randomly selected one sixth of the schools having a C.I.S.I. subscription for this evaluation. Please ask your students to complete the form after they have used the C.I.S.I. materials. We are enclosing fifty forms for your students to use. If you need more, we can supply them. I know it is late in the school year, but could you please return as many completed evaluation forms as possible by June 5, 1981.

Also enclosed is a counselor/teacher evaluation form for you to complete and return to our office by June 5, 1981. The data gained from the student evaluation and the counselor/teacher evaluation will be processed during the summer of 1981. The information will be used in developing improvements in C.I.S.I. for future use. Your assistance will be appreciated as the success of a good information system is based on meeting the users needs.

The purpose of this study is to:

1. Determine the usage of C.I.S.I. in the Iowa schools.
2. Determine the overall effectiveness statewide of the C.I.S.I. program in the schools.
3. Evaluate the different specific parts of C.I.S.I.
4. Determine counselor's, teacher's and student's reactions to C.I.S.I.
5. Determine if there needs to be more information available on C.I.S.I. to the secondary schools in the state.
6. Determine the role of C.I.S.I. in the career education programs of Iowa's schools.

Sincerely,

CAREER EDUCATION DIVISION

Gary Henrichs

Gary Henrichs, Inservice Consultant, C.I.S.I.
Career Awareness & Exploration Unit
Instructional Services Section

Enclosures

GH:lp

APPENDIX B

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
Career Information System of Iowa
Grimes State Office Building
Des Moines, Iowa 50319

C.I.S.I. PROCESS USER EVALUATION

Complete the information below, *(if any questions are too personal, you may choose not to answer),* and return to: Career Information System of Iowa, Department of Public Instruction, Grimes State Office Building, Des Moines, Iowa 50319.

A

(6-7) 1.

AEA No.__ __AEA Name _____

2. Why did you decide to use C.I.S.I.? *(Circle all letters that apply)*

(8) a. to learn more about myself in relationship to a career choice
(9) b. to learn how to find a job
(10) c. to obtain a list of occupations to explore
(11) d. to obtain information about a specific occupation(s)
(12) e. to obtain information about a specific school
(13) f. it was recommended activity
(14) g. no special reason
(15-30) h. other *(specify)*

3. Circle all the ways that you heard about C.I.S.I.'s PROCESS.

(31) a. General announcement/poster/pamphlet
(32) b. Teacher
(33) c. Counselor
(34) d. Librarian/Media Center
(35) e. Friend/Peer
(36-51) f. Other *(specify)*

4. Rate the materials and User Handbook activities. Circle each item's usefulness on a scale of 1 to 5. Use the following key: 1 = least use and 5 = greatest use. Use N if you did not do that activity or use the material. *(Circle one number for each item).*

		LEAST USE				*GREATEST USE*	
(52)	N	1	2	3	4	5	a. "That's Me" and/or "My Feelings" activity (p. 6-8)
(53)	N	1	2	3	4	5	b. World of Work Cluster (p. 10)
(54)	N	1	2	3	4	5	c. World of Work Activities (p. 11-19)
(55)	N	1	2	3	4	5	d. QUEST
(56)	N	1	2	3	4	5	e. Sorting of Occupational Titles (manual or computer)
(57)	N	1	2	3	4	5	f. Exploring Occupations on Interest (p. 28)
(58)	N	1	2	3	4	5	g. Exploring Occupations in Relation to Self (p. 42)
(59)	N	1	2	3	4	5	h. Options vs. Values Exercise and/or Matrix (p. 43-44)
(60)	N	1	2	3	4	5	i. Make A Career Decision (p. 46)
(61)	N	1	2	3	4	5	j. Develop a Plan of Action (p. 46)
(62)	N	1	2	3	4	5	k. Occupational Briefs
(63)	N	1	2	3	4	5	l. PROCESS microfiche

B

5. Rate the following for their helpfulness on a scale of 1 to 5. Use the following key: 1 - helped very little and 5 - helped very much. *(Circle one number for each item)*

	LITTLE HELP				*MUCH HELP*	
(6)	1	2	3	4	5	a. Did the C.I.S.I. PROCESS activities help you know and understand your career interest aptitudes?
(7)	1	2	3	4	5	b. Did PROCESS make you aware of things to consider in making a career decision?
(8)	1	2	3	4	5	c. Did PROCESS activities help you select some occupations for further consideration and/or exploration?

6. Did you get enough information from C.I.S.I. in the following catagories? *(Put an 'X' on the appropriate line)*

	1 YES	*2 NO*	*3 DON'T KNOW*	
(9)	____	____	____	a. personal aptitudes necessary for an occupation
(10)	____	____	____	b. job duties/profile
(11)	____	____	____	c. earnings
(12)	____	____	____	d. working conditions
(13)	____	____	____	e. employment outlook
(14)	____	____	____	f. preparation and training
(15)	____	____	____	g. sources of additional information on the occupation(s)
(16)	____	____	____	h. educational facilities/services/activities
(17)	____	____	____	i. educational programs/majors/courses

7. Who did you receive assistance from as you went through C.I.S.I. PROCESS *(Circle all that apply)*

(18) a. Teacher
(19) b. Counselor
(20) c. Librarian/Media Center
(21) d. Friend/Peer
(22) e. No one
(23) f. Agency Staff Person
(24-39) g. Other *(specify)*

8. As a direct result of using C.I.S.I., which of the following do you plan to do? *(Circle all that apply)*

(40) a. talk with parents, relatives or friends
(41) b. talk to teacher, counselor or librarian
(42) c. visit with someone working in a specific occupation
(43) d. read additional available occupational information
(44) e. send away for further information
(45) f. apply for a job
(46) g. make a different career choice
(47) h. seek additional information about a given education/training program
(48) i. enroll in an additional education/training program
(49) j. go through C.I.S.I. again
(50) k. nothing at this time

C
(6) 9. How many times have you used C.I.S.I. materials and/or information? *(Circle One)*

a. once
b. 2 to 4
c. 5 or more

(7) 10. How did use of C.I.S.I.'s PROCESS affect you? *(Circle one)*

a. it helped me
b. it confused me
c. it made no difference to me

(8) 11. Circle the letter that indicates the agency/institution where you accessed C.I.S.I. *(Circle one)*

a. High School
b. Junior High
c. CETA Agency
d. Job-Service Agency
e. Social-Service Agency
f. Educational Information Center (EIC)
g. Vocational Rehabilitation Agency
h. 4-year Public or Private College/University *(specify)*

i. Merged Area School
j. Other Post-Secondary School *(specify)*
k. Public Library
(9-23) l. Other *(specify)*

(24) 12. ____ Place an 'X' if you are currently enrolled in a school/educational program.

(25-26) 13. Give your age. ____ ____

(27) 14. Circle the letter indicating your sex.

a. female
b. male

(28) 15. Circle the letter which indicates your highest educational achievement. *(Circle one)*

a. less than high school completion
b. high school diploma/G.E.D.
c. Post secondary school diploma program
d. two year degree
e. four year degree
f. graduate school

RETURN TO:

Career Information System of Iowa
Department of Public Instruction
Grimes State Office Building
Des Moines, Iowa 50319