Research Report 1460

Army Vocational Guidance in Two-Year Colleges

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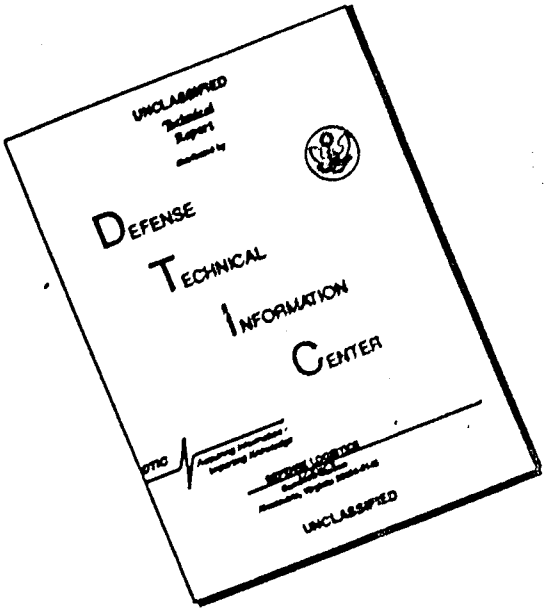

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The feasibility of using an automated Army career guidance package to expand the recruiting market was investigated. The package was constructed from JOIN software currently used by Army recruiters and was delivered on JOIN equipment. Feasibility was assessed by career counselors on six campuses. The reactions of students and career counselors were favorable; however, the relatively low number of students (30) who used the system indicates the need for marketing studies before the expense of development and deployment are incurred. This report summarizes the work required for development.

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Manpower and Personnel

FOREWORD

The Army Research Institute (ARI) is currently conducting research designed to explore ways of expanding the market of prospective new recruits. One untapped market of highly qualified youth that has not been successfully recruited is the junior and community college student population. One way of gaining access to this relatively inaccessible market is to provide career information through the career counseling centers of 2-year colleges.

ARI's work on developing an automated Army career information package and assessing its feasibility to reach the target market is an essential part of the mission of the Manpower and Personnel Policy Research Group of the Manpower and Personnel Research Laboratory to conduct research to improve the Army's capability to effectively and efficiently recruit its personnel. This work was undertaken in accordance with the Memorandum of Understanding between the Army Research Institute and the U.S. Army Recruiting Command, signed 17 October 1984 and 1 October 1984, subject: ARI/USAREC Research and Development Program. Preliminary results substantiated in this report were briefed to the Commander of the U.S. Army Recruiting Command and his principal staff on 7 April 1986.

This report summarizes research that is being used for USAREC to judge the feasibility of reaching the 2-year college market and provides guidance on the further work required before the Army could successfully deploy an automated Army career information package to reach this market.

EDGAR M. JOHNSON
Technical Director

ACKNOWLEDGMENTS

This research, conducted in field settings at six community college career counseling centers, required and received support from many individuals--in particular, the campus administrators, counselors, and students who participated. Though the six schools are not named in this report, they have received letters of acknowledgment from the American Association of Community and Junior Colleges, as well as the appreciation of the Army Research Institute. The research team extends its gratitude to the participants for their cooperation and contribution to the study of Army vocational guidance in 2-year, postsecondary schools.

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ARMY VOCATIONAL GUIDANCE IN TWO-YEAR COLLEGES

EXECUTIVE SUMMARY

Requirement:

The Army Recruiting Command requested a test of the feasibility of deploying in postsecondary schools an automated Army Vocational Guidance Package (CVG) to enhance the recruiting of highly qualified young people for the U.S. Army.

Procedure:

The objective of this research was to investigate and identify the best methods for providing Army career/vocational guidance in postsecondary schools. A computer-videodisc system (the Army's Joint Optical Information Network--JOIN) was employed as the delivery medium and was supplemented with print materials including a paper/pencil vocational interests test. A field trial of the system was conducted in the career counseling centers of six community colleges in the Chicago, Baltimore, and Washington, DC, areas.

An experimental configuration of the JOIN system was established from existing JOIN software and videoware. User guides and other supplementary materials were developed to permit the system to "stand alone" for student use. College career counselors were trained to use the system and serve as subjects in the study. The system was placed in the natural environment of each campus career center for use by students and counselors during the spring term of the 1985-1986 academic year. At the conclusion of the term, counselors provided feedback summaries on student and counselor reaction to JOIN.

Findings:

Though student response rates were not high, students, as well as counselors, were receptive to the idea of Army career/vocational guidance on campus. Overall, most students who used JOIN reported a substantial increase in their interest in considering the Army as a career step. They were inclined to recommend the system to friends because it opened a new range of career options. Counselor reaction was similar. However, both students and counselors stated that the experimental version of JOIN would have to be updated in terms of its hardware and software to be competitive with other computer-based vocational guidance systems now used at the career centers. On the other hand, videodisc presentations were regarded as excellent, of high quality, and unique and appeared to be the feature that underscored JOIN's potential. Counselors provided many recommendations for system enhancement and advocated that the guidance package be further developed to operate on a newer personal computer and be distributed to community colleges.

Utilization of Findings:

These findings suggest to Army planners and policy makers the kind of automated career information system that would attract the interest of the vocational guidance counselors and the students on the 2-year college campus, as well as the considerable work and resources that would be required to develop, implement, and market this package and recruiting strategy.

ARMY VOCATIONAL GUIDANCE IN TWO-YEAR COLLEGES

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I. INTRODUCTION

Background

In 1985, the Army Research Institute (ARI) initiated investigations, on behalf of the U.S. Army Recruiting Command (USAREC), on the feasibility of improved methods for disseminating to students in two-year colleges information on Army career and vocational opportunities. Research by Shavelson, et. al (1983) had shown two-year, post-secondary schools to be a source of large numbers of potentially high quality recruits--and virtually an "untapped market" for military recruiting. There was interest, too, on the part of the two-year colleges in this area of study; since experience and monetary benefits offered by the Army are advantageous to students who want to use their Associate of Arts degree or later complete the bachelors degree.

The American Association of Community and Junior Colleges (AACJC) had been active in a recent project in this area for the Army Recruiting Command (USAREC) concerning campus access and ways to provide the two-year college student with better information on Army vocational opportunities and benefits (Project HI-GRAD; Nye, et.al, 1985). The AACJC formed an R & D partnership with the Behavioral Sciences Research Center of Science Applications International Corporation (SAIC) in response to the ARI solicitation for the present research and was awarded a contract for this project. ARI chartered the AACJC to explore the feasibility of developing a career vocational guidance (CVG) package which could provide students with information on Army vocational opportunities. Preferred concepts for the CVG package involved the use of computer-based media, print media, or some combination of the two to offer Army vocational information at campus career counseling centers. This report describes the technical work done by the AACJC/SAIC team and results of that work as regards the feasibility of a CVG approach.

Recruiting and Community Colleges

In 1973, the military draft was ended in favor of an all-volunteer service. Having the largest recruiting mission, the U.S. Army was faced with the new requirement of having to compete with other services, business, industry, colleges, and universities for recruits in the 18-22 year age group. In addition, military systems technology is becoming more complex, requiring not only enough recruits but also those of high quality leadership and technical skills. Forecasts into the year 2000 see no reversal in the high-tech dependence of the military (Baker, 1984); the need for skilled recruits will continue.

The net effect of the problem has led the Army, and other services alike, to provide new incentives for enlistment. In the case of the Army, these include bonuses for enlistment, the new G.I. Bill and Army College Fund, 2-year enlistment option, the delayed entry program, as well as specific incentives for recruits with college credits, such as advanced training and

rank. In addition, today's Army, as the largest employer in the United States, provides a wide range of high technology job and career opportunities for young people seeking to develop their career skills and gain unique experience rapidly; including specialized leadership and training opportunities. These opportunities should be presented to graduating students so that they will be aware of at least one way to meet future educational and career goals that might otherwise escape their notice. In the community college setting, however, the problem has been that an effective system is not in place for providing the student with detailed and updated information on Army vocational opportunities--thus, this potential market of high quality recruits could continue to remain ignorant of Army opportunities.

Insights from Shavelson, et.al, (1983) show that the community college student is a likely to be a "high quality" recruit suited to meet the manpower demands of an increasingly high tech Army. Other reasons, such as the following culled from AACJC statistics, underscore the advantages of the community college setting for Army recruiting during coming years:

Population density. Community colleges serve nearly half of the number of students enrolled at all 4-year schools; the modal age of the community college student is 19 and about 1 million are males age 18-21.

Site density. Community colleges concentrate their student population into a much smaller number of sites than 4-year colleges or technical schools.

Student performance. On measures of high school percentile rank, grades, expected education, career aspiration, socio-economic status, and responsibility, students entering two-year colleges score significantly higher than high school graduates who do not opt for post-secondary education.

Aspiration. Community college students show a propensity for early, hands-on work experience following achievement of the Associate Arts degree; they graduate with trained skills and are eager to develop those skills.

Further education. Community college students report that their major concern during college is financial. This suggests that community college students might be interested in Army educational incentives and benefits following the completion of their A.A. degree.

Service record. Shavelson (1983) shows that community college students have good attitudes toward the military; tend to be quite successful trainees and complete military training in minimal time; perform well on the job; are not discipline problems; and have significantly lower attrition rates than less educated soldiers.

Institutional stability. In times of escalating 4-year college tuition, many students are choosing to attend community colleges. Also, community colleges have proven to be adaptable institutions during difficult economic times and are projected to double in student population by the year 2000.

Other points could be added, but the above serve to make evident that the two-year college offers a density of prospective high quality recruits in a stable institutional environment for Army recruitment. In turn, there is evidence that students are inclined to consider and take advantage of military career opportunities to apply their Associate of Arts degree and obtain experience or financial aid to complete further education. While the Army actively recruits at the post-secondary school level, it remains a difficult level to access. Further, no system for providing current, appealing information on Army career opportunities exists on campus, and there is a considerable need to provide this type of information in order to support recruiting efforts.

Project Goals

Weltin and Johnson (1985) warn that the Army will have to employ additional means to attract bright, high quality recruits for the Army from the shrinking manpower pool. Hertzbach, Knapp and Johnson (1985) later suggested that to distribute and update effective Army career information for community college students, the use of computer-based information systems could be one new approach to reaching a new market. In addition to its potential for easy updating and wide distribution of Army career information, computer-based vocational guidance has long appealed to career counselors (Holtzman, 1970; Faust and Unger, 1985; Thompson and La Rochelle, 1985), though in practice, few such systems are available. Civilian career systems such as SIGI-II, GIS, DISCOVER, MOICE, VIEW, INFORM, etc., are proprietary systems which have demonstrated the efficacy of computer-based guidance. Though automated career information systems are useful, the effecient and inexpensive use of print media is also an important way of disseminating career information.

To study the feasibility of Army vocational guidance in post-secondary schools, ARI efforts pursued both a long range and immediate goal; the latter of which subsumed a number of specific research objectives:

Longer-range goal: To recruit a larger proportion of "high quality" recruits from the post-secondary school market.

Immediate goal: To identify best methods for "delivering" Army vocational guidance in the post-secondary schools.

1. Determine the receptiveness to the idea of the "Army as a career step" by students and staff in post-secondary schools.

2. Determine student and staff reaction to the availability of "Army vocational guidance" which provides job and benefits information useful to vocational decision making.

3. Understand the vocational guidance "informational needs" of the students, as would be relevant to their consideration of the Army as a career step.

4. Determine the "best way to afford the Army an equal chance to be considered" as a career step by the student (i.e., how to make Army vocational information easily available and understandable).

5. Determine the feasibility of implementing a "computer-based" vocational guidance system as a vehicle for the above purposes.

These five objectives, subsumed by the more immediate goal, constituted the research priorities of the present project. These priorities were investigated by developing new software and modifying existing Army software for presentation on a "PC" system currently used by Army recruiters and guidance counselors, the JOIN System. The package that was created for this effort included textual and video displays available in a menu driven format. These high quality video displays were presented on the JOIN system's videodisc plays and appeared on the JOIN monitor.

Approach

Because research of this type on the community college campus was a new endeavor for the Army and because the market was unproven, ARI planned this research in stages. Rather than comprehensively developing and testing a prototype system which would have been expensive and required a long term commitment for what was only a potentially successful recruiting strategy, this initial phase of the research plan was small in scale, emphasizing a qualitative rather than quantitative approach. We attempted to identify the basic issues and considerations that needed to be resolved and/or met for an Army career guidance delivery system to have an optimal impact on Army recruiting. This effort is best described, therefore, as "exploratory," rather than as a formal experiment. But a wealth of information about the two-year college environment and the feasibility of deploying a career guidance package was sought and learned.

As an exploratory, pilot-like effort, only a subset of the considerable JOIN software and videoware was used. Some information was identified as of less interest to the two-year college audience, and including too much information would have risked overwhelming the student user (and the counselor) in an exercise requiring more time than was reasonable. Therefore, the software included reflected the JOIN vocational information most appropriate to the postsecondary school students: broad Army career clusters, service benefits, and enlistment options of particular relevance to two-year college students. A student user manual (print) was provided to each student using the package to assure a structured passage through the software (as JOIN was not designed as a stand-alone system), and a paper and pencil vocational interest test was added to offer further user guidance. Thus, the trial system was contrived from parts of the JOIN system currently in use by Army recruiters and printed materials. In this form (much like a "sampler"), the

career information package approximated the components of a more complete, tailored system for research purposes; but it did not represent a polished, career information delivery system (CIDS) prototype.

Report Organization

This report is organized into four sections, including the Introduction, Technical Approach, Findings, and Conclusions and Recommendations. The Technical Approach describes the objectives, method, and design of the research. The Findings section reports results, and the Conclusions and Recommendations section links the findings and interpretations with the objectives of the project. Other pertinent information, such as career counselor training materials and the user manual are attached as Appendices, which are referenced as appropriate in the text and Table of Contents. Other relevant documentation is attached at the Appendix and referenced where appropriate throughout the report.

II. TECHNICAL APPROACH

This section of the report describes the research setting, participants, equipment and materials, the data collection, and procedures. Limitations of the study are also addressed. The findings of this exploratory research are reserved for discussion in the next section.

Research Setting

The research described in this report was conducted in six community colleges in the Washington, DC, Baltimore, MD., and Chicago, IL., areas. Two of the colleges were quite large near-city campuses; two were moderate-sized (more typical) suburban colleges; and two were smaller, rural-area colleges. Minority students were well represented in all of the schools sampled. At all campuses, the research was conducted at the campus career counseling center under the supervision of the Director of Career Counseling and/or a senior career counselor. The career counseling centers were busy, active areas. Most all centers were responsible for providing: 1) individual and group vocational testing/assessment, 2) individual and group vocational counseling, 3) classes in vocational awareness and job-seeking skills, 4) vocational planning and educational media/literature/announcements. Some assisted (at least indirectly) in student placement activities. At times, these centers were observed to host large numbers of students to the point of standing-room-only, and counselors were apparently responsible for large caseloads and numerous administrative chores. Demographic data describing five of the community colleges and their respective career centers are presented in Table 1 (to be discussed in Section III). One school was not included as it provided no research results or explanation for not participating.

Participants

Counselors-as-subjects. Counselors at the community college career counseling centers served as subjects in the project; not in the usual "experimental" sense, but as the source of feedback on how Army vocational guidance information was received in their respective counseling centers. In addition to providing feedback on student receptivity, counselors also provided estimates of students' characteristics. Eight (8) career counseling center directors and/or senior staff counselors served as study subjects. All were non-paid volunteers. Demographic characteristics for these counselors as a sample are provided in Table 2.

Student users. The package for delivering the Army career vocational guidance (CVG) and hardware were placed in the natural environment of each campus career center for student use. While students were not the subjects in the research effort in the sense of directly providing information to us, they were the CVG users from whom impressions were formed by participating career counselors. No particular number of students was required per sample site, nor were counselors required to keep close records on the number of student users.

Table 1

Demographic Characteristics of Campuses & Career Centers

March - May '86 JOIN Field Trial

CHARACTERISTICS	SCH. 1	SCH. 2	SCH. 3	SCH. 4	SCH. 5	MEAN	s.d.
"Campus Demographics"							
1) CAMPUS SIZE (pop.) AND SCHOOL LOCATION CATEGORY: *							
a) Large - near major urban area	X	X				--	--
b) Moderate size - suburban area			X	X		--	--
c) Small - characteristic rural					X	--	--
2) POPULATION (no. of students):							
a) Full-time students	2073.0	3449.0	1940.0	2000.0	1984.0	2289.2	650.1
b) Part-time students	8807.0	9332.0	8431.0	3847.0	7444.0	7572.2	2193.9
c) TOTAL STUDENTS	10880.0	12781.0	10371.0	5847.0	9428.0	9861.4	2555.6
3) GENDER DISTRIBUTION:							
a) % Male students	43.1	40.5	45.0	28.0	46.0	40.5	7.3
b) % Female students	56.9	59.5	55.0	72.0	54.0	59.5	7.3
4) AGE DISTRIBUTION:							
a) % Students 18 - 25	34.6	56.0	47.6	42.0	55.0	47.0	9.0
b) % Students 26 & over	65.4	44.0	52.4	58.0	45.0	53.0	9.0
5) RACIAL COMPOSITION FOR TOTAL STUDENTS:							
a) % Caucasian	67.5	51.0	86.7	26.0	80.0	62.2	24.4
b) % All minorities	32.5	49.0	13.3	74.0	20.0	37.8	24.4
"Career Center Demographics"							
6) STAFF SIZE OF CAREER CENTER							
a) No. professional counselors	13.5	3.0	11.0	3.0	8.0	7.7	4.7
b) No. aides/support staff	4.5	2.0	3.0	5.0	6.0	4.1	1.6
7) ESTIMATED YEARLY CASELOAD							
a) Tot. no. student clients in academic year 1985-86	4000.0	3150.0	6300.0	984.0	4540.0	3696.4	2130.1
b) Tot. no. of cases involving career/vocational counseling**	1200.0	3150.0	1008.0	787.0	635.6	1277.5	1092.9
8) NEED FOR MILITARY VOC. GUIDANCE							
a) Est. % of vocational clients needing military job/career information in AY '85-86	3.5	17.5	15.0	10.0	25.0	14.2	8.1

* NOTE: Total population alone did not determine campus size for the sample. Other factors, such as proportion of full-to-part time students, facilities, multiple campus system, etc., were considered.

**NOTE: Centers reflecting 100% vocational counseling are dedicated career counseling centers and do not provide other counseling services such as clinical counseling.

Table 2

Demographic Characteristics of the Eight
Career Center Counselors Who Served as Subjects

CHARACTERISTIC	% COUNSELORS	MEAN	s.d.
1) Age		37.5	6.4
2) Male	29.0		
Female	71.0		
3) Caucasian	71.0		
Black	29.0		
Hispanic	.0		
Am. Indian	.0		
Asian	.0		
4) Tot. years of education		18.1	.4
5) Yrs. of counseling * experience		8.5	2.8

OTHER:

6) Professional field and job role (each counselor)

a) Major field of study:	b) Job title:
1. Special education	1. Special services counselor
2. Student personnel/counseling	2. Career information specialist
3. Counseling	3. Career planning specialist
4. Counseling/career development	4. Career assessment and planning specialist
5. Counseling	5. Counseling coordinator
6. Counseling	6. Dir. student services
7. Higher education guidance & counseling	7. Student services coordinator
8. Student personnel in higher education	8. Coordinator: career planning and placement

* NOTE: Counseling in the college setting is generally a postgraduate profession (requires the masters degree or equivalent). Years of experience shown above reflect this as post-masters or post-doctorate years.

Further, it was not required that students express an interest in the Army in order to use the CVG. Rather, any student at the center willing to take an objective trial of the system as a non-paid volunteer was permitted to engage the CVG package. Counselors received feedback from students and returned an aggregate summary of the student reaction to JOIN, interest in the system, student suggestions, and general student characteristics. By averaging these counselor summaries, estimates of student user demographics were calculated for users overall and are reported in Table 3.

Equipment/Materials

Counseling centers in this project were found to use 1 to 4 personal computers (PC's) for career guidance in addition to online terminals for accessing student files and State career guidance materials. Only two Apple II personal computers were found; the rest were IBM-PCs ranging from 256K, dual floppy drive PCs to IBM PC-XTs or clones. Since most campuses provide computer PC labs and students have prior PC experience in high school or at home, counselors consistently reported that students in the 18-22 year age group were comfortable and liked using the PC. Hours that the PCs were available ranged from 7 a.m. - 9:30 p.m. at the career centers. Given this input, employing a small PC computer as a springboard for configuring an Army CVG seemed appropriate for use with students. An available system, the USAREC "JOIN" computer/videodisc system, was selected for this purpose. The system and other CVG materials are described below.

JOIN computer/videodisc system. The U.S. Army Recruiting Command had earlier fielded a computer-based recruiting tool to assist recruiters and Army guidance counselors in acquiring, prequalifying, and processing enlistment applicants. The system is called JOIN (Joint Optical Information Network) and involves a number of components illustrated in Figure 1. The present JOIN system was developed by the "C3" Corporation of Reston, Virginia for USAREC. It consists of a uniquely built computer of the "PC" type. The JOIN computer employs a Z-80 processor chip and two Qume floppy disk drives. The keyboard is also uniquely configured with special keys to access menus and page; a separate numeric keypad for optional applications is attached. Peripheral components include an Amdek color monitor, Sony videodisc player, and Epson printer. The system is programmed in BASIC and employs Infosoft DOS. By current standards, JOIN appears bulkier than present day PC's and employs an older architecture limiting memory (64K RAM) and extending processing time.

Though the JOIN system is of an older small computer architecture, had not been configured as a stand alone interactive system for student use, and lacked the user help and cosmetic appeal of today's software, it possessed two assets which made the CVG concept feasible in practical terms. First, it possessed a wide range of Army vocational information (jobs, benefits, etc.) which was comprehensive to Army career exploration needs of post-secondary students. Second, much of the JOIN information was in the form of realistic, "high-quality" job previews (full-color motion video) presented via a videodisc player integrated into the system. If the CVG concept proved viable

Table 3

Estimates of Student User Characteristics

NOTE: User characteristics are summarized in one of two ways:

1) percent of users to which the particular characteristic applies,

2) the "average" (mean) of the value and its associated standard deviation (s.d.).

	USER CHARACTERISTIC	APPROX % OF STUDENTS	MEAN	s.d.
1)	Age		23.2	4.4
2)	Male	40.0		
	Female	60.0		
3)	Caucasian	30.0		
	Black	70.0		
	Hispanic	.0		
	Am.Indian	.0		
	Asian	.0		
4)	Tot. years of education		14.3	1.5
5)	Had elected their major field of study	60.0		
	Undecided as to major	40.0		
6)	Never really considered the Army as a job or career option	30.0		
	Never thought about the Army much, but open to learning about Army job/career opportunities	30.0		
	Had given some serious thought to the military as a career step and wanted to learn more	40.0		

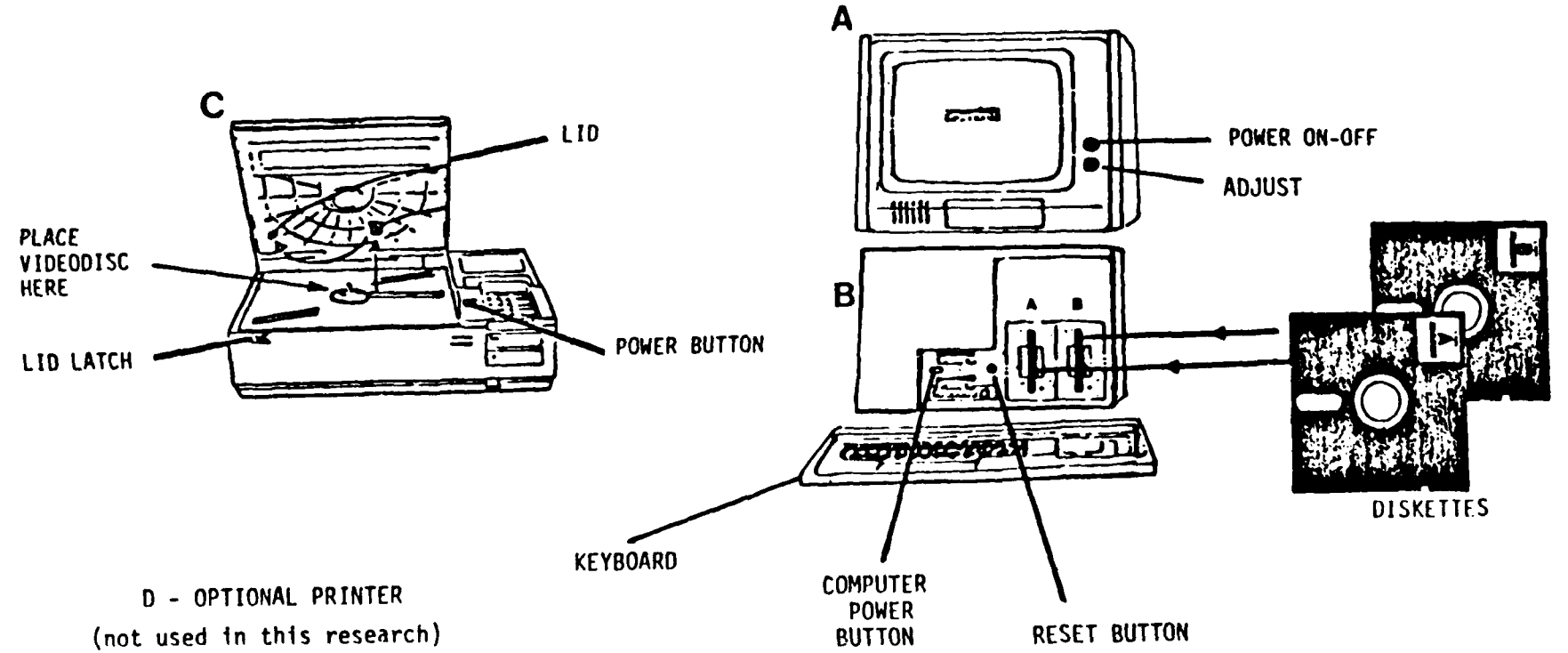
Figure 1

Current USAREC JOIN-system

A - MONITOR

B - COMPUTER/KEYBOARD

C - VIDEODISC PLAYER



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in the community college setting, the presence of these two elements could permit the Army to make relatively low-cost adjustments in JOIN to modify it for use at post-secondary schools on current PCs.

CVG software. The JOIN content (software programs) was reviewed. Content appropriate to Army information needs of community college students was identified by the research team. The menu for the selected content is seen in Table 4. Since the menu is extensive and JOIN had not been designed as a stand alone system for student use, it was decided that the content would be reduced (sampled) and a set of steps would be laid out to direct the student user through the selected content (structured user path). From Table 4, the sub-programs: B) Army Jobs, C) Incentives/benefits, and D) Your Options were selected. To conserve user time and maintain the project schedule, students completed a paper and pencil vocational interest test and JOIN parts (B) and (D) only. The counselors completed a personal JOIN session like that of the students but also part (C). These parts of the JOIN content employed enough of the system characteristics to serve as a system sampler for research purposes.

Vocational interests survey. There was concern that student users might not have recently had any career counseling or assessment and, therefore, might lack vocational self-insight. To accommodate students in this position as well as to evaluate the idea of employing user self-assessment in JOIN, a vocational interests assessment was included in the package. The assessment device used was recently developed by ARI for possible use with JOIN. However, it was not possible to program the assessment into JOIN during this project, and the test was thus completed by each student in "paper/pencil" form at the beginning of the JOIN session. The interest test used was the Vocational Interests Profile (Faust and Unger, 1985). Known as the VIP, this test assesses and reports a number of standard dimensions of vocational interest which can be related to military or civilian jobs. In the current project, however, it was used only to provide students with a general profile of their vocational orientation. A copy of the VIP and a summary of its construct theory are attached in Appendix A.

Counselor training package. It was necessary to orient career center counselors (subjects) to the nature of the project and to provide them with procedures training for operating the JOIN system and gathering feedback as to its utility. A two-phase training package was developed by the research team. The first-phase involved a 1-day classroom training session held at AACJC headquarters in Washington, DC, for the participating counselors. Using lecture and demonstration, ARI and contractor staff presented training on the background and goals of the project, JOIN system components and procedures, and project administration/feedback (data collection) procedures. A copy of the training and project "handbook" given to each counselor is provided in Appendix B. The second phase of training was given at each of the six campus career centers where the JOIN computer/videodisc systems were delivered and installed at each school. A short briefing was given to the counselors serving as subjects as well as any other counselors/staff of the career center

Table 4

JOIN Informational Content

(applicable program menu)

MAIN MENU

A) Learn About Your Interests/Values
B) Learn About Army Jobs
C) Learn About Army Benefits
D) Learn About your Options
E) Ask About Some Common Concerns
F) End of Session

Subprogram Menus

A) INTEREST SURVEY

(Presently the VIP survey used in pencil/paper form)

B) ARMY JOBS

a) Skill Clusters
b) Career Mgt. Fields
c) MOS's

C) INCENTIVES/BENEFITS

a) Service to others
b) Money
c) Challenge
d) Advancement
e) Training/experience
f) Travel
g) Fun
h) Education
i) Job satisfaction
j) Job security

D) YOUR OPTIONS

a) Comm. coll. grads
b) Combat arms
c) Special programs
d) Where you could work
e) The Reserve force

E) SOME COMMON CONCERNS

a) What happens at the MEPS?
b) Do I leave home immediately?
c) Can I change my mind about what I want?
d) When can I take my family and car with me?

F) END OF SESSION

Exit session
(no content)

so they would be apprised of the project and JOIN system availability. The briefing covered the content/demonstrations used during the earlier classroom training but within a much shorter time period. However, copies of the classroom training materials were made available to all staff at each career center for future reference.

Data collection instruments. Three categories of subjective feedback data were collected from the counselors.

1) Demographic data describing general characteristics of the college campus, the career center, and JOIN users were provided via the data collection form shown in Appendix C, though a few demographics were also collected from career counselors during their JOIN session. The materials used for this session are provided in Appendix D, see 2 below.

2) Counselor JOIN session. During this orientation, counselors completed the Vocational Interests Profile and the three JOIN software modules used in the project. Counselors completed the data collection booklet shown in Appendix D. The questions in this booklet (with two additions to be addressed later in Section III of this report) were the same ones around which counselors summarized impressions of student receptivity to the JOIN system.

3) Counselor final project evaluation. Following student utilization and input to counselors, counselors responsed to a number of questions addressing JOIN and related evaluation variables, shown in Appendix E.

Procedure

1) In the Fall of 1985, the sample of six community colleges was selected. Due to the small scale of the research, colleges close to ARI and the contractor's location in the Washington, DC area were favored in order to minimize travel expenses. One school from the Chicago, IL, area was included in the final sample. Representation factors for sample selection were large, moderate (typical), and small-size schools; near-urban, suburban, and rural campuses; and racial mixes that are nationally representative.

2) Research of previous and related projects/studies was reviewed to develop a concept for the content to be included in the community college CVG package. The JOIN system (information content, hardware/software/videos) was reviewed to determine what content should be sampled in order to produce the experimental CVG. A small number of programming changes were made to extract the content and configured the JOIN system as the CVG.

3) Counselor training materials, user guidance, and data collection materials were prepared for the field trial.

4) In late February, 1986, the 1-day training program for campus career center counselors was held in Washington, DC, at AACJC headquarters.

5) In March, the JOIN systems were installed at each of the campus career centers; counselors were provided with posters and announcement copy to make the presence of the system known; and the refresher training/briefing was presented to all counseling center staff on-site.

6) The field trial of the system was fully operational from the second week of March through early May 1986. In May, final data collection activities commenced, and the JOIN systems were removed from the six career centers.

Study Limitations

There are three limitations described in this section of the paper: 1) One of the six schools selected for the sample did not participate, 2) the time window for the data collection limited the sample size, and 3) the small number of counselors (and school selection) limit the generalizeability of the research findings of this effort.

Originally, six schools were selected for participation in the study and in which JOIN systems were deployed. One of the six sites selected did not participate and was not replaced, so that this report reflects only five of the six sites originally selected. The reasons for the school dropping out are not clear; but there was no remuneration or other incentive provided to schools for adding to the workload of busy career counselors and their staffs.

The "time window" of the field trial limited the size of the student sample. The field trial took place, of necessity, during the second semester. In order to complete programming adjustments to JOIN, to complete counselor training, and to install JOIN at each campus (let alone a week or so to advertise its presence on campus), the field trail did not begin until mid-March, 1986. The following circumstances contributed to the shortened "time window" of the data collection.

- Some schools entered Spring-break and soon thereafter were approaching final exams which diminished student availability for counseling activities. As a result, the study had 5-7 good weeks in field.

- As upaid volunteers, the counselors, very busy with their normal responsibilities, might have given lower priority to the data collection. Each counselor had large caseloads and numerous administrative responsibilities, and the advertising of the CVG/JOIN system, soliciting and supervising student users, and collecting the data were likely victims of these more compelling demands.

- The contrived CVG, a partial JOIN system whose trial components were designed as a sampler, was not a smooth, stand-alone system to use without some attention to detail (wasn't as attractive as existing available packages for promoting the counseling center).

- About thirty (30) students on all five participating campuses participated in the project, and the reasons mentioned above certainly contributed to this low number of respondents. But there is no way to know how much of this poor showing is attributable to the above factors or a lack of interest in joining the Army. This response rate could say nothing about the potential attractiveness of an Army career guidance package on the two year college campus, but there is no way to know from this research.

The small number of counselors (n = 8) serving as study subjects is a factor also limiting generalization of the findings. But there are other limitations imposed by using the counselors as the unit of analysis, rather than the students. We could not manipulate student user data and can only estimate their pertinent demographic information. Often that results in the loss of specific information, which was sacrificed for the broad understanding sought in producing a successful guidance package. For example, the average of the students participating (23.2, Table 3) is somewhat older than the usual Army recruit, 18-22. Any impact that this age difference has on judging the likelihood of interest in exploring enlistment is lost in this research. There is no way to segment the younger from the older participants. Fortunately, the small number of student participants did not work greatly to the disadvantage of the effort because the counselors had considerable experience and could themselves provide excellent critiques of the system, as well as efficiently assess the utility of the system. In addition, a substantial number of the feedback measures were obtained from the counselors to offset the small sample size and enhance reliability of the data.

III. FINDINGS

This section of the report describes the findings of the CVG field trial. Counselors provided feedback about CVG deployment experience on their campuses using three perspectives:

(1) Counselor's final summary of student feedback,

(2) Counselors' personal CVG/JOIN session (their appraisal following a firsthand trial of the system),

(3) Counselor's final project evaluation (retrospective summary of CVG/JOIN's efficacy in the career center).

The findings are reported for each of these forms of feedback. Both quantitative and qualitative results are reported; the latter consisting mainly of comments and suggestions made by counselors and student users. All statistics are descriptive; no experimental tests (between-groups comparisons) were conducted. Where characteristics of the counselors, users, or schools are relevant to the discussion of outcomes, reference is made to Tables 1, 2, and 3 (Participant Demographics, Section II) as appropriate. The final section of this report, Conclusions and Recommendations, includes interpretations of the findings in the context of the research objectives, as well as conclusions and their implications for future research and development.

Counselors' Summary of Student Feedback

Data analysis. At the conclusion of the field trial, all participating counselors submitted a final summary of the feedback received from student users. The summary was organized to reflect the same feedback information sought from counselors when they later completed a "personal" trial of the CVG/JOIN session (see Appendix D). In addition, feedback was sought as to: a) how users had become aware of CVG/JOIN and came to try it, and b) what information students prefer to have when making vocational decisions. Thirteen (13) types of information were compiled by the research team according to current vocational theory and were used to categorize and rank student information preferences when making vocational decisions. (These categories are described later in this section.)

In the end, the final summary of student feedback is a subjective summary. The counselors had the opportunity to alter, dispute, clarify, or otherwise interpret the student feedback as they felt appropriate given their professional and individual perspectives. However, any unsolicited comments volunteered by students were recorded "as is" and are reported. Other data (mainly quantitative) must be regarded as estimates of student reaction to JOIN and are expressed in one of two forms: 1) as categories of reaction and the percent of students falling into the category, 2) the average (mean) of a rank, rating, or other value (such as user "age") used to summarize student characteristics or feedback about JOIN. Note that where the mean is used as an estimate, the associated standard deviation is also reported.

Results. The counselor summaries were averaged across schools to produce an aggregate profile of student feedback. Due to its length, the resulting printout has been attached as Appendix F. Comments volunteered by students are given in Appendix G. Table 5 provides a synopsis of the results and is reviewed below with comments about student demographic characteristics.

Table 3 (Section II) shows student users to have been 23 years old on the average. Further investigation of this variable revealed that the modal user age was in the range 19-22, but that a few users of the age range 26-30 produced the elevated mean. This should be kept in mind, however, since results may thus reflect a slightly more mature user viewpoint. Approximately 60% of the users were female, reflecting almost exactly the average female-to-male enrollment ratio for the schools participating in the study (see: Table 1, section II of this report). Users were predominantly black (70%); otherwise Caucasian (30%). The average education level was 14 years of schooling and 60% had already selected their major field of study. Approximately 30% had never given any consideration to the Army as a job/career option. But, 70% claimed to be "open" to learning about Army vocational opportunities and more than half of these had given serious thought to entering the military and wanted to learn more.

Table 5 of this section provides student user preferences for types of information viewed as important to vocational decision making. The preferences are ranked in the table and divided into the top and bottom 5 preferences (there are some "tie" rankings). Though salary and benefits rank in the top five, more prominent are: actual type of work performed, job satisfaction/pride, development of leadership/supervisory skills, type of people you work with. Further, receiving a cash bonus for entering the job was ranked last of all information needs. For participating students, the profile strongly suggests greater interest in "intrinsically gratifying job attributes" than prestige, travel, monetary or other material incentives.

Regarding the short-form vocational interests profile (the VIP paper and pencil interests test), Table 5 shows that, on the average, the VIP was viewed by student users to be slightly above average in usefulness. However, further investigation showed a strong tendency for students who had not received vocational testing (70%) to view the VIP results as quite useful. Students who had received comprehensive vocational testing recently (such as the SVIB, SDS, DISCOVER, etc.) felt that the VIP was not very useful. Thus, the neutral mean for the VIP is probably a function of this dichotomy. This finding is precisely in line with the intended purpose of the VIP -- to accommodate student users who lack vocational self-insight assessment, but not to supplant standard assessment tests used by the counseling centers. The VIP was completed within normal time limits (10-15 minutes) and was viewed as very easy to complete.

The two content areas of the CVG/JOIN system presented to students, "Army Jobs" and "Your Options," received good-to-excellent feedback overall. Students were asked to complete only two submenu items (of about 3-5 minutes

Table 5

Student Feedback
(synopsis of findings from counselors' final summary)

TYPE OF INFORMATION PREFERRED WHEN MAKING VOCATIONAL DECISIONS (rank order of importance)

1) Actual type of work done in the job (tasks/activities)
2) Salary
2) Opportunity for job satisfaction, pride
3) Develop leadership and supervisory skills
4) Type of people you work with
5) Standard benefits (retirement plan, health, etc.)

6) Where the work is done (job environment)
6) Chance to mature personally
7) Prestige of job
7) Education/training opportunity (tuition, OJT, etc.)
8) Where the job is located
9) Travel opportunity
10) Cash bonus for entering a job or taking special work

VOCATIONAL INTERESTS PROFILE TEST

On the average, the short-form VIP test was viewed to be slightly above average in usefulness. However, students who had not received interest testing ever or during the current college year (about 70%) strongly tended to view it as "very" useful; where students who had received other, more complete forms of college interest testing (1 - 2 tests) did not. The VIP was completed well within normal time limits and was seen as quite easy to complete.

JOIN SYSTEM -- "ARMY JOBS"

- Quality of information presented was viewed as being quite good, the computer/videodisc equipment was found to be generally easy to work with, and the overall session was enjoyable.

- Users reported new, substantial interest in considering the Army as a possible vocational opportunity after college subsequent to this session.

JOIN SYSTEM -- "YOUR OPTIONS"

- Quality of information presented was viewed as being quite good, the computer/videodisc equipment was easy to work with, and the session was enjoyable.

Table 5 - Student Feedback (cont'd.)

JOIN SYSTEM -- "YOUR OPTIONS" (cont'd.)

- Users reported increased interest in considering the Army as a possible vocational opportunity after college college subsequent to this part of JOIN.

- Users spent slightly less time reviewing options than they did Army jobs.

HOW USERS WERE INFORMED ABOUT THE OPPORTUNITY TO USE THE ARMY'S JOIN SYSTEM

40% - Counselor suggested it because it was available.
20% - Saw a poster on campus about it.
10% - Asked about military career opportunities and the counselor suggested trying JOIN.
10% - Heard about it from other school staff/faculty.
10% - Saw people using it and asked what it was.
10% - Other.

HOW JOIN, AS A SYSTEM, COMPARED TO OTHER AUTOMATED VOCATIONAL GUIDANCE SYSTEMS

- About 40% of the students had used other computer-based vocational guidance systems at their schools.

- These 40% viewed JOIN overall as "slightly less" comparable to those other available ADP-based systems.

BASED ON THEIR JOIN SESSION, DID USERS FEEL THAT ARMY OCCUPATIONAL INFORMATION WAS A GOOD THING TO HAVE AVAILABLE IN THEIR COMMUNITY COLLEGE?

- 100% of the student users reported "yes."

WOULD USERS RECOMMEND EXPLORING ARMY OPPORTUNITIES ON "JOIN" TO A FRIEND GIVEN THEIR EXPERIENCE WITH IT?

- 80% reported "yes."

- The 20% reporting "no" generally indicated that their friends already had or weren't presently looking for a job.

OTHER COMMENTS OF USERS

See Appendix G for list of volunteered user comments.

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each) for each of these two parts of CVG/JOIN. User time estimates showed that students complied with this requirement. The quality of the information content was viewed as being quite good and students reported that the overall session was enjoyable. Users apparently found that the computer and videodisc were easy to operate; however, they often volunteered comments that certain screen messages weren't clear; the keyboard was not standard; there was occasional confusion; and that the system performed slowly (see student comments part II, in Appendix G). Possibly the most impressive aspect of the student feedback on CVG/JOIN concerned "change in interest" concerning Army vocational opportunities as a career step. For each of these two parts of CVG/JOIN, there was a strong tendency for students to report substantially more interest in the Army subsequent to the session. This is an impressive statistic in that only about 40% of the students claimed they had previously considered the Army as a career/job option, but there was no way to know the duration or the impact of this effect on enlistment.

Approximately 40% of the students used JOIN because the counselor suggested it due to its availability. Another 20% used it because they saw one of the campus posters advertising it. Other, less frequently reported reasons are reported in Table 5. About 40% of the students had used other computer-based vocational guidance systems at their schools. These students compared the CVG/JOIN less" favorably to the other commercial and State-provided systems. Last, one of the most impressive findings concerned the user view of the "importance" of Army vocational information at the community college. In this regard, 100% of the students felt that Army occupational information was a good thing to have available in the community college subsequent to their CVG/JOIN session. About 80% of the users said that they would recommend CVG/JOIN to a friend without reservation--the few who did not weren't sure if their friends would be interested in the military.

Though relatively few comments were offered by student users apart from those of the research focus above, all that were are recorded in Appendix G for the reader's review. The comments tend to reinforce the above findings and occasionally offer suggestions for further developing a CVG/JOIN system. For example, one suggestion was to make clearer what Army jobs were open to or best suited for females; others concerned specific problems students encountered following screen messages or manipulating the equipment; still others addressed the strong points of CVG/JOIN and might be useful to future research of design efforts.

Counselors' Personal JOIN Session

Data analysis. At the conclusion of the field trial, the participating counselors completed a "personal" JOIN session to evaluate the system from the combined perspective of professional counselor and hands-on user. Unanticipated end-of-semester time constraints precluded one of the counselors from completing this trial, rendering the sample size for these data to seven counselors. The counselors who completed the trial were able to accommodate a slightly longer session at JOIN. Thus, one additional content component was

added to their session titled: Incentives/Benefits (see Section II of this report, subpart CVG software and Table 4 for a complete description of CVG/JOIN content and the difference between content presented to students and counselors). The protocol for completing the session, including type of feedback data sought, is presented in Appendix D.

Analysis of data permitted results for quantifiable data to be expressed in one of two forms: 1) as categories of reaction, in terms of proportion of all counselors falling into a particular category, 2) the average (mean) of a rating made by counselors to express their opinion about CVG/JOIN. When the mean is reported, the associated standard deviation is also reported as an estimate of opinion variation across counselors as a group.

Results. Due to its length, the printout of results for the counselor CVG/JOIN session has been attached as Appendix H. Comments volunteered by counselors or given in response to questions which solicited only written opinion are reported separately in Appendix I. Table 6 provides a synopsis of the results and is reviewed below along with counselor demographics.

Table 2 (section II of this report) shows that the average age of counselors was about 38 years old; predominantly female (71%); and predominantly Caucasian (71%). They were quite experienced in both their education and counseling. Since counseling is generally a postgraduate profession (one requiring at least the masters degree or equivalent), the expected education level for a counselor would be eighteen years. On the average, these counselors possessed 18.1 years of education with little variation, and half of the counselors did hold the doctoral degree. All of the counselors were senior counselors and half were counseling center directors. Beyond their education and internships or training practica, they processed an average of 8.5 years of professional counseling experience. Their major fields of study were in counseling and are reported, along with job title, in Table 2.

From their CVG/JOIN session, the counselors rated the VIP interest inventory similar to the way students who had received recent, extensive vocational assessment did. They perceived it to be less useful than major, conventional interest tests (see Appendix H). This opinion contrasted with the self-reports of students who lacked vocational self-assessment information and found the VIP to be quite beneficial. Counselors commented (Appendix I) that the VIP seemed easy to complete, but most of their concern focused on the cumbersome manner of scoring it (i.e., the need to transfer raw scores to the results profile used in the paper/pencil version of this study). This would not be a concern, however, were the VIP incorporated into the computer (automated scoring).

For the CVG/JOIN informational sections titled "Army Jobs" and "Incentives and Benefits," counselor reaction was virtually identical. The quality of information presented was viewed as being quite good, the JOIN equipment was found to be easy enough to work with, and the majority of counselors (71%)

Table 6

Counselors' Personal JOIN Session
(synopsis of findings)

VOCATIONAL INTERESTS PROFILE

On the average, counselors rated the short-form VIP test as slightly below average in usefulness for students who had not previously or recently had the benefit of such assessment. This seemed to contrast, somewhat, with feedback about the VIP from the students who lacked interests assessment and found the VIP beneficial (see Table 5). An inspection of comments made by counselors about the VIP (see Appendix I, item 11) suggested that the counselors mainly found the paper & pencil version of the VIP to be cumbersome to score/interpret; implying that this could diminish its value for students.

JOIN SYSTEM -- "ARMY JOBS"

- Quality of information presented was viewed as being quite good, the computer/videodisc equipment was found to be generally easy to work with, and 71% of the counselors thought the session was enjoyable. Comments from those who did not cited, as dissatisfiers, the slow operating process of the JOIN computer and the fact that there was no connection between the VIP test and information about Army jobs.

- Counselors generally reported that they would expect students to be substantially more interested in considering the Army as a possible vocational opportunity subsequent to this session.

JOIN SYSTEM -- "INCENTIVES & BENEFITS"

- Quality of information presented was viewed as being good. The computer/videodisc equipment was found to be generally easy to work with in the session, and 71% of the counselors thought the session was enjoyable. Those who did not commented again about slow operation of the computer or felt that information concerning special benefits for the community college graduate should have been included in this section of JOIN.

- Counselors generally reported that they would expect students to be substantially more interested in considering the Army as a possible vocational opportunity subsequent to this session.

Table 6 - Counselor JOIN Session (cont'd.)

JOIN SYSTEM -- "YOUR OPTIONS"

- Quality of information presented was viewed as being "fair" and, on the average, was not rated as high as "Army Jobs" or "Incentives/Benefits." The computer & videodisc equipment was found to be generally easy to work with in this session, and 71% of the counselors thought the session was enjoyable. Counselors commented that the "text-only" portions of this section were not as effective as the color/motion videos of earlier sections, and they suggested that audio and text printout capability be added to resolve this problem.

- Counselors generally reported that they would expect students to be "modestly" more interested in considering the Army as a possible vocational opportunity subsequent to this session.

HOW JOIN, AS A SYSTEM, COMPARED TO OTHER AUTOMATED VOCATIONAL GUIDANCE SYSTEMS

- 100% of the counselors reported that they use other computer-based vocational guidance systems at their career centers.

- With little variation, the counselors viewed JOIN as "less" comparable to their other available ADP-based systems. Counselor comments explained that JOIN was not an interactive system that could link student input to Army information and thus lacked "guidance" capability.

BASED ON THEIR JOIN SESSION, DID COUNSELORS FEEL THAT ARMY OCCUPATIONAL INFORMATION WAS A GOOD THING TO HAVE IN THEIR COMMUNITY COLLEGE AND WAS JOIN A GOOD VEHICLE FOR DELIVERING IT?

- All but two of the counselors who completed the JOIN session reported "yes."

- Comments from and interviews of the two who opposed it revealed either a dislike for computer-based guidance or uncertainty that it would work in their school due to an atypically older student population.

OTHER COMMENTS OF COUNSELORS

See Appendix I for list of volunteered counselor comments.

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found these sections enjoyable. Those who did not commented that the computer ran slowly or that there was no connection between their VIP results and CVG/JOIN to guide them into a review of matching Army jobs (this capability had not been built into the experimental JOIN sampler). Noteworthy about these two parts of CVG/JOIN was that counselors reported that they would expect student users to be substantially more interested in considering the Army as a possible vocational opportunity subsequent to experiencing these informational components. The third JOIN module reviewed by counselors, "Your Options," was not as well received. Principally, the counselors did not enjoy the reliance of this module upon as much "text-only" presentation (no graphics or videodisc displays) and, apparently, found it to be substandard. Their rating of it can be described as "fair," though none found the JOIN equipment to be troublesome, and 71% reported that the overall presentation was enjoyable. The counselors estimated that a student's interest in the Army would be "modestly" improved subsequent to the "Your Options" session. Counselor comments (Appendix I) recommended improved graphics, the addition of audio, and the addition of text print-out capability to enhance "Your Options."

Regarding how CVG/JOIN, as a system, compared to other automated vocational guidance systems, all of the counselors reported that they used other computer-based career guidance systems at their career centers (see Appendix I, item 12b for a list of these systems). With little variation, the counselors viewed CVG/JOIN as inferior to their other available ADP-based systems. Counselor comments explained that CVG/JOIN was not a stand-alone, interactive system that could link student input to Army information and thus lacked real "guidance" capability. They commented that while the experimental CVG/JOIN was easy enough to follow and use, the computer system was slow, help was absent or screen prompts were not always clear, and sometimes the videodisc player or keyboard failed to produce the expected response. Generally, they seemed to be conveying that the CVG/JOIN computer/program was substandard to the state-of-the-art to which they and students were accustomed.

After completing the three informational modules of their CVG/JOIN session, counselors were asked to render some general impressions. The majority of the counselors were favorably impressed with the CVG/JOIN concept and responded that Army vocational information presented in a JOIN-type vehicle was a good thing to have in their community college. Comments from or interviews with the two counselors who did not endorse JOIN revealed either a dislike for computer-based guidance or uncertainty that it would work in their school due to an atypically older student population. Otherwise, counselor reaction favored CVG/JOIN quite similarly to the reaction of student users. Counselors offered many insightful comments, both critique and suggestion, for improving CVG/JOIN and rendering it a viable tool for campus use. These are provided in Appendix I for review and clearly implied that CVG/JOIN, as it stands, must be enhanced to serve the school setting. Though the following are but a small number of the comments recorded in Appendix I, they typify counselor views on CVG/JOIN potential and enhancement needs:

- JOIN videodiscs are exceptionally well done and give the information in a fast and concise manner.

- Yes, JOIN covers the areas of interests, options, benefits, jobs, etc., applicable to explore vocational opportunities.

- For the community college level, more emphasis should be given in JOIN's "skill clusters" presentations on the benefits of earning the 2-year degree first.

- JOIN should link assessment to choosing the part of the Army that's most appropriate to the individual (an interactive capability) -- JOIN should not provide information "only."

- The JOIN video presentations were "flashy," but the system had very little career guidance (directive) substance.

- I suggest using a faster computer system with a printer, and offering information on the screen but also having the option to make the information available in print form for the students to take with them.

- JOIN needs:

  1) a tie-in with civilian occupations,
  2) information about transferrable skills
  3) improved operating procedure--it's too slow,
  4) the ability to return to certain parts of the program without returning to the beginning,
  5) the vocational interests test as an option so that if a student has already taken one, they do not have to repeat it in this process.

- Army job/career information has to be factual, honest, and able to fit into the career information libraries of community colleges. If it looks like marketing information and doesn't really help in career decision making, then counselors will not touch it.

Counselors' Final Project Evaluation

Data analysis. At the conclusion of the field research, the counselors were asked to complete a final project evaluation. This third and concluding evaluation instrument (see Appendix E) was not the culminating project evaluation in itself. Rather, it complimented the two earlier evaluations allowing the completion of the data base needed to achieve research objectives. The final project evaluation provided the counselors with ten (10) questions to which the counselors responded in writing. This evaluation sought to fill data gaps about such things as counselor-recruiter relations; to generally corroborate the opinions of counselors as expressed in earlier evaluations; and to give counselors the opportunity to comment, in retrospect, on the overall project and efficacy of CVG/JOIN.

Because the number of counselors was small (n = 7), it was more appropriate to directly interpret from the raw data generated (the prose opinion) than to attempt content analysis. However, counselors mostly offered comments which either pointed out the strong points and advantages of CVG/JOIN, or its deficiencies and improvement needs. These two broad categories of feedback were labeled "pros" and "cons," respectively, by the researchers. Counselor comments were easily sorted into the two categories. When a comment did not fit this dichotomy (e.g., an anecdote about CVG/JOIN use), the comment was assigned to a third category titled "other." These data are discussed below.

Results. The counselor's responses to each of the 10 questions in the final project evaluation are presented in Appendix J and are summarized in Table 7. In Appendix J, each question posed to counselors appears at the top of a page, followed by the responses of all counselors. Responses are grouped as pro, con, or other for each counselor. A case number designates each respondent so that the counselor's manner of answering can be tracked question-to-question. The results of the counselor feedback are self-evident upon review of the narrative presented in Table 7, and the reader is referred there for findings. Some additional comment on each finding follows below.

Counselor-recruiter relations. (This issue is of the utmost importance to the Army. Without a mutually supportive working rapport, no program can be effective.) For counselors in this study, even the better counselor-recruiter relations seemed to be relationships that exist at "arms-length." Other counselors seemed to have experienced problems with the Army recruiters and either ceased interacting with them or restricted recruiters to one or very few annual visits on campus. Research team impressions were that counselors are concerned that recruiters may "sell" the student an enlistment before they complete school or without the benefit of impartial career assessment, decision-making, and planning.

Advantages/disadvantages of CVG/JOIN on campus. All of the counselors supported the Army CVG/JOIN concept and cited numerous benefits for students. However, their responses seem to make clear that CVG/JOIN must be convenient to administer and competitive in quality with current computer-based guidance systems being used.

Student receptiveness to CVG/JOIN. All counselors felt that CVG/JOIN could be even more beneficial to students with system enhancements. The quality of the videodiscs and their content information were seen as impressive. Counselor time and resources for soliciting student participation was limited beyond referring counselees and career classes.

JOIN equipment. Though the system was easy enough for students to use in this project, counselors strongly urged that CVG/JOIN software be configured to run on familiar personal computers.

Table 7

Counselors' Final Project Evaluation
(synopsis of findings)

Note: Below, the designations "Q1, Q2," etc., denote the question in the final evaluation form to which each finding pertains. Each question, and the counselor responses to it, can be found in Appendix J.

COUNSELOR RELATIONS WITH RECRUITERS (Q1, Q2)

Regarding their ongoing relations with Army recruiters, counselor responses in this area were equally mixed. About half of the responses indicated that counselor-recruiter relations were satisfactory. On the other hand, the remaining comments indicated either dissatisfactory experience with recruiters (i.e., recruiters didn't understand campus students/programs, were aggressive, wanted mass student contact) or indicated that the counselors had little to no relationship with recruiters at all. The counselors also stated that of the few recruiters from any service (mostly Army) who became aware of the JOIN system experiment on campus, most showed no interest. Two recruiters expressed resentment over not being aware of the presence of JOIN on campus, but opted not to use it with students when invited to by the counselor. Overall, these findings convey a moderately satisfactory to rather distant relationship between counselors and recruiters.

ADVANTAGES/DISADVANTAGES OF A JOIN-type SYSTEM IN THE COMMUNITY COLLEGE CAREER CENTER (Q3)

In one way or another, all of the counselors stated that the JOIN concept represented a legitimate approach to Army vocational guidance and benefitted student vocational & career planning by providing another career option. Attractive features were its consistent, first-rate information; information on financial incentives; and the ability to permit students to preview Army opportunities in the absence of recruiter pressure. Disadvantages (needs for system improvement) were that JOIN information didn't stress completion of the 2-year degree before enlisting; the JOIN equipment consumed too much facility space; system limitations incurred too many student questions and trouble-shooting time for the counselor; and JOIN lacked the cosmetic/interactive appeal (excepting videos) of current, commercial ADP-based guidance systems.

Table 7 - (cont'd.)

STUDENT RECEPTIVENESS TO JOIN AND BEST METHODS FOR SOLICITING STUDENT PARTICIPATION (Q4, Q5)

Without exception, all counselors responded that JOIN was beneficial to student users. Predominent benefits cited by counselors were the especially attractive videodiscs and their content information, interest level, and the support JOIN provided for student developmental career planning. The only two criticisms were the slow speed of the JOIN computer and lack of stand-alone, directive guidance capability. The most effective methods for gaining student participation were 1) word-of-mouth (via counselor referral of individual counselees or through career orientation classes) and 2) posters placed around campus. Critical comments regarding advertising the JOIN were that counselor time and resources to advertise were limited and that the Army should participate in system promotion.

JOIN EQUIPMENT (Q6,Q7)

Most counselors reported that JOIN was easy enough for students to operate in the experiment. However, they also indicated that the JOIN computer seemed antiquated when compared to contemporary PC's, ran slow, and felt that some students were turned-off toward the equipment. All of the counselors strongly urged that JOIN be updated and configured to run on a newer PC; citing that this would be beneficial to students and would help in the important consideration of "space conservation" in career centers.

SUPPLEMENTING JOIN WITH ADDITIONAL STUDENT USER GUIDANCE, i.e., vocational interest test, prequalifying test or on-screen interview, etc. (Q8)

Counselors largely advocated the addition of vocational interest and prequalifying testing to JOIN, but commented that the results should be related by the computer to Army jobs and comparable civilian fields. Two counselors stated that tests should not be added; one because they felt that the present system was already awkward for students to use, and the other because their center provided extensive career testing.

IS FURTHER DEVELOPMENT AND DEPLOYMENT OF JOIN WARRENTED? (Q9)

All but one counselor responded with a clear "Yes" ; tne one counselor expressed uncertainty. Various counselor comments were that JOIN serves to broaden career options and presents military careers as viable vocational choices; that any new JOIN be a "legitimate" career guidance tool; that JOIN should conform to recognized vocational

Table 7 - (cont'd.)

theory and methods; should emphasize the need to complete the two-year degree before enlisting; and should not seem to "push" the Army or have the appearance of being a marketing tool.

ADDITIONAL COUNSELOR COMMENTS/SUGGESTIONS FOR JOIN (Q 10)

Typical compliments on the JOIN system were:

- JOIN is a good attempt at Army vocational guidance
- We're happy to host a program like JOIN on our campus
- Continue developing JOIN to provide accurate, up-to-date and succinct career information
- Develop a system that will help students see the role that the military can play in developing a career path

Other suggestions for improving JOIN were mainly:

- Repackage JOIN: more modern equipment; shorter more concise version; faster computer; printout capability
- Incorporate tests or sample prequalifying questions
- Stress advantage of earning the two-year degree before enlistment
- Army must assume the responsibility for publicity and marketing the JOIN system's use.

Need for adding student user guidance. As stated many times in this report, CVG/JOIN is not a stand-alone, automated "guidance counselor" as is generally the case with newer, commercial systems of comparable type. Counselors advocated that interest testing and/or prequalifying assessment be built into CVG/JOIN for the campus, and that the CVG computer package should be able to use these assessments to help guide and focus the student's exploration of Army opportunities.

Regarding further development/deployment of CVG/JOIN. All but one counselor advocated development of CVG/JOIN for use on the campus. However, the counselors stressed that the package must be a legitimate career guidance tool when presenting Army career opportunities, should emphasize completing schooling (offering incentives for degrees), and would probably not succeed if configured as a hard-sell Army recruitment device.

Other Observations

Throughout the project, the research team had the opportunity to meet, train, interview, and interact with campus staff and counselors (beyond the number of those directly involved in CVG/JOIN evaluation activities) and to observe students and facilities. This experience provided the researchers with several impressions not covered by the data collection instruments. Five subjective observations from this experience are briefly addressed below and may be of value to future CVG/JOIN researchers.

Counselors. Campus career center counselors were found to be well trained, experienced, and very dedicated professionals. They are hard workers serve a large number of students and are often short of staff. Counselors take very seriously their ethical code usually that of the American Association for Counseling and Development or the American Psychological Association (virtually identical standards). As a career counselor, they see their role as: helping students to identify necessary career planning information; to provide the student with career decision-making skills; to guide and caution the student as decisions are considered or made; and to foster the student's right to make an objective, unbiased career decision. Counselors do not make decisions for students; they just provide information to them. This dedication to the role of student "mentor" might, at times, conflict with the mission of Army recruiting where students are seen as accession resources. The better that the recruiter understands the career counselor's role responsibilities, the better the relationship between counselors and recruiters will be. Recruiters need to fit their methods of operation into the school context, as they have done on high school campuses, if they expect to be successful on the two-year college campus.

The JOIN system. When face-to-face with counselors in the field, the two features of the CVG/JOIN system that seemed to initially impress counselors the most were (1) the videodiscs presentations and (2) recruiter-free Army career information. The counselors in this study knew of no other State or commercial system which provided such high quality motion-video information capable of conveying clear and realistic impressions of job life to students.

Further, they were impressed that the videos and information were not hard-sell but often presented both pros and cons of Army worklife. Second, counselors were quite receptive to the idea of having high quality Army information available that could aid student career planning without having to rely upon recruiter support, especially when students were beginning the process of early career planning and lacked mature vocational decision-making skills.

Research support. Counselors and students in this research were uncompensated volunteers. The study was fielded during the latter part of the second semester; possibly the busiest time in the academic year. It quickly became evident that career centers at community colleges are not research facilities. While often well equipped with media and small computers, they are usually short on staff and counselor time for extra duties. When seeking their support for studies of this type, the project should provide a small financial stipend to reserve some counselor time to support the project. Otherwise, there is risk of resentment and lack of participant motivation. Additionally, the research should be spread over the academic year to disperse its impact on counseling center participants, their time and activities.

Army presence in the career centers. All of the career centers had available their own sources of information on military careers. Most of this information, however, was sparse, general information contained in state or commercial career guidance tests/materials/media. Surprisingly, when the researchers asked to see Army-provided vocational information, little was available in the centers. Usually, what was found consisted of a small shelf (or a few inches of shelf space) containing a few recruiting pamphlets or page-size advertising placards. Recruiters were often limited to one or a few visits per year, such as when career fairs occurred. For the centers involved in this project, it is safe to say: "There was virtually no effective Army informational presence in these career centers." Indeed, this was true for all of the military services.

Student interest in the military. Though this study did not include "market analysis" (i.e., propensity to enlist) among its research objectives, two observations which may be of interest as "hypotheses" to Army marketing research are offered. First, there seemed to be a noticeable correlation between student interest in the military and the affluence level of the community in which the campus was located. Where affluence was low, students showed more interest in obtaining military vocational information from the career center -- and, conversely, less interest was evidenced in more affluent areas. Second, the career centers provided the researchers with demographic statistics that helped to characterize each career center (these are reported in Table 1, section II, of this report). For career centers in this study, the annual caseloads (students) utilizing career/vocational guidance varied considerably (range = 635 to 3150) and averaged n = 1277.5 annually. The proportion of these students who required "military" job/career information was 14.2% or approximately n = 181 students per center. (Note: that number could be higher for the overall campus when students who do not take advantage

of career counseling are considered.) With over 1505 community college campuses throughout the United States, this suggests a market share of potential military recruits numbering N = 272,405 (during academic year 1985-86) for which the Army could compete. As noted in the previous paragraph, and consistent with research findings by Shavelson, et al. (1983) describing the community college as an "untapped recruiting market," there appears to be very little competition or military presence whatsoever.

IV. CONCLUSIONS AND RECOMMENDATIONS

In the Introduction of this report, five research objectives were enumerated for achieving the immediate goal of the study: Identify best methods for delivering Army vocational guidance in post-secondary school settings. In particular, the method investigated here involved the JOIN computer-videodisc system placed in the career centers of community colleges. Section IV relates the findings of the prior section to the research objectives and makes recommendations for future research and development. There is no attempt to generalize results from this effort beyond the campuses involved; limited sample size precludes any such generalization. Conclusions are drawn with an emphasis on those findings that reflect noteworthy effects and consistency across students, counselors, and the various assessments. The conclusions are delineated below.

Conclusions

1. Receptivity of students/counselors to the idea of the "Army as a career step."

   - Students who used the system were quite receptive. Forty per cent were reported to have given serious thought to joining the military and another 30% were open to learning about Army opportunities. After reviewing the information in CVG/JOIN, all of the students said that Army occupational information was a good thing to have available on their campus.

   - All but two of the counselors stated that "Yes," Army occupational information was a good thing to have in their community college and career centers. Counselors reported that of the many students counseled for vocational planning, an average of about 15% regularly needed legitimate information on military career opportunities and benefits.

2. Reaction of students/counselors to Army vocational guidance which provides job and benefits information.

   - Students and counselors gave high marks to the quality and content of JOIN information in Army Jobs and Your Options (the Incentives/Benefits module was not as well received but that appeared to result largely from the overuse of screen text in portions of that presentation rather than Videodisc presentation available in other modules).

   - Overall, students reported substantial increase in their interest in considering the Army as a career step subsequent to being exposed to these informational modules; this perception was confirmed by counselors.

   - After reviewing CVG/JOIN, virtually all of the student users reported that they would recommend exploring Army opportunities on CVG/JOIN to a friend given their experience with it.

3. Vocational guidance informational needs of students relevant to career-step decision making.

- The actual type of work done on the job and salary were, respectively, the two types of information that students first sought for making career decisions. Information about the opportunity for job satisfaction, the chance to develop leadership skills, and the type of people with whom one worked were the next highest student priorities for career information. Of least interest was information about any cash bonus for entering the job, travel opportunity, or job location. Generally, students conveyed an interest in having information that would help to identify personally gratifying jobs rather than jobs offering material advantages.

- Students suggested that Army information should be realistic (give pros and cons) and should relate Army jobs/skills to civilian career opportunities.

- Students who lacked vocational self-insight assessment were quite receptive to assessment feedback (VIP test). Counselors added that all students could benefit from vocational interest assessment or prequalifying tests provided that the tests were configured to help students focus on specific Army information, narrow choices, and could be related to post-enlistment civilian opportunities.

4. How to make Army vocational information easily available and understandable.

- In the career centers, three traditional approaches to career information dissemination are used: textbooks/career classes, vocational testing, and computer-based media. Counselor-recruiter relations do not appear strong enough to expect that recruiters might be invited to participate in career classes regularly. Army print media information is rarely in evidence in career centers and print media used in this research was clearly not as well received as computer presentations. On the other hand, the CVG/JOIN computer-videodisc system positively affected student interest in the Army and was viewed by counselors to have the potential to compete with State and commercial vocational guidance systems used by the career centers- provided that enhancements are made to the JOIN system to update its capabilities.

5. Feasibility of implementing a JOIN-type system to provide Army vocational guidance.

- Vocational counseling caseloads were high at the career centers (635 - 3150 during the year) and counselor time is at a premium. Computer assisted counseling was in evidence at every center to aid counseling services. If updated to stand alone, the CVG package falls in line with the type of automated assistance that counselors seek, particularly if it could be integrated into computer systems currently at their disposal in the counseling center.

- The CVG/JOIN videodiscs and their content were very well received by students and counselors. There was no other computer-based system at the centers that provided such high quality images of job life and benefits. Clearly, this feature gave CVG/JOIN high potential in the view of counselors.

- In spite of the preceding feature, CVG/JOIN was viewed by students and counselors as less capable than other computer-based vocational guidance systems in use at the career centers because it lacked stand-alone capability, did not use assessments to help students focus on personally relevant Army opportunities, needed to stress completing the two year degree, did not relate Army skills to later civilian jobs, should provide students with a print out of their exploration, and needed to operate on an improved computer preferably a contemporary personal computer (PC). These missing capabilities represent the enhancements needed to make CVG/JOIN viable in post-secondary schools. The technology resources to achieve these improvements are readily available and constitute modification to the system not a new JOIN.

- Counselors and students apparently found the CVG/JOIN information presentations to be informative and rather objective (i.e., balanced pros and cons about Army life/options). Nonetheless, counselors cautioned that any future improvement to the system must retain this feature and avoid any appearances of "hard sell", or counselors would be unlikely to use the package.

- The Army will likely have to participate and/or support initial advertising efforts to promote the system campus-wide, as the schools do not have the resources to undertake this responsibility.

- Without exception, counselors confirmed that the CVG/JOIN system concept was beneficial to students because it expanded their awareness of career options and could support student developmental career planning. All but one of the counselors advocated that JOIN be further developed and made available to the two-year colleges.

Recommendations

The findings from this research support the feasibility of an enhanced JOIN system for deployment in post-secondary schools characteristic of those which participated in this project. Even the limited experimental CVG/JOIN package appeared to positively influence the students' view of considering the Army as a career step, and counselor reaction favored enhancing CVG/JOIN for career center use. There was no trend toward abandoning the CVG/JOIN concept for the five participating schools. However, small sample sizes, limited time spent in the field, and no assessment being made of potential market size require replication of this research on a larger scale with a reconfigured version of the CVG package that would incorporate the enhancements suggested by students and counselors, before full-scale development and implementation could be recommended. To this end, concluding recommendations are:

1. Improve CVG/JOIN hardware/software. JOIN programming is relatively straightforward and could be made even simpler and more effective if operated on a contemporary personal computer (PC). Incorporate programming that would provide a stand-alone capability for students and one that could run on the PC's owned by the colleges. Improve the menu system, provide user help, provide filing and printout capability so that students could later review their results with a recruiter or counselor, add attractive graphics to the text-only portions, and consider user suggestions for some additional content such as information about Army opportunities particulary suited to females or those going on to four year colleges in ROTC. These enhancements could be accomplished and made available in software that could be run on existing career center PCs.

2. Develop additional guidance support for users. Improve and incorporate the vocational interests test as an "option" for students who lack career self-insight and as an aid to recruiters and counselors in understanding those students. Also incorporate prequalifying assessment -- possibly as an on-screen interview, a checklist of student basic skills, scores from standard vocational test taken at the career center, or by taking advantage of tests already available with JOIN such as CAST (Pliske, et al., 1984; Sands and Gade, 1983). Use these measures to guide the student to broad job fields or Army options contained in the CVG package, and to provide for later use by recruiters and/or counselors.

3. Replicate this field trial with the enhanced CVG package. Using a larger sample and spreading the study over an entire academic year, replicate this present research with a CVG package that includes at least the most critical enhancements stressed by participating students and counselors. Provide the career centers with a small financial stipend to help support the research. Employ control groups that use the standard JOIN hardware in order to ascertain the effects of enhancements to the CVG/JOIN and the benefits of being able to operate it on career center PCs'. Also employ control groups that compare the cost and benefits of providing automated vocational guidance with other Hi-Grad market expansion strategies, such as those used to gain access to the high school market--for example, tailoring benefits for community college degrees or skills or focusing advertising campaigns at the local or even the national level.

4. In any future replication of this two year college effort, ascertain how the Army recruiter and the students interested in investigating Army enlistment could be brought together. This issue is sensitive and complex but must be pursued. If no formal link between the Army and the career counseling center is possible, there should be some attempt to substantiate the likelihood of students seeking out an Army recruiter without a direct referral. Most counselors did allow recruiters to leave their cards and other career materials in the career counseling centers. This practice along with an effective Army CVG package might be sufficient, but such a determination needs to be empirically made. This issue needs to be resolved, as the potential for friction between the schools and the Army over recruiter access is real and could compromise

not only an Army CVG but recruiting, generally, at the two-year college campus. Perhaps, the best strategy would be to allow the individual schools and the local Army recruiting personnel to come to an arrangement.

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APPENDIX A

Developed under Army Research Institute contract MDA-903-82-C-0552
(Enlisted Personnel Allocation System) through subcontract GRC-1317-83-3
by Behavioral Sciences Research Center (Science Applications International).

Vocational Interest Profile

(VIP)

Respondent: _____ Date: _____

Informed Consent and Privacy Statement

Public Law 93-573, called the Privacy Act of 1974, requires that you be informed of the purpose and uses to be made of the information that is being collected. The Department of the Army may collect the information requested in this questionnaire under the authority of 10 United States Code 136. Purpose of this questionnaire is: to help obtain feedback from participating community colleges as to the value of making Army vocational opportunities information (vocational guidance media) available in community college counseling centers. This questionnaire survey is presently under development and thus experimental.

Providing information in this questionnaire is voluntary and of no risk since you may keep this survey. Failure to respond to any particular questions will not result in any penalty. Your participation will help to evaluate and improve recruiting policies. This study is conducted by the Army Research Institute which has the primary research and analysis responsibility under the Office of the Deputy Chief of Staff for Personnel.

Directions

You are about to take the Vocational Interest Profile. This is **not** a test. There are no right or wrong answers. Instead, you will give answers that tell only about your interests. Give it your best effort. Be sure your answers tell about **you**. When you finish, you will interpret your results and may then keep this survey.

Now, turn the page and begin

(Take your time — there is no time limit)

Part I

Question 1 — Below are 6 lists (a to f) of things people might do for work or fun. You may have done some of them or might like to.

Read all 6 lists. Put a number "1" beside the list that is *most* like things you like to do.

_____ (a) Build something from wood • Use a map to find your way • Make a picture frame • Fix electrical things • Run a tape recorder • Drive a tractor or van • Fix an engine • Plant a tree • Put a bike together.

_____ (b) Work in a laboratory • Read books about facts rather than stories • Invent something for science • Teach yourself how to program a computer • Figure out why people act like they do.

_____ (c) Save old things that are historic • Show someone how to draw pictures • Write a story for people to read • Write or play music for someone • Be in charge of a library • Take pictures for a magazine.

_____ (d) Help get things organized for a social event • Teach someone how to spell and read • Be a playground director • Show handicapped people how to do crafts • Work in a hospital.

_____ (e) Coach sports or be a sportscaster • Have your own business • Be a waiter in a large restaurant • Be the winner of an election • Sell things to people as your work.

_____ (f) Run a computer • Work in a bank • Keep records for a doctor or dentist • Make sure people get their work done on time • Write or type a list that is neat and clear.

Question 2 — Look at the lists again — there are 5 left.

From the 5 left over, pick the list that is *next* most like you. Put a number "2" beside it.

Question 3 — Look again at the lists above — there are 4 left.

From the 4 left over, pick the list that is *next* most like you. Put a number "3" beside it.

Question 4 — Last, we would like to know which of the lists is *not* like you — the one you like **least**.

Of the lists left over, pick the one that is *least* like you. Put an "X" beside it.

(Go on to next page)

Part II

Read This — People work in different ways. Some like to work with "things;" others like to work with "people" or "facts and information." The next questions ask how you like to work.

Question 5 — Below are 3 short lists of ways people can do work.

Read all 3 lists (g to i). Put a number "1" beside the list that is *most* like the way you prefer to work.

I like to work with:

_____ (g) **Things** — Large or small tools, machines, equipment, items — things that I can get my hands on and do something with.

_____ (h) **People** — I like to work with people — to have them near, talk and listen to them while I work, get them organized or help them do their work.

_____ (i) **Data** — Facts, numbers, information — I like to work with words, lists, ideas, books, or data more than people or things.

Question 6 — Look at the above lists again. There are 2 lists left.

From the 2 lists left over, pick the list that is *next* most like the way you prefer to do work. Put a number "2" beside it.

Question 7 — Below are 6 short lists (j to m) of two choices each.

Read the first list (j). Of the two choices, check the box of the choice that is most like you. Then do the same for the remaining lists (k-m).

(j) ☐ I like to work indoors where you can move around some.
☐ I like jobs that let me work outdoors some.

(k) ☐ I like work that helps to keep my body in top shape; I enjoy a good workout.
☐ I like to work at a table or desk where I can get organized and think.

(l) ☐ I would prefer to coach an outdoor sport.
☐ I would prefer to coach an indoor sport.

(m) ☐ I like work where I have to think — figure things out.
☐ I like physical competition and things like jogging.

End of Survey — Turn Page for Results

How to Interpret Your Results for

Part I

Orientation for Types of Work

Do This . . .

Step 1 — Copy your answers, exactly as you gave them in Part I, beside the corresponding letters below:

_____ (a) **Realistic/Practical Orientation.** Persons of this type tend to be practical, hands-on, direct, stable, persistent, conventional in manner, do well with concrete problems, may be mechanically or athletically inclined, and may not feel comfortable with social situations.

_____ (b) **Investigative Orientation.** Persons of this type are generally curious, interested in solving problems, like to learn about new things, tend to be introspective and may be asocial, are often found in scientific or technical settings, and are usually confident and do well acting independently.

_____ (c) **Artistic/Intuitive Orientation.** Persons of this type do well with unstructured problems that maximize the opportunity for self-expression, are intuitive in their problem-solving, respond well to positive reinforcement, and may have talent in arts, speaking, language.

_____ (d) **Social/Service Orientation.** Persons of this type are sociable, like to work in groups, are person oriented, like to provide help, teaching and training or other supportive personal services to people, generally have good verbal skills, may dislike complex intellectual problems, and tend to be quite responsible.

_____ (e) **Enterprising Orientation.** Persons of this type usually have good verbal skills for persuading, dominating or leading, tend to avoid long-term intellectual or scientific problems, usually possess a high energy level, tend to seek prestige and economic gain, are sociable, focus on achieving goals of the organization, and often enjoy business and entrepreneurial activities.

_____ (f) **Conventional/Structured Orientation.** People of this type tend to be organized, orderly, follow rules well, and like more systematic and dependable work. They are conscientious, like to be efficient, may have some difficulty with interpersonal relationships, identify well with power and authority figures, and often seek administrative or staff roles in stable organizations.

Step 2 — **Interpretation of Step 1:** Of the above six vocational orientations (a-f), the one that you ranked "1" is most likely your *primary* vocational preference. The two that you ranked "2" and "3" are your *back-up* styles. While they are less important than your primary orientation, they "color" your primary orientation to create an overall interest profile which is unique for you at this time in your vocational development. Your *least* preferred orientation (the one you marked "X") can serve as a cue regarding types of work that might not suit your interests.

(Go on to next page)

How to Interpret Your Results for

Part II

Preferences for Ways to Work

Part II Steps . . .

Step 1 — Copy your answers, exactly as you gave them in questions g, h, and i of Part II, beside the corresponding letters below:

_____ (g) **Things** — People of this type may not relate to people well or like to deal with data. They prefer to deal with hands-on objects to accomplish work, like large or small tools, machines, technical equipment, etc.

_____ (h) **People** — People of this type like to accomplish work through relationships with other people by helping, guiding, healing, supporting, discussing, training, persuading, etc.

_____ (i) **Data** — People of this type usually like work involving facts, figures, numbers, lists, files, and other forms of information more or less in the form of data.

Step 2 — **Interpretation of Step 1:** All forms of work require some involvement with things, people, and data; but persons usually have a preference. Of the three ways to work above (g, h, i), the one that you marked "1" is most likely your *primary* preference; the one that you marked "2", your *secondary* preference regarding "how" you like to work.

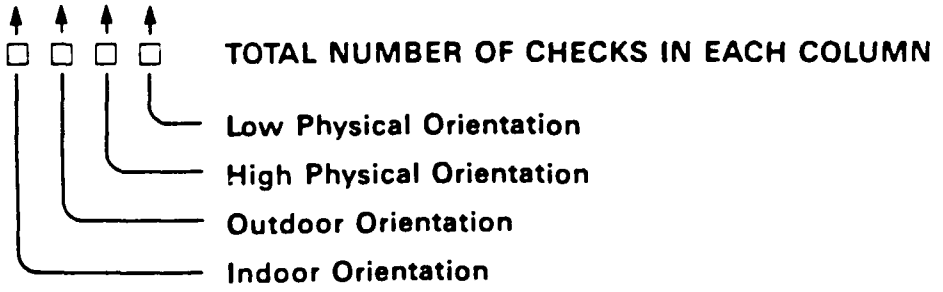
Step 3 — Copy your answers, exactly as you gave them in questions j-m of Part II, beside the corresponding letter and in the box you checked (upper or lower) for that letter:

(j) ☐.....I like to work indoors where you can move around some.
☐.....I like jobs that let me work outdoors some.

(k) ☐.....I like work that helps to keep my body in top shape (etc.).
☐..I like to work at a table or desk where I can get organized and think.

(l) ☐.....I would prefer to coach an outdoor sport.
☐.....I would prefer to coach an indoor sport.

(m) ☐..I like work where I have to think — figure things out.
☐.....I like physical competition and things like jogging.



(Go on to next page for Step 3 interpretation)

Step 4 — Interpretation of Step 3: In addition to favoring things, people, or data as a means for accomplishing work, people also tend to favor jobs that require more or less "physical activity" and more or less "indoor or outdoor" activity. If the *total number* of checks that you had for one of the four orientations in Step 3 was "2", then you most likely have a *strong preference* for that orientation; if only "1" check, then your preference is *medium* (some high, some low interest); if "0" checks, then you show little interest in that orientation.

Important Note on Interpretations

You may keep this survey, but double check the answers that you transferred to these pages and read again the interpretation rules to assure your accuracy. Keep in mind, too, that this survey is experimental and also that your interests can change quite a bit subsequent to new educational and world-of-work experiences. Never rely upon this or any other vocational interest survey *alone* to make career-step decisions. Try additional, valid surveys of this type to corroborate your results and always consult your vocational counselor for further career planning assistance.

(Go on to next page to record your scores)

Vocational Interest Profile

Record of Results

Name: _____ Date: _____

Directions: Make a record of your primary (high) and secondary (medium) interests here. For each interest orientation to the left, record how you scored with a "check" in the columns at the right.

Interest Orientations:	How You Scored:	
Types of Work	**Primary (High)**	**Secondary (Medium)**
a) Realistic	a) _____	_____
b) Investigative	b) _____	_____
c) Artistic	c) _____	_____
d) Social	d) _____	_____
e) Enterprising	e) _____	_____
f) Conventional	f) _____	_____
Ways to Work		
g) Things	g) _____	_____
h) People	h) _____	_____
i) Data	i) _____	_____
j) Indoor	j) _____	_____
k) Outdoor	k) _____	_____
l) High Physical	l) _____	_____
m) Low Physical	m) _____	_____

INSTRUMENT DESIGN[1]

This chapter describes the design of an Army-oriented vocational interest inventory based upon conclusions of the preceding chapter. Chapter III is divided into three parts:

- Theory
- Inventory Design
- Scoring Procedure

As with all assessment devices, at this stage of development the design is an "hypothesis" -- an educated best guess as to what seems dictated given the results of the literature review. The proposed design stands, therefore, as a prototype which necessarily merits in-depth validation study and refinement to complete its development and render it acceptable in practice. These latter steps are beyond the scope of the present study, however, and will have to await future R&D efforts.

THEORY

Any assessment device must stand upon some theoretical base which, when put to a test of practice, proves valid as an underlying structure (or "construct") for the design of device items and measurement schemes. The results of the vocational psychology literature and instrumentation review suggested, rather strongly, a two-factor theory of vocational interest as regards career decision-making and person-job match. For the sake of convenient labels, we shall title these two factors:

I. Job Substance

II. Job Security/Satisfaction

These two factors will be considered as the basis for the interest inventory design. A brief explanation of each follows.

Factor I - Job Substance.

Job substance is what most interest inventories (especially the well validated ones) focus on in the attempt to match people and jobs. The first and foremost variable in this factor concerns subject matter and task activities of work, i.e., the "substance" of the job. Without exception, the interest inventories that we reviewed always assessed this variable. The second variable evident in this factor was that of job context, i.e., the medium through which the person accomplishes their work. Almost invariably, the review suggested that this variable translates into a preference for working with "people," "data,"

or "things." The third variable was clearly that of work environment. At first review, this concept seemed as if it would be difficult to define given the many possible work environments. However, close inspection of items in interest inventories rather clearly suggested that environment subsumed at least three important dimensions of each work setting: preference for "indoors vs. outdoors," "high risk or adventure vs. low risk," and "high physical vs. low physical (more sedentary)" environments. These seemed to encompass the many possible attributes of work settings such as "clean," "active," "protective," "dangerous," etc., and in our view provide a structure for generating interest inventory items. In summary, then, Factor I, is the "stuff" that the job is made of -- its substance -- and is clearly the favored factor in assessing vocational interest. Job substance mainly involves subject-matter and actual task activities of work, intermingled with interests concerning job context and environment.

Factor II - Job Security/Satisfaction

Reviewing the vocational psychology literature revealed that the story of vocational interest assessment derived from two bodies of knowledge: 1) interest testing, and 2) vocational counseling. The former is intended as a servant to the latter and, indeed, it would have been in error to have reviewed only interest testing. Reviewing both areas showed that interest inventories are tools of vocational counselors and, as such, tests are limited in what they are able to measure; the counselor fills in the data gaps. Principally, interest inventories tend to focus their measurement on Factor I above. However, it was apparent that the present Factor, Job Security/Satisfaction, was of substantial importance to counseling vocational decisions. This factor focuses on how well prospective types of work meet basic needs of the person regarding job security and work satisfaction. Most interest tests attempted at least some assessment of this dimension, though the counselor's clinical skill (inclusive other forms of tests related to personality and motivation) apparently remains the preferred tool for "teasing" this data out.

From the literature, Factor II is best explained by Maslow's "needs hierarchy," (Maslow, 1954, 1970) where the lower end of his scale includes very basic needs related to personal security (survival). In job terms, this translates mainly into the adequacy of "salary/benefits/job security." The midpoint of his scale involves higher-level needs; mainly the availability of social reinforcement in the job, i.e., is the job acceptable to significant others (peers, family) and is reinforcing social interaction available through the work setting? At the uppermost end of the needs scale is intrinsic gratification, i.e., is the job personnally gratifying; is some sense of contribution possible; is upward mobility and personal growth afforded? In summary, people have basic needs, apart from interest in job substance, making this an important, complimentary factor to Factor I. However, people differ in their degree of interest in

these various basic needs -- some people being more interested in higher rather than lower level ones and vice versa.

Relationship of the Two Factors

There would seem to be little doubt that Factors I and II would show a greater-than-zero relationship to one another in a correlational analysis. The review of the literature suggests, however, that vocational decision making imposes another kind of relationship on these factors which may be more relevant than the statistical one. The relationship can be thought of as an "IF-THEN" relationship rather than an index of factoral association.

From the literature, we construe that people, when making vocational decisions, consider first the "substance" of the job under consideration, i.e., its subject-matter, task activities, work context and environment. This seems illustrated by the fact that most vocational interest inventories make their assessments on the job-substance factor almost exclusively yet still succeed in predicting job choice/success/retention. People consider, second, more basic needs such as security, material and intrinsic reinforcement. In effect, the decision-making process goes something like this: "I like this type of work. IF it meets my basic needs, THEN I will become involved in it -- ELSE I will discount it and continue the search."

Obviously, people differ in their basic needs orientation and some place greater importance on meeting material over intrinsic needs. This is where the statistical relationship comes in. For example, the more the person seeks intrinsic gratification from work, the longer and harder they look at job-substance when considering jobs and the more willing they are to sacrifice material needs as a trade-off for attaining intrinsic ones like "sense of achievement." Thus, people appear to have a natural tendency to look at the substance of work first, but if basic needs are not then perceived to be sufficiently attainable through the work, the person becomes turned-off or "blocked" from considering that work further. Their interest in it correspondingly diminishes. In summary, the two factors bear both a statistical and IF-THEN relationship to one another. Factor I, Job Substance, is the favored factor by developers of vocational interest inventories; probably because it can be more objectively and reliably measured. Factor II, Job Security and Satisfaction (basic needs), appears to be more difficult to measure and is thus less present in interest tests. It is more likely to be assessed by a vocational counselor through the use of clinical interview or other specialized tests, then integrated with interest inventory data to make a complete interpretation of the counselee's vocational interests and recommend a job match.

Some coincidental empirical support is given to these hypothesized factors and their interrelationship by an Army study by Pliske, Elig, and Johnson (1984). These researchers factor analyzed a survey which asked more than 5,000 recruits why they had enlisted in the Army. The principal factor concerned the improvement of oneself and involved variables peripherally related to substantive job performance. Five subordinate factors were correlated with the principal factor and one another. All subordinate factors concerned basic needs; with economic needs leading, followed by satisfaction and social needs. The study findings parallel the above theory modestly; but the theme of the theory is apparent in the results.

A model of the two-factor theory of vocational decision-making (person-job match variables) is illustrated in Figure following.

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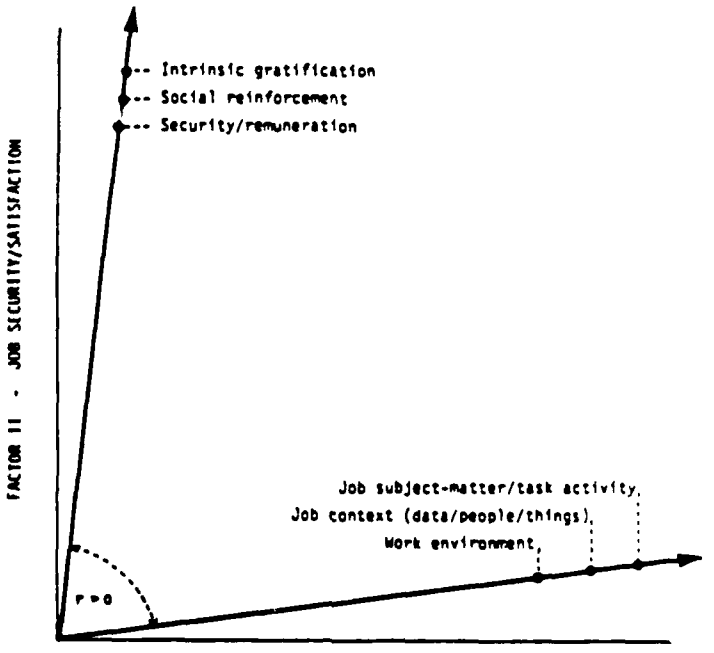
[1] From Faust, D., et al, Development of a Prototype Army Vocational Interest Inventory, April 1985, available from Army Research Institute, Alexandria, VA.

Figure

Proposed Model of Vocational Interest Factors Involved in Vocational Decision-Making



APPENDIX B

Counselor Training & Project Handbook

Army Vocational Guidance System In Community Colleges

Community College Counselor Training

American Association of Community and Junior Colleges
One Dupont Circle; Suite 410
Washington, D.C. 20036
February 26, 1986

These materials were prepared by Ida K. Warren, American Association of Community and Junior Colleges (AACJC), and Dr. Dennis Faust, Science Applications International Corporation (SAIC), under contract from the Army Research Institute for the Behavioral and Social Sciences. The views expressed are those of the authors and do not necessarily reflect the view of the US Army Research Institute or the Department of the Army.

TRAINING AGENDA

9:00 - 10:00	Coffee Hour
10:00 - 10:15	Welcoming Remarks James F. Gollattscheck Executive Vice President AACJC Washington, D.C. Carol Cross Director of Development and Membership Services AACJC Washington, D.C.
10:15 - 10:30	Introductions Ida K. Warren, Project Director
10:30 - 11:45	Project Mission and Goals Dr. Allyn Hertzbach Army Research Institute (Break at 11:00)
11:45 - 1:00	Lunch (Catered)
1:00 - 2:15	JOIN System Components and Procedures Dr. Dennis Faust Science Applications International Corporation
2:15 - 2:30	Coffee Break
2:30 - 3:30	Project Procedures and Evaluation Ida K. Warren, Project Director AACJC

Training Outline: Army Vocational Guidance System in Community Colleges

Part I: Project History, Purposes, and Goals

Dr. Allyn Hetzbach, ARI

A. Project Overview

B. Presentation of White Paper

C. Research Paradigm

D. Questions and Answers about Project Purposes

Part II: JOIN System Components and Procedures

Dr. Dennis Faust, SAIC

A. JOIN Overview Analysis

B. JOIN System Demonstration and User Manual

C. Questions and Answers about JOIN Device and Software Components

D. The Vocational Interest Profile

Part III: Project Procedures and Evaluation

Ida K. Warren, AACJC

A. JOIN Installation and Security

B. Advertising Kit

C. Procedures for Collecting Information

D. Role of the Counselor

E. Equipment Hotline

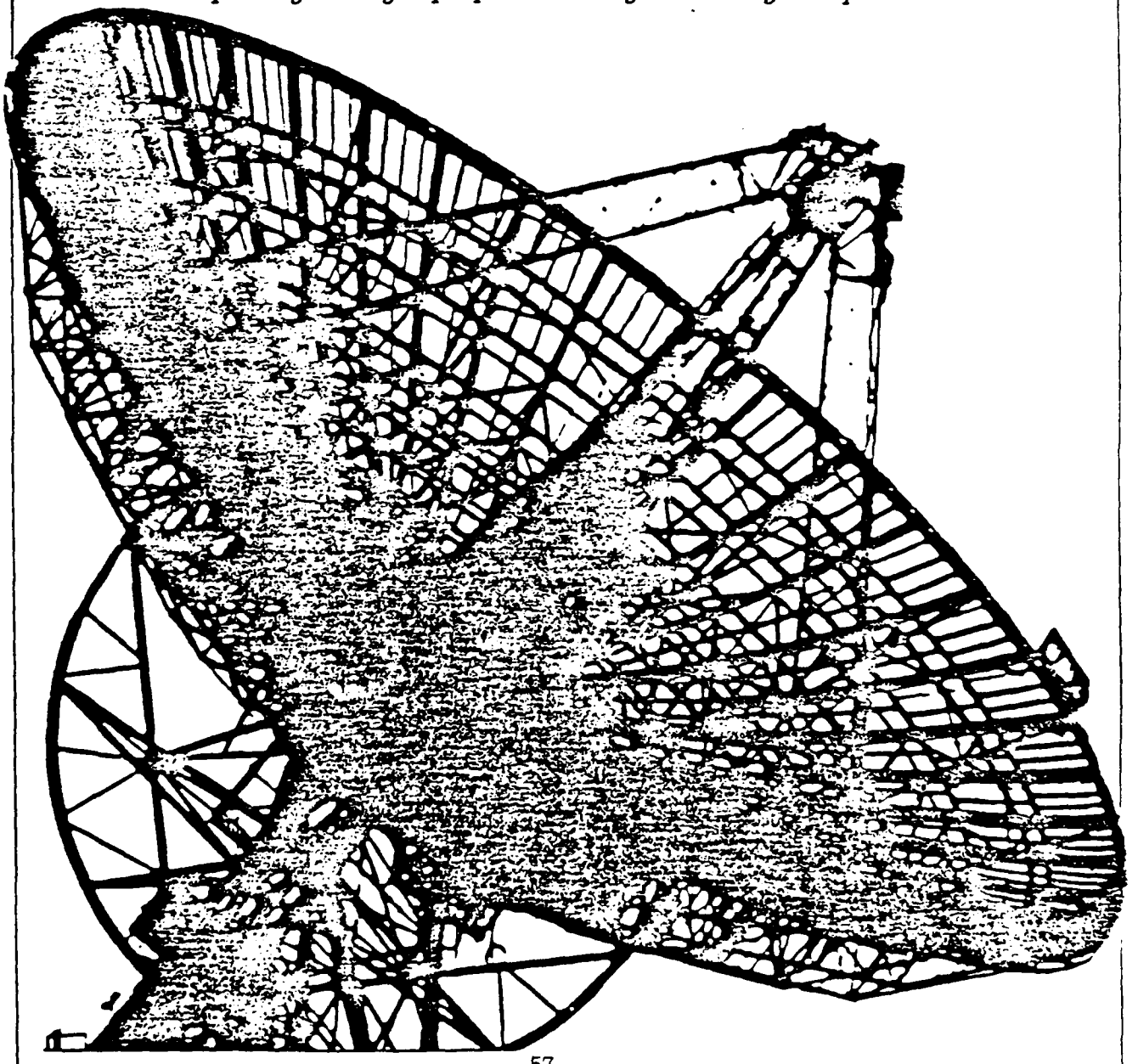
PART I

PROJECT HISTORY, PURPOSES, AND GOALS

MISSING PROTOTYPE VOCATIONAL GUIDANCE SYSTEM

BY MARY M. WELTIN AND
RICHARD M. JOHNSON

The Army could use the help of community colleges in attracting and placing the right people in the right military occupations.



THERE IS ONLY ONE EMPLOYER in the world who has 130,000 entry-level positions in over 200 different occupations available *each year*. Filling so many positions each year is not easy because not every job applicant qualifies in terms of aptitudes, interests, and the level of commitment it takes to work for the United States Army.

As an employer, the U.S. Army competes with many other public and private sector employers who hire entry-level workers. Looking toward the future, census forecasts show a 20 percent decline in the youth population (age 18-21) from which the Army draws its soldier-workers. From this shrinking pool of resources, the Army needs to attract the brightest and most motivated people in order to ensure that they can operate and maintain the highly technical systems used in today's modern military.

Clearly, some extra effort must be made in order to attract bright, young people to military service. This article describes some of the research efforts being initiated to improve the Army's efforts to attract and properly place good people in military occupations. The Army realizes that in order to accomplish this goal, it needs to be responsive to the needs and interests of job seekers.

Joint Optical Information Network

One of the primary needs of potential job applicants is for objective, up-to-date information about career opportunities. For military careers this information has often been available only in hard-to-find manuals or from other military personnel in Army recruiting stations; now, with the advent of recently developed microcomputer technology, a computerized information delivery system the Army calls "JOIN," the Joint Optical Information Network.

JOIN is a microprocessor computer with special peripheral equipment: a laser videodisc player, dual floppy disk drives, color monitor, dot matrix printer, and communications modem. Someone seeking specific job information about Army opportunities can, by using such a system, quickly search an extensive file of career information that, among other data, shows the correspondence between civilian and military occupations so that job alternatives can be compared. There are color videodisc presentations of real soldiers performing and describing their job duties and what it feels like to be part of the Army. There is an array of other information about the Army College Fund, two-year enlistment tours, geographic assignments, and guaranteed job training at the government's expense. JOIN can also administer a short computerized adaptive test that will quickly estimate the verbal and math aptitudes of the job seeker. The system can then print out the test scores as well as a summary sheet of potential benefits accruing to particular job options. For example, the Army College Fund can offer up to $26,400 for postenlistment education plus bonuses as large as $8,000 for enlisting in some hard-to-fill occupations, such as signal intelligence. Credit for acquired skills is given to those who have knowledge and experience in particular shortage specialties.

Of particular interest to community college graduates is the provision for early promotion (and higher pay). Those with education beyond high school can obtain accelerated promotion to private (E-2) or private first class (E-3). There is even a loan repayment program that pays off up to $1,500 on guaranteed student loans or national direct student loans for *each* year of active service. Such a wide array of benefits is unusual in an entry-level job and may initially be confusing to a young decision maker. Part of the purpose of this research is to develop a computerized decision aid that will present information, help to organize it according to the individual values and needs of the decision maker, and then to help him or her work through the tradeoffs between the advantages and disadvantages of a set of alternatives.

Striking a Good Match

From the Army's point of view, the benefit of providing job applicants with this kind of decision-making assistance is that the person's job expectations are more accurately structured. He or she is more aware of what it would be like to work in the Army, and what the costs and benefits of such a choice might be. If people have information about military occupations, the possible career options, and the transferability of military training to civilian life, then they can make decisions that are more likely to be of lasting benefit both to themselves and to the military. A good match between the needs of the job seeker and those of the service should contribute to performance on the job and reduce the personal and institutional costs of personnel turnover.

From the job seeker's point of view, this kind of careful consideration of training options and relative advantages and disadvantages increases his or her chances of finding a satisfying job placement that is consonant with long-term career goals. As it is now, through lack of complete information, the military is often missing from the world-of-work cognitive map people use to compare potential careers.

That is why the Army Research Institute is conducting research on vocational counseling for secondary and community college students. The mutuality of the employer/employee information exchange suggests that an interactive information system is needed and thanks to recent advances in computer technology this kind of interactive decision aid is now possible.

Progress toward stand-alone computerized vocational guidance systems has been enhanced by the joining of computer-assisted instruction to a form of "artificial intelligence" programming that uses a monitoring function to interpret and provide feedback to the user. Although there are several good computerized vocational information systems available (e.g., SIGI, CHOICES) that

"A good match between the needs of the job seeker and those of the service should contribute to performance on the job and reduce the personal and institutional costs of personnel turnover."

U.S. ARMY RECRUITMENT INITIATIVES

In this article Mary Weltin and Richard Johnson describe an exciting, new longitudinal research initiative being undertaken by the Army Research Institute in Alexandria, Virginia. The creative work of the authors and their colleagues will afford future community college students better information concerning career opportunities in the Army as well as future growth occupations in the civilian world of tomorrow.

The researchers seek to blend professional counseling expertise with emerging technologies to enhance career decision making by community college graduates. The JOIN technology is a new approach to career information that marries microprocessor to interactive videodisc technologies. As the authors' research progresses, the *Journal* will keep readers posted on further developments.

In another national initiative, Project Hi-Grad, the U.S. Army is seeking to expand recruitment of highly qualified high school and community college graduates with strong backgrounds in math and science for service in the Army. This program offers young adults more opportunities for training while in the service and excellent benefits for financing later advanced higher education. The American Association of Community and Junior Colleges has proposed a public/private partnership with the Army's recruiting command that is designed to enhance public awareness of Project Hi-Grad and its importance to the national security effort.

For further information on these initiatives, contact Carol Eliason, AACJC director of special projects, at 202 293-7050.

provide automated career counseling for secondary school and college-age populations, none of the existing systems was designed to describe specific job information about Army occupations, enlistment options, and benefits, nor do they link this information to the more familiar civilian vocational training and career tracks. Because of this the Army Research Institute in Alexandria, Virginia, was asked to investigate the research issues and to design and develop a prototype vocational guidance system that could be used on the JOIN system. We are still in the design phase of this effort and would welcome any suggestions AACJC *Journal* readers would wish to share with us.

The Conceptual Framework

The proposed system is conceptualized as being organized in three subsystems: the first is an information component, a menu-driven search and retrieval function that would access a large body of information about Army occupational specialties and relate them to comparable civilian occupations. This file will provide descriptions of the job duties, physical and educational requirements, working conditions, earnings, skill levels, training provided, and occupational outlook. The user sits at a JOIN terminal and types search commands on a keyboard causing the computer to search, select, and provide information on the screen and/or in print form. Some of the information would be presented in graphical displays to make it easier to compare the information. The information could be sorted and selected according to the individual's interests, education and experience, and work or life values. Often, however, particularly with secondary school students, the system user is not sure about his or her job capabilities or interests.

The second component, the personal career values subsystem, is designed to help define the individual's position in terms of job interests, values, abilities, and career maturity. The third component of the system is the career decision-making subsystem. Here we hope to capitalize on some of the sophisticated research that has been performed to model the policy decisions of military decision makers. Software has been developed to help a decision maker clarify what the important attributes of a choice are, to scale these attributes, and to work through the tradeoffs among them.

A young person just entering the job market has a similarly complex choice to make. Would, for example, he or she take a less interesting job in order to make more money? Would someone be willing to invest three years in the Army in order to have money to finish college later?

Our work analyzing surveys given to high school seniors and to new Army recruits tells us that many young people look for more conservative values such as job security, medical and dental coverage, and even retirement benefits. The chance to travel overseas, 30 days paid annual vacation, and the ready availability of recreational facilities are often appealing amenities to this age group. On the other hand, one makes a firm time and duty commitment to the Army in exchange for the camaraderie of achieving a group goal. By comparing structured packages of different benefit options, the decision maker can construct an equation describing his or her most important job considerations, weighing them according to their relative importance to the career decision. It is by working through the exercises in this third subsystem that we hope to find a match between what the job seeker needs and what the Army has to offer.

Member institutions of AACJC have been invited to participate as testing sites for this research. The Army would like to involve the education community in the development of an appropriate vehicle for transferring the new technology to college counseling centers. By making JOIN computer systems available in a small number of schools, we hope to work toward a cooperative relationship with potential for strengthening the Army's manpower resources.

"Our work analyzing surveys given to high school seniors and to new Army recruits tells us that many young people look for more conservative values such as job security, medical and dental coverage, and even retirement benefits."

Mary M. Weltin is a research psychologist at the Army Research Institute in Alexandria, Virginia. Richard M. Johnson is team leader of recruiting at the institute.

FEASIBILITY OF ARMY VOCATIONAL GUIDANCE IN TWO-YEAR COLLEGES

Research Paradigm

A) GENERAL RESEARCH OBJECTIVE

Identify best methods for delivering Army vocational guidance information in two-year colleges

B) LONGER RANGE APPLICATION OF THE RESEARCH:

Enhanced potential for obtaining high quality recruits for the Army

Specific Research Objectives for the Current Project

1) Understand the vocational guidance informational needs, as would be relevant to Army career-step vocational decisions of community college students

2) How to afford the Army an equal chance to be considered as a career step by the community college student, i.e., how to make Army vocational information conveniently available and understandable

2.1) Specific sub-objective for this research:

Determine the feasibility of implementing a JOIN-type system for the above purpose

1) Determine the receptiveness to the idea of the "Army as a career step" option by students and relevant staff (e.g., career counselors) in 2-year colleges

2) Determine student reaction to the availability of Army incentives/benefits information as regards career/job decision making

"JOIN" AS A FIELD-TEST VEHICLE

In this project, JOIN represents a "delivery medium" for presenting Army vocational information. That medium can be described as:

- Computer-based, interactive inquiry/search
- Non-directive but facilitative (i.e., rather than directing and calculating the course of the user's progress through the system, it attempts to provide fair, objective information--not sell
- Provides high quality, realistic job preview information
- Can stand alone in a college counseling setting as an information source on Army vocational options
- JOIN hardware is not state-of-the-art, but adequately emulates today's technology, i.e., familiar, easy use

Thus, JOIN constitutes a useful delivery medium for field trial purposes in the community college. It will permit answering the following broad questions through the study:

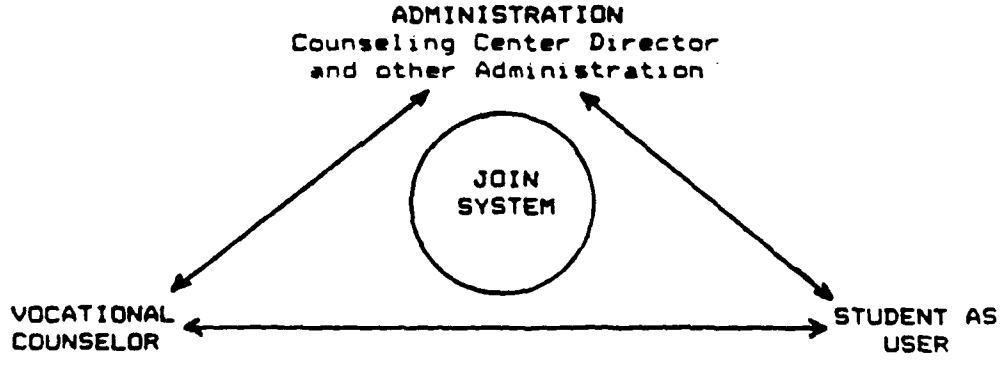
1) Level of student/staff receptiveness to Army vocational information availability

2) Feasibility of the process/structure (method) by which the vocational information is presented

3) Requirements for the hardware/software (media) of a JOIN-type system in order to effectively deliver Army vocational guidance to this setting in the future

SOURCES OF DATA (Evaluation Criteria)

In general terms, the independent variable in this research is the "JOIN" system given its various content modules, processes, and hardware/software elements as the "treatment." The dependent variables can be subsumed by three sources of receptivity to the system, as follows:



PART II

JOIN SYSTEM COMPONENTS AND PROCEDURES

JOIN SYSTEM COMPONENTS AND PROCEDURES

PURPOSE

This session is being presented to explain:

I. JOIN-system hardware/software components

II. The JOIN User Manual and user procedures

III. The Vocational Interest Profile as used with JOIN

IV. Questions that you may have about JOIN and procedures

OUTLINE/NOTES

I. JOIN System Hardware/Software Components

REFER TO EXHIBIT 1

A. Origin of JOIN

1. JOIN = "Joint Optical Information Network"
2. The U.S. Army Recruiting Command (USAREC) fielded JOIN in the mid-1970's to assist Army guidance counselors in acquiring, prequalifying, and processing recruits.

B. JOIN Hardware/Software Used in This Project

1. Computer - Z80 microprocessor with 64K RAM memory (similar to the Radio Shack TRS-80 64K personal computer).

2. Color Monitor - quite similar in appearance and operation to a conventional T.V. set.

3. Keyboard - specially configured for use with the JOIN system (non-standard design).

4. Videodisc Player - accomodates 14" videodiscs under random access control of the JOIN computer.

5. Videodiscs - providing 3 - 5 minute video selections for viewing on the color monitor which portray Army vocational opportunities and benefits.

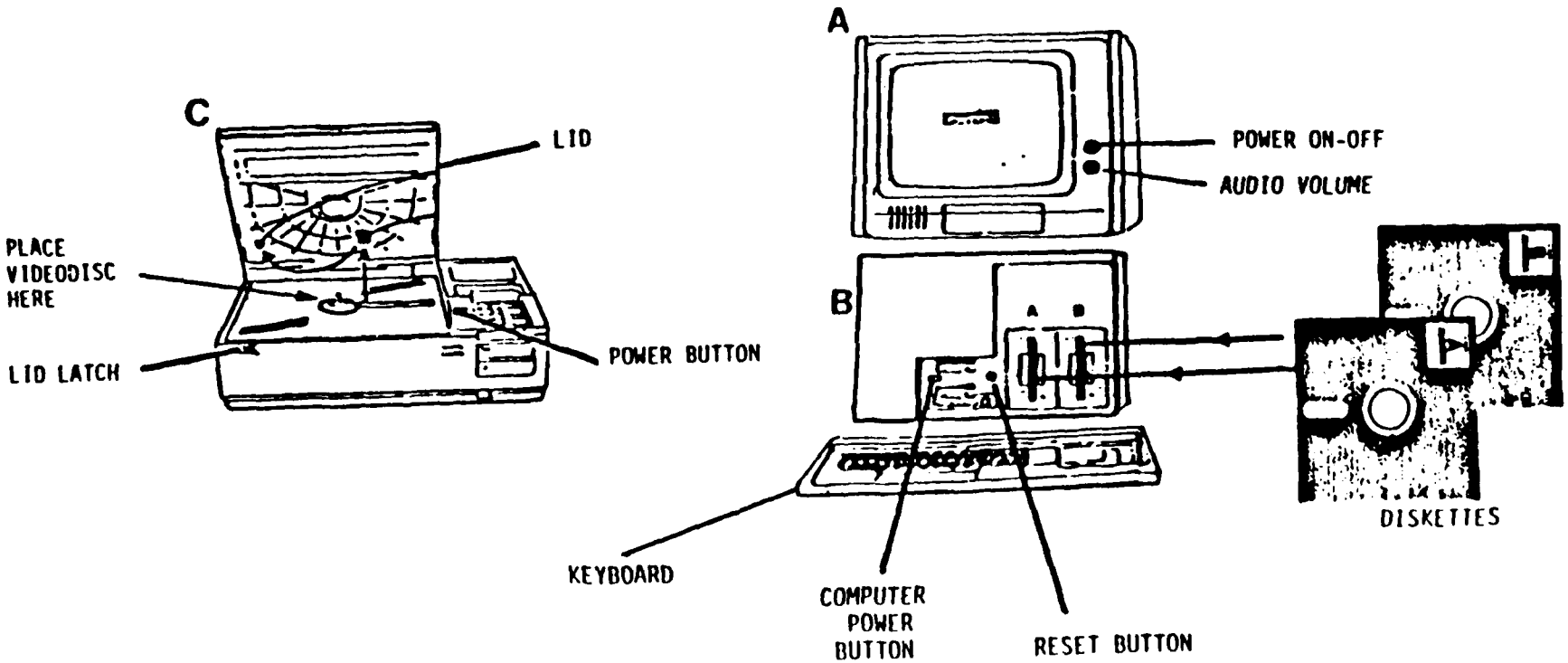
EXHIBIT 1

JOIN System Hardware/Software Components

A- MONITOR

B- COMPUTER/KEYBOARD

C- VIDEODISC PLAYER



(Exhibit 1 continued)

HOW TO START AND RUN THE JOIN COMPUTER

A. POWER MUST BE AVAILABLE. If problems, check plug and the power outlet.

B. TURN MONITOR (T.V.) ON. Turn the monitor on as shown in Figure 1. Later, you can adjust the volume for speaker or earphones.

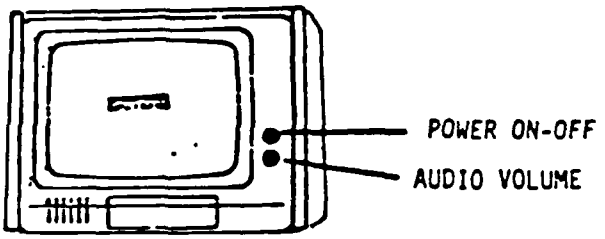


FIGURE 1

C. TURN COMPUTER ON. Turn the switch shown in Figure 2 to "ON":

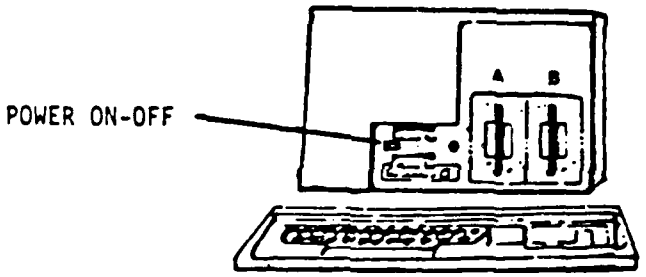
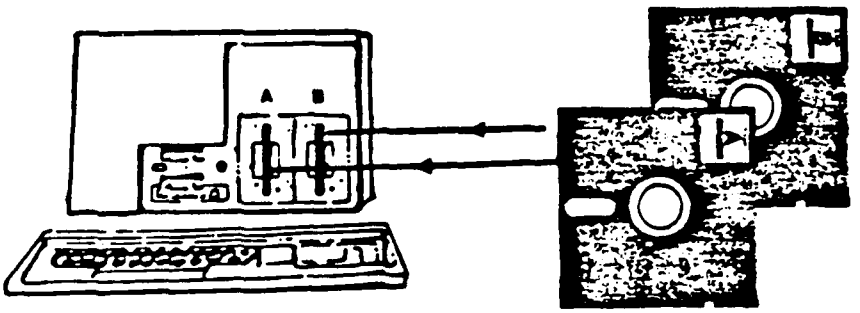


FIGURE 2

D. INSERT SMALL FLOPPY DISKETTES INTO COMPUTER. Open slot doors. The "A" disk goes into "A" slot and the "B" disk goes into "B" slot as shown in Figure 3, then close doors.



(Exhibit 1 continued)

E. PRESS THE RESET BUTTON on the front of the "JOIN" computer as shown in Figure 4. Wait for a series of clicking noises, after which a menu (list) of choices will appear on the screen.

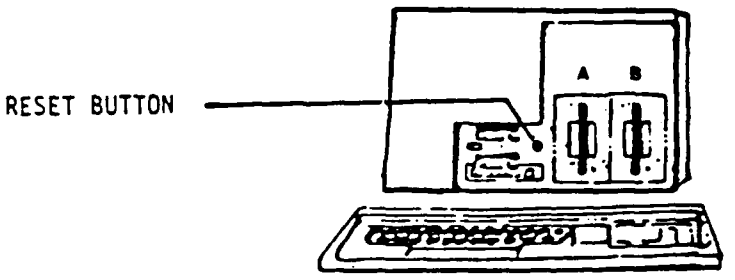


FIGURE 4

F. KNOW WHERE THE LARGE VIDEODISKS ARE. Videodisks should be accessible and properly labeled.

G. TURN VIDEOPLAYER ON and open the lid by pressing the latch button. See Figure 5.

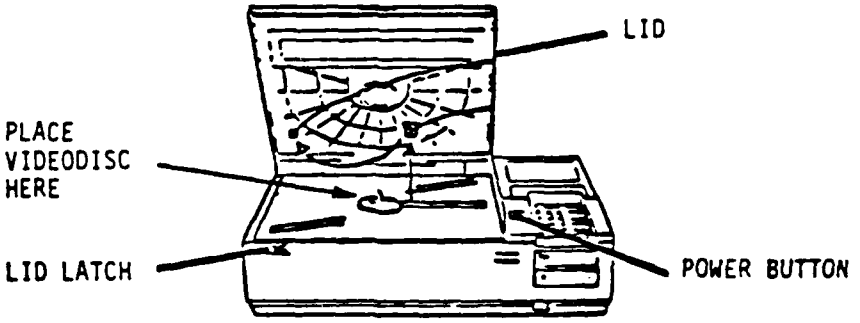


FIGURE 5

YOU ARE READY TO BEGIN YOUR "JOIN" COMPUTER SESSION.

I.B.

6. Floppy Diskettes - two (2) 51/4" personal computer floppy disks (labelled "A" and "B") which provide the JOIN computer program.

7. Connectors - power cables and connecting cables for the system.

II. JOIN User Manual and User Procedures

REFER TO EXHIBIT 2

A. User Manual: purpose and design

1. Purpose

a) primary: to structure and pace the JOIN session

b) secondary: to provide a "job aid" for operating the system, and to obtain feedback on system efficacy

2. Design

a) First, states purpose of the study and the session.

b) Second, collects user demographic data.

c) Third, provides step-by-step JOIN procedures used in this project.

d) Fourth, obtains user impressions about the viability of JOIN components, processes, and vocational information.

B. User Procedures:

1. Step 1: Demographics

2. Step 2: Vocational Interest Profile

3. Step 3: How to start/run the JOIN computer system

4. Step 4: Review Army Jobs (skill clusters)

EXHIBIT 2

"JOIN" USERS MANUAL

See Appendix D of this report for a copy of the counselors manual

II.B (continued)

5. Step 5: Review "Incentives and Benefits"

6. Step 6: Review "Your Options"

7. Step 7: Provide "General Impressions" of JOIN

III. The Vocational Interest Profile (VIP)

A. History

REFER TO EXHIBIT 3

1. Need
2. Literature review
3. Theory

B. Measurement Dimensions

REFER TO EXHIBITS 4,5,6

1. The Holland typologies (John Holland)
2. Things, People, Data constructs (Sidney Fine)
3. Work environment

C. The VIP Protocol

REFER TO EXHIBIT 7

1. Part I - Types of Work orientation (vocational typologies)
2. Part II - Ways to Work preferences

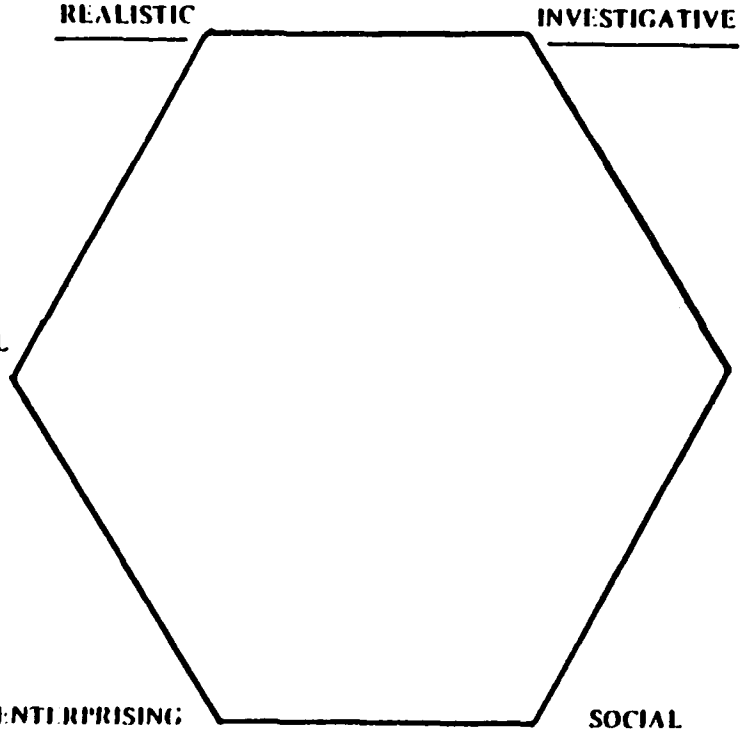
EXHIBIT 3

"Vocational Interests Profile"

See Appendix A of this report for a copy of the VIP test, its interpretation profile and its design theory.

EXHIBIT 4

Structure of the Holland Occupational Themes
(with examples of characteristic jobs)



R
Carpenter
Civil engineer
Electrician

RI
Auto mechanic
Machinist
Military officer

IR
Electrical engineer
Inventor
Lab technician

I
Biologist
Scientific researcher
Technical writer

RC
Draftsman
Farmer
Police officer

IA
Astronomer
College professor
Economist

CR
Dental assistant
Sewing machine operator
Telephone operator

AI
Psychologist
Photographer
Sculptor

C
Accountant
Computer operator
Secretary

A
Artist
Librarian
Musician

CE
Banker
Business education teacher
Office worker

AS
Dancing teacher
English teacher
Drama coach

EC
Corporation executive
Manufacturer
Stockbroker

SA
Music teacher
Author, children's books
Home economist

E
Lawyer
Politician
Retailer

ES
Chamber of Commerce Direc.
Life insurance sales
Public relations direc.

SE
School principal
YMCA/YWCA staff
Labor arbitrator

S
Social worker
Church worker
Public health nurse

EXHIBIT 5

Fine's Data-People-Things Structure*

	▶ DATA FUNCTION SCALE
1. *Comparing*	Selects, sorts, or arranges data, people, or things, judging whether their readily observable functional, structural, or compositional characteristics are similar to or different from prescribed standards.
2. *Copying*	Transcribes, enters, and/or posts data, following a schema or plan to assemble or make things and using a variety of work aids.
3A. *Computing*	Performs arithmetic operations and makes reports and/or carries out a prescribed action in relation to them.
3B. *Compiling*	Gathers, collates, or classifies information about data, people, or things, following a schema or system but using discretion in application.
4. *Analyzing*	Examines and evaluates data (about things, data, or people) with reference to the criteria, standards, and/or requirements of a particular discipline, art, technique, or craft to determine interaction effects (consequences) and to consider alternatives.
5A. *Innovating*	Modifies, alters, and/or adapts existing designs, procedures, or methods to meet unique specifications, unusual conditions, or specific standards of effectiveness within the overall framework of operating theories, principles, and/or organizational contexts.
5B. *Coordinating*	Decides time, place, and sequence of operations of a process, system, or organization, and/or the need for revision of goals, policies (boundary conditions), or procedures on the basis of analysis of data and of performance review of pertinent objectives and requirements. Includes overseeing and/or executing decisions and/or reporting on events.
6. *Synthesizing*	Takes off in new directions on the basis of personal intuitions, feelings, and ideas (with or without regard for tradition, experience, and existing parameters) to conceive new approaches to or statements of problems and the development of system, operational, or aesthetic "solutions" or "resolutions" of them, typically outside of existing theoretical stylistic, or organizational context.
	▶ PEOPLE FUNCTION SCALE
1A. *Taking instructions helping*	Attends to the work assignment, instructions, or orders of supervisor. No immediate response or verbal exchange is required unless clarification of instruction is needed
1B. *Serving*	Attends to the needs or requests of people or animals, or to the expressed or implicit wishes of people. Immediate response is involved
2. *Exchanging information*	Talks to, converses with, and/or signals people to obtain information, or to clarify and work out details of an assignment within the framework of well established procedures.
3A. *Coaching*	Befriends and encourages individuals on a personal, caring basis by approximating a peer or family-type relationship either in a one-to-one or small group situation; gives instruction, advice, and personal assistance concerning activities of daily living, the use of various institutional services, and participation in groups.
3B. *Persuading*	Influences others in favor of a product, service, or point of view by talks or demonstrations.
3C. *Diverting*	Amuses to entertain or distract individuals and/or audiences or to lighten a situation.
4A. *Consulting*	Serves as a source of technical information and gives such information or provides ideas to define, clarify, enlarge upon, or sharpen procedures, capabilities, or product specifications (e.g., informs individuals/families about details of working out objectives such as adoption, school selection, and vocational rehabilitation; assists them in working out plans and guides implementation of plans).
4B. *Instructing*	Teaches subject matter to others or trains others, including animals, through explanation, demonstration, and test.
4C. *Treating*	Acts on or interacts with individuals or small groups of people or animals who need help (as in sickness) to carry out specialized therapeutic or adjustment procedures. Systematically observes results of treatment within the framework of total personal behavior because unique individual reactions to prescriptions (chemical, physical, or behavioral) may not fall within the range of prediction. Motivates, supports, and instructs individuals to accept or cooperate with therapeutic adjustment procedures when necessary.
5. *Supervising*	Determines and/or interprets work procedure for a group of workers; assigns specific duties to them (delineating prescribed and discretionary content), maintains harmonious relations among them, evaluates performance (both prescribed and discretionary) and promotes efficiency and other organizational values; makes decisions on procedural and technical levels
6. *Negotiating*	Bargains and discusses on a formal basis as a representative of one side of a transaction for advantages in resources, rights, privileges, and/or contractual obligations, "giving and taking" within the limits provided by authority or within the framework of the perceived requirements and integrity of a program.

*From: McCormick, E. (1979). Job Analysis. New York: AMACOM, p. 114.

Ex. 5 (cont.)

7 *Mentoring*	Works with individuals having problems affecting their life adjustment in order to advise, counsel, and/or guide them according to legal, scientific, clinical, spiritual, and/or other professional principles. Advises clients on implications of analyses or diagnoses made of problems, courses of action open to deal with them, and merits of one strategy over another.

▶ THINGS FUNCTION SCALE

1A. *Handling*	Works (cuts, shapes, assembles, etc.), digs, moves, or carries objects or materials where objects, materials, tools, etc., are one or a few in number and are the primary involvement of the worker. Precision requirements are relatively gross. Includes the use of dollies, handtrucks, and the like. (Use this rating for situations involving casual use of tangibles.)
1B *Feeding-offbearing*	inserts, throws, dumps, or places materials into, or removes them from, machines or equipment which are automatic or tended/operated by other workers. Precision requirements are built in, largely out of control of worker.
1C. *Tending*	Starts, stops, and monitors the functioning of machines and equipment set up by other workers where the precision of output depends on keeping one to several controls in adjustment, in response to automatic signals according to specifications. Includes all machine situations where there is no significant setup or change of setup, where cycles are very short, alternatives to nonstandard performance are few, and adjustments are highly prescribed. (Includes electrostatic and wet-copying machines and PBX switchboards.)
2A. *Manipulating*	Works (cuts, shapes, assembles, etc.), digs, moves, guides, or places objects or materials where objects, tools, controls, etc., are several in number. Precision requirements range from gross to fine. Includes waiting on tables and the use of ordinary portable power tools with interchangeable parts and ordinary tools around the home, such as kitchen and garden tools.
2B. *Operating-controlling*	Starts, stops, controls, and adjusts a machine or equipment designed to fabricate and/or process data, people, or things. The worker may be involved in activating the machine, as in typing or turning wood, or the involvement may occur primarily at startup and stop as with a semiautomatic machine. Operating a machine involves readying and adjusting the machine and/or material as work progresses. Controlling equipment involves monitoring gauges, dials, etc., and turning valves and other devices to control such items as temperature, pressure, flow of liquids, speed of

(cont.)

	pumps, and reactions of materials. Includes the operation of typewriters, mimeograph machines, and other office equipment where readying or adjusting the machine requires more than cursory demonstration and checkout. (This rating is to be used only for operations of one machine or one unit of equipment.)
2C. *Driving-controlling*	Starts, stops, and controls the actions of machines for which a course must be steered or guided in order to fabricate, process, and/or move things or people. Actions regulating controls require continuous attention and readiness of response. (Use this rating if use of vehicle is required in job, even if job is concerned with people or data primarily.)
3A. *Precision working*	Works, moves, guides, or places objects or materials according to standard practical procedures where the number of objects, materials, tools, etc., embraces an entire craft and accuracy expected is within final finished tolerances established for the craft. (Use this rating where work primarily involves manual or power hand tools.)
3B. *Setting up*	Installs machines or equipment; inserts tools; alters jigs, fixtures, and attachments; and/or repairs machines or equipment to ready and/or restore them to their proper functioning according to job order or blueprint specifications. Involves primary responsibility for accuracy. May involve one or a number of machines for other workers or for worker's own operation.

EXHIBIT 6

Work Environment Survey Items

from the

Vocational Interest Profile

(j) ☐.....I like to work indoors where you can move around some.
☐.....I like jobs that let me work outdoors some.

(k) ☐.....I like work that helps to keep my body in top shape (etc.).
☐..I like to work at a table or desk where I can get organized and think.

(l) ☐.....I would prefer to coach an outdoor sport.
☐.....I would prefer to coach an indoor sport.

(m) ☐..I like work where I have to think — figure things out.
☐.....I like physical competition and things like jogging.

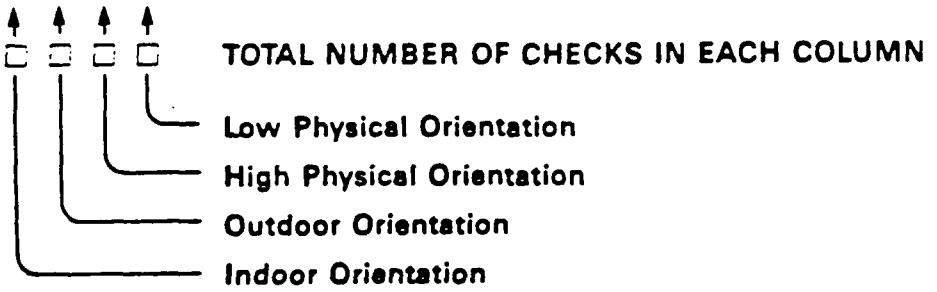
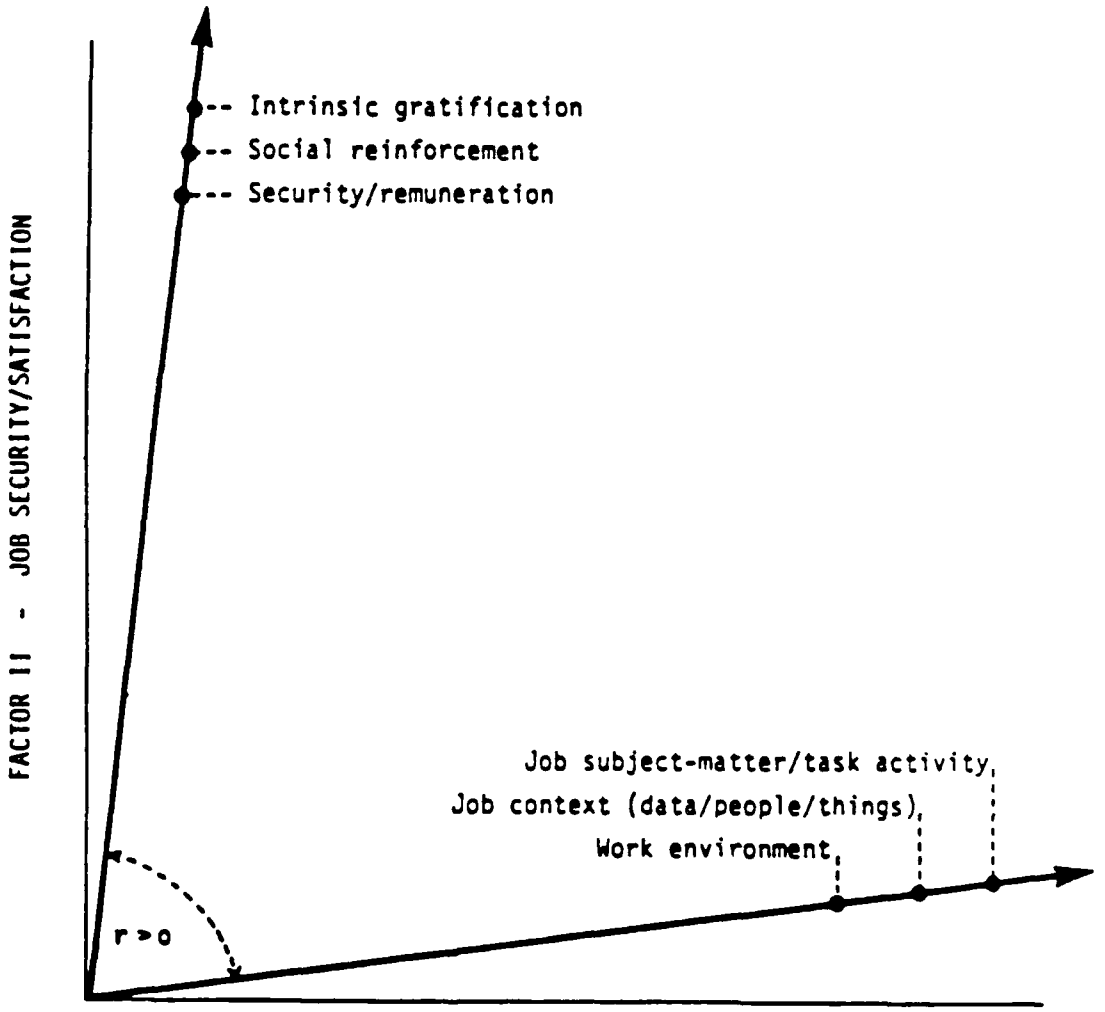


EXHIBIT 7

Proposed Model of Vocational Interest Factors
Involved in Vocational Decision-Making



III. (continued)

D. The VIP Scoring Protocol and Results Profile

REFER TO EXHIBIT 8

1. Self-scoring procedures
2. Quick-reference profile of results

E. Research on the VIP

1. Status - The VIP is a new vocational interest assessment device still in development. Validation studies remain few in number though early results are fairly impressive.

2. VIP Construct - Factor analysis revealed the construct shown in Exhibit 9.

REFER TO EXHIBIT 9

3. Validity and Reliability - Initial field trials produced a validity index of about .70 with equal or greater reliability. New improvements to the VIP will at least replicate these figures if not increase them substantially in future validation studies.

IV. JOIN Question-Answer Period (EXHIBIT 10)

NOTES:

EXHIBIT 8

VIP Interpretation Protocol

** See Appendix A of this report.

EXHIBIT 9

Factoral Structure of
the Vocational Interest Profile

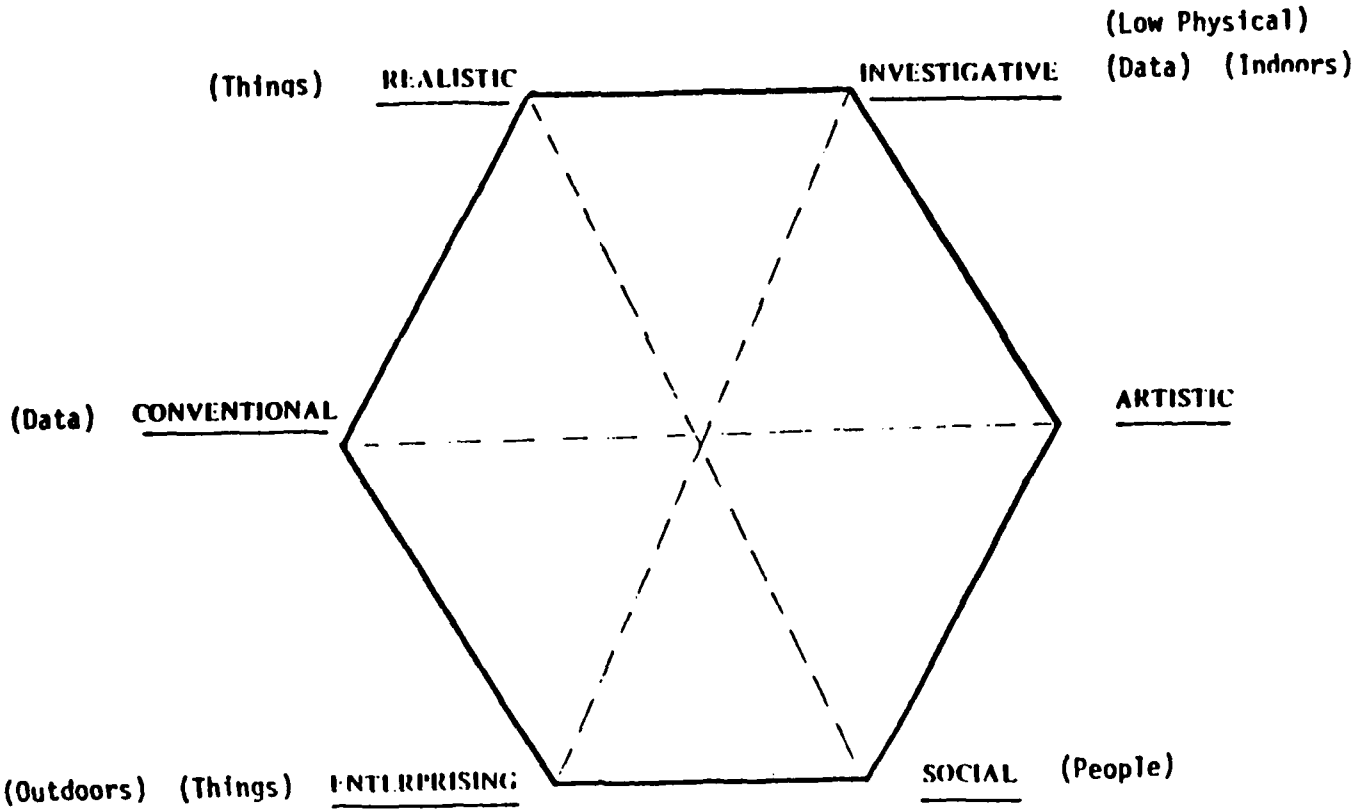


EXHIBIT 10

JOIN MAIN-MENU AND SUB-MENUS

MAIN MENU

A) Learn About Your Interests/Values
B) Learn About Army Jobs
C) Learn About Army Benefits
D) Learn About Your Options
E) Ask About Some Common Concerns
F) End of Session

A) INTEREST SURVEY

(VIP)

B) ARMY JOBS

a) Skill Clusters-14
b) Car.Mgt.Fields-28
c) MOSs-230

C) INCENTIVES/BENEFITS

a) Service to others
b) Money
c) Challenge
d) Advancement
e) Training/experience
f) Travel
g) Fun
h) Education
i) Job satisfaction
j) Job security

D) YOUR OPTIONS

a) Comm. Coll. Grads
b) Combat Arms
c) Special programs
d) Where you could work
e) The Reserve Force

E) COMMON CONCERNS

a) What happens at the MEPS?
b) Do I leave home immediately?
c) Can I change my mind about what I want?
d) When can I take my family & car with me?

F) END OF SESSION

Exit session
--no content

PART III

PROJECT PROCEDURES AND EVALUATION

Part III: Project Procedures and Evaluation

A. Delivery and Security of the System

The Army will be delivering your JOIN system March 3 or 4, 1986. You do not need to do anything with it.

We do ask that you do all that you can to keep the system as secure as possible.

B. Project Initiation Visit

Dr. Hertzbach, Dr. Faust, and Ms. Warren will visit each school, beginning March 5 to check out the system. Before leaving this training you will provide Ms. Warren with two alternate times which are convenient for you and your colleages for the project initiation visit.

C. Project Materials

At the time of the project initiation visit, we will check out the machine and deliver:

- the computer software and video disks;
- the advertising kit containing posters, sample newspaper ads, sample radio spots, and sample news releases;
- all copies of the JOIN Users Manual
- mailing labels to mail in results.

D. The Counselor's Role

The counselor is critical to the project. You are the expert. We need your input and suggestions about improving the system.

E. Equipment Hotline

If anything goes amiss with the machine or software, please call the following persons, in this order:

- Ida K. Warren, AACJC, at 202-293-7050
- Kim Turner, AACJC, at 202-293-7050
- Carol Cross, AACJC, at 202-293-7050
- (night) Ida K. Warren, 703-751-2527

COUNSELOR'S COMMENTS

APPENDIX C

School & Career Center Demographic Data Form

PART I -- COMMUNITY COLLEGE CAMPUS DEMOGRAPHICS

Community College _____ .

1) Campus size (population) and location category:

   a) _____ Large - near major urban area.

   b) _____ Moderate size - suburban area.

   c) _____ Small - characteristically rural area.

2) Population (number of students):

   a) Full-time students _____.

   b) Part-time students _____.

   c) TOTAL (full + part) _____.

3) Gender distribution (all students):

   a) % Male students _____ %

   b) % Female students _____ %

4) Age distribution (all students):

   a) % Students age 18 - 25 _____ %

   b) % Students 26 and over _____ %

5) Racial composition for total students:

   a) % Caucasian _____ %

   b) % Black _____ %

   c) % Hispanic _____ %

   d) % Asian _____ %

   e) % Native American _____ %

   f) % All (tot.) Minorities _____ %

PART II -- CAREER COUNSELING CENTER DEMOGRAPHICS

Please provide the following background on your Career Center

1) Number of professional counselors on staff: _____.

2) Total number of aids and other counseling "support" staff: _____.

3) How many students (both individual counseling and via group classes that you sponsor -- whether for career reasons, personal/clinical, or other needs) received services at your Center during the second semester of 1986 (approx. February - May), i.e., what was the Center's total second semester case load ("n"). Close estimate: _____.

4) What "percent" of the Center's 2nd semester case load (answer to Question #3 above) mainly involved "career/vocational" counseling? Close estimate: _____ %

5) Based on your experience, what "percent" of those students who receive vocational/career counseling could benefit from the presence of information on military vocational opportunities at your Center (i.e., NOT the percent that DO enlist, but the percent that should have it available for review because their vocational characteristics or needs make the military an option at least worth considering)? Close estimate: _____ %

APPENDIX D

Counselors' Personal "JOIN" Session
(data collection form)

US ARMY

VOCATIONAL OPPORTUNITIES INFORMATION SYSTEM

JOIN Computer User's Manual & Data Collection Booklet

For Career Center Counselors' Evaluation of the JOIN System

Counselor _____

College _____

Date Completed _____

READ BEFORE COMPLETING:

Informed Consent and Privacy Statement

Public Law 93-573, called the Privacy Act of 1974, requires that you be informed of the purpose and uses to be made of the information that is being collected. The Department of the Army may collect the information requested in this questionnaire under the authority of 10 U.S. Code 136. Purpose of this questionnaire is: to help obtain feedback from participating community colleges as to the value of making Army vocational opportunities information (vocational guidance media) available in community college counseling centers.

Providing information in this questionnaire is voluntary and of no risk since your identity and that of your college will be held in confidence by the Army Research Institute which is overseeing this project as agent of the Office of the Deputy Chief of Staff for Army Personnel. Responding to items in this survey is at your option. Though there is no requirement to respond to any particular item, your complete response will be of great assistance to thorough analysis of the project data.

PURPOSE

You have been invited to participate in a study which will help identify types of information that could be helpful to community college students who wish to consider Army service opportunities as a "career step". As a counselor of these students, we would like to obtain your views of the JOIN computer system which provides information on:

- Occupational interests and values
- Videodisk presentations on . . .
  - Army skill clusters and career fields
  - Service incentives and benefits
  - Enlistment options, including special ones for community college grads

START HERE

To complete the session (it takes about 1 hour or less), you will be ask to do two things:

1) USE THE "JOIN" COMPUTER SYSTEM as did students at your school.

2) RESPOND TO QUESTIONS IN THIS BOOKLET IN PEN OR PENCIL as you go. Your comments will help us to better understand how useful this information might be for students and how successfully it was presented.

THANK YOU - NOW, TURN THE PAGE AND COMPLETE STEP 1.

STEP 1

PLEASE ANSWER THE FOLLOWING QUESTIONS BEFORE YOU BEGIN

1) DATE: _____/ _____/ _____
mo day yr

2) YOUR AGE: _____

3) GENDER: M F

4) CIRCLE RACE: Caucasian Black Hispanic American Indian Asian

5) YEARS OF SCHOOLING (Total): _____

6) PLEASE STATE YOUR MAJOR FIELD OF STUDY (career field) and job title:

a. MAJOR FIELD _____

_____

b. JOB TITLE _____

STEP 1

(continued)

7) HOW MANY YEARS of professional counseling experience do you have (close estimate).

YEARS EXPERIENCE _____

THANK YOU

NOW, GO TO THE NEXT PAGE AND COMPLETE STEP 2

STEP 2

VOCATIONAL INTERESTS

8) ENTER THE TIME: _____:_____am/pm

A. In this step, you will take and critique a brief vocational interest survey. You should have received the survey (titled the Vocational Interest Profile) along with this booklet. Follow all instructions as they appear in the survey. Complete the survey, and review your results. Then go to step "B" below.

COMPLETE THE VOCATIONAL INTEREST SURVEY NOW

B. Now that you have finished reviewing your survey results, enter the time then answer the following questions by circling the number on the 5 point scale which expresses your opinion:

9) ENTER THE TIME: _____:_____am/pm

10) How useful do you feel this type of interest survey information could be for students who have not done such a survey previously or recently?

NOT AT ALL USEFUL				VERY USEFUL
1	2	3	4	5

11) How easy or difficult was it for you to complete the survey?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

For students, would this be true? (Your own comments/suggestions).

_____

_____

_____

STEP 2

(continued)

12) What vocational interest surveys/searches do you provide to students at your center?

a) In print form (e.g., paper/pencil test) _____

_____

_____

_____

b) Computer-based _____

_____

_____

_____

Now, you will use the "JOIN" computer to complete the session.

THANK YOU

GO TO THE NEXT PAGE AND COMPLETE STEP 3

STEP 3

HOW TO START AND RUN THE JOIN COMPUTER (Optional)

A. POWER MUST BE AVAILABLE. If problems, check plug and the power outlet.

B. TURN MONITOR (T.V.) ON. Turn the monitor on as shown in Figure 1. Later, you can adjust the volume for speaker or earphones.

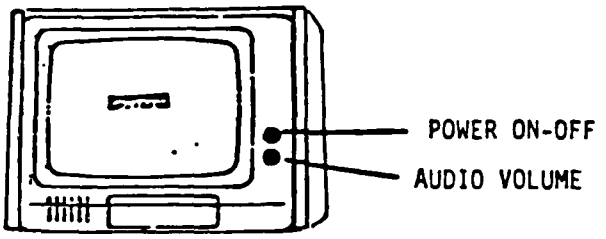


FIGURE 1

C. TURN COMPUTER ON. Turn the switch shown in Figure 2 to "ON":

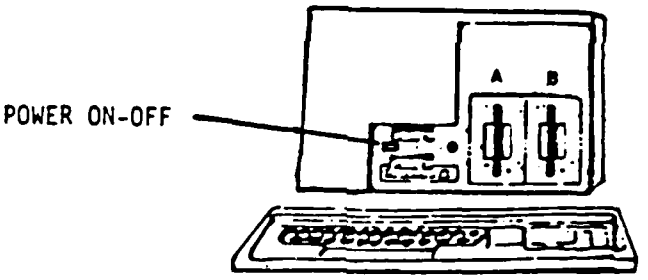


FIGURE 2

D. INSERT SMALL FLOPPY DISKETTES INTO COMPUTER. Open slot doors. The "A" disk goes into "A" slot and the "B" disk goes into "B" slot as shown in Figure 3, then close doors.

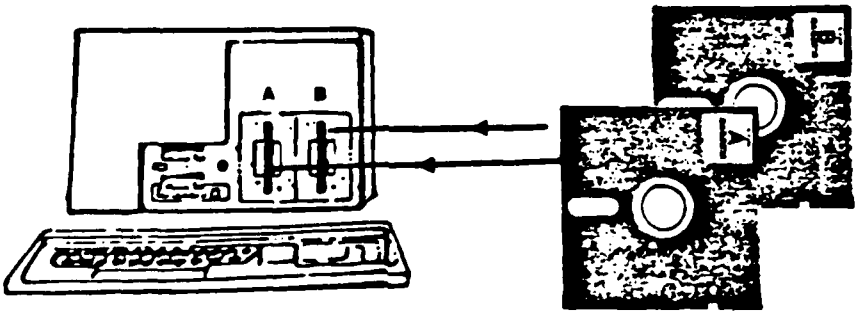


FIGURE 3

STEP 3

(continued)

E. PRESS THE RESET BUTTON on the front of the "JOIN" computer as shown in Figure 4. Wait for a series of clicking noises, after which a menu (list) of choices will appear on the screen.

FIGURE 4

F. KNOW WHERE THE LARGE VIDEODISKS ARE. Videodisks should be accessible and properly labeled.

G. TURN VIDEOPLAYER ON and open the lid by pressing the latch button. See Figure 5.

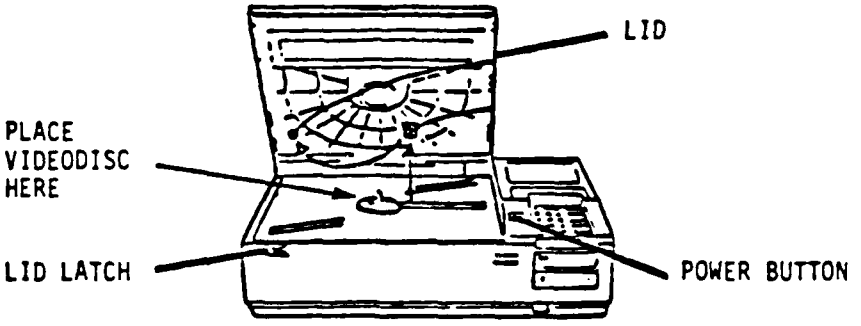


FIGURE 5

YOU ARE READY TO BEGIN YOUR "JOIN" COMPUTER SESSION.

GO TO STEP 4

STEP 4

ARMY JOBS

13) ENTER THE TIME: _____:_____am/pm.

A. You should be seated at the "JOIN" computer, and the MAIN MENU should be showing on the screen. If it is not, go back to START-UP INSTRUCTIONS in this manual (STEP 3).

B. From the MAIN MENU, select item "A" (Army Jobs).

NOTE: Review 2-3 Army Skill Clusters but NO MORE at this time.

C. When you have finished reviewing the Army skills, please answer the following questions.

14) ENTER THE TIME: _____:_____am/pm

15) For the purpose of learning about Army jobs, how would you rate the quality of the information presented? Use the scale below to record your answer.

POOR				EXCELLENT
1	2	3	4	5

COMMENTS: _____

_____

_____

16) What information do you believe would be most useful to students or impressed you the most?

ANSWER: _____

_____

_____

17) Do you believe that students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information?

LESS INTERESTED		NO CHANGE		MORE INTERESTED
1	2	3	4	5

COMMENTS: _____

_____

STEP 4

(continued)

18) COMPUTER: How easy or difficult was it to use the computer keyboard and follow the screen messages?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

19) VIDEOS: How easy or difficult was it ot use the video equipment?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

20) What problems did you have if any, using the computer? (Write "NONE" if no problems):

_____

_____

21) Was there anything about this part of JOIN that you did not enjoy or find useful?

_____NO _____YES (describe it and suggest how these could be improved)

_____

_____

THANK YOU

- PRESS THE MENU KEY AT THE TOP OF THE KEYBOARD
- GO TO THE NEXT PAGE AND COMPLETE STEP 5.

STEP 5

INCENTIVES AND BENEFITS

ENTER THE TIME: _____:_____am/pm

A. Be sure that the MAIN MENU is showing on the computer screen as it was when you first began; if not press the MENU key at the top of the keyboard.

B. From the MAIN MENU, select item "B" (Incentives/Benefits). Then select the "Education" item at the next menu and review only the following two videos: G.I. Bill, Army College Fund.

C. After you have finished, please answer the following questions.

22) ENTER THE TIME: _____:_____am/pm

23) How would you rate the quality of the information presented? Use the scale below to record your answer.

POOR				EXCELLENT
1	2	3	4	5

COMMENTS: _____

_____

_____

24) What of this information do you believe would be most useful to students or impressed you the most?

ANSWER: _____

_____

_____

25) Do you believe that students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information?

LESS INTERESTED		NO CHANGE		MORE INTERESTED
1	2	3	4	5

COMMENTS: _____

_____

STEP 5

(continued)

26) COMPUTER: How easy or difficult was it to use the computer and follow the screen messages?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

_____

27) VIDEOS: How easy or difficult was using the video equipment?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

28) What problems did you have with the equipment? (Write "NONE" if no problems):

_____

_____

29) Was there anything about this part of JOIN that you did not find enjoyable or useful?

_____NO _____YES (describe it and give suggestions) _____

_____

_____

THANK YOU

- PRESS THE MENU KEY AT THE TOP OF THE KEYBOARD
- GO TO THE NEXT PAGE AND COMPLETE STEP 6.

STEP 6

YOUR OPTIONS

ENTER THE TIME: _____:_____am/pm

A. Be sure that the MAIN MENU is showing on the computer screen as it was when you first began. If not, press the MENU key at the top of the keyboard.

B. From the MAIN MENU, select item "C" (Your Options). Be sure to review the option concerning community college graduates.

NOTE: Review 2-3 Army Options when invited to do so, but NO MORE at this time.

C. After you have finished, please answer the following questions.

30) ENTER THE TIME: _____:_____am/pm

31) How would you rate the quality of the information presented? Use the scale below to record your answer.

POOR				EXCELLENT
1	2	3	4	5

COMMENTS: _____

_____

_____

32) What information do you believe would be most useful to students or impressed you the most?

ANSWER: _____

_____

_____

33) Do you believe that students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information?

LESS INTERESTED		NO CHANGE		MORE INTERESTED
1	2	3	4	5

COMMENTS: _____

_____

STEP 6

(continued)

34) COMPUTER: How easy or difficult was it to use the computer keyboard and follow the screen messages?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

35) VIDEOS: How easy or difficult was it to use the video equipment?

VERY DIFFICULT				VERY EASY
1	2	3	4	5

COMMENTS: _____

_____

36) What problems did you have with the equipment? (Write "NONE" if appropriate):

_____

_____

37) Was there anything about this part of JOIN that you did not enjoy or find useful?

__ __NO____YES (describe it and give suggestions) _____

_____

_____

THANK YOU

- PRESS THE MENU KEY AT THE TOP OF THE KEYBOARD
- GO TO THE NEXT PAGE OF THIS BOOKLET.

GENERAL IMPRESSIONS

Before ending this session, please answer the following brief questions:

38) At your college, do you use other computer systems for vocational guidance?

_____NO_____YES. If so, how did your "JOIN" session compare to them? "JOIN" was:

NOT AS GOOD	ABOUT THE SAME	BETTER FOR ME
1	2	3

If your rating was less than "2", explain why JOIN is not as good:

_____

_____

_____

39) Do you think that Army Occupational Information is a good thing to have available in your college career counseling center?

_____YES_____NO. Explain why: _____

_____

_____

40) From your experience with it, do you feel that JOIN is generally a good system for students to explore Army vocational opportunities?

_____YES_____NO. Explain why: _____

_____

_____

APPENDIX E

Counselors' Final Project Evaluation
(data collection form)

COUNSELOR EVALUATION OF PROJECT JOIN

Final Evaluation Package

Counselor _____

College _____

Date Completed _____

READ BEFORE COMPLETING:

Informed Consent and Privacy Statement

Public Law 93-573, called the Privacy Act of 1974, requires that you be informed of the purpose and uses to be made of the information that is being collected. The Department of the Army may collect the information requested in this questionnaire under the authority of 10 U.S. Code 136. Purpose of this questionnaire is: to help obtain feedback from participating community colleges as to the value of making Army vocational opportunities information (vocational guidance media) available in community college counseling centers.

Providing information in this questionnaire is voluntary and of no risk since your identity and that of your college will be held in confidence by the Army Research Institute which is overseeing this project as agent of the Office of the Deputy Chief of Staff for Army Personnel. Responding to items in this survey is at your option. Though there is no requirement to respond to any particular item, your complete response will be of great assistance to thorough analysis of the project data.

COUNSELOR'S PROJECT OVERVIEW

Concluding Project Evaluation Activity

Directions

In this concluding part of the project evaluation, you will be asked to provide comment upon a number of important aspects of Project JOIN. In addition, you may include any further comments that you wish. For this project, most weight will be placed upon the feedback received from the career center counselor, and the more that your comments help to clarify problem areas and propose solutions the better. Feel free to express your professional views to the fullest in this section.

Please provide your comment for the following questions

1) Briefly describe the success of your experience (both pros and cons) in working with Army Recruiters prior to the JOIN project, i.e., how effective has that relationship been toward meeting student needs?

2) Since Project JOIN began, have your local military recruiters (all Services) been aware of it and have they had any comment or reaction; if so, what reaction?

3) What advantages, if any, do you feel that a JOIN-type vocational information system offers you as a career counselor were it available full time at your Center? Cite disadvantages, too, where applicable?

- GO ON TO NEXT PAGE -

4) For those students who have used the JOIN system, what is your impression of their receptiveness to it; i.e., do they like the system generally, do they feel that the content information is useful, etc.?

5) What methods for getting students to participate in JOIN seem to be used most frequently by counselors or were the most convenient to employ; can you suggest other methods to try in the future?

6) How has the JOIN equipment operated -- easy enough for students to use, reliable?

7) Based on your experience with the JOIN equipment, would it be useful to offer an updated version of JOIN that would run on commonplace small computers like the IBM-PC or Apple computer--or continue with existing equipment; which and why?

- GO ON TO NEXT PAGE -

8) If JOIN incorporated additional student user guidance such as a Vocational Interest Test, Vocational Maturity Scale, Army Prequalifying Test, or other means to help the student narrow choices, would this be helpful--or, should JOIN be left unstructured as it presently is? Suggest any features that you feel JOIN should have or NOT have:

9) Having sampled the JOIN concept for a semester, do you feel that further development and deployment of such a system for commumity colleges is warrented? If so, what do you see as the major benefit(s) of JOIN's presence on campus for students; if none, how would you suggest that current, military vocational information be presented at the community college level?

10) Please provide any further comments or suggestions about the JOIN system which you deem relevant to its evaluation, use or further development:

*** END OF PROJECT JOIN EVALUATION ***
"Thank You for Participating"

APPENDIX F

Counselors' Final Summary of Student Feedback

COUNSELORS' SUMMARY: STUDENT USER FEEDBACK (JOIN session)

FOR: 5 COMMUNITY COLLEGES

PERIOD: March - May '86 field study

AREAS OF INQUIRY		APPROX % STUDENTS IN CATEGORY:	MEAN	S.D.
Users' Demographics:				
1)	AGE		23.2	4.4
2a)	MALE	40.0		
b)	FEMALE	60.0		
3a)	CAUCASIAN	30.0		
b)	BLACK	70.0		
c)	HISPANIC	0.0		
d)	AM. INDIAN	0.0		
e)	ASIAN	0.0		
Education & Military Consideration:				
4)	YEARS OF SCHOOLING (AVG.TOTAL)		14.3	1.5
5a)	HAD ELECTED MAJOR FIELD OF STUDY.	60.0		
b)	UNDECIDED AS TO MAJOR FIELD	40.0		
6a)	USERS NEVER CONSIDERED ARMY JOBS	30.0		
b)	KNEW LITTLE ABOUT ARMY, BUT OPEN	30.0		
c)	QUITE INTERESTED IN THE MILITARY	40.0		
Rank-order Importance to Users' Vocational Decision-making:		(RANK)		
7a)	ACTUAL TYPE OF WORK TO BE DONE (WORK ACTIVITIES, TASKS).	1.0	3.5	1.6
b)	WHERE THE WORK IS DONE (THE JOB ENVIRONMENT).	6.0	6.9	2.9
c)	SALARY.	2.0	4.1	2.2
d)	PRESTIGE OF JOB.	7.0	7.1	2.7
e)	STANDARD BENEFITS (RETIREMENT PLAN, HEALTH BENEFITS, ETC.).	5.0	6.8	2.4
f)	EDUCATION/TRAINING OPPORTUNITY (TUITION, ON-THE-JOB TRAINING).	7.0	7.1	2.4
g)	TRAVEL OPPORTUNITIES.	9.0	8.5	3.8

AREAS OF INQUIRY		APPROX % STUDENTS IN CATEGORY:	MEAN	S.D.
		(RANK)		
7h)	WHERE THE JOB IS LOCATED.	8.0	8.1	2.5
i)	TYPE OF PEOPLE YOU WORK WITH.	4.0	4.8	2.2
j)	JOB SATISFACTION, PRIDE.	2.0	4.1	1.7
k)	CASH BONUS FOR ENTERING A JOB OR TAKING SPECIAL WORK.	10.0	9.4	3.4
l)	CHANCE TO MATURE PERSONALLY.	6.0	6.9	0.7
m)	DEVELOP LEADERSHIP AND SUPERVISORY SKILLS.	3.0	4.3	3.4
Vocational Interest Profile:				
8)	MINS. REQUIRED TO COMPLETE V.I.P.		10.9	3.6
9)	HOW USEFUL WAS THE V.I.P. SURVEY INFORMATION FOR USERS (1 = NOT AT ALL USEFUL, 5 = VERY USEFUL)		3.3	1.2
10)	HOW EASY OR DIFFICULT WAS IT TO COMPLETE THE V.I.P.? (1 = VERY DIFFICULT, 5 = VERY EASY)		3.9	1.1
11)	DURING COLLEGE, HAD USERS EVER COMPLETED ANY INTEREST SURVEYS OF THIS TYPE?	(%)		
	NO	70.0		
	YES.....	30.0		
	How many times?		1.2	
JOIN System -- "Army Jobs:"				
12)	MINS. TO COMPLETE ARMY JOBS:		10.8	6.0
13)	HOW DID USERS FIND THE QUALITY OF THE INFORMATION PRESENTED? (1 = POOR, 5 = EXCELLANT)		4.2	0.6
14)	DID USERS FEEL MORE INTERESTED IN THE ARMY AS A POSSIBLE VOCATIONAL OPPORTUNITY BEYOND COLLEGE AFTER REVIEWING THIS INFORMATION? (1 = LESS INTERESTED, 3 = NO CHANGE, 5 = MORE INTERESTED)		3.9	0.7

AREAS OF INQUIRY		APPROX % STUDENTS IN CATEGORY:	MEAN	S.D.
15)	HOW EASY OR DIFFICULT WAS IT TO USE THE COMPUTER KEYBOARD AND FOLLOW THE SCREEN MESSAGES? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.2	1.3
16)	HOW EASY OR DIFFICULT WAS IT TO USE THE VIDEO EQUIPMENT? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.9	0.1
17)	WAS THERE ANYTHING ABOUT THIS SESSION THAT USERS DID NOT ENJOY OR FIND USEFUL?			
	NO	90.0		
	YES.....	10.0		
JOIN System -- Your Options:				
18)	MINS. TO COMPLETE OPTIONS:		7.4	2.7
19)	HOW DID USERS FIND THE QUALITY OF THE INFORMATION PRESENTED? (1 = POOR, 5 = EXCELLANT)		4.4	0.5
20)	DID USERS FEEL MORE INTERESTED IN THE ARMY AS A POSSIBLE VOCATIONAL OPPORTUNITY BEYOND COLLEGE AFTER REVIEWING THIS INFORMATION? (1 = LESS INTERESTED, 3 = NO CHANGE, 5 = MORE INTERESTED)		3.8	0.5
21)	HOW EASY OR DIFFICULT WAS IT TO USE THE COMPUTER KEYBOARD AND FOLLOW SCREEN MESSAGES? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.9	0.2
22)	HOW EASY OR DIFFICULT WAS IT TO USE THE VIDEO EQUIPMENT? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.9	0.2
23)	WAS THERE ANYTHING ABOUT THIS SESSION THAT USERS DID NOT ENJOY OR FIND USEFUL?			
	NO	100.0		
	YES.....	0.0		

AREAS OF INQUIRY		APPROX % STUDENTS IN CATEGORY:	MEAN	S.D.
General Impressions:				
24)	HOW WERE USERS INFORMED ABOUT THE OPPORTUNITY TO USE THE ARMY'S JOIN SYSTEM?			
a)	ASKED ABOUT MILITARY CAREER OPPORTUNITIES AND COUNSELOR SUGGESTED THIS (JOIN SYSTEM).	10.0		
b)	COUNSELOR SUGGESTED IT BECAUSE IT WAS HERE (AVAILABLE).	40.0		
c)	HEARD ABOUT IT FROM OTHER SCHOOL STAFF/FACULTY.	10.0		
d)	HEARD ABOUT IT FROM A FRIEND.	.0		
e)	SAW A POSTER ON CAMPUS.	20.0		
f)	SUGGESTED BY AN ARMY RECRUITER.	.0		
g)	SAW PEOPLE USING IT AND ASKED WHAT IT WAS.	10.0		
h)	HEARD ABOUT IT FROM A CAMPUS RADIO OR NEWSPAPER.	0.0		
	OTHER...	10.0		
25a)	AT YOUR COLLEGE, HAD USERS EVER USED OTHER COMPUTER SYSTEMS FOR VOCATIONAL GUIDANCE?			
	NO	60.0		
	YES.....	40.0		
b)	IF THE ANSWER TO 39a WAS "YES" (THEY HAD USED SUCH SYSTEMS), HOW DID THE JOIN SESSION COMPARE TO THEM? (1 = JOIN WAS NOT AS GOOD, 2 = ABOUT THE SAME, 3 = JOIN WAS BETTER FOR THEM)		1.8	0.3
26)	DO THE USERS THINK THAT ARMY OCCUPATIONAL INFORMATION IS A GOOD THING TO HAVE AVAILABLE IN THE COMMUNITY COLLEGE?			
	NO	0.0		
	YES.....	100.0		

AREAS OF INQUIRY	APPROX % STUDENTS IN CATEGORY:	MEAN	S.D.
27) WOULD USERS RECOMMEND EXPLORING ARMY OPPORTUNITIES ON "JOIN" TO A FRIEND GIVEN THEIR EXPERIENCE WITH IT?			
NO	20.0		
YES.....	80.0		

APPENDIX G

Volunteered Student Comments re: JOIN

GENERAL IMPRESSIONS

(continued)

41) Please give any remaining observations, comments or suggestions you may have for improving the "JOIN" computer and its vocational information:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

** THANK YOU FOR YOUR PARTICIPATION **

SUMMARY OF STUDENT COMMENTS

Students were invited to make comments on the effectiveness of JOIN in their user guide or to the counselor. Though few did, all commments volunteered are reported below.

NOTE: Each comment was made by no more than one student.

Part I = Comments Addressing JOIN Information Content

1) Concerning the Vocational Interests Profile (the paper/pencil short-form interest assessment)...

Pro

- The useful end product was the list of things I like/don't like.

Con

- The questionnaire was the only problem; it took too long.
- The questionnaire was too long.

2) Concerning the part of JOIN titled "Army Jobs," on the quality of the information that was presented...

Pro

- It informed me of the duties more than what I'd expected.
- JOIN is very informative. Actually, if a person has any doubts about joining the Army, they probably won't after learning the benefits of experience one may get.
- It gives the necessary basics which a person should know.
- It is great to actually see what you would be doing, so that you can make up your mind if the Army is really what you want.

Con

- It gave no mention of the time involved, intensity of training and competition, or everyday life; no mention of skill use in life after the Army.

2) quality of "Army Jobs" info, continued...

Con (cont'd.)

- Not enough realistic information.
- I wish there was information on the other Armed Forces.
- JOIN wasn't what I expected -- not enough information on female jobs.

3) Concerning the part of JOIN titled "Army Jobs," on what information was most useful or impressed students the most...

Pro

- The presentations on general science, electronics & communications, and aviation maintenance.
- The valuable leadership, confidence, and discipline.
- I was most impressed with the types of the CMF 95 MOS.
- Health sciences, general sciences, law enforcement.
- The benefits.
- Mention of overseas work/travel.
- The presentation on military intelligence.
- That the Army was the first to develop most of the computers being used today.
- JOIN gave good "general" information concerning the Army job I selected to review.
- The Army Reserve impressed me the most.
- The type of training for arts impressed me the most.
- Liked General sciences best.
- Details about work environment / applicability of job to civilian life / what you need to qualify.

4) Concerning the part of JOIN titled "Army Jobs," on whether students felt more interested in the Army as a possible opportunity beyond college after reviewing this information...

Pro

- I may be interested in the health field.
- I'm really considering going into the Reserve now since JOIN.

5) Concerning the part of JOIN titled "Army Jobs," was there anything about this session that students did not enjoy; if so, suggest how these could be improved...

Pro

- Good production.

Con

- All of the presentations seemed too short.
- The computer was a bit slow.

6) Concerning the part of JOIN titled "Your Options," on the quality of the information that was presented...

Pro

- It is good for what it wants to present.
- Exciting.

Con

- The information needs to go more indepth about what is involved.

7) Concerning the part of JOIN titled "Your Options," what information was most useful or impressed students the most...

Pro

- All of the information impressed me.
- That hours in school can determine your rank.
- How one can get promoted by referring enlistments.

7) most useful info in "Your Options," continued...

Pro (cont'd.)

- Education.
- The information on Officer Candidate School.
- The extensive training.
- The benefits.
- The Army Reserves.
- The type of training.
- Law enforcement.
- Gave a clear idea of what the job entails.

8) Concerning the part of JOIN titled "Your Options," on whether students felt more interested in the Army as a possible opportunity beyond college after reviewing this information...

Pro

- Seriously considering joining the Reserves.

Part II = Questions Addressing the JOIN Hardware/Software

9) (Computer) - How easy or difficult it was to use the computer keyboard and follow screen messages...

Pro

- After being shown how to start JOIN, the directions were easy (to follow).
- (Computer was) Very easy to use.

Con

- The JOIN computer was too slow.
- There were a lot of keys to sort out.

9) JOIN computer ease, continued...

Con (cont'd.)

- Screen message wasn't clear, rest was easy.

- Put disks in upside down; couldn't figure out what to enter on the menu.

10) (Videoplayer/videodiscs) - How easy or difficult it was to use the video equipment...

Pro

- No problem with the videoplayer. It was quite simple. It's like a record player.

- No problem with the video equipment.

11) (System in-general) - What problems, if any, the students had with the JOIN equipment...

Con

- At first, I had a problem finding the job list (for "Army Jobs"); but after I was shown, it was simple.

- (For "Army Jobs") I had problems finding the right job information with the JOIN computer.

- After the "Your Options" program had finished, I couldn't figure out what to do.

Part III - Students' General Impressions

12) Is Army occupational information a good thing to have available in the community college...

Pro

- Yes. JOIN should be placed on other campuses as well as in high schools.

- Yes, it gives you more options.

- Yes. JOIN is very helpful for anyone planning to enter the military.

12) value of Army vocational info, continued...

Pro (cont'd.)

- Yes. JOIN gives students relevant information about Army careers without a "hard sell" from a recruiter.

- Yes. JOIN visualizes for you what it is really like to be in the Army.

- Yes. JOIN is good for students who may be interested in a career in the Army.

- Yes. JOIN helps people to see another aspect of education.

- Yes, JOIN gives you a brief description on Army occupational information.

- Yes, data is clear, concise -- shows people actually doing the job described, with good & bad points of the job field.

13) Would student users recommend exploring Army opportunities on JOIN to a friend given their own experience with it...

Pro

- Yes, because JOIN was very informative.

- Yes, for (exploring) an alternative career.

- Yes. JOIN is interesting.

- I would recommend JOIN to a friend if he or she were interested in an Army career.

- I would recommend JOIN to a friend if they were interested in the Army.

- Yes, because JOIN is very useful.

Con

- Well, maybe. It didn't change my mind either way.

- No, most of my friends are already in large organizations or want small companies.

14) Any other comments or suggestions of students for improving JOIN...

Pro

- JOIN should be put into senior and junior high schools, because it is very informative and may shape a lot of young people's ways and habits.

- JOIN was very interesting; especially if you have an interest in the Army.

- I enjoyed using the computer and videos very much.

- JOIN was all very helpful to me.

Con

- There could be more of an inside story pertaining to basic training. One should not be deceived about the pressure (mental) that one has to withstand during such training.

- The JOIN system is too long. I think it should be shortened.

- Put more realistic information in JOIN. Give advantages (pros) and disadvantages (cons).

- Make the JOIN system easier to operate.

- JOIN should give information that involves the jobs that females are interested in.

APPENDIX H

Results for Counselors' Personal JOIN Session

SUMMARY: COUNSELORS' PERSONAL JOIN SESSION

N = 7 Career Center Counselors (5 community colleges)

March - May '86 field study

	COUNSELOR SURVEY QUESTIONS	% CASES	MEAN	S.D.
	"User Demographics"			
2)	AGE		37.5	6.4
3a)	MALE	29.0		
b)	FEMALE	71.0		
4a)	CAUCASIAN	71.0		
b)	BLACK	29.0		
c)	HISPANIC	0.0		
d)	AM. INDIAN	0.0		
e)	ASIAN	0.0		
5)	YEARS OF SCHOOLING (TOTAL)		18.1	0.4
7)	COUNSELING EXPERIENCE IN YEARS		8.5	2.8
	"Vocational Interest Profile"			
9)	MINS. REQUIRED TO COMPLETE V.I.P.		6.0	3.5
10)	HOW USEFUL COULD V.I.P. SURVEY BE FOR STUDENTS? (1 = NOT AT ALL USEFUL, 5 = VERY USEFUL)		2.6	1.7
11)	HOW EASY OR DIFFICULT WAS IT TO COMPLETE THE V.I.P.? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.2	1.3
	JOIN System -- "Army Jobs"			
14)	MINS. TO COMPLETE ARMY JOBS:		10.5	3.1

PAGE 2 - Counselor JOIN session

	USER SURVEY QUESTIONS	% CASES	MEAN	S.D.
15)	HOW WOULD YOU RATE THE QUALITY OF THE INFORMATION PRESENTED? (1 = POOR, 5 = EXCELLANT)		4.0	0.0
17)	WOULD STUDENTS BE MORE INTERESTED IN IN THE ARMY AS A VOCATIONAL OPPORTUNITY BEYOND COLLEGE AFTER REVIEWING THIS TYPE INFORMATION? (1 = LESS INTERESTED, 3 = NO CHANGE, 5 = MORE INTERESTED)		4.1	0.4
18)	HOW EASY OR DIFFICULT WAS IT TO USE THE COMPUTER KEYBOARD AND FOLLOW THE SCREEN MESSAGES? (1 = VERY DIFFICULT, 5 = VERY EASY)		5.0	0.0
19)	HOW EASY OR DIFFICULT WAS IT TO USE THE VIDEO EQUIPMENT? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.7	0.8
21)	WAS THERE ANYTHING ABOUT THIS SESSION THAT YOU DID NOT ENJOY OR FIND USEFUL?			
	NO	71.0		
	YES.....	29.0		
JOIN System -- 'Incentives & Benefits'				
22)	MINS. TO COMPLETE INCENT/BENEFTS:		11.3	3.9
23)	HOW WOULD YOU RATE THE QUALITY OF THE INFORMATION PRESENTED? (1 = POOR, 5 = EXCELLANT)		3.7	0.5
25)	WOULD STUDENTS BE MORE INTERESTED IN THE ARMY AS A VOCATIONAL OPPORTUNITY BEYOND COLLEGE AFTER REVIEWING THIS INFORMATION? (1 = LESS INTERESTED, 3 = NO CHANGE, 5 = MORE INTERESTED)		4.1	1.2
26)	HOW EASY OR DIFFICULT WAS IT TO USE THE COMPUTER KEYBOARD AND FOLLOW SCREEN MESSAGES? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.7	0.8
27)	HOW EASY OR DIFFICULT WAS IT TO USE THE VIDEO EQUIPMENT? (1 = VERY DIFFCLT, 5 = VERY EASY)		4.9	0.4

PAGE 3 - Counselor JOIN session

	USER SURVEY QUESTIONS	% CASES	MEAN	S.D.
29)	WAS THERE ANYTHING ABOUT THIS SESSION THAT YOU DID NOT ENJOY OR FIND USEFUL?			
	NO	71.0		
	YES.....	29.0		
JOIN System -- "Your Options"				
30)	MINS. TO COMPLETE OPTIONS:		5.6	2.7
31)	HOW WOULD YOU RATE THE QUALITY OF THE INFORMATION PRESENTED? (1 = POOR, 5 = EXCELLANT)		3.3	1.3
33)	WOULD STUDENTS BE MORE INTERESTED IN THE ARMY AS A VOCATIONAL OPPORTUNITY BEYOND COLLEGE AFTER REVIEWING THIS INFORMATION? (1 = LESS INTERESTED, 3 = NO CHANGE, 5 = MORE INTERESTED)		3.6	0.5
34)	HOW EASY OR DIFFICULT WAS IT TO USE THE COMPUTER KEYBOARD AND FOLLOW SCREEN MESSAGES? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.7	0.8
35)	HOW EASY OR DIFFICULT WAS IT TO USE THE VIDEO EQUIPMENT? (1 = VERY DIFFICULT, 5 = VERY EASY)		4.7	0.8
37)	WAS THERE ANYTHING ABOUT THIS SESSION THAT YOU DID NOT ENJOY OR FIND USEFUL?			
	NO	71.0		
	YES.....	29.0		
General Impressions:				
38a)	AT YOUR COLLEGE, DO YOU OTHER COMPUTER SYSTEMS FOR VOCATIONAL GUIDANCE?			
	NO	0.0		
	YES.....	100.0		

PAGE 4 - Counselor JOIN session

	USER SURVEY QUESTIONS	% CASES	MEAN	S.D.
38b)	IF THE ANSWER TO 39a WAS "YES" (YOU USE SUCH SYSTEMS), HOW DID YOUR JOIN SESSION COMPARE TO THEM? (1 = JOIN WAS NOT AS GOOD, 2 = ABOUT THE SAME, 3 = JOIN WAS BETTER)		1.2	0.4
39)	DO YOU THINK THAT ARMY OCCUPATIONAL INFORMATION IS A GOOD THING TO HAVE AVAILABLE IN YOUR CAREER COUNSELING CENTER?			
	NO	29.0		
	YES.....	71.0		
40)	FROM YOUR EXPERIENCE, DO YOU THINK THAT "JOIN" IS A GOOD SYSTEM FOR STUDENTS TO EXPLORE ARMY VOCATIONAL OPPORTUNITIES?			
	NO	29.0		
	YES.....	71.0		

APPENDIX I

Counselor Comments from Personal JOIN Session

SUMMARY OF COUNSELOR COMMENTS
(from counselors' personal JOIN session - see Appendix D)

Certain question items in the counselors' JOIN session Users Guide invited counselors to volunteer comments about the effectiveness of JOIN. Comments offered are reported below and numbered according to the User Guide of Appendix D.

NOTE: Each comment was made by no more than one counselor.

Part I - Comments Addressing JOIN Information Content

11) For students, how easy or difficult would it be to complete the Vocational Interests Profile ? (Your own comments/suggestions):

Pro

- Very easy if you read the directions. Students sometimes skip directions, so it could be difficult to give such a test on computer.
- The VIP is very easy to complete.

Con

- Only possible difficulty is transferring the results to the summary profile (since the VIP is not incorporated into the computer).
- The transfer of responses from the original raw data to summary form is cumbersome due to the multiple pages.
- The VIP needs work.
- The VIP is too simplistic; doesn't lead to a final conclusion (relate outcome to jobs), so students unfamiliar with Holland or DOT scales wouldn't have anything to base decisions upon.

12a) What vocational interests surveys do you provide to students at your center in print form ?

- SVIB/SCII, VIEW, Myers-Briggs, Self-Directed Search.
- SVIB/SCII, VIEW, Myers-Briggs, Self-Directed Search, Career Assessment Inventory.
- SVIB/SCII, Self-Directed Search.

12a) printed tests, continued...

- SVIB/SCII, Myers-Briggs, Self-Directed Search.
- Self-Directed Search, My Vocational Situation, ACT Career Planning Program.
- SVIB/SCII, Myers-Briggs, Self-Directed Search, Kuder Preference Inventory.
- SVIB/SCII, Myers-Briggs, Self-Directed Search, Career Assessment Inventory, Career Decision-making System, Career Maturity Inventory.

12b) What vocational interests surveys/searches do you provide to students at your center <u>in computer form</u> ?

- VIEW
- VIEW
- INFORM
- INFORM, SIGI-PLUS
- INFORM, DISCOVER, DISCOVER ADULT
- INFORM, DISCOVER, DISCOVER ADULT, SVIB/SCII, MYERS-BRIGG
- GUIDANCE INFORMATION SYSTEM (GIS) with the career decision-making option, capability to enter and process scores from other inventories.

  (NOTE: VIEW and INFORM are, respectively, the Virginia and Maryland State Department of Education versions of the Michigan Occupational Information and Career Education system, MOICE)

15) Comments on <u>the quality of information presented</u> in the part of JOIN titled "Army Jobs":

<u>Pro</u>

- Good videos; quick, very appealing presentations.
- Good presentation; variety, color is excellant.
- Very honest and balanced presentations.

15) quality of "Army Jobs" info, continued...

Con

- Some knowledge of the corresponding civilian occupation might be helpful. For the law enforcement presentation, a discussion of specific skills required would be helpful.

- Perhaps add some examples of how uses of everyday skills compare to Army skills.

3) Concerning the part of JOIN titled "Army Jobs," what information would be most useful to students or impressed you the most ?

Pro

- On-the-job training, related jobs once you exit the military, veterans benefits.

- On-the-job training, component qualifications.

- Most impressive was the quality of the video information.

- Professional character of the presentation, and that jobs were described as requiring specialized skill levels would be of most value to students.

- The active Army duties performed.

- The variety of Army job opportunities available.

- The way that the "environment" was presented; answering: "What is it like to be in the Army?"

Con

- Most useful to students would be to translate Army jobs to civilian transfer-of-skills.

17) Concerning the part of JOIN titled "Army Jobs," on whether students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information...

Pro

- JOIN did a good job encouraging more interest in the Army.

17) student interest after "Army Jobs," continued...

Pro (cont'd.)

- The information presented could constructively assist students in either considering or not considering the Army as an option after college.

- JOIN shows that life in the Army is not all following orders.

21) Concerning the part of JOIN titled "Army Jobs," was there anything about this session that you did not enjoy; if so, suggest how these could be improved...

Con

- The operating process of the JOIN computer is extremely slow.

- The choices of Army jobs should be connected to the outcome profile of the vocational interest inventory.

23) Concerning the part of JOIN titled "Incentives and Benefits," on the quality of the information that was presented:

Pro

- The Incentives and Benefits section was explained well.

- This section was straightforward and easy to understand.

Con

- Reference was made to 1) critical skill areas and 2) approved veterans programs. More discussion of these areas would be helpful.

24) Concerning the part of JOIN titled "Incentives and Benefits," what information would be most useful to students or impressed you the most ?

Pro

- Educational benefits were clearly explained.

- The Army's contribution to education funds.

- Most useful to students would be the info about money to finance their education.

24) most useful info from "Incent/Benefits," continued...

Pro (cont'd.)

- Most useful would be the financial package information.

- Students simply don't understand (are not aware of) the amount of assistance that is available from the Army.

Con

- Could salary range information be provided?

- I was confused about the difference between the GI bill and the Army College Fund, and the advantages of each.

- Most useful to students would be knowing what opportunities are available "after" serving duty.

25) Concerning the part of JOIN titled "Incentives and Benefits," on whether students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information:

Pro

- Yes, the financial support was very attractive.

- Yes, especially for low income individuals.

Con

- There needs to be more emphasis in JOIN on completing the two-year degree first for community college students

29) Concerning the part of JOIN "Incentives and Benefits," was there anything about this session that you did not enjoy; if so, suggest how these could be improved:

Con

- Yes, the JOIN computer has an extremely slow operating process.

- I would have preferred that the special information for community college students be presented in this section.

31) Concerning the part of JOIN titled "Your Options," on the quality of the information that was presented:

Con

- For the text-only sections, audio would be a helpful addition for users.
- This section should have audio as well as video.
- Use another approach in presenting this information, like an interesting audio-video approach.

32) Concerning the part of JOIN titled "Your Options," what information would be most useful to students or impressed the most ? :

Pro

- Advancement possibilities.
- Ranks available in the Army.
- The Army's willingness to provide a range of types of enlistment (options).
- The special programs and options.

Con

- What do the job levels "E-2,E-3, etc." mean -- its Greek to me and any student who doesn't know anything about the Army?
- Delayed entry program, salary levels, and E-2, E-3 are not clear -- what do these mean?

33) Concerning the part of JOIN titled "Your Options," on whether students would feel more interested in the Army as a possible opportunity beyond college after reviewing this information:

Pro

- Students would be somewhat more interested; the Army options appeal to them.

37) Concerning the part of JOIN titled "Your Options," was there anything about this session that you did not enjoy; if so, suggest how these could be improved:

Pro

- No problems.

Con

- Yes, JOIN operates too slowly.
- I did not enjoy parts that gave only printed text info on the monitor, especially without a printer available. Add some graphics showing a career ladder or levels of advancement to aid the (text only) presentations.

Part II - Questions Addressing the JOIN Hardware/Software

18,26,34) (Computer) - How easy or difficult it was to use the computer keyboard and follow screen messages ?

Pro

- Directions were clear.

Con

- The JOIN computer runs slow.

19,27,35) (Videoplayer/videodiscs) - How easy or difficult it was to use the video equipment ?

Con

- The videoplayer sometimes didn't recognize the disk when a new disk was inserted; had to turn it off then on again to get the player to work.

20,28,36) (System in-general) - What problems, if any, did you have with the overall JOIN computer/system ?

Pro

- No problems using the computer/equipment.
- No problems in general with the computer.
- No problems.

20,28,36) problems with system-in-general, continued...

Con

- Screen prompts and menus were not always clear. Sometimes students don't read prompts at bottom of screen.

- Occasionally did not get a response after striking the particular key on the keyboard. Repeated the action to obtain the desired result.

Part III - General Impressions

38) For those counselors who felt that JOIN was not as good as other computer systems used at the campus to provide vocational guidance, why not ?

Con

- JOIN should link interest assessment to choosing the part of the Army that's most appropriate to the individual (interactive capability) -- JOIN should not provide information "only."

- JOIN does not offer interactive opportunity for student assessment of self vs. Army opportunities.

- Students should be free to request specific information from JOIN.

- The self-assessment interest test was inferior to existing systems; it was too cursory and superficial.

- The JOIN video presentations were "flashy," but the system had very little career guidance (directive) substance.

39) Is Army occupational information a good thing to have available in your college career counseling center ?

Pro

- Yes, it gives students another option.

- Yes if it were combined with interest assessment and better linked to comparable jobs in the civilian world post-enlistment.

39) value of Army vocational info, continued...

Pro (cont'd.)

- Yes. It offers another option in the career search.

- Yes, it is a legitimate step in a career path.

Con

- No, instead of a computer, I think the personal touch is needed.

40) From your experience with it, do you feel that JOIN is generally a good system for students to explore Army vocational opportunities ?

Pro

- Yes, JOIN videodiscs are exceptionally well done and give the information in a fast and concise manner.

- Yes, JOIN covers the areas of interests, options, benefits, jobs, etc., applicable to explore vocational opportunities.

- Yes, JOIN is another tool for presenting occupational and career information.

Con

- No. Students may want some eye contact with the recruiter.

- Not in its present form (in this study).

41) Other observations, comments or suggestions you may have for improving the JOIN computer and its vocational information:

- For the community college level, more emphasis should be given in JOIN's "skill clusters" presentations on the benefits of earning the 2-year degree first.

- I suggest using a faster computer system with a printer, and offering information on the screen but also having the option to make the information available in print form for the students to take with them.

41) Other comments/suggestions, continued...

- JOIN needs:

  1) a tie-in with civilian occupations,
  2) information about transferrable skills,
  3) improved operating procedure--it's too slow,
  4) the ability to return to certain parts of the program without returning to the beginning,
  5) the vocational interests test as an option so that if a student has already taken one, they do not have to repeat it in this process.

- Army job/career information has to be factual, honest, and able to fit into the career information libraries of community colleges. If it looks like marketing information and doesn't really help in career decision making, then counselors will not touch it.

APPENDIX J

Results for Counselors' Final Project Evaluation
(concluding project overview)

1) Briefly describe the success of your experience (both pros and cons) in working with Army Recruiters prior to the JOIN project, i.e., how effective has that relationship been toward meeting student needs?

CASE	1) PRO COMMENTS	1) CON COMMENTS
1	I HAVE ALWAYS FELT IT VALUABLE TO HAVE RECRUITERS COME TO THE CAMPUS TO INFORM STUDENTS OF THE MILITARY AS A CAREER OPTION.	
2	THE STUDENT ACTIVITIES CENTER (NOT COUNSELING CENTER) ARRANGES FOR RECRUITERS TO REGULARLY MEET WITH STUDENTS ON CAMPUS AT A CENTRAL LOCATION (CAFETERIA AREA). THE RELATIONSHIP BETWEEN THE COUNSELING CENTER AND RECRUITERS HAS BEEN CORDIAL AND MUTUAL.	
3		
4		
5	IT DEPENDS SOMEWHAT UPON THE APPROACH OF THE INDIVIDUAL RECRUITER, BUT THERE HAVE BEEN SOME RECENT IMPROVEMENTS IN RECRUITER UNDERSTANDING OF OUR STUDENTS/PROGRAMS.	RECRUITER IMPACT HAS BEEN MINIMAL. IN THE PAST, THE RECRUITERS DIDN'T SEEM TO UNDERSTAND MUCH ABOUT OUR STUDENTS OR PROGRAMS.
6		RECRUITERS HAVE BEEN PERIODICALLY AGGRESSIVE AND GIVE NO REPORTS ON HOW SUCCESSFUL STUDENTS HAVE BEEN IN ACHIEVING THEIR MILITARY GOALS.
7	WE HAVE HAD FAVORABLE EXPERIENCE WITH ARMY RECRUITERS.	
8	I HAVE FOUND ARMY RECRUITERS WILLING TO ACCOMODATE OUR (COUNSELING CENTER) SYSTEM.	I HAVE FOUND THE RECRUITERS ANXIOUS TO HAVE THE OPPORTUNITY FOR MASS STUDENT CONTACT.

CASE	1) OTHER COMMENTS
1	
2	
3	I HAVE NO PRIOR EXPERIENCE WITH ARMY RECRUITERS.
4	NO RELATIONSHIP WITH ARMY RECRUITERS.
5	
6	RECRUITER VISITS TO CAMPUS ARE LIMITED TO ONCE PER SEMESTER UNLESS OTHER SPECIFIC ARRANGEMENTS ARE MADE.
7	RECRUITER VISITS ON-CAMPUS HAVE BEEN LIMITED BY THE CAREER COUNSELING COORDINATOR TO ONCE A SEMESTER.
8	RECRUITER CONTACT DIMINISHES THROUGHOUT THE SEMESTER ON OUR CAMPUS AND BECOMES LIMITED TO ON-CAMPUS INFORMATION DISPLAYS.

2) Since Project JOIN began, have your local military recruiters (all Services) been aware of it and have they had any comment or reaction; if so, what reaction?

CASE	2) PRO COMMENTS	2) CON COMMENTS
1		
2		SEVERAL RECRUITERS, ON TWO DIFFERENT OCCASIONS, EXPRESSED DISMAY THAT THEY WERE NOT TOLD BY MILITARY OFFICIALS THAT THE JOIN SYSTEM WAS AVAILABLE ON THE CAMPUS. WE EXPRESSED OUR DESIRE TO THE RECRUITERS TO HAVE THEM BRING STUDENTS TO THE COUNSELING CENTER TO USE JOIN, BUT THERE WAS NO RESPONSE.
3		ARMY RECRUITERS WERE NOT AWARE OF THE PRESENCE OF THE JOIN SYSTEM AT THE CAREER CENTER. IN FACT, AT A RECENT CAREER FAIR ON CAMPUS, ARMY RECRUITERS BROUGHT THEIR OWN JOIN SYSTEM AND INDICATED THAT THEY DID NOT KNOW JOIN WAS AT THE CAREER CENTER AND THUS WERE NOT REFERRING STUDENTS TO TRY IT.
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CASE	2) OTHER COMMENTS
1	I AM UNAWARE OF ANY RECRUITER REACTION POSITIVE OR NEGATIVE TOWARD JOIN.
2	
3	
4	NO RELATIONSHIP WITH ARMY RECRUITERS.
5	THERE HAVE BEEN NO COMMENTS FROM RECRUITERS.
6	I ONLY SPOKE WITH ONE ARMY RECRUITER (SINCE JOIN ARRIVED). HE WAS UNAWARE OF THE JOIN PROJECT.
7	LOCAL RECRUITERS HAVE HAD LITTLE OR NO AWARENESS OF PROJECT JOIN.
8	NO, THEY WERE NOT AWARE OTHER THAN THOSE MILITARY PERSONNEL WHO DELIVERED THE JOIN EQUIPMENT.

3) What advantages, if any, do you feel that a JOIN-type vocational information system offers you as a career counselor were it available full time at your Center? Cite disadvantages, too, where applicable?

CASE	3) PRO COMMENTS	3) CON COMMENTS
1		
2	WE DO, AT TIMES, HAVE STUDENTS WHO WANT INFORMATION OF THE TYPE THAT JOIN PROVIDES.	JOIN INFORMATION ON THE BENEFITS OF COMPLETING A TWO-YEAR COLLEGE DEGREE SHOULD BE EXPANDED AND BE INCORPORATED INTO THE VIDEODISC PRESENTATION. THERE WAS LOW STUDENT PARTICIPATION. PERHAPS MORE PUBLICITY WOULD HAVE GENERATED MORE INVOLVEMENT (THOUGH THIS CAMPUS ALSO HAS A HIGHER AVERAGE STUDENT AGE THAN USUAL).
3	JOIN IS ANOTHER OPTION/TOOL IN CAREER PLANNING. ALSO, MANY OF OUR STUDENTS FIND FINANCING THEIR COLLEGE TRAINING A DIFFICULT TASK. JOIN IS AN ATTRACTIVE SOLUTION.	MOST STUDENTS HAVE DECIDED NOT TO GO INTO THE MILITARY BY THE TIME WE SEE THEM. HIGH SCHOOLS MAY PROVE TO BE A BETTER SITE FOR JOIN.
4	JOIN IS AN EXCELLANT SOURCE OF OCCUPATIONAL INFORMATION AND A SIGNIFICANT PORTION OF OUR COLLEGE POPULATION WOULD BENEFIT FROM IT.	JOIN IS AN ADDITIONAL PIECE OF TECHNICAL EQUIPMENT THAT OUR LIMITED STAFF MUST CONTEND WITH AND BE AVAILABLE FOR ONGOING QUESTIONS AND TROUBLESHOOTING IN THE EVENT OF PROBLEMS.
5	THE PRIME ADVANTAGE OF JOIN IS THAT THE STUDENT CAN ACCESS THE ARMY INFORMATION WITHOUT A RECRUITER BREATHING DOWN HIS/HER NECK TO GET A RECRUIT; SOME STUDENTS WON'T EVEN CONSIDER SEEKING MILITARY INFORMATION BECAUSE OF THIS FEAR.	THE JOIN SYSTEM MAY APPEAR TO BE A "POOR SISTER" TO OTHER COMPLEX COMPUTER-BASED CAREER GUIDANCE SYSTEMS USED IN MANY COLLEGES. SOME SCHOOLS MAY NOT HAVE THE SPACE TO SET UP AN ADDITIONAL SYSTEM (THIS LARGE) IN THEIR CAREER INFORMATION CENTERS.
6	JOIN ASSISTS STUDENTS WITH VOCATIONAL AND CAREER OPTIONS BY ADDING ANOTHER MODE OF CAREER EXPLORATION.	THERE IS LIMITED STAFF TIME TO MONITOR USAGE OF THE (PRESENT) JOIN SYSTEM.
7	JOIN SERVES TO BROADEN THE CAREER OPTIONS OF STUDENTS.	WE HAVE LIMITED STAFF TO MONITOR USAGE OF THE EXISTING JOIN EQUIPMENT. THE (CURRENT) EQUIPMENT CONSUMES TOO MUCH SPACE.
8	JOIN PROVIDES FIRST-RATE, CURRENT INFORMATION ON ARMY CAREERS AND IS "ALWAYS" ABLE TO GIVE A QUALITY PRESENTATION -- UNLIKE COUNSELORS, WHO MAY HAVE OTHER PRIORITIES OR LESS ACCURATE INFORMATION.	

CASE	3)OTHER COMMENTS
1	THE POPULATION OF OUR SCHOOL IS BASICALLY ADULT, MANY OF WHOM HAVE ALREADY BEEN IN THE MILITARY. JOIN WOULD BE MORE USEFUL AT COMMUNITY COLLEGES HAVING MORE OF A TRADITIONAL POPULATION.
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4) For those students who have used the JOIN system, what is your impression of their receptiveness to it; i.e., do they like the system generally, do they feel that the content information is useful, etc.?

CASE	4) PRO COMMENTS	4) CON COMMENTS
1	JOIN WAS SATISFACTORY.	
2	THE CONTENT INFORMATION OF JOIN IS VERY USEFUL TO STUDENTS.	THE JOIN COMPUTER SYSTEM IS TOO SLOW.
3	YES -- VERY MUCH SO RECEPTIVE. THE VIDEODISC FEATURE MAKES JOIN ESPECIALLY ATTRACTIVE.	
4	THOSE STUDENTS WHO USED JOIN LIKED IT. THEY WERE IMPRESSED WITH THE VIDEO COMPONENT.	
5	THE CONTENT OF THE JOIN SYSTEM WAS BASICALLY GOOD.	JOIN PRESENTED "ENVIRONMENTAL" IMPRESSIONS AND IMAGES OF ARMY LIFE, BUT LACKED SUBSTANTIVE GUIDANCE INFORMATION.
6	MOST STUDENT (USERS) APPEARED INTERESTED IN JOIN TO GAIN NEW INFORMATION THAT COULD BE USED IN THEIR DEVELOPMENTAL CAREER PLANNING.	
7	STUDENTS WERE RECEPTIVE TO THE JOIN SYSTEM AND FOUND IT INFORMATIVE.	
8	I BELIEVE THAT THE STUDENTS FIND JOIN TO BE INTERESTING AND INFORMATIVE.	

CASE	4) OTHER COMMENTS
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5) What methods for getting students to participate in JOIN seem to be used most frequently by counselors or were the most convenient to employ; can you suggest other methods to try in the future?

CASE	5) PRO COMMENTS	5) CON COMMENTS
1	WE POSTED NOTICES AND ANNOUNCED JOIN IN ORIENTATION SESSIONS FOR STUDENTS.	
2	STUDENTS WHO INQUIRED ABOUT MILITARY SPECIALTIES WERE REFERRED TO THE JOIN SYSTEM. POSTERS ADVERTISING JOIN WERE PLACED IN STRATEGIC AREAS AROUND CAMPUS.	BECAUSE OF THE INCREASING WORKLOAD OF OUR COUNSELORS, IT WAS DIFFICULT TO PUBLICIZE THE JOIN SYSTEM. MORE PUBLICITY IS NECESSARY TO GENERATE PARTICIPATION.
3		JOIN SHOULD BE MODIFIED SO THAT IT CAN BE PLACED ON A MOVABLE TABLE IN ORDER THAT IT CAN BE MOVED OUT INTO THE HIGH TRAFFIC AREAS PERIODICALLY FOR STUDENT EXPOSURE.
4	THROUGH CAREER CLASSES. STUDENTS ENROLLED IN OUR CAREER ASSESSMENT & PLANNING COURSE WERE ADVISED ABOUT THE JOIN RESOURCE AND INVITED TO USE IT.	
5	PRIMARY MEANS TO GET STUDENTS TO USE IT: 1) COUNSELOR REFERRAL AND 2) PEER (STUDENT) REFERRAL.	UNLESS JOIN CAN BE BUILT AROUND A CAREER GUIDANCE APPROACH, NOT JUST DISPENSE ARMY INFORMATION, I SERIOUSLY DOUBT THAT COUNSELORS WILL USE THE SYSTEM.
6	WORD OF MOUTH AND REFERRALS BY THE CAREER OFFICE RESULTED IN THE LARGEST NUMBER OF USERS.	POSTERS PLACED ON CAMPUS HAD A SMALLER EFFECT (IN GAINING JOIN USERS).
7	STUDENTS WERE MADE AWARE OF THE JOIN SYSTEM AND ITS USE IN PROVIDING UP-TO-DATE ARMY CAREER INFORMATION BY: 1) REFERRALS BY THE CAREER OFFICE, AND 2) POSTERS DISPLAYED AROUND THE COLLEGE.	
8		"YOU" (THE ARMY OR ITS REPRESENTATIVES) SHOULD SUBMIT NEWS RELEASES OR FEATURE ARTICLES TO CAMPUS NEWSPAPERS TO INSURE THAT THE JOIN PROGRAM IS BEING MARKETED IN ACCORDANCE WITH YOUR WISHES (RATHER THAN COUNSELORS PROMOTING IT).

CASE	5) OTHER COMMENTS
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6) How has the JOIN equipment operated -- easy enough for students to use, reliable?

CASE	6) PRO COMMENTS	6) CON COMMENTS
1		JOIN SEEMS ANTIQUATED WHEN COMPARED WITH OTHER INTERACTIVE COMPUTERIZED CAREER DECISION MAKING SYSTEMS.
2	GENERALLY, JOIN IS RELATIVELY EASY TO OPERATE.	THE JOIN SYSTEM IS TOO SLOW; THE HARDWARE SEEMS OUTDATED.
3	JOIN IS EASY ENOUGH AND RELIABLE FOR STUDENTS TO USE.	THE JOIN EQUIPMENT IS TOO MASSIVE.
4	JOIN IS EASY TO OPERATE, THOUGH ALMOST EVERYONE WHO USED IT NEEDED SOME HELP (ASKED FOR HELP).	
5	THE JOIN EQUIPMENT OPERATED EASILY ENOUGH IN THIS STUDY FOR STUDENTS.	
6		BECAUSE JOIN LOOKED DIFFERENT (OLDER, LARGER), SOME STUDENTS WERE TURNED OFF. JOIN IS SLOW TO RESPOND AND HAD NO PRINTOUT CAPABILITY.
7	JOIN WAS (GENERALLY) EASY TO USE FOR STUDENTS.	THE JOIN SYSTEM WAS SLOW TO RESPOND (PROCESSING) AND STUDENTS FELT THAT THE (EXPERIMENTAL) VERSION WAS TOO LONG FOR THE INFORMATION DESIRED.
8	YES.	

CASE	6) OTHER COMMENTS
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5	THE EQUIPMENT WAS NOT HERE EARLY ENOUGH IN THE TERM TO INCORPORATE ITS USE WITH OUR CAREER PLANNING CLASSES.
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7) Based on your experience with the JOIN equipment, would it be useful to offer an updated version of JOIN that would run on commonplace small computers like the IBM-PC or Apple computer-- or continue with existing equipment; which and why?

CASE	7) PRO COMMENTS	7) CON COMMENTS
1	ABSOLUTELY, NEW EQUIPMENT WOULD BE ESSENTIAL FOR JOIN.	
2	I BELIEVE THAT HAVING JOIN ON A NEWER SMALL COMPUTER WOULD BE BENEFICIAL TO STUDENTS. THIS WOULD PROVIDE LESS CUMBERSOME HARDWARE AND WOULD BE LESS THREATENING TO THE STUDENTS. A SIMILAR PROGRAM THAT WE USE, "VIEW," CROSS REFERENCES MILITARY OCCUPATIONS, IS RUN ON AN APPLE-II PC, AND IS VERY POPULAR WITH OUR STUDENTS.	
3	YES! UPDATED VERSION TO RUN ON THE IBM-PC.	
4	YES, UPDATED VERSION FOR THE IBM-PC. WE CURRENTLY OPERATE OUR CAREER PLANNING COMPUTER-BASED SYSTEMS ON IBM-PC's AND IT WOULD BE HANDY TO HAVE JOIN BOTH COMPATIBLE AND AVAILABLE WITHOUT NEEDING THE (CURRENT) JOIN COMPUTER FULL-TIME TO HAVE THE SYSTEM.	
5	YES, BUILD SOMETHING THAT CAN BE USED ON POPULAR PC's, POSSIBLY ADDING A VIDEODISC INTERFACE. THIS WILL ENABLE SCHOOLS TO USE EXISTING EQUIPMENT AND NOT HAVE TO ALLOCATE ADDITIONAL SPACE FOR ANOTHER TERMINAL (SYSTEM).	DO NOT USE THE PRESENT JOIN-SYSTEM EQUIPMENT (IN AN UPDATED VERSION)!
6	YES, NEWER EQUIPMENT IS A MUST!	
7	YES, AN UPDATED VERSION OF JOIN THAT WILL RUN ON (NEWER) SMALL COMPUTERS.	UTILIZATION OF FACILITY SPACE IS AN IMPORTANT CONSIDERATION FOR AN UPDATED VERSION OF JOIN.
8	YES, I WOULD PREFER A SMALLER "PC" BECAUSE SPACE IS AT A PREMIUM IN OUR CENTER.	THE JOIN "BOX" THAT WE HAD WAS FAR TOO LARGE TO FIT NICELY INTO OUR CENTER.

CASE	7) OTHER COMMENTS
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8) If JOIN incorporated additional student user guidance such as a Vocational Interest Test, Vocational Maturity Scale, Army Prequalifying Test, or other means to help the student narrow choices, would this be helpful--or, should JOIN be left unstructured as it presently is? Suggest any features that you feel JOIN should have or NOT have:

CASE	8) PRO COMMENTS	8) CON COMMENTS
1		
2	WE HAVE "NUMEROUS" REQUESTS FROM STUDENTS FOR SAMPLE QUESTIONS FROM ARMY PRE-QUALIFYING TESTS. IF THIS TYPE OF TESTING COULD BE INCORPORATED INTO JOIN, EVEN TO A LIMITED EXTENT, IT COULD PROVE TO BE VERY USEFUL.	THE AVERAGE AGE OF STUDENTS ON OUR CAMPUS IS HIGHER (AGE 2[illegible] THAN TYPICAL FOR COMMUNITY COLLEGES. MOST HAVE BEEN EXPOSED TO CAREER INTERESTS TESTING, SO THIS SECTION OF JOIN (INTERESTS TEST) WAS NOT VERY USEFUL AT OUR CAMPUS.
3	THE VOCATIONAL INTERESTS TEST--DEFINITELY! ABOUT TWO-THIRDS OF THE STUDENT JOIN USERS HAD NEVER HAD CAREER ASSESSMENT BEFORE AND, AS A RESULT, FOUND THE VOCATIONAL INTERESTS TEST TO BE "VERY USEFUL."	IT WOULD BE MUCH MORE HELPFUL IF THE RESULTS OF THE VOCATIONAL INTERESTS TEST COULD BE INCORPORATED INTO THE PROGRAM (INTERPRETED) WITH SUGGESTED ARMY JOB FIELDS RESULTING FROM THE INTERPRETATION -- RATHER THAN LEAVING IT UP TO THE STUDENT'S INTERPRETATION OR THE COUNSELOR'S INTERVENTION. ALSO, INCLUDING ARMY PREQUALIFYING ASSESSMENT WOULD BE A GOOD TOOL FOR REALITY TESTING.
4	I THINK THAT AN ASSESSMENT DEVICE THAT HELPED STUDENTS IDENTIFY ARMY OCCUPATIONAL OPTIONS BASED ON THEIR INTERESTS WOULD BE USEFUL WITH JOIN.	
5		JOIN SHOULD HAVE A GENERAL VOCATIONAL INTERESTS SURVEY THAT CONNECTS TO MILITARY AND CIVILIAN OCCUPATIONS. ALSO, AN ARMY PREQUALIFYING TEST MIGHT BE USEFUL, BUT NOT AS CRITICAL AS AN INTERESTS SURVEY. A VALUES CLARIFICATION SECTION MAY ALSO BE OF SOME BENEFIT.
6		IF THE JOIN SYSTEM IS NOT PARED DOWN (SIMPLIFIED), ANY ADDITIONAL TEST INVENTORIES WOULD ONLY MAKE IT MORE DIFFICULT FOR US TO GET RECRUITS. I RECOMMEND THAT JOIN STAND ALONE (AS IS).
7		I RECOMMEND THAT JOIN BE LEFT AS IT IS (NO BUILT-IN TESTS) SINCE WE DO PROVIDE OTHER CAREER ASSESSMENTS AND VOCATIONAL GUIDANCE INSTRUMENTS (AT OUR CAREER CENTER).
8		INCLUDE AN ARMY PREQUALIFYING TEST. IF A STANDARD CAREER INVENTORY IS TO BE USED, MORE ATTENTION SHOULD BE PAID TO MAKING IT CONFORM TO RECOGNIZED VOCATIONAL METHODS.

CASE	8) OTHER COMMENTS
1	PERHAPS THESE THINGS COULD BE USEFUL; UNSURE.
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9) Having sampled the JOIN concept for a semester, do you feel that further development and deployment of such a system for community colleges is warrented? If so, what do you see as the major benefit(s) of JOIN's presence on campus for students; if none, how would you suggest that current, military vocational information be presented at the community college level?

CASE	9) PRO COMMENTS	9) CON COMMENTS
1	JOIN COULD BE USED AT COMMUNITY COLLEGES WITH A TRADITIONAL STUDENT POPULATION.	
2	I BELIEVE THAT THE JOIN SYSTEM IS BENEFICIAL TO STUDENTS.	JOIN SHOULD PLACE MORE EMPHASIS ON THE ADVANTAGE OF EARNING THE TWO-YEAR DEGREE "FIRST." SAMPLE ARMY PRE-QUALIFYING QUESTIONS SHOULD ALSO BE ADDED AND WOULD INCREASE JOIN USAGE.
3	THE BEST ADVERTISING FOR JOIN IS WORD-OF-MOUTH, BUT THAT TAKES TIME.	IT'S DIFFICULT TO SAY, REALLY; WE SEEMED TO HAVE SOME DIFFICULTY GETTING STUDENTS ON IT. I THINK IF JOIN WERE IMPROVED MORE STUDENTS WOULD USE IT, HOWEVER.
4	I THINK THAT CONTINUED DEVELOPMENT OF JOIN IS WORTHWHILE.	I WOULD LIKE TO SEE JOIN EXPANDED TO COVER ALL MILITARY OCCUPATIONS RATHER THAN JUST ARMY OCCUPATIONS.
5	A JOIN-TYPE SYSTEM CAN FIT INTO COMMUNITY COLLEGES IF IT IS A LEGITIMATE CAREER GUIDANCE SYSTEM -- NOT A MARKETING TOOL.	IF JOIN IS TOO "FLASHY" OR IS "PUSHING" THE ARMY (TO THE STUDENT), IT PROBABLY WILL NOT BE ACCEPTABLE.
6	STUDENTS CAN BENEFIT FROM ACCURATE, VOCATIONAL INFORMATION PROVIDED BY JOIN.	
7	JOIN SERVES TO BROADEN CAREER OPTIONS FOR STUDENTS AND PRESENTS MILITARY CAREERS AS VIABLE VOCATIONAL CHOICES.	
8	YES.	INCLUDE ARMY PREQUALIFYING TESTS; BE SURE JOIN CONFORMS TO RECOGNIZED VOCATIONAL THEORY AND METHODS.

CASE	9) OTHER COMMENTS
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10) Please provide any further comments or suggestions about the JOIN system which you deem relevant to its evaluation, use or further development:

CASE	10) PRO COMMENTS	10) CON COMMENTS
1	JOIN SEEMS TO BE A GOOD ATTEMPT AT ARMY VOCATIONAL GUIDANCE.	JOIN WOULD BEFEFIT FROM REPACKAGING WITH MORE MODERN EQUIPMENT.
2		THE JOIN SYSTEM NEEDS TO BE STREAMLINED AND MADE AVAILABLE FOR NEWER MICROCOMPUTERS. SAMPLE ARMY PRE-QUALIFYING QUESTIONS SHOULD BE AVAILABLE TO STUDENTS WHO WISH TO EXPLORE MILITARY OCCUPATIONS. INFORMATION STRESSING THE ADVANTAGES OF EARNING THE TWO-YEAR DEGREE BEFORE ENLISTING IN THE ARMY SHOULD BE HIGHLIGHTED FOR COMMUNITY COLLEGE STUDENTS IN THE JOIN SYSTEM.
3		
4	CONTINUE DEVELOPING THE JOIN SYSTEM TO PROVIDE "ACCURATE, UP-TO-DATE, AND SUCCINCT" INFORMATION AS A CAREER ASSESSMENT & INFORMATION SYSTEM -- NOT A RECRUITMENT DEVICE NO MATTER HOW SUBTLE. GIVE ACCURATE INFORMATION WITH THE UNDERSTANDING THAT STUDENTS ARE THE DECISION MAKERS.	
5	MY HOPE IS THAT IN TIME, A SYSTEM CAN BE DEVELOPED THAT WILL ALLOW STUDENTS TO PRIVATELY ACCESS INFORMATION ABOUT MILITARY VOCATIONAL OPPORTUNITIES OR THE ROLE THAT THE MILITARY CAN PLAY IN THE STUDENT DEVELOPING A CAREER PATH.	
6		A SHORTER VERSION OF JOIN, MORE CONCISE CAREER INFORMATION, PRINTOUT CAPABILITY, FASTER COMPUTER RESPONSE TIME AND NEWER EQUIPMENT WOULD RESULT IN AND ASSURE MORE USAGE OF JOIN.
7		JOIN SHOULD HAVE, AS A "MUST," PRINT-OUT CAPABILITY, FASTER PROCESSING RESPONSE TIME, AND UPDATED EQUIPMENT.
8	WE'RE HAPPY TO HOST SUCH A PROGRAM AS JOIN ON CAMPUS.	THE ARMY SHOULD UNDERSTAND THAT AS IS OUR POLICY WITH OTHER EMPLOYERS, WE REALLY CAN'T "PROMOTE" ONE ORGANIZATION OVER ANOTHER; THE ARMY SHOULD ASSUME ALL RESPONSIBILITY FOR PUBLICITY AND MARKETING THE JOIN SYSTEM'S USE.

CASE	10) OTHER COMMENTS
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4	THE JOIN SYSTEM MUST NOT IN ANY WAY BE COVERT RECRUITMENT.
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