

Abstracts of Publications

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The Clearinghouse for Computer-Assisted Guidance Systems was established in 1983 to provide practitioners, administrators, researchers, and system developers with information relevant to selecting, implementing, and evaluating computer-assisted career guidance systems. In 1986 the Center for the Study of Technology in Counseling and Career Development was established by the Florida State University and the State University System of Florida to enhance research, graduate training, and public service related to the application of computer technology in counseling and guidance as well as the improvement of the cost-effectiveness of career service delivery. Dissemination of knowledge is an important goal of the Center. The publications identified below represent the research efforts of the Center related to the design and use of computer technology and the improvement of career service cost-effectiveness.

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Technical Report Abstracts

Sampson, J. P., Jr., Shahnasarian, M., & Reardon, R. C. (1985). Computer-assisted career guidance: A national survey on the use of DISCOVER and SIGI (technical report No. 1). Tallahassee, FL: Florida State University, Clearinghouse for Computer-Assisted Guidance Systems. (ERIC Document Reproduction Service No. ED 256 905)

This report describes a national survey of 677 institutions using DISCOVER and SIGI as of June 1984. The goal was to produce a generic description of the present use of these systems. A return rate of 64.7% (N=438) was obtained to the 30 item questionnaire. Survey results are presented and discussed on the following topics: (1) system(s) currently in use, (2) institutional characteristics, (3) system configuration, (4) integration with other services, (5) counselor and staff intervention, (6) usage statistics for all users, (7) system management, (8) system implementation, and (9) potential needs.

Subsequent publication in:

Sampson, J. P., Jr., Shahnasarian, M., & Reardon, R. C. (1987). Computer-assisted career guidance: A national perspective on the use of DISCOVER and SIGI. Journal of Counseling and Development, 65, 416-419.

Sampson, J. P., Jr., Shahnasarian, M., & Reardon, R. C. (1986). A comparison of the use of DISCOVER and SIGI (technical report No. 2). Tallahassee, FL: Florida State University, Clearinghouse for Computer Assisted Guidance Systems. (ERIC Document Reproduction Service No. ED 272 677)

This report describes the results of a nationwide comparative study of the 677 sites using DISCOVER or SIGI as of June 1984. Software-based and institutionally-based factors influencing system use were explored. The former included theoretical bases, ease of software usage, and developer's implementation assistance, while the latter included staff competence, organizational dynamics, financial resources, clientele, implementation plan, and system integration with other activities and facilities. The sample included 408 respondents (60.3%) of those surveyed. Multivariate log-linear models were used to analyze data in five areas of systems use, and univariate analyses were used in two other areas. Results suggested that institutionally-based factors, not software-based factors, were largely determining how DISCOVER and SIGI were used. However, it was noted that software-based factors, such as system theory bases, might be emphasized more by researchers, developers, and practitioners in order to maximize the impact of computer-assisted career guidance systems. Subsequent publication in:

Sampson, J. P., Jr., Shahnasarian, M., & Reardon, R. C. (1988). Factors influencing the use of DISCOVER and SIGI. Journal of Career Development, 15, 75-86.)

Shahnasarian, M. & Peterson, G. W. (1986). Use of computer-assisted career guidance with prior cognitive structuring (technical report No. 3). Tallahassee, FL: Florida State University, Clearinghouse for Computer Assisted Guidance Systems. (ERIC Document Reproduction Service No. ED 272 678)

Cognitive structuring was implemented by showing 30 subjects a 10-minute videotape that presented Holland's (1985) model of the world of work before they used an interactive computer-assisted guidance system (DISCOVER). The effect of prior structuring was assessed in terms of a subject's representation of the world of work, occupational certainty and vocational identity. The subjects were volunteer clients who came to a university career resource center for vocational counseling. Two treatment groups and a control group were used: pretest, cognitive structuring, and DISCOVER; pretest and DISCOVER; and DISCOVER only. The results indicated that subjects who assimilated the Holland model prior to using DISCOVER were more homogeneous in sorting 36 randomly selected occupations into related clusters, and were more homogeneous in the number of occupational alternatives they listed on a posttest. Subjects who used DISCOVER without cognitive structuring became significantly more assured of their vocational identity (i.e., goals, interests, personality), while the cognitive structuring group did not become so assured. Occupational certainty was unaffected by any treatment. The cognitive structuring experience prior to subject's use of DISCOVER encouraged them to add occupations to consider when they had few alternatives and to eliminate occupations to consider when they had many.

Subsequent publication in:

Shahnasarian, M., & Peterson, G. W. (1988). The effect of a prior cognitive structuring intervention with computer-assisted career guidance. Computers in Human Behavior, 4, 125-131.

Sampson, J. P., Jr., Peterson, G. W., Domkowski, D., & Reardon, R. C. (1986). A differential feature-cost analysis of DISCOVER for Adult Learners and SIGI PLUS (technical report No. 4). Tallahassee, FL: Florida State University, Clearinghouse for Computer Assisted Guidance Systems. (ERIC Document Reproduction Service No. ED 272 679)

DISCOVER for Adult Learners (DISCOVER AL) and SIGI PLUS are newly developed computer-assisted guidance systems designed to assist individuals in making career decisions. Career guidance services wishing to explore the adoption of such systems could well profit from a comparison of the differential features and costs of the respective systems. Therefore, the purpose of this technical report is to highlight similarities and differences between two computer-assisted career guidance systems for adults, so that service providers may make informed choices concerning the adoption of such systems. Features examined include: user friendliness, system content, support material available from developers, and hardware compatibility. Costs examined include constant costs and system-specific costs.

Sampson, J. P., Jr., Reardon, R. C., Shahnasarian, M., Peterson, G. W., Ryan-Jones, R. E., & Lenz, J. G. (1987). The impact of DISCOVER and SIGI on the career decision making of college students (technical report No. 5). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 334 483)

The purpose of this research was to compare two widely used computer-assisted career guidance (CACG) systems, DISCOVER and SIGI. The goals were to: 1) assist practitioners in learning more about the benefits of using a CACG system as a component of total program services; 2) assist CACG system developers in revising software and support materials to more fully meet the needs of practitioners and users; and 3) assist researchers in planning further investigations concerning the optimal use of this technology. This technical report includes two separate studies designed to answer different research questions. A sample of undergraduate psychology students was used for both studies.

Study No. 1: The impact of computer-assisted and traditional career guidance services on the occupational certainty, vocational identity, career exploration, and decision making style of college students. A study was conducted to examine the effects of DISCOVER and SIGI on occupational certainty, vocational identity, career exploration, and decision making style of 109 college students. The study was designed to correct for 7 previously noted weaknesses of research on computer-assisted career guidance (CACG) systems. Students were randomly assigned to either DISCOVER, SIGI, or a Control Condition that involved unstructured use of materials in a university career center, and completed the Occupational Alternatives Question, My Vocational Situation, the Assessment of Career Decision Making - Style Scale, the Career Exploration Survey, and an instrument used to verify treatment and control conditions. Each dependent measure was linked to specific CACG objectives. An extensive series of univariate and multivariate statistical analyses failed to reveal significant differences among groups on dependent measures at pre-, post-, or follow-up testing. Discussion of these results explored the lack of efficacy of limited CACG interventions, and problems in using student volunteers as systems users.

Study No. 2: The impact of two computer-assisted career guidance systems on college student's perceptions of the counselling dimensions of computer interaction. A study was conducted to examine the social influence of two computer-assisted career guidance systems on 109 college students. User perceptions of expertness, attractiveness, and trustworthiness, as measured by a modified version of the Counselor Rating Form, were compared between users of DISCOVER and SIGI and a control group of nonusers. Findings showed that DISCOVER and SIGI users had more positive perceptions of the attractiveness of systems than nonusers, indicating one effect of system use. It was also found that users attributed high levels of expertness, attractiveness, and trustworthiness to the computer systems, sometimes exceeding levels attributed to effective counselors. A discussion of the implications of these findings for future use and research of computer-assisted career guidance systems is presented.

Subsequent publication in:

Sampson, J. P., Jr., Peterson, G. W., Reardon, R. C., Lenz, J. G., Shahnasarian, M., & Ryan-Jones, R. E. (1992). The social influence of two computer-assisted career guidance systems: DISCOVER and SIGI. The Career Development Quarterly, 41, 75-83.

Peterson, G. W., Ryan-Jones, R. E., Sampson, J. P., Jr., Reardon, R. C., & Shahnasarian, M. (1987). A comparison of the effectiveness of three computer-assisted career guidance systems on college students' career decision making processes (technical report No. 6). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 334 484)

The Computer-Assisted Career Guidance Evaluation Form was developed to evaluate the effectiveness of CACG systems in performing three vital functions in career decision making. This instrument was subsequently used to compare the effectiveness of DISCOVER, SIGI, and SIGI PLUS using 132 subjects from two cohort groups of students in an introductory psychology course. After finishing their assigned system, subjects completed the Computer-Assisted Career Guidance Evaluation Form, My Vocational Situation (MVS) by Holland, Daiger, & Power (1980a), and the Occupational Alternatives Question (OAQ) (Zener & Schnuelle, 1972). Results of the analysis of the data showed that all three CACG systems were rated positively. However, subjects who expressed a need for career information rated all three CACG systems significantly more effective

($p < .001$) in developing and evaluating career options than those subjects who perceived no need for information. Further, subjects who were "undecided" about their career direction found SIGI PLUS significantly more helpful for obtaining self knowledge and occupational knowledge ($p < .05$), and more rewarding and enjoyable ($p < .03$). The results suggested that perceived effectiveness of CACG systems may be related to the client's career decidedness (OAQ) and their need for career information (MVS).

Subsequent publication in:

Peterson, G. W., Ryan-Jones, R. E., Sampson, J. P., Jr., Reardon, R. C., & Shahnasarian, M. (1994). A comparison of the effectiveness of three computer-assisted career guidance systems: DISCOVER, SIGI, and SIGI PLUS. Computers in Human Behavior, *10*, 189-198.

Reardon, R. C., Sampson, J. P., Jr., Ryan-Jones, R. E., Peterson, G. W., & Shahnasarian, M. (1988). A comparative analysis of the impact of two generations of a computer-assisted career guidance system - SIGI and SIGI PLUS (technical report No. 7). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 334 486)

This study examined the comparative impact of two generations of a computer-assisted career guidance system, SIGI and SIGI PLUS, on the career decidedness, vocational identity, and user perceptions of 64 college students. Students from an introductory psychology class, who expressed interest in an experiment that involved receiving career guidance services, were randomly assigned to either SIGI or SIGI PLUS. The Occupational Alternatives Question, and My Vocational Situation were completed pre- and post-treatment while the SIGI or SIGI PLUS Evaluation Form (a measure of user perceptions) was completed post-treatment. After the completion of initial post-testing, students then used the second system and completed the Comparative Computer Rating Form which involved a direct bipolar comparison of the two systems. A series of multivariate and univariate statistical analyses revealed that users rated SIGI and SIGI PLUS equally positive for their effectiveness in obtaining self and occupational information (Analysis), viable career options (Synthesis), and in attractiveness of interaction with the computer (Computer Effect). Persons with initial information needs rated both CACG systems significantly higher ($p < .05$) on the Analysis scale than users without needs for information. Students' level of vocational identity increased significantly ($p = .006$) as a result of using SIGI and SIGI PLUS. Students with low initial vocational identity were more likely to increase their vocational identity if they used SIGI PLUS, than if they used SIGI. SIGI and SIGI PLUS appear equally capable of satisfying users' needs for information. Finally, when the 63 students were asked to indicate their overall preference for one of the two CACGs used, 24 or 38% preferred SIGI, while 39 or 62% preferred SIGI PLUS. Discussion of these results explored the differential impact of SIGI and SIGI PLUS and the equivalence of CACG systems. Specific implications for practice, system development, and future research are also provided.

Subsequent publication in:

Reardon, R. C., Peterson, G. W., Sampson, J. P., Jr., Ryan-Jones, R. E., & Shahnasarian, M. (1992). A comparative analysis of the impact of SIGI and SIGI PLUS. Journal of Career Development, *18*, 315-322.

Metzger, E. I., Sampson, J. P., Jr., & Reardon, R. C. (1988). Computer-assisted career guidance and the adult learner - two case studies (technical report No. 8). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 334 485)

The decision to seek career counseling services as an adult arises from a complex interaction of past experiences, current career development, and expectations for assistance. This study explored how these multiple motivations impact the service delivery of computer-assisted career guidance systems. The subjects were selected from adults who had sought services from a university-based career center and who were voluntarily participating in a research project designed to collect data on this population. The subjects selected for this qualitative component of the study were chosen on the basis of the following factors: sex, age, head-of-household, anticipation of career change, interest in exploring career options, willingness to use a computer-assisted career guidance system as one component of career counseling services, willingness to meet for a minimum of four sessions with a career counselor, and willingness to complete a contract for service provision. The study was intended as a process of exploration and discovery. As such, open-ended interviews were conducted prior to, during, and after each subject's computer experience.

Sampson, J. P., Jr., Reardon, R. C., Lenz, J. G., Ryan-Jones, R. E., Peterson, G. W., & Levy, F. C. (1993). The impact of DISCOVER for Adult Learners and SIGI PLUS on the career decision making of adults (technical report No. 9). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 363 824)

This study evaluated the effects of DISCOVER for Adult Learners and SIGI PLUS on career decidedness, vocational identity, and perceptions of computer use for 116 adults seeking services at a university-based self-help oriented career center. The study was designed to correct for seven previously noted weaknesses of research on computer-assisted career guidance (CACG) systems. Adults were randomly assigned to either DISCOVER for Adult Learners (DAL), SIGI PLUS, or a control condition that involved unstructured use of materials in a university career center, and completed five instruments which assessed CACG system objectives. Use of DAL and SIGI PLUS by adults resulted in positive gains in vocational identity and career decidedness. Adults perceived both systems as having a positive impact on their career problems, e.g. Analysis, Synthesis, and Computer Effect. With respect to career decidedness, the CCIS (control) group showed similar positive results in comparison to the CACG systems. One can conclude from this study that computer-based interventions are equivalent, but not superior to more traditional career interventions. The report concludes with discussion of the results and implications for practice and research.

Sampson, J. P., Jr., Peterson, G. W., Reardon, R. C., Evans, M. A., & Domkowski, D. (1989). A differential feature-cost analysis of two computer-assisted career guidance systems (technical report No. 10). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Humphreys, J. K., Peterson, G. W., Evans, M. A., & Domkowski, D. (1989). A differential feature-cost analysis of eight computer-assisted career guidance systems (technical report No. 10) (2nd Ed). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Humphreys, J. K., Peterson, G. W., Evans, M. A., & Domkowski, D. (1990). A differential feature-cost analysis of nine computer-assisted career guidance systems (technical report No. 10) (3rd Ed). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Wilde, C. K., Norris, D. S., Peterson, G. W., Strausberger, S. J., Garis, J. W., Lenz, J. G., and Saunders, D. E. (1993). A differential feature-cost analysis of fifteen computer-assisted career guidance systems (technical report No. 10) (4th Ed.). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 363 825)

Sampson, J. P., Jr., Reardon, R. C., Norris, D. S., Wilde, C. K., Slatten, M. L., Garis, J. W., Saunders, D. E., Strausberger, S. J., Sankofa-Amammere, K. T., Peterson, G. W., and Lenz, J. G. (1994). A Differential Feature-Cost Analysis of Seventeen Computer-Assisted Career Guidance Systems: Technical Report No. 10 (5th Ed.). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Norris, D. S., Wilde, C. K., Slatten, M. L., Greeno, B. P., Garis, J. W., Strausberger, S. J., Sankofa-Amammere, K. T., Peterson, G. W., and Lenz, J. G. (1995). A differential feature-cost analysis of eighteen computer-assisted career guidance systems: Technical report No. 10 (6th Ed.). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Norris, D. S., Greeno, B. P., Kolodinsky, R. W., Rush, D., Herbert, S. M., Sankofa-Amammere, K. T., Epstein, S., Odell, J., Wright, L., Radice, M., Peterson, G. W., & Lenz, J. G. (1996). A differential feature-cost analysis of twenty-one computer-assisted career guidance systems: (technical report No. 10) (7th Ed.). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Sampson, J. P., Jr., Reardon, R. C., Reed, C., Rudd, E., Lumsden, J., Epstein, S., Folsom, B., Herbert, S. M., Johnson, S., Simmons, A., Odell, J., Rush, D., Wright, L., Lenz, J. G., Peterson, G. W., & Greeno, B. P. (1998). A differential feature-cost analysis of seventeen computer-assisted career guidance systems: (technical report No. 10) (8th Ed.). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development [On-line]. Available: <http://www.career.fsu.edu/techcenter/Tr10.htm>

The primary purpose of this study is to highlight similarities and differences among seventeen computer-assisted career guidance (CACG) systems so that practitioners, CACG system developers, policy makers, and researchers may make informed decisions concerning such systems. The specific CACG systems included in this analysis are: 1) Career & College Quest (Peterson's, 1997), 2) Career Futures (Careerware: ISM Systems Corporation, 1997), 3) the Career Information System (University of Oregon, 1997), 4) Career Perspectives (Chronicle Guidance Publications, Inc., 1997), 5) CareerView (Hobsons Digital Media, Inc., 1997), 6) Career Visions (Career Development Systems, LLC - Licensed from the University of Wisconsin-Madison, 1997), 7) Choices (Careerware: ISM Systems Corporation, 1997), 8) Choices CT [for Adults in Career Transitions (Careerware: ISM Systems Corporation, 1997)], 9) C-LECT (Chronicle Guidance Publications, Inc., 1997), 10) COIN Career Guidance System (COIN Educational Products, 1997), 11) DISCOVER (Windows) (ACT, Inc, 1997), 12) DISCOVER (DOS) (ACT, Inc, 1997), 13) DISCOVER (CD-i) (ACT, Inc, 1997), 14) FOCUS II (Career Dimensions, Inc., 1997), 15) GIS 3.0 (Guidance Information System) (Riverside Publishing Company, 1994), 16) SIGI PLUS (Educational Testing Service, 1997), 17) VISIONS PLUS (ACT, Inc, 1997). For the purposes of this analysis, features include: 1) system content, 2) user friendliness, and 3) support materials and services available from the developer, while costs include: 1) license fees, and 2) support materials. The data presented in this analysis were gathered from CACG software use, support materials provided by the developers, and telephone interviews with the developers. The integration of differential feature-cost analyses into the process of software selection is also discussed. A secondary purpose of this study is to provide a comprehensive description of the seventeen CACG systems included in this analysis by: 1) identifying state, territory, and city-specific availability of occupational information in the CACG systems, 2) identifying the country location, geographic data base origin, and language for each system, 3) identifying the developers of each system, and 4) identifying further sources of information on the design and use of each CACG system (as well as CACG systems in general).

Subsequent publication in:

Sampson, J. P., Jr., & Reardon, R. C. (Eds.). (1990). Evaluating computer-assisted career guidance systems [Special issue]. Journal of Career Development, *17*, 79-149.

Sampson, J. P., Jr., Reardon, R. C., Humphreys, J. K., Peterson, G. W., Evans, M. A., & Domkowski, D. (1990). A differential feature-cost analysis of nine computer-assisted career guidance systems (3rd. Ed.). Journal of Career Development, *17*, 81-111.

Sampson, J. P., Jr., & Reardon, R. C. (1990). Evaluating computer-assisted career guidance systems: Synthesis and implications. Journal of Career Development, *17*, 143-149.

Sampson, J. P., Jr., Reardon, R. C., Wilde, C. K., Norris, D. S., Peterson, G. W., Strausberger, S. J., Garis, J. W., Lenz, J. G., and Saunders, D. E. (1994). A comparison of the assessment components of fifteen computer-assisted career guidance systems. In J. T. Kapes, M. M. Mastie, & E. A. Whitfield (Eds.), A counselor's guide to career assessment instruments (3rd. Ed.) (pp. 373-379). Alexandria, VA: National Career Development Association.

Reardon, R. C., Lenz, J. G., Sampson, J. P., Jr., Johnston, J. S., Jr., & Kramer, G. L. (1990). The "demand side" of general education - A review of the literature (technical report No. 11). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 323 861)

Much of the literature in general education is focused on the design or contents of the program, or the "supply side," while little attention has been given to students' understandings of and attitudes toward general education, the "demand side." This paper reviews literature on the "demand side" of general education by first providing a brief synopsis of the notion of general education and recent recommendations for reform, and next summarizing research on student knowledge of and attitudes toward higher education and general education. Because of the paucity of "demand side" research, the paper shifts focus to processes used in higher education to affect demand side questions, including teaching, recruitment and admissions, orientation, academic and

career advising, and course scheduling. The paper ends with conclusions on the importance of attending to "demand side" issues in the improvement of general education programs.

Subsequent publication in:

Johnston, J. S., Jr., Reardon, R. C., Kramer, G. L., Lenz, J. G., Maduros, A., & Sampson, J. P., Jr. (1991). The "demand side" of general education: Attending to student attitudes and understandings. Journal of General Education, 40, 180-200.

Lenz, J. G., Reardon, R. C., & Sampson, J. P., Jr. (1990). Holland's theory and effective use of computer-assisted career guidance systems (technical report No. 12). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 340 971)

A variety of client characteristics, drawn primarily from John Holland's theory and constructs, were used to examine client reactions to using a computer-assisted career guidance system. The subjects were 206 individuals who sought assistance at a university-based career center. A regression analysis revealed that persons with higher Social and Enterprising scores rated the system lower on its ability to help them acquire self and occupational knowledge. A secondary analysis of post-treatment measures revealed significant changes in subjects' vocational identity and level of career decidedness after using the computer.

Subsequent publication in:

Lenz, J. G., Reardon, R. C., & Sampson, J. P., Jr. (1993). Holland's theory and effective use of computer-assisted career guidance systems. Journal of Career Development, 19, 245-253.

Lenz, J. G., Leierer, S. J., Reardon, R. C., & Sampson, J. P., Jr. (1992). An analysis of the localization feature of two computer-assisted career guidance systems - DISCOVER and SIGI PLUS (technical report No. 14). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 363 826)

This report describes the efforts of the Career Center at Florida State University to implement the localization options in the DISCOVER and SIGI PLUS computer-assisted career guidance (CACG) systems in 1991-1992. A review of the literature and current use of localization suggested that it is a complex, underutilized extension of CACG software. Use of the localization feature raises issues about the nature of the desired client outcomes, the type of information to be included, the processes and costs for installing and using the feature, and who in the organization should be responsible. To determine what types of information to include in localization, career advising staff were surveyed, two staff meetings were held, and user feedback on the two CACG systems were examined. It was decided to emphasize local information that would accomplish the goals of (1) providing instructions to improve client interaction with the CACGs and reduce client confusion, and (2) linking clients with other Career Center resources and activities. Primary localization efforts were directed toward DISCOVER because the software design was more compatible with the two program goals noted above. This report includes a discussion of project findings in relation to localization issues, i.e., clarifying the purposes of localization, the influence of system design on localization functioning, the impact of localization on CACG system effects, and the impact of localization on staffing and training. The report concludes with a review of implications for practitioners and system developers of this study of CACG system localization features.

Reardon, R. C., Lenz, J. G., & Strausberger, S. (1993). Improving career services and research with the Self-Directed Search: Computer Version Form R (technical report No. 15). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 363 827)

The purpose of this study was to examine the use of the Self-Directed Search: Computer Version (SDS:CV) in a university career center's service delivery and research activities. Data were collected from a sample of 180 clients over a 16 month period, using the information provided in the professional summary report of the SDS:CV. Social and Enterprising types were the most common client codes (57%), and the mean Vocational Identity score from the My Vocational Situation was 5.26. Additional data about the client group was examined regarding the secondary constructs from Holland's theory of congruence (expressed vs. assessed

Holland codes), differentiation, consistency, commonness, need for information, and vocational choice barriers. Low vocational identity items endorsed by 80% of the clients were also identified. An analysis of cost information for software and staff resources indicated that the SDS:CV was used at a cost of \$10.10 per client in this setting. Discussion focused on the application of research information provided by the SDS:CV in designing career interventions, using the secondary constructs in career counseling, developing outreach programs, comparing and contrasting the paper and computer versions of the SDS, and the use of theory-based career interventions.

Subsequent publication in:

Reardon, R. C., Lenz, J. G., & Strausberger, S. (1996). Integrating theory, practice, and research, with the Self-Directed Search: Computer Version Form R. Measurement and Evaluation in Counseling and Development, 28, 211-218.

Sampson, J. P., Jr., & Norris, D. S. (1993). The financial status, organizational structure, and staffing of career information delivery systems in the United States (technical report No. 16). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development. (ERIC Document Reproduction Service No. ED 363 828)

The purpose of this study was to collect, analyze, and disseminate baseline data to aid computer-based career information delivery system (CIDS) operators and state and federal policy makers in making more informed decisions about the financing, organizational structure, and staffing of CIDS. Lester and Ollis (1988) defined CIDS as "computer-based resources that provide information on occupations and related education and training opportunities" (p. 205). A total of 47 out of the 49 eligible CIDS returned the CIDS Information Collection Form, yielding a final response rate of 96%. Results are presented in 17 tables and 11 figures. The results are then discussed, including specific attention to implications for the future.

Sampson, J. P., Jr. (1993). Current Status and Future Potential for Evaluating the Design and Use of Computer-Based Career Information Delivery Systems in the United States (technical report No. 17). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Career information delivery systems (CIDS) are an increasingly common resource for the delivery of information to individuals involved in making career and educational choices. For the purposes of this report, the term "CIDS" refers to computer-based career information delivery systems, and includes computer-assisted career guidance (CACG) systems. This paper is intended to stimulate further discussion on improving CIDS evaluation, ultimately leading to further refinement of ACSCI/NOICC evaluation guidelines. This paper is also intended to support the current effort to evaluate CIDS use in employment services. The term evaluation, as used in this paper, includes both an objective description of current CIDS use and judgments about the appropriateness of CIDS use in relation to client needs. The paper begins by reviewing current efforts to evaluate CIDS, and continues with limitations of current CIDS evaluation efforts, recommendations for improved CIDS evaluation, and concludes with potential common survey data elements for CIDS evaluation.

Sampson, J. P., Jr., Reardon, R. C., Norris, D. S., Wilde, C. K., & Dietrich, E. (1994). Potential contributions of career information delivery systems to one-stop career centers, military downsizing, and school-to-work transition initiatives (technical report No. 18). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

This report documents an effort by the Association of Computer-Based Systems for Career Information to facilitate increased awareness and utilization of career information delivery systems (CIDS) by federal, state, and local governmental agencies who plan and deliver career services for adults and adolescents in transition. By more clearly understanding how CIDS specifically contribute to recent federal initiatives related to one-stop career centers, military downsizing, and school-to-work transitions, CIDS operators can be more proactive in ensuring that CIDS are used to the fullest extent possible in meeting the transition needs of adults and adolescents in the United States. The planning activity outlined in this report incorporates the collective experience and judgment of professionals experienced with CIDS design and use. Individuals invited to participate in the planning activity included all attendees of the Association of Computer-Based Systems for Career Information 16th annual conference held December 1-3, 1993, in Nashville, Tennessee. Using a

nominal group technique, facilitators assisted two groups of randomly assigned conference participants in exploring how CIDS could contribute to one-stop career centers, military downsizing, and school-to-work transitions. Each group developed lists of potential CIDS contributions in priority order that are presented in a series of tables. Comments from conference participants regarding trends across the priorities identified by each group and potential next steps in planning are also included. The report concludes with a recommendation for a content analysis of potential CIDS contributions.

Reardon, R. C., Sampson, J. P., Jr., Ollis, H., Dietrich, E., Frugoli, P., & Woods, J. F. (1994). Priorities for relating career information system development and federal initiatives (technical report No. 19). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

This paper reports the results of a symposium held in June, 1995, in Washington, D.C., to examine new Federal initiatives in the development of career information and the design and use of computer-based career information delivery systems (CIDS). Using a nominal group technique, participants developed 29 prioritized recommendations in response to the question: What do you as a CIDS developer recommend by done to better relate CIDS development to federal initiatives? These recommendations were directed to seven major groups of stakeholders in the design and use of career information for solving individual career problems and making career decisions. Improved communication between the Federal-State governments, NOICC, and ACSCI was one of the highest priority recommendations.

Sampson, J. P., Jr., & Norris, D. S. (1995). An evaluation of the effectiveness of Florida Choices implementation in high schools: Technical report No. 20. Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

Experience has shown that implementation problems limit the effectiveness of computer-assisted career guidance (CACG) systems. Implementation problems generally involve planning, integration of CACG systems within career services, training, and staff anxiety and resistance. While a considerable amount of research has been conducted to examine the process and outcomes of CACG use, little research has been conducted on the process or outcomes of CACG system implementation. The purpose of this evaluation is to provide preliminary evaluation data on the implementation of Florida Choices in public high schools. The sample of schools included in this study was representative of high schools in Florida in terms of school size (small, medium, and large) and school location (urban and rural). All participating schools had been using Florida Choices for at least two years. A total of seventeen Florida high schools, representing both rural and urban geographical areas participated in this study. The results of this study were consistent with implementation problems that have been noted in the literature. Implementation factors, such as enablers, barriers, and additional resources needed, appeared to be consistent across schools. Irrespective of being from a small, medium, or large school, staff perceived training, collaboration, and resources as key implementation issues. Recommendations for improving implementation of Florida Choices are presented.

Sampson, J. P., Jr., Reardon, R. C., Kolodinsky, R. W., & Herbert, S. H. (1997). A preliminary study of the availability and use of information and assessment resources in one-stop centers (technical report No. 21). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

One-stop centers have been established as a proactive effort to improve the delivery of employment and related social services. Due to the relatively recent emergence of one-stop centers as a major policy initiative in service delivery, limited evaluation and research data are available on one-stop center operation. This study was designed to provide data on current national trends regarding (1) the types of information and assessment resources available to customers in one-stop centers, and (2) the nature of staff support provided in one-stop centers for customer use of information and assessment resources. Descriptions of current functioning can be used by states as a starting point in making or revising planning decisions about one-stop services as well as providing a foundation for subsequent one-stop evaluation and research. One-stop centers were nominated by state one-stop directors to respond to a survey questionnaire on the basis of being perceived as exhibiting exemplary practice or as having fully implemented their respective state one-stop implementation plan. Results were obtained from 69% of the one-stop centers receiving the questionnaire. In general, data

from this study provided at least partial evidence that some one-stop design principles have been operationalized in practice at exemplary or fully operational one-stop centers. Customers appear to have access to a range of one-stop services via a variety of service delivery modes. Some evidence of service integration among collaborating organizations was also shown. It may be possible to enhance the effectiveness of services provided to one-stop customers by: (1) increasing the utilization of information professionals in the delivery of information resources; (2) using credentialing as a strategy to maximize the likelihood that staff have the skills needed to meet diverse customer needs; (3) clarifying policy and procedures regarding the availability and support required for standardized and self-assessment vocational measures; (4) increasing the use of written plans to guide and monitor the use of information and assessment resources; (5) increasing the use of group interventions when possible; and (6) ensuring that all staff who provide direct services to customers have training and supervision appropriate for their role.

Subsequent publication in:

Sampson, J. P., Jr., Reardon, R. C., Kolodinsky, R. W., & Herbert, S. H. (1998). The availability and use of information and assessment resources in one-stop centers. *Journal of Career Development, 25*, 15-29.

Sampson, J. P., Jr., & Reardon, R. C., (1997). Maximizing staff resources in meeting customer needs in one-stop centers (technical Report No. 22). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

This paper proposes models for serving job seekers that utilize (1) self-help services, (2) brief staff-assisted services, and (3) individual case-managed services to maximize staff resources in one-stop centers. After the need for maximizing staff resources is discussed, the evolution of one-stop centers is examined in terms of the limitations of existing services and the one-stop response. One-stop center design is explored via design principles, services provided, the functioning of career resource centers, and the use of computer technology. Levels of support are discussed in relation to the needs of job seekers and options for matching needs with staff support options (self-help services, brief staff-assisted services, and individual case-managed services) are reviewed. Two models are then proposed for maximizing staff resources in meeting the needs of job seekers. A model for determining the support necessary for job seekers to make effective use of information and assessment resources is presented, followed by a model that includes specific service delivery sequences for self-help services, brief staff-assisted services, and individual case-managed services. Potential resources for screening of job seekers in one-stop centers are then presented followed by the conclusion.

Subsequent publication in:

Sampson, J. P., Jr., & Reardon, R. C. (1998). Maximizing staff resources in meeting the needs of job seekers in one-stop centers. *Journal of Employment Counseling, 35*, 50-68.

Osborn, D. N., Sampson, J. P., Jr., Peterson, G. W., & Rush, D., (1997). Client anticipations about computer-assisted career guidance system outcomes (technical Report No. 23). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development.

While the existing literature suggests that expectations play an important role in counseling and career counseling, previous studies have not systematically assessed the range of expectations for computer-assisted career guidance (CACG) use, nor have they directly related obtained results to an existing classification system. The primary purposes of the present study were to determine (1) the types of anticipations clients have for CACG outcomes, (2) whether anticipations are affected by vocational identity, and (3) whether anticipations are affected by decidedness. To achieve these purposes, a variety of instruments, including a demographic form including the Occupational Alternatives Question, the My Vocational Situation, and a free-response, thought listing method (AACO-A), followed by a Likert-type survey of CACG anticipations (AACO-B) were used to collect data. Participants included 55 people who presented themselves at the Curricular-Career Information Service in the Career Center at Florida State University. MANOVAs yielded no significant differences for expectations among clients with high and low identity or high and low decidedness. Spearman rank correlations indicated that regardless of level of vocational identity or career decidedness, clients expect the computers to help increase options, enhance self-knowledge and strengthen occupational knowledge.

Sampson, J. P., Jr., Lumsden, J. A., Carr, D. L., & Rudd, E. A. (1999). A differential feature-cost analysis of seven Internet-based Career Information Delivery Systems (CIDS): (technical report No. 24). Tallahassee, FL: Florida State University, Center for the Study of Technology in Counseling and Career Development [On-line]. Available: <http://www.career.fsu.edu/techcenter/>

The primary purpose of this study was to highlight similarities and differences among Internet-based career information delivery systems (CIDS) so that practitioners, system developers, policy makers, and researchers may make informed decisions concerning such sites. The specific Internet-based CIDS included in this analysis were: 1) e-Choices, 2) Career Information System – National site, 3) Georgia Career Information System, 4) Illinois Career Information System (Horizons), 5) Indiana Career and Postsecondary Advancement Center, and 6) Washington Occupational Information System (WOIS). For the purposes of this analysis, features included: 1) site content, 2) user friendly features, 3) support resources, and 4) access policy, while costs included license fees. The data presented in this analysis were gathered from on-line CIDS use, support materials provided on-line, and telephone interviews with the developers.

Refereed Monograph Abstract

Sampson, J. P., Jr., & Reardon, R. C. (Eds.). (1990). Enhancing the design and use of computer-assisted career guidance systems: Proceedings of an international teleconference on technology and career development. Alexandria, VA: National Career Development Association.

The conference was designed to create an environment where system developers, policy makers, researchers/evaluators, and practitioners could critically examine the current effectiveness of computer-assisted career guidance (CACG) systems, and then formulate recommendations for improving the design and use of CACG systems. The conference was also designed to foster international communication and collaboration between North American and European countries by examining issues of CACG design and use that transcend cultural and national boundaries. Given the explicit creation of conditions intended to foster a careful analysis of issues and the creation of viable recommendations, this document is organized from an empirical perspective, including methodology (selection of participants, independent variables, dependent variables, and procedures), results, and discussion.

Subsequent publication in:

Sampson, J. P., Jr., Reardon, R. C., & Lenz, J. G. (1991). Computer-assisted career guidance systems: Improving the design and use of systems. Journal of Career Development, *17*, 185-194.

Related publication:

Ballantine, M., Watts, A. G., Sampson, J. P., Jr., & Reardon, R. C. (1990). Fostering international communication in educational and vocational guidance via teleconferencing. IAEVG (International Association for Educational and Vocation Guidance) Bulletin, *51*, 30-35.