

---

## Evaluating the Effectiveness of Career Counselling: Recent Evidence and Recommended Strategies

---

Robert J. Flynn

*University of Ottawa*

---

### Abstract

A recent national study of career and employment counselling in Canada (Conger, Hiebert & Hong-Farrell, 1994) showed that evaluation typically receives little attention. Encouragingly, meta-analyses conducted in the United States have indicated that career counselling produces positive effects and that these are, on the average, of the same magnitude as those brought about by well-developed psychological, educational, and behavioural interventions in general. Additional evaluative research is needed, however, to clarify the central questions of why career counselling is effective, with whom, under what conditions, and on which outcome dimensions. To encourage the investigation of these issues, selected process-oriented and outcome-oriented evaluation strategies described in the recent literature were presented. Illustrations of their application were drawn from the author's research and that of his students.

### Résumé

Selon une étude nationale récente du counseling de carrière et d'emploi au Canada (Conger, Hiebert & Hong-Farrell, 1994), on se préoccupe peu de l'évaluation. Des méta-analyses américaines encourageantes ont suggéré que le counseling de carrière produit des effets positifs et que ceux-ci sont, en moyenne, du même ordre d'importance que ceux produits par des interventions bien développés de caractère psychologique, éducatif, et comportemental, plus généralement. Il faut d'autres recherches évaluatives, cependant, afin d'expliquer pourquoi le counseling de carrière est efficace, avec qui, sous quelles conditions, et sur quelles dimensions. Pour promouvoir la recherche sur ces questions, des stratégies axées sur les processus et sur les résultats du counseling de carrière furent décrites. Afin d'illustrer l'application de ces stratégies, des exemples tirés des recherches de l'auteur et de ses étudiants furent présentés.

"Career counselling" is a multi-faceted process that resists unambiguous definition (Osipow, 1982). In the narrow sense, the term refers to a dyadic intervention between a counsellor and a client that is a form of psychotherapy (Rounds & Tinsley, 1984). In the broad sense, career counselling is synonymous with career intervention, referring to any activity designed to improve an individual's ability to make improved career decisions (Spokane, 1991), including individual and group counselling, job-search training, career education, career planning courses and workshops, and even work-study programs. We shall use the term in both senses herein, with the intended meaning made clear by the context.

The purpose of this paper is twofold. First, the recent meta-analytic literature on the effectiveness of career counselling is summarized and placed into the broader context of the general efficacy of psychological, educational, and behavioural interventions. Second, strategies for evaluating career counselling are suggested that can transcend the

frequent but one-sided “Grand-Prix” or “horse race” approach to evaluation (“Which intervention is better?”; Rounds & Tinsley, 1984) and instead achieve a balanced emphasis on evaluation *and* explanation (“How are particular interventions effective, and *why* is one better than the other?”). Examples from the research of the author and his doctoral students are used to illustrate application of the recommended strategies.

#### META-ANALYTIC EVIDENCE OF THE EFFICACY OF CAREER COUNSELLING

Recent meta-analyses permit two important conclusions to be drawn about career counselling, both of which deserve to be widely known among career-counselling clients, counsellors, administrators, and policy-makers. First, career counselling *is* demonstrably effective. Second, it is of the same order of effectiveness as the average psychological, educational, or behavioural intervention. The meta-analytic evidence in support of each assertion is strong and will be summarized at this point.

#### *Efficacy of Career Counselling*

Oliver and Spokane (1988) meta-analyzed 240 comparisons that had been made between experimental career interventions and no-treatment control conditions in 58 well-controlled studies involving a total of 7,311 subjects. Each comparison was quantitatively expressed as an “effect size” (ES) that was a standardized mean difference (i.e., the mean of the experimental group minus the mean of the control group, divided by the standard deviation of the control group; cf. Glass, McGaw & Smith, 1981). The unweighted mean effect size for the 58 studies was 0.82; the weighted mean effect size (calculated by weighing the mean ES in each study by the number of subjects in the study) was 0.48. (This reduction was due mainly to the fact that the ES in the largest study, which had 2,245 subjects, was zero.)

Among the different types of interventions studied, classes targeting career choice or development had the largest average impact (mean ES=2.05), partly because they also involved the greatest number of hours of intervention (mean hrs.=20.89) and the most sessions (mean sessions=15.53). Career-development workshops or structured groups were the next most powerful interventions (mean ES 0.75; mean hrs.=5.86; mean sessions=3.67), followed closely by individual career counselling (mean ES=0.74; mean hrs.=1.42; mean sessions=1.70). Group career counselling had a mean effect size of 0.62 (mean hrs.=7.74; mean sessions=6.90), and counsellor-free treatments had a mean effect size of only 0.10 (mean hrs.=2.50; mean sessions=1.13). Individual career counselling produced more client gain per hour or session than any other type of treatment, although it was also the most costly. Workshops or structured group treatments, on the other hand, were the least expensive

interventions (except for counsellor-free treatments), but were also less effective per hour of treatment than individual counselling.

In a less extensive meta-analysis, covering 18 studies of the effects of career education, Baker and Popowicz (1983) found a mean effect size of 0.50. Subjects were pupils or students in kindergarten through grade 12, with most in grades 9 and 11. The career-education interventions included methods such as vocational exploration groups, instruction in decision-making, techniques for increasing work awareness, and individual and group career counselling.

*Efficacy of Psychological, Educational, or Behavioural Interventions in General*

The findings from the two foregoing meta-analyses on the impact of career counselling are highly consistent with the broader pattern of results reported by Lipsey and Wilson (1993) in their very comprehensive and informative review of 302 meta-analyses of the efficacy of a wide range of psychological, educational, and behavioural treatments. Lipsey and Wilson's (1993) basic unit of analysis was the mean treatment effect size observed in each meta-analysis. Across all 302 meta-analyses (which included the two just described), Lipsey and Wilson (1993) found a grand mean effect size of 0.50 and a grand median effect size of 0.47. These effect sizes were thus virtually identical to Oliver and Spokane's (1988) mean effect size of 0.48 and Baker and Popowicz's (1983) mean effect size of 0.50. Overall, Lipsey and Wilson (1993) discovered striking evidence that well developed psychological, educational, and behavioural interventions (including but going far beyond career counselling) are generally efficacious: 98% of the 302 mean treatment effect sizes were positive (i.e., greater than 0.00), more than 90% were 0.10 or larger, and 85% were 0.20 or larger.

STRATEGIES FOR EVALUATING THE EFFICACY OF CAREER COUNSELLING

The foregoing evidence of the effectiveness of career counselling (like that on psychological, educational, and behavioural treatments in general) is certainly encouraging and, as mentioned earlier, merits being known by everyone in the field. At the same time, researchers (e.g., Betz, 1991; Jepsen, 1992; Pickering & Vacc, 1984; Rounds & Tinsley, 1984; Spokane, 1991) have, quite rightly, insisted on the need to continue expanding and deepening our knowledge of *why* career counselling is effective, with *whom*, under which *conditions*, and on which *outcomes*. This need seems especially great in Canada, where, according to Conger, Hiebert and Hong-Farrell's (1994) recent national study, career and employment counselling "is not systematically evaluated—and usually not evaluated at all" (p. 202). In the hope of encouraging practitioners and researchers to attend to this neglected topic, the author synthesized what he considered to be some of the most useful discussions of evalua-

tion strategies in the literature of the last 10-15 years, illustrating the application of these strategies with examples from my own research and that of my students. The adoption of strategies such as these would do much to advance the science of vocational psychology and the practice of career counselling, in Canada and elsewhere.

### *Process-Oriented Evaluation Strategies*

Osipow (1982) remarked more than a decade ago that the field of career counselling practitioners has typically paid little attention to process issues, other than decision-making, perhaps because of the often short-term nature (i.e., 3-4 sessions) of the intervention. The main focus has been on methods and outcomes rather than on counsellor-client interactions. Noting the same lack of emphasis on process in career-counselling research, Rounds and Tinsley (1984) argued in favour of the development of reliable vocational-problem diagnostic systems, the theoretical specification and evaluation of the mechanisms responsible for vocational behaviour change within each diagnostic category, and the elaboration of more powerful interventions. More recently, Spokane (1991) summarized the scant literature that does exist on the career-counselling process and suggested how it could be studied and understood better.

*Qualitative strategies for process evaluation.* In a rare study of the career-counselling process, Kirschner, Hoffman and Hill (1994) evaluated the impact of seven sessions of career counselling with a 43-year-old, career-dissatisfied, speech therapist. A pre-counselling assessment included screening for psychopathology (the client did not suffer from serious disorders) and measuring the client's vocational identity and goals, engagement in, reactions to, and beliefs about the career-exploration process, and vocational interests. Process measurements, carried out during counselling, included assessment of the counsellor's intentions and the client's reactions, a session-evaluation questionnaire, and a critical-events measure. A post-counselling assessment was conducted, and follow-up assessments were carried out 18 months and 5 years after counselling had ended.

Kirschner et al. (1994) found that during counselling, as the counsellor focused more on feelings, insight, challenges, and the reinforcement of change, the client experienced a corresponding increase in self-understanding, hopefulness, assumption of responsibility, and attainment of new perspectives. The helpful components of the career counselling process were found to be similar to those described by Holland, Magoon and Spokane (1981), who had identified the cognitive rehearsal of career aspirations and the provision of occupational information, social support and new cognitive structures as the common elements of effective career interventions. Kirschner et al. (1994) found that the client in their study had learned a great deal about herself and

about careers through feedback from the counsellor, occupational research, and networking with others inside and outside her field. Social support, which the counsellor provided through feedback, encouragement, positive reinforcement, and the counselling relationship itself, was crucial, and a career fantasy (i.e., cognitive rehearsal) exercise was also effective. Through learning the Holland (1985) typology, the client was able to organize and integrate the rich store of knowledge she had acquired about her interests, values, and skills and about the world of work. Finally, the counsellor helped the client structure her career search and understand how certain personal dynamics (e.g., self-devaluation) interfered with her choice of a career.

Researchers interested in evaluating the career-counselling process and its links with outcome might usefully start by examining the seminal study by Kirschner et al. (1994). They could also test some of Spokane's explanatory hypotheses about the nature of the career-counselling process and about why the average client exposed to it does, in fact, make important clinical gains. Spokane's (1991) process hypotheses (cf. chapters 2-3) include the following:

1. The career counselling process can be validly represented by a model composed of 3 stages (beginning, activation, and termination) and 8 subphases (opening, aspiring, loosening, assessment, inquiry, commitment, execution, and follow-through).
2. Each substage of the process involves a key therapeutic task, a counsellor process and technique needed to achieve the task, and an expected client reaction to its successful completion. For example, the key task of the "opening" subphase of the "beginning" phase is hypothesized to be the establishment of a therapeutic context; the main counsellor process is assumed to be that of setting expectations; the principal counsellor technique is postulated to be the use of structure and acceptance; and the predominant client reaction is predicted to be one of relief.
3. Before focused career intervention can begin, clients need to clarify (with the help of the counsellor) the nature of the decisions and conflicts they face.
4. Effective career counselling instills a sense of hope in the client that a reasonably congruent career option will be found and implemented.

*Quantitative strategies for process evaluation.* Fretz (1981), probably the strongest advocate of the need for attribute-treatment interaction (ATI) designs to discover which career-counselling interventions are the most effective for which kinds of clients on which outcomes, has suggested a number of fruitful strategies:

1. To increase the specificity of the knowledge gained from each study, career-counselling researchers should explicitly describe their interventions on three key dimensions: *content domain* (occupational information, self-knowledge, or decision skills), *interpersonal context* (one-to-one counselling, group counselling, self-administered interventions, or computer-administered treatments), and *degree of structure* (high, medium, or low).
2. Investigators should carefully describe their subjects' key demographic, psychological, and career-related attributes, such as gender, age, intelligence, anxiety, type of career undecidedness, motivation for treatment, or personality dispositions.
3. Investigators should choose the outcomes to be evaluated from several key broad categories: career knowledge and skills, career behaviour, sentiments, and effective role functioning.
4. Two or more interventions should be compared, with random assignment of subjects to treatments whenever possible.
5. Ideally, at least two levels of two of the three treatment parameters mentioned earlier (content domain, interpersonal context, and degree of structure) should be crossed in any given study, with the third parameter held constant. For example, structured vs. unstructured counselling might be crossed with individual vs. group counselling, while holding constant the content domain of decision skills. According to Fretz (1981), such studies allow the main effects and interaction of structure and interpersonal context to be determined, permit strong inferences about why and with whom career interventions work, and encourage more focused follow-up research.
6. When only two treatments can be compared, the latter should represent two levels of just one of the three treatment parameters, in order to minimize confounding. Thus, for example, highly structured, decision-oriented *individual* counselling might be profitably compared with highly structured, decision-oriented *group* counselling.

*Personal illustrations.* Several years ago, the author used Fretz's (1981) ATI-oriented approach in a field experiment that compared the effectiveness of three job-search training interventions to which unemployed special-needs clients had been randomly assigned (Flynn, 1991). (The three group treatments compared were Mill's [1983] *Job Finding Club* [JFC]; Côté's [1984] *Creative Job Search Techniques* [CJST] group treatment; and Redmond's [1985] *Overcoming Employment Barriers* [OEB] group intervention.) The main effects of treatment on employment status were found to be weak, but several interesting and practically

useful ATIs were discovered. For example, at the final, 12-month, follow-up (completed successfully with 91% of the participants, who received an honorarium of \$25 for their time), a statistically significant and clinically meaningful interaction was found between the treatments and the client attribute of age. For clients *older* than 45, the JFC was found to produce better employment results than the CJST. For those *older* than 48, the OEB also proved superior to the CJST. However, for those *younger* than 26, the CJST produced better employment outcomes than the OEB. Obviously, career-counselling agencies could improve the effectiveness of their services to different age groups by implementing data-based guidelines such as these, thereby optimizing the “fit” between clients and interventions.

In her doctoral thesis, a student of the author (Griffith, 1994) also found some statistically significant, theoretically interesting, and clinically useful attribute-treatment interactions. She randomly assigned students seeking career counselling at the University of Ottawa counselling centre to either an experimental career-counselling intervention that included goal-setting and feedback ( $n=32$ ) or to a standard career-counselling program ( $n=31$ ) that served as a comparison condition. Both programs were offered in a group format. Participants in each program made substantial gains on most of the outcomes studied (e.g., number of problems interfering with decision-making; decidedness; comfort with decidedness; self-clarity; knowledge of career options), although between-group differences were not found. The theoretically and clinically most important finding, however, was that the interventions interacted significantly and meaningfully with the personality predisposition of conscientiousness: clients *low* on conscientiousness who had received the goal-setting intervention participated significantly *more* in self-chosen career-counselling activities than low-conscientious clients exposed to the standard treatment. Conversely, clients *high* on conscientiousness who had received goal-setting participated *less* in career counselling and were also *less* satisfied with their counselling experience than high-conscientious clients who had received the standard treatment. Griffith (1994) was thus able to recommend to the student counselling centre at the University of Ottawa that, in future, low-conscientious students should be offered goal-setting as part of their group career counselling, whereas high-conscientious students should continue to be offered the standard form of group career counselling.

#### *Outcome-Oriented Evaluation Strategies*

*Strategies suggested by Oliver, Spokane, Nevo, and Kirschner et al.* Oliver (1978) compiled a useful inventory of career-counselling outcome measures and subsequently formulated strategies for increasing the utility of outcome assessments (Oliver, 1979):

1. Multiple rather than single outcome criteria should be used, including multiple measures of the same criterion (e.g., the dependent variable of career information-seeking might be measured through questionnaires and interviews as well as through counselling-centre records). Also, different types of measures (e.g., behavioural, archival, and attitudinal) should be used for different criteria.
2. Specific outcome measures should be employed (e.g., the attainment of clients' individual career-counselling goals), along with global measures (e.g., job satisfaction). Also, short-term outcome measures should often receive some priority because it may be unrealistic to expect long-term effects from the relatively brief interventions characteristic of much career counselling.
3. Instruments from previous research, of known reliability and validity, should be used, and objective and non-reactive measures (e.g., archival data; cost data) should be employed to supplement subjective measures such as ratings and self-reports.

Oliver and Spokane (1988) updated Oliver's (1979) suggestions, recommending that investigators choose from several major classes of career-counselling outcomes: *career decision-making* (e.g., accuracy of self-knowledge; appropriateness and realism of choice; instrumental behaviours, such as career information-seeking; and attitudes towards choice, such as decidedness or satisfaction); *effective role functioning*, including performance variables (e.g., academic performance or job-interview skills) and adjustment variables (e.g., career maturity, self-esteem, anxiety, or need for achievement); and *evaluation of counselling* (e.g., ratings of satisfaction or effectiveness).

In addition, Spokane (1991, pp. 219-24) proposed a set of 47 single-item, multidimensional, rating scales as supplementary measures in the evaluation of career-counselling outcomes. Although the psychometric adequacy of these simple scales needs to be established before they can be widely adopted, they appear flexible and promising. They assess the following dimensions: persistent search and exploratory behaviour; information; realism; barriers; hope and morale; activity level; congruence; cognitive framework; commitment and predicament appreciation; goals and options; decisional process; anxiety; and performance.

Nevo (1990) carried out an informative, albeit exploratory, evaluation of career counselling from the *counselee's* perspective. Participants in his assessment of a career-counselling centre at the University of Haifa (Israel) were 79 students (out of a target sample of 160) who had responded to a follow-up questionnaire 3 to 6 months after they had completed counselling. Counselees rated discussions with their counsellor as the single most useful component of career counselling, followed

by objective ability tests, career-related reading, and interest inventories. Overall, Nevo found that the career-counselling program appeared to be more helpful in promoting clients' self-understanding than in aiding them to come to a specific career decision. Interestingly, counselees who felt they had been helped in both the personal and career spheres were more satisfied with their counselling experience than were those who had been helped in only one domain or the other. The factor contributing most to respondents' satisfaction with the career counselling received was their counsellor's assistance in helping them organize their thinking and become more aware of their interests and abilities.

Finally, the study by Kirschner et al. (1994) offers useful suggestions for conducting intermediate and long-term follow-up assessments of career-counselling outcomes. Their psychometrically-oriented 18-month follow-up assessment showed that the client had basically maintained the gains she had made during counselling. In their qualitatively-oriented 5-year follow-up interview, the client reported several very positive outcomes that she attributed directly to her career-counselling experience: a desirable job change, a high degree of satisfaction in her current job, a sharper appreciation of the need to be more active in her career decisions and interpersonal relationships, and an increase in self-acceptance and self-esteem, which had also helped her come to a decision to remarry.

*Personal illustrations.* Research by the author and that of some of his doctoral students has been guided by the outcome strategies proposed by Oliver (1979), Oliver and Spokane (1988), Spokane (1991), Nevo (1990), and Kirschner et al. (1994). For example, in designing the job-search training project mentioned earlier (Flynn, 1991), the author incorporated measures from a wide range of objective and subjective criterion domains, including *economic achievement* (e.g., employment status, hourly wages, hours worked per week), *job requirements* (e.g., cognitive, education, and physical demands), *career-adjustment* (e.g., personality-job congruence, job satisfaction, and vocational identity), and *social psychological adjustment* (e.g., perceived social support, social activities, and psychological symptomatology). The diversity of these measures has permitted a broad range of evaluative questions to be addressed: the effects on employment of different job-search training interventions (Flynn, 1991); the impact of unemployment and subsequent reemployment on depressive symptoms (Flynn, 1993); the validity of Prediger's things/people and data/ideas work-task preference dimensions (Soulière, MacPhee & Flynn, 1991); and the utility of Holland's suggestion that past career-related coherence and congruence are useful diagnostic signs of future congruence (Thompson, Flynn & Griffith, 1994).

In the same vein, Griffith's (1994) thesis research used several of Spokane's (1991) rating scales as secondary measures of the effectiveness of the two career-counselling interventions that she compared. Also, a follow-up evaluation of the career-counselling program located at the Centre for Psychological Services (CPS) at the University of Ottawa and serving adults from the local community is being planned. In assessing the progress made by former CPS clients after receiving career counselling and their satisfaction with the program, it is planned to implement many of the outcome strategies recommended by Oliver (1979), Oliver and Spokane (1988), Spokane (1991), Nevo (1990), and Kirschner et al. (1994), along with some of the process strategies advocated by Fretz (1981), Spokane (1991), and Kirschner et al. (1994). Our overall goal will be to increase our theoretical and practical understanding of process and outcome issues—*who* benefits from the CPS career-counselling program, on *which dimensions*, and *why*—in order to make the service as effective as possible.

It seems fitting to conclude by mentioning, without elaboration, the increasingly crucial topic of the *costing* of career-counselling services. Reflecting what may become an increasingly common trend, it was found, in planning Griffith's (1994) thesis, that the university student-counselling centre where she conducted her research had restricted its career-counselling service to a group rather than individual format because of resource constraints. Readers interested in practical suggestions for assessing costs may wish to consult Coffman, Slaike and Iscoe's (1979) still useful paper. They may also wish to familiarize themselves with Knapp and Beecham's (1990) method of integrating mental health outcomes and costs. Described in detail in Netten and Beecham's (1992) primer on costing, this flexible approach could easily be translated into career-counselling terms.

### References

- Baker, S. B. & Popowicz, C. L. (1983). Meta-analysis as a strategy for evaluating effects of career education interventions. *Vocational Guidance Quarterly*, 31, 178-86.
- Betz, N. E. (1991). Twenty years of vocational research: Looking back and ahead. *Journal of Vocational Behavior*, 39, 305-10.
- Coffman, D. A., Slaike, K. A. & Iscoe, I. (1979). An approach to cost accounting and cost effectiveness in the delivery of campus mental health services. *Professional Psychology*, 10, 656-65.
- Conger, D. S., Hiebert, B. & Hong-Farrell, E. (1994). *Career and employment counselling in Canada*. Ottawa: Canadian Labour Force Development Board.
- Côté, J. C. (1984). *Creative job search techniques manual* (draft edition). Ottawa: Employment and Immigration Canada.
- Flynn, F. J. (1991). Matching job-search training interventions with client characteristics: Employment outcomes. *Canadian Journal of Rehabilitation*, 4, 133-43.
- . (1993). The effect of unemployment on depressive affect. In P. Cappeliez & R. J. Flynn (Eds.), *Depression and the social environment: Research and intervention with neglected populations* (pp. 185-217). Montreal & Kingston: McGill-Queen's University Press.

- Fretz, B. R. (1981). Evaluating the effectiveness of career interventions [Monograph]. *Journal of Counseling Psychology*, 28, 77-90.
- Glass, G. V., McGaw, B. & Smith, M. L. (1981). *Meta-analysis in social research*. Beverly Hills, CA: Sage.
- Griffith, S. (1994). *Goal-setting to improve participation and outcomes among university career-counselling clients: A randomized evaluation*. Unpublished doctoral dissertation, University of Ottawa.
- Holland, J. L. (1985). *Making vocational choices: A theory of vocational personalities and work environments* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Holland, J. L., Magoon, T. M. & Spokane, A. R. (1981). Counseling psychology: Career interventions, research, and theory. *Annual Review of Psychology*, 32, 279-305.
- Jepsen, D. A. (1992). Annual review: Practice and research in career counselling and development, 1991. *Career Development Quarterly*, 41, 98-129.
- Kirschner, T., Hoffman, M. A. & Hill, C. E. (1994). Case study of the process and outcome of career counselling. *Journal of Counseling Psychology*, 41, 216-26.
- Knapp, M. & Beecham, J. (1990). Costing and mental health services. *Psychological Medicine*, 20, 893-908.
- Lipsey, M. W. & Wilson, D. B. (1993). The efficacy of psychological, educational, and behavioral treatment: Confirmation from meta-analysis. *American Psychologist*, 48, 1181-1209.
- Mills, A. (1983). *Counsellor's manual for the job finding club: A group assisted programme for obtaining employment*. Ottawa: Canadian Employment and Immigration Commission.
- Netten, A. & Beecham, J. (Eds.). (1992). *Costing community care: Theory and practice*. Aldershot, UK: Ashgate.
- Nevo, O. (1990). Career counselling from the counselee perspective: Analysis of feedback questionnaires. *Career Development Quarterly*, 38, 314-24.
- Oliver, L. W. (1978). *Outcome measures for career counselling research*. Technical paper 316. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- . (1979). Outcome measurement in career counselling research. *Journal of Counseling Psychology*, 26, 217-26.
- Oliver, L. W. & Spokane, A. R. (1988). Career-intervention outcome: What contributes to client gain? *Journal of Counseling Psychology*, 35, 447-62.
- Osipow, S. H. (1982). Research in career counselling: An analysis of issues and problems. *Counseling Psychologist*, 10(4), 27-34.
- Pickering, J. W. & Vacc, N. A. (1984). Effectiveness of career development interventions for college students: A review of published research. *Vocational Guidance Quarterly*, 32, 149-59.
- Redmond, A. (1985). *Overcoming employment barriers*. Toronto: Guidance Centre, University of Toronto.
- Rounds, J. B., Jr. & Tinsley, H. E. A. (1984). Diagnosis and treatment of vocational problems. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (pp. 137-77). New York: Wiley.
- Soulière, M. D., MacPhee, D. C. & Flynn, R. J. (1991). Concurrent and predictive validity of Prediger's two work-task preference dimensions. *Journal of Vocational Behavior*, 39, 226-40.
- Spokane, A. R. (1991). *Career intervention*. Englewood Cliffs, NJ: Prentice Hall.
- Thompson, J., Flynn, R. J. & Griffith, S. (1994). Congruence and coherence as predictors of congruent employment outcomes. *Career Development Quarterly*, 42, 271-81.

### About the Author

Robert J. Flynn is an associate professor of psychology at the University of Ottawa, with interests in vocational psychology, the social integration of persons with disabilities, and evaluation research.

Address correspondence to: Robert J. Flynn, Centre for Psychological Services, School of Psychology, University of Ottawa, 11 Marie Currie, Ottawa, Ontario, Canada K1N 6N5.

A version of this manuscript was presented at the symposium on Issues and Solutions for Evaluating Career Development Programs and Services, Mount Saint Vincent University, Halifax, Nova Scotia, March, 1994.