

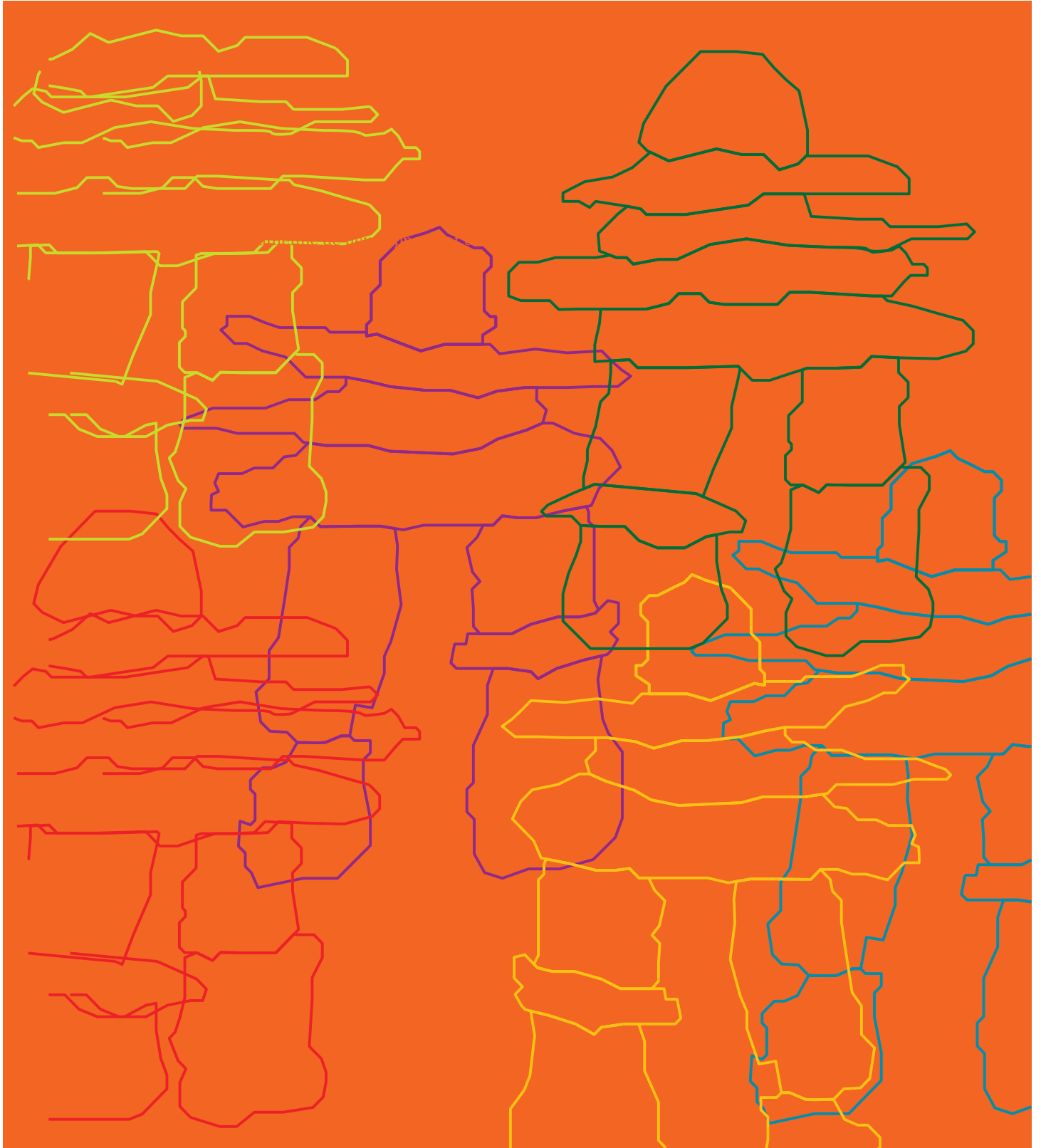


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The Canadian Journal of Career Development/Revue canadienne de développement de carrière

Robert Shea, Founding Editor/Rédacteur en chef
Diana Leadbeater, Associate Editor/Rédactrice adjointe

The Canadian Journal of Career Development is published by Memorial University of Newfoundland. It has a mandate to present articles in areas of career research and practice that are of interest to career development practitioners.

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Editorial

It is my honour to present the tenth volume of the Canadian Journal of Career Development/ Revue Canadienne de Développement de Carrière. This issue marks the journals first decade of publishing peer reviewed academic research and best practices in career development in Canada and around the world.

Our success comes not only from our authors but also from our over 2, 700 individual subscribers, the thousands of articles downloaded from our website each year, and from the career practitioners who incorporate the information into their practices.

In this issue, we have an article written by Mark W. Slomp, Kerry B. Bernes, and Kris C. Magnusson entitled *Evaluating the Impact of Career Development Services in Canada: The perceptions of Managers and Program Administrators*. As career development services and programs continue to be expanded, this article is timely and presents the reader with the perspectives of agency managers and program administrators on evaluation, as well as barriers they experience in conducting evaluations.

With the increasing focus on natural disasters around the world an increase in attention has been placed on global warming and the human component. The article *Should Climate Change Impact the Ethics of Lifelong Guidance* written by Sakari Saukkonen and Juhna Parkkinen incites readers to think how lifelong guidance may work not only for the benefit of a countries economic growth and sustainable development but also for the well-being of its citizens.

Closer to home, Joan Versnel, Christopher DeLuca, Nancy L. Hutchinson, Allison Hill, and Peter Chin address the transition of at-risk youth. In *International and National Factors Affecting School-to-Work Transition for At-Risk Youth in Canada: An Integrative Review* readers are given insight into some of the complex transition issues facing our youth. This article has significant implications for counsellors, policy makers, and employers throughout Canada.

Janet Maher and Lynda Atack in their article entitled *Students' Experiences of a 'Women Only' Automotive Service Technician Pre-Apprenticeship Program* discuss the benefits and challenges women who participate in this program experience. As women continue to enter historically male dominated trades, innovative programs designed to assist women will become increasingly necessary.

Our book review by Carl Leggo provides an interesting and insightful synthesis of the book entitled, *Metaphor Making: Your Career, Your Life, Your Way* by well known author Norman E. Amundson.

This issue also announces the upcoming publication of *A Multi-Sectoral Approach to Career Development: A Decade of Canadian Reserach* which is a celebration of the journals 10th year anniversary. For further information please see the advertisement within.

A note of appreciation goes to the peer reviewers who provide their feedback and to the authors for their time, expertise, and interest in publishing with the Journal. To the readers of this journal I thank you for your interest and continued readership.

As the journal enjoys its ten year anniversary, I want to ensure you that we will persist in providing preeminent multi-sectoral research, strive to bring you ground breaking and reflective articles, and to continue to be an authority for providing career-related peer reviewed academic research and best practices in Canada and around the world.

To another ten years!

Rob Shea

Founding Editor



The Canadian Journal
of Career Development

Revue canadienne de
développement de carrière

Etta St. John Wileman Award for Lifetime Achievement in Career Development

Why develop this award?

This award is designed to recognize and celebrate individuals who have devoted their lives to furthering the profession of career development.

To celebrate individuals who have established themselves as leaders within our profession.

Leaders who combine the role of researcher, educator, author, practitioner and career leader.

To encourage individuals in Canada and around the world to celebrate those around us who have contributed so much to our identity as career development professionals.

To establish a significant and uniquely Canadian award that recognizes those individuals who have devoted their lives to the enhancement of career development practice, administration, research and education.

Who can be nominated?

Individuals who have demonstrated significant and long term commitment to the principles and experience outlined above.

When is the award presented?

The award is presented at the annual Cannexus Conference in Canada. The award is presented on a less than annual basis as is determined by the selection committee.

Who comprises the selection committee?

The selection committee is comprised of the Founding Editor of the Canadian Journal of Career Development; a previous award winner; a career development professional; and the Board Chair of the Canadian Education and Research Institute for Counselling.

What is awarded?

The award recipient will be presented with a hand made Innuksuk by an Inuit artisan from Newfoundland & Labrador, Canada. The Innuksuk is made from a precious stone called Labradorite native to the coast of Labrador. Each award will be presented at the annual Cannexus Conference.

Submissions

To ensure confidentiality and to minimize disappointment it is requested that the nominee not know about the nomination in advance.

Submissions should attest to each of the principles outlined above in the section - Why develop this award? This is an award for significant and lifetime commitment to career development. Unsuccessful nominations will be considered for a period of two further years.

Nominations

Nomination packages should be sent to:

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Evaluating the Impact of Career Development Services in Canada: The Perceptions of Managers and Program Administrators

Mark W. Slomp
Kerry B. Bernes
Kris C. Magnusson
University of Lethbridge

Abstract

Academics and policy makers have clearly identified the urgent need to strengthen the evidence base attesting to the efficacy of career development services. However, it is unclear whether those providing career development services also recognize the importance of evaluation and are able to engage in evaluation in an effective manner. This article presents research that examines the value agency managers and program administrators place on evaluation and the perceived barriers they experience in conducting evaluations. This article also proposes solutions to the barriers to evaluation described by agency managers and program administrators.

Academics and policy makers have identified the urgent need to strengthen the evidence base attesting to the efficacy of career development services. However, it is unclear as to whether those providing front-line career development services understand the importance of evaluation and are able to effectively engage in the evaluation process. The purpose of the research described in this article was to examine the importance managers and program administrators place on evaluating the efficacy of their services. The purpose of this research was to also examine whether managers and program administrators experience any barriers impeding their evaluation efforts. This article will examine the results and implications of this research. As well, it will provide remedies to the barriers described by agency managers and program administrators.

Literature Review

For the past decade, academics and policy makers have argued that the evidence base attesting to the efficacy of career development services is weak and that more and better data attesting to the efficacy of career development services are urgently required. This theme has been expressed at national (2004) and international career development symposiums (1999, 2001, and 2003) (Baudouin, Bezanson, Borgen, Goyer, Hiebert, Lalande, Magnusson, Michaud, Renald, & Turcotte, 2007; Bezanson & O'Reilly, 2002; Hiebert & Bezanson, 2000). This theme has also been expressed in academic publications. For example, in their summary of the research base, Magnusson and Roest (2004) described the evidence base as "piecemeal, fragmented and un-systematic" (p.8). Others academics have similarly stated that although career development interventions are effective, little is known about why, how, or for whom they work (Dagley & Salter, 2004; Guindon & Richmond, 2005; Harris-Bowlsbey, 2003; Hughes, 2004; Whiston, 2003; Magnusson & Roest, 2004).

In recent years, academics and policy makers have taken measures to strengthen the evidence-base. Nationally, a group of researchers formed the Canadian Research Working Group for Evidence-Based Practice in Career Development (CRWG) and completed the development of a framework for evaluation (Beaudouin et al., 2007). Internationally, three symposiums have been organized, (Australia, 2006, Scotland, 2007, and New Zealand, 2009), advocating for efforts to strengthen the evidence base (The International Centre for Career Development and Public Policy, 2009) and an international centre for guidance studies has been established

with the aim of providing high-quality and cost-effective research, evaluation and consultancy services that contribute to the development of evidence-based policy and professional practice (International Centre for Guidance Studies, University of Derby, <http://www.derby.ac.uk/icegs>). As these examples illustrate, academics and policy makers clearly recognize the need to strengthen the evidence base attesting to the efficacy of career development services and many are actively engaged in attempts to strengthen the evidence base.

Although it is clear that academics and policy makers understand the need to strengthen the evidence base, it is unclear as to whether those on the front lines of career development service delivery also recognize the need to strengthen the evidence base and are actively engaged in effective evaluation. The research presented in this article attempts to understand whether managers or program administrators (of agencies that provide career development services) view evaluation as important. As well, it attempts to understand whether managers and program administrators are able to evaluate their services effectively; that is, whether they experience any barriers to effective evaluation. In order to strengthen the evidence base it is imperative that those on the front lines of service delivery are also committed to the cause of strengthening the evidence base and are able to effectively engage in that process.

The Research Study

The research presented in this article stems from a research agenda developed by the Canadian Research Working Group on Evidence Based Practice in Career Development (CRWG). The CRWG was formed in 2005 by a group of Canadian re-



searchers to address the need to demonstrate the efficacy of career development services (Baudouin et al., 2007). At the outset of their work, the CRWG recognized the need to engage in some preliminary investigation. When they first began their work very little was known about the state of either formal or informal evaluation practice among agencies that provide career development services in Canada. To address this, the Working Group decided to ascertain what agencies and service providers were doing in terms of evaluating the impacts and outcomes of the career development services they were providing. The research described in this article is part of this initial investigation. It was conducted, in part, to determine whether evaluation is valued by

program administrators/managers and to determine whether they are able to effectively engage in evaluation. Through this study, it was hoped that a clear picture would emerge as to the value program administrators/managers place on evaluation as well as the difficulties or barriers they face in measuring the impacts of their services.

Method

Data was collected through an online survey. The Canadian Career Development Foundation (CCDF) maintains a list of career development service providers in Canada, and managers and/or program administrators from each service provider were contacted via email and invited to partici-

pate in the study. A link to a website containing the survey, detailed instructions for completing the survey, and participant consent forms were provided in the email message. Those contacted were also encouraged to forward the invitation to other individuals representing agencies providing career services.

The email invitation and subsequent participant "fan-out" method of contact resulted in a total of 147 agency or program administrators from across Canada participating in the research study. The majority of the agency managers and program administrators represented not-for-profit agencies (44.5%) and provincial government agencies (27.0%) (see Table 1).

Table 1. Number of Respondents by Agency Type

Kind of Agency/Service Provider	n	%
Not-for-profit agency	61	44.5
Provincial government agency (non-school)	37	27.0
Post-secondary institute (college, technical institute or university)	14	10.2
School within the K-12 system	13	9.5
Private (for-profit) career services provider	6	4.4
Federal government agency	4	2.9
Private practice/consultancy (self-employed)	2	1.5
Career services or human resource unit within a larger company or organization providing services for the benefit of employees	0	0
Total	137	100



The survey was divided into two main parts. Part I of the survey asked managers/program administrators to provide demographic data (for example, the type of agency they represent). Part II of the survey asked managers/program administrators, primarily through the use of open-ended questions, to provide information regarding the state of their current practice of efficacy assessment. This article will focus on participant responses to the following questions:

1. How important is it to measure the outcomes/impacts of your services?
2. What difficulties do you face when trying to collect evidence and/or measure the impact of your services?

Frequency counts were used to analyze the data collected in response to the question “How important is it to measure the outcomes/impacts of your services?”

Content analysis methods were utilized to analyze the data collected in response to the question “What difficulties do you face when trying to collect evidence and/or measure the impact of your services?” The content analysis procedure involved the researcher selecting 20 random responses. These responses were

then coded – that is, each unit of meaning was given a label. The researcher began to immediately look for similarities and differences in responses as well as to formulate initial categories. When this was done the researcher selected 20 more responses and went through the same process. Through this process the researcher continued to refine the categories and sub-categories that were emerging from the data analysis. The researcher continued the process (of selecting 20 responses and examining each response to determine whether it fit with existing responses and categories) until no new categories emerged. Data analysis was considered complete when ‘redundancy’ was reached (Lincoln & Guba, 1985).

Results

The following section will describe the results obtained in this study. It will first examine the value agency managers and program administrators place on evaluation. It will then examine the barriers they face in conducting effective evaluations of their services.

Importance of Evaluating Services

Managers/program administrators were asked to respond to the following question: “How important is it to meas-

ure the outcomes/impacts of your services?” In response to this question, managers/program administrators were asked to select from the following three alternatives: “Not at all important”, “Somewhat Important”, and “Very Important”. The vast majority of managers/program administrators (97.8%) indicated that they believed the evaluation of service efficacy to be either “Somewhat Important” (24.6%) or “Very Important (73.2%).” Therefore, from this sample, it is clear that managers/program administrators place a high degree of value on the importance of measuring service efficacy (see Table 2).

Barriers to Evaluating Services

Managers/program administrators were also asked to respond to the following question: What difficulties do you face when trying to collect evidence and/or measure the impact of your services? The themes that were most frequently cited by agency managers and program administrators are provided below (see Table 3).

The section below will describe the themes presented in Table 3 in greater detail.

Table 2. Level of Importance Placed on Evaluation of Service Efficacy by Managers/Program

Administrators

Importance	f	%
Not at all important	3	2.2
Somewhat important	34	24.6
Very important	101	73.2
Total	138	100



Losing contact with clients.

The barrier that was most frequently cited by agency managers and program administrators was “Losing Contact with Clients” (f = 39; 31.5%). According to agency managers and program administrators it is very difficult to maintain contact with clients long enough to follow-up on the efficacy of their services. For example, one manager/program administrator commented that, “In some ways it is obvious that our services benefit students, but because there is almost no feedback mechanism, it is not clear how they have benefited from our services after graduation as we usually have no further contact.” Another described this difficulty by stating:

It is fairly easy to obtain outcomes after workshops, specific interventions, etc., but it is more difficult to capture outcomes at the end of service. We request input by pen and paper, phone, and email. Clients are not as inclined to respond when the process is complete. Counsellors get individual feedback, but any formalized system has not been terribly successful. When asking

clients to respond to an emailed feedback form, many are not able to access or do not have the basic skills to complete the emailed form.

This difficulty was also described in the following way:

Once clients become employed it is often difficult to monitor them since many of them want nothing more to do with the ‘system.’ This has really only been true since the ‘system’ has become aggressively punitive. Our agencies have to develop policies and procedures that will enhance the ability to monitor the client’s status. This sometimes includes cash incentives for client to report. As well, we send out client satisfaction surveys regularly and receive about a 19% response even though we send the survey with a stamped self-addressed envelope and a pen.

As these sample responses illustrate, agency managers and program administrators often find it difficult to evaluate their services as a result of losing contact with clients.

Lack of time.

The second most frequently identified theme was “Lack of Time” (f = 27; 21.8%). Lack of time was cited repeatedly as one of the difficulties facing agency managers and program administrators as they attempted to evaluate the efficacy of their services. For example, when asked to specify the obstacles facing agencies in their attempts to evaluate their services, one manager/program administrator commented, “Time. Often evaluation is never planned for and therefore the resources aren’t available to do it well.” Another agency manager/program administrator provided a similar response by stating: “Time - finding time to create a broader more encompassing evaluation strategy.” Other managers/program administrators commented, “Time pressures make it difficult for facilitators to spend a great deal of time collecting and reporting impact data,” and “TIME - to develop measuring process/method and to collect and analyze results.” According to agency managers and program administrators, lack of time to develop and implement effective evaluations greatly hampers their ability to engage in effective evaluation.

Table 3. Barriers to Evaluation

Barriers	f	%
Losing Contact with Clients	39	31.5
Lack of Time	27	21.8
Lack of Value Placed on Alternative Outcomes	21	16.9
Lack of Understanding About the Importance of Conducting Evaluations	16	12.9
Total	124	100



Lack of value placed on alternative outcomes

The third most prevalent theme expressed by agency managers and program administrators was "Lack of Value Placed on Alternative Outcomes" ($f = 21$; 12.9%). Agency managers and program administrators identified their frustration in not being able to measure a broad range of outcomes as something that reduces their ability to engage in effective evaluation. One manager/program administrator commented, "For some clients working less than 20 hours a week is a huge success, though not measured as employment by funder within their timeframe of case management (generally 3 months)." Another manager/program administrator commented that, "Success is always related to actually getting a job and not to the improvements an individual experiences on their journey to employment. For this reason, we have no idea about the marginal steps and successes because we cannot record them or spend time evaluating them." This frustration was communicated by one manager/program administrator in the following way:

The Contact IV database used by the Province does not allow us many options as to the status of our clients after closure. The only options we have is: employed, unemployed or self-employed. As a good number of our clients receive funding for training, either as a wage subsidy or professional education, we wish there would be some way we could include training.

Another manager/program administrator commented, "Employment is easy to measure. Black and white. The 'softer' outcomes that actually provide more in the 'human element' are not widely recognized by funders." Clearly, agency managers and program administrators would like to be able to evaluate more than simply employment totals. They would like to be able to demonstrate the value of their services in achieving other important outcomes that lead to clients building successful careers.

Lack of understanding

The fourth most frequently cited barrier to evaluation expressed by agency managers and program administrators was "Lack of Understanding" ($f = 16$; 12.9%). A number of managers/program administrators indicated that effective measurement is impaired by a lack of understanding about the importance of conducting evaluations. Managers/program administrators noted that government representatives do not understand the importance of measurement and evaluation. For example, one manager/program administrator described this frustration by stating: "Lack of political will - politicians don't understand value of career services and therefore don't ask for reports." More often, agency managers/program administrators indicated that often career development practitioners do not understand, or value, measurement. For example, one manager/program administrator cited, "lack of in-depth understanding of the importance of evidence-based decision making across many agencies" as an obstacle to effective evaluation. Another manager/program administrator described, "Lack of staff time or will. Lack of staff understanding of importance [of evaluation]." Similarly, another manager/program administrator commented that, "Collection of evidence not necessarily a priority for staff." As these sample responses illustrate, agency managers and program administrators feel that other stakeholders do not often fully appreciate the importance of evaluation and are therefore not fully engaged in the process of evaluation.

In summary, agency managers and program administrators identified a number of barriers that hamper their ability to conduct effective evaluations. The most frequently identified barriers included losing contact with clients, lack of time to conduct evaluations, lack of support for conducting broad-based evaluation and lack of shared understanding about the importance of evaluation amongst career development agencies and practitioners. The following section will examine these results, discuss the implications of these results, and provide some potential solutions to aid agency managers and program ad-

ministrators in successfully addressing these barriers.

Implications/Discussion

Introduction

It is clear from this research study that agency managers and program administrators view evaluation as a very important component of service delivery. However, it is also clear that they experience many barriers that prevent them from conducting the kinds of evaluations that would yield the data required to strengthen the evidence base and demonstrate the value of career development services. In other words, agency managers and program administrators share the perceptions of academics and policy makers that effective evaluation is critically important for the field of career development; however, they are hampered in their ability to evaluate the effectiveness of their services. According to the agency managers and program administrators the main obstacles impeding effective evaluation are: losing contact with clients, lack of time for evaluation, lack of value placed on alternative outcomes and lack of understanding about the importance of conducting evaluations (by other stakeholders). The following section will use a case study to provide solutions to the barriers described by agency managers and program administrators.

Case study

One of the authors of this article teaches a credit course in career planning at the University of Lethbridge entitled Career Development 2000: Life/Career Planning. Students from all faculties and all years of study are eligible to take this class. It is designed to assist students in planning their career/life and to help them develop the skills for effective lifelong career self-management. The effectiveness of this course is regularly evaluated using methods outlined by the Canadian Research Working Group for Evidence Based Practice in Career Development (CRWG) (Baudouin et al., 2007). Prior to administering the course, the author identified the outcomes he hoped to achieve in the course. The author identified the following outcomes he



hoped the students who enrolled in his course would achieve: a clear understanding of the components of effective career development, an understanding of the resources available on campus to help them in their career development, a clear understanding of their strengths and how they could apply them to their career, a clearly defined career vision, a good understanding of possible career options that align well with their career vision, knowledge of print and online resources available to them in their ongoing career development, concrete career related goals and development of a personal action plan, confidence in their ability to successfully manage their career (as a university student and beyond), increased level of engagement/motivation in their other classes, confidence about their occupational future, and the development of an educational plan to help them achieve their career goals.

After identifying the desired outcomes, a curriculum was developed to ensure that these outcomes were achieved. When the course content was finalized an evaluation plan was developed that focused on evaluating the usefulness of the activities and lectures implemented in the course and on evaluating the final outcomes the author was attempting to ensure students received from the course. The usefulness of the activities and lectures was evaluated through the use of a weekly feedback form. The final outcomes were evaluated through the use of a summary evaluation implemented in the last class of the semester.

To evaluate the usefulness of the activities and lectures utilized in the class, students were asked after each class to indicate their level of participation in the activities/lectures and the degree to which they found each of the lecture topics and activities useful. Students were first asked to indicate their level of participation by identifying whether they did not participate, they somewhat participated or they fully participated (students were asked this question to legitimize the data collected on the subsequent question regarding their perception of the usefulness of the activities/lectures –if they did not participate in the activity or lecture they would not be able to provide an accurate rating

of its utility). After clarifying their level of participation students were asked to indicate how useful they found the activities and topics. In rating the usefulness of the activities/lecture topics, students were asked to follow a two-step process. First, they were asked to decide whether they found the activity/topic useful, then they were asked to assign an appropriate rating. They were provided with the following options: not useful, not really useful (but almost ok), minimally useful, somewhere between useful and extremely useful, or extremely useful. This evaluation was easy and quick to implement. It took approximately five minutes to complete but yielded very valuable data. It assisted the author in understanding which of the components of the course were particularly helpful to the students (and which were not particularly helpful). In this way, the author had a clear idea of the components of the class that needed strengthening and assisted the author in ongoing revisions to the course content and structure.

The final outcomes achieved in the class were evaluated through the use of a summative evaluation implemented at the end of the final class. Through the summative evaluation students were asked to rate themselves (prior to taking the class and after taking the class) on the various outcomes listed earlier in this article. Students were presented with a statement (for example, “confidence about my occupational future”) and then were asked to respond to the following question: “Knowing what you know now, how would you rate yourself before taking this course (on this outcome), and how would you rate yourself now?” In rating themselves before and after taking the course students were asked to follow a two-step process. First, they were asked to decide whether they would rate themselves as unacceptable or acceptable (relative to the outcome statement) before and after taking the course. Then they were asked to indicate whether they would rate themselves before and after taking the course as: unacceptable, minimally acceptable, somewhere between minimally acceptable and exceptional, or exceptional. As well, at the end of the outcome evaluation students were asked the following question: “To what extent would you

say that any changes depicted in the outcome survey were the result of taking Career Development 2000, and to what extent were they a function of other factors in your life?” Students were asked to select from the following responses: mostly other factors, somewhat other factors, uncertain, somewhat this course, and mostly this course. This question was utilized to clarify the contribution of the course in helping students to achieve the outcomes they identified as having successfully achieved.

Application

This example describes an approach to evaluation that, if applied, could assist agency managers and program administrators in successfully addressing the major obstacles/barriers to effective evaluation they described in this research study. The following section will demonstrate this by applying this example to the each of the major barriers to evaluation expressed by agency managers and program administrators.

Losing contact with clients. Managers and program administrators identified losing contact with clients as a barrier to effective evaluation. As this example illustrates, evaluation data does not need to be collected at some future juncture in time to be valuable. The author did not need to wait weeks, months or years to evaluate whether the course was effective in producing valuable outcomes. When the students were given the summative evaluation on the last day of classes they identified that the class helped them achieve a wide range of outcomes such as: increased understanding of the components of effective career development, increased understanding of the resources available on campus to assist them in their career development, clearer understanding of their strengths and how they could apply them to their career, development of a clearly defined career vision, increased understanding of possible career options that aligned well with their career vision, increased knowledge of print and online resources available to them in their ongoing career development, development of concrete career related goals and development of a per-



sonal action plan, increased confidence in their ability to successfully manage their career/life (as a university student and beyond), increased level of engagement/motivation in their other classes, increased confidence about their occupational future, and development of an educational plan to help them achieve their career goals. The author was able to collect all of this outcome data as part of the delivery of the intervention itself. The evaluation was conducted as a seamless part of the service delivery and powerful evaluation data was immediately gathered regarding the value of the service provided.

Lack of time. Agency managers and program administrators also identified lack of time to engage in effective evaluation as a barrier to effective evaluation. The example provided above clearly shows that effective evaluation does not have to take a great deal of time. The evaluation tools that were developed for the evaluation of the course described in the example took some time to develop and fine-tune but once they were constructed they could be easily modified and applied to evaluate a wide range of intentions and services (there would be no need to continue to construct different evaluation tools). As well, the methods described in the example took only minutes to implement.

Lack of value placed on alternative outcomes. Agency managers and program administrators also identified the lack of value placed on alternative outcomes as a barrier to effective evaluation. Employment totals appear to be the outcomes that are most valued by funding agencies. However, if, for example, change in employment status is the only outcome that a particular funding agency wants collected, there is nothing preventing agency managers and program administrators from collecting additional data. As the example provided earlier illustrates, it does not take a great deal of time and resources to evaluate a comprehensive array of outcomes that result from service provision. Therefore, alternative outcomes could be easily collected alongside the outcomes desired by funding agencies. The alternative outcome data collected could be reported alongside the employment totals requested by the funding agency. The additional data could then

provide a more comprehensive picture of the value of the services provided and could provide compelling reasons for continued investment in the services being funded.

Lack of value placed on evaluation. Agency managers and program administrators also identified a lack of value placed on evaluation by other stakeholders as a barrier to effective evaluation. Other research conducted by the CRWG has clearly shown that other stakeholders (such as practitioners) also place a high value on evaluation (Lalande & Magnusson, 2007; Lalande, Hiebert, Magnusson, Bezanson & Borgen, 2006). This would suggest that the perception held by agency managers and program administrators that other stakeholders do not place a high value on evaluation is inaccurate. It might be more accurate to conclude that practitioners and other stakeholders are unclear as to how to conduct effective evaluation and are therefore hesitant to engage in the process or are uncertain as to how to proceed. Perhaps if practitioners were given training in easy-to-use evaluation methods that yield compelling efficacy data (such as the ones described in the example provided earlier) they would be much more engaged in the evaluation process.

Summary

It is clear that agency managers and program managers agree with academics and policy makers that evaluation is of great importance. However, perceived barriers such as losing contact with clients, lack of time to conduct evaluations, lack of value placed on alternative outcomes, and lack of understanding about the importance of evaluation prevent them from conducting effective evaluations. But, as the example provided in this discussion illustrates, evaluation methods and tools exist that can easily assist agency managers and program administrators to overcome these barriers. Methods and tools exist that are easy to understand, robust enough to encompass most aspects of career development services, and are able to be easily incorporated into the practices of agencies and service providers (Beaudouin, et al., 2007, p.155). Career development agency managers, program administrators and

practitioners would benefit from increased access to materials and training that describe in greater detail methods such as those discussed above that can be easily and efficiently integrated into service delivery. Certainly, this is an important next step in the quest to strengthen the evidence base attesting to the efficacy of career development services – informing agency managers and program administrators about evaluation methods and tools that make the task of evaluation simple, accessible, and effective and providing training in these methods. In this way, agency managers and program administrators will be equipped to engage in the kinds of robust evaluations they clearly want to conduct – and the kinds of evaluations that are strongly needed in the career development field.

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Should Climate Change Impact the Ethics of Lifelong Guidance?

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Abstract

The discussion on global warming is part of a global increase in ecological awareness that has been going on for some time now. Though the research results and the predictions contain some uncertainties, it appears clear that the global climate is warming at quite a fast pace and that this warming is largely due to human influence. At the same time in order to ensure the welfare of the citizens of European countries, the objective of economic policy is continuous growth. Major tools for achieving this objective are lifelong learning and lifelong guidance. The observed and predicted changes connected to climate change bring forth the issue of global ethics of lifelong guidance. In this article we ask how we can define the ethics of lifelong guidance if we are to consider both sustainable development and well-being of citizens. Individuals who conceive of themselves as participants in a generational continuum have duties to their predecessors and descendants. Therefore the ethics of lifelong guidance should be based on the principles of sustainable development.

Keywords: climate change, lifelong guidance, ethics of guidance, sustainable development

Climate change as a catalyst for ethical discussion of guidance

We are beginning to realize the essential role of the environment and the limits it imposes. As Treanor (2008) puts it we are perhaps facing questions of the physical survival of humankind. In this paper we try to locate the ethical grounds of lifelong guidance in an age of environmental crisis. Usually the main argument for lifelong guidance is the pursuit of individual good – but what is individual good in an age of climate change? How should environmental responsibility and sustainable development be taken into account in the ethics of guidance?

Discussion on global warming is part of a global increase in ecological awareness that has been going on for some decades. A well-known landmark of this discussion was the book *Silent Spring* by Rachel Carson, published in 1962, which quite dramatically brought the pollution of the environment through industrialization and increasing consumption to public attention. The work has been considered to be the symbolic basis of the modern environmentalist movement (Hirvi, 2001; Palmer, 1998). Just before the 1970s oil crisis, the Club of Rome published the report *Limits to Growth* which, despite controversy, accelerated the strengthening of the international environmentalist movement (Meadows, Meadows, Randers & Behrens, 1972).

Public discussion of climate change gained momentum with publication of an extensive international research report on climate in the spring of 2007 (Intergovernmental Panel on Climate Change, 2007a, 2007b). According to the IPCC, global warming brings both advantages and disadvantages, but the disadvantages are predicted to outweigh the advantages. The worst case scenarios are catastrophic for large areas of Earth and for numerous people living in those areas. Although the research results and the

predictions made contain uncertainties, it appears clear that the global climate is warming and that this warming is most likely largely due to human influence (Intergovernmental Panel on Climate Change, 2007b; Thorpe, 2007).

From the late 1980s to early 1990s, oceanic currents changed significantly in the northernmost parts of the Atlantic (Greene & Pershing, 2007). Furthermore, it has been observed that the glaciers and permafrost areas of the circumpolar zone and of land areas close to the circumpolar zone have begun to melt. The consequence is a rise in sea level. Extreme weather phenomena such as heavy rains, heat waves and droughts are becoming more common and more intense. Regional changes have begun to occur in food production. According to predictions, the most densely populated areas of the globe will be among those most severely affected by negative consequences of global warming (Intergovernmental Panel on Climate Change, 2007b, 48).

Balancing between sustainable development and pursuit of economic growth

A report by the World Commission on Environment and Development (1987) defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. The concept of sustainable development requires that we see the world as a system that connects space and a system that connects time. According to Myers and Kent (2008, 148–151), we should preserve water, fight against hunger, recycle, increase energy efficiency, booster family planning and primary education, reduce corruption and take care of wildlife conservation. Those are not easy tasks but the bottom line is humankind has a common future and people have intergenerational responsibilities.



Although the idea of sustainable development is gaining popularity and it is officially accepted by governments, the logic of economical growth is still given priority in present politics. As Myers and Kent (2008) point out in modern societies there are numerous institutional mechanisms that favour the increase of gross domestic product at the expense of sustainable development. Respectively the European Union's lifelong learning strategy aims at making Europe the most competitive knowledge-based economy in the world (European Commission, 2000). In order to ensure the welfare of the citizens of European countries, the objective of economic policy is continuous growth. Within the EU lifelong guidance¹ as a part of the lifelong learning policy has been highlighted as the key means of increasing wellbeing as well as improving employment rates and productivity (European Commission, 2000; Sultana, 2004). Lifelong guidance is defined as a tool for enhancing social justice and equality in the labour market, but it can be said also that the more important objective is to improve employment rates and make more effective use of the labour force.

In a society oriented toward economic growth and high productivity, a context of self-explanatory necessity is easily created for educational and career choices. Lifelong guidance for citizens should benefit national economies - although objectives of individual personal development and social equality are also mentioned as premises of guidance provision and lifelong learning. Nevertheless, it can be observed that guidance is receiving more and more interest from industry and commerce as well as the labour market. Thus guidance has its own institutionalized political technologies and established practices (as defined by Foucault, 1991; Miller & Rose, 1990) independent of the positions of individual guidance practitioners.

Outlining the ethical grounds for lifelong guidance

Changes in society influence both political and practical positioning of

lifelong guidance. They also affect the definitions of lifelong guidance, lead to re-evaluation of the status of lifelong guidance, and create entirely new guidance professions (Sultana, 2004; Sweet & Watts, 2006). Therefore lifelong guidance transcends its conventional boundaries and is forced to redefine itself. But it is not so clear that the foundational premise of ethicality and the pursuit of the social good find their place and significance in this process.

In Europe the purpose of guidance is in line with the lifelong learning strategy of the European Union (2000, 2006). It enables citizens of all ages and at any phase of life to analyze their own interests and skills, make educational and vocational decisions and manage their individual span of development in learning and at work (European Council, 2004). This definition emphasizes a client-based approach, the promotion of social equality and an extensive examination of the concept of guidance as one of the underlying factors of a competitive economy (Organization for Economic Co-operation and Development, 2004).

Among others, Peavy (2004, 21-23) has discussed what is most characteristic of guidance and what sets it apart from other forms of professional support and assistance. Guidance is usually seen as relatively autonomous practice despite its multiple connections with structural, political or power-related forces in society. Traditionally guidance promotes individual good; therefore, core competence standards in the field of career guidance mostly refer to the promotion of individual good. The ethical code of the International Association for Educational and Vocational Guidance (IAEVG) also follows this principle (IAEVG 1995). The core of expertise in lifelong guidance lies in understanding the foundation of human interaction, reinforcing the indivisible value of a human being, pursuing genuine interaction and contact as well as accepting the guidance client without reservations.

The ethics of lifelong guidance may well be seen as based on promotion of individual development, learning and growth. The issue of how the ethics of lifelong guidance can be interpreted in supporting the good of the community, and which kinds of premises this point of view can be built on, has received less attention.

From the good of the individual to the good of the community

We will shortly follow some central ideas in Alasdair MacIntyre's (1984) moral philosophy which have to do with reinforcing the ethics of community. The central argument in MacIntyre's (1984) work is that it is very difficult in today's world to find a common rational framework for ethical discussions, which is why discussions of ethics do not lead to a shared view of the moral ways of doing things. As Treanor (2008) emphasizes, there is no single assumption of the good life or one uncontested idea of virtue.

MacIntyre is a supporter of Aristotelian virtue ethics and sees this ideology as a kind of balancing view to be considered in parallel with an individual-based ethical study. In Aristotle's virtue ethics, the virtue of a person is defined from the perspective of the community. A good person is an individual who works for the good of the community and does his/her best for the community. In working for the good of the community and of him/herself, the person seeks to develop the kinds of virtues in him/herself that benefit the life of the community, such as fairness, honesty and courage. Loyalty to the community is based on the conception of man according to which another person is seen as a friend and friendships as the foundation of the ethical nature of the overall community. The duty of humanity is to live a life ruled by reason in the community and for the community.

MacIntyre (1984) claims modern liberal individualism has reached the end of its road. Within individualism a person defines his/her moral duties based on subjective emotions. That is far too narrow an approach to be used as

¹ Concepts of career guidance and lifelong guidance are often used almost as synonyms in the EU language. "Career" is broadened to cover the whole life path, including work, education and free time activities. We have chosen to use the latter concept because it relates to the idea of lifelong learning and it has fewer restrictive connotations.



the foundation for ethical thinking, and it is destroying what little is left of the common rational basis for moral ideas on which the community-based approach in moral thinking is presently based. Belonging to a community, understanding and committing to the principles fostering the life of the community, facilitates a good life. A good life is not an individualistic project. Sustainable development and sustainable ethics then, calls for a shared foundation of values, in which the beliefs concerning the purpose of being a human being and the ideals of a good life have been defined collectively.

Environmental awareness and the ethics of lifelong guidance

When the environmental challenge is taken seriously we claim that the practice of guidance should consciously seek to bridge the gap between an individualistic way of thinking and one that highlights the good of the community. In other words: It is not enough to foster the good of the individual. We argue that lifelong guidance practitioners should take a stand on global matters affecting humanity as a whole. Towards the end of this paper we outline a proposition for an environmentally aware ethics of lifelong guidance. Starting with McIntyre we also develop this idea from a basis in global ethics (Sihvola, 2004) in relation to environmental ethics (Treanor, 2008) and to discussions of citizenship (Gleeson, 2001).

According to Sihvola (2004), a discussion of global ethics is necessary for two reasons. First of all, such discussion motivates us to define values that people all over the world share but of which they are not necessarily clearly conscious. Developing this kind of moral awareness and creating communication systems in service of the same can steer people's individual behaviour. Secondly, global ethics is needed in order for political activity to be able to renew local and global institutions and make them more equitable. This is how we can influence the structures and networks of international systems. Institutions can be developed that steer people towards behaving in a morally tolerable way, even if we can never be completely free of the typically human features of self-

ishness, prejudice, fear and haste. (Sihvola 2004, 209–211.)

Sihvola's (2004) other argument for global ethics has to do with the role of institutions in society. Educational policy, including career guidance policy, has traditionally been considered a means of societal influence as well as a way to educate so-called good citizens (see also Ollila 1997, 20–21). If we establish the conscious moral guidance of people's behaviour as one of the essential tasks of institutions, it is particularly important to engage in an open and principled societal and political discussion of the ideology such a task is built on. Openness is also called for when institutions plan and construct their overall plans and strategies. The essential question here is how moral guidance could be implemented in practice in an open and equitable manner. It is not to be taken for granted that ethical ideals are in a logical relationship with behaviour on the institutional level any more than they are on the level of the individual.

According to Gleeson (2001) the present world political order encourages moral parochialism. Citizens of states are not generally willing to take responsibility for what happens outside their borders, and governments are reluctant to pursue policies that require sacrifice of the national interest for the sake of achieving global environmental objectives. Gleeson asks how people who belong to different societies and have different goals and values can become willing to cooperate in solving environmental problems. One approach is through identifying and justifying values, principles or ideals that promote transnational governance. To find such ideals it is natural to appeal to the cosmopolitan tradition. Cosmopolitanism is both an ethical and a political doctrine. It asserts the existence of universal ethical ideals or principles, and it advocates a political order in which these ideals can be universally realized. Cosmopolitans believe that there are universal principles of right or justice, and many of them promote the development of global political institutions capable of ensuring that human rights or universal principles of justice can be realized everywhere in the world.

Therefore, at least to some extent, the reinforcement of global ethics means

openness to cosmopolitan tradition. In lifelong guidance practices it means taking real responsibility of the future of humankind and sustainable development. The client-based approach in guidance needs to be revised into a more holistic, community-based approach. We argue here that we should conceptualize clients not only as individuals pursuing individual goals but also as citizens with collective responsibilities. Following Gleeson (2001) citizenship requires considerations about the purposes of a political society and values it entails in relation to how people conceive themselves. Citizens have responsibilities in an intergenerational continuum. Citizens are supposed to cooperate for the sake of the common good. Citizenship implies solidarity, a willingness to make sacrifices for other citizens. Gleeson (2001) argues that individuals as participants in such a continuum are predisposed to cooperate with each other to achieve or protect the goods they value, including environmental goods. Citizens need to share this responsibility and support forms of governance that facilitate sustainable development. According to Myers and Kent (2008), this is not an easy path because of the many institutional roadblocks: jurisdiction, global trade agreements and relatively stable professional practices among other things. Nevertheless, all societal actions are founded on human actions. What humans have constructed can also be de-constructed and re-constructed by humans.

Conclusions

Individuals who conceive of themselves as participants in a generational continuum will be more inclined to demand or accept political means for achieving the common good. They do not have duties only for the presently existing members of their family or community, but also to their predecessors and descendants. They will be motivated to make new political relations of cooperation, and these relations will be the basis for their conception of citizenship. Citizenship encourages relations of solidarity. People who cooperate with each other to maintain good for themselves and their descendants are likely to appreciate their interdependence. These relations of interdepend-

International and National Factors Affecting School-To-Work Transition for At-Risk Youth in Canada: An Integrative Review

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Abstract

This paper provides an integrative review on the unemployment of at-risk youth and their transition to adulthood within Canadian and international contexts. Factors that influence school-to-work transition for at-risk youth include: (a) international economic and social factors, (b) fixed individual and family factors, (c) individual and family factors amenable to change, (d) educational contexts, (e) workplace contexts, (f) school-to-work intersection, and (g) outcomes for individuals. We also consider the complexities of comparing and synthesizing these factors and, finally, suggest an agenda for action by Canadian researchers and policy makers based on the results of our integrative review.

KEYWORDS: at-risk youth; school-to-work transition; work-based education

Many factors appear to influence the school-to-work transition and career

development of Canadian at-risk youth. This paper provides an integrative review on the unemployment of at-risk youth and their transition to adulthood within Canadian and international contexts. Risk is usually defined as a factor or a confluence of factors, within a youth's social context, that increases the likelihood of the youth experiencing distress and negative developmental outcomes in a variety of life situations (Gerard & Buehler, 2004). Our use of the term at-risk youth follows the definition articulated in the OECD publication *Our Children at Risk* (Centre for Educational Research and Innovation, 1995), which defines at-risk youth as "those failing in school and unsuccessful in making the transition to work and adult life and as a consequence unable to make a full contribution to active society" (p. 21). By youth, we refer to those between 15 and 24 years (age range used by Statistics Canada; Usalcas, 2005). Making sense of the extensive international data about school-to-work transition for at-risk youth has proven to be complex; however, understanding these data may inform programs designed to meet the career needs of at-risk youth in Canada. Our purpose is to synthesize recent research on the unemployment of at-risk youth and their transition to adulthood within Canadian and international contexts, and to consider the implications for researchers and policy makers in Canada.

Our research brings together studies in three fields that focus on the transition from the role of high school student to the role of productive adult, characterized by career stability, healthy relationships, and community involvement.

The first field describes the international and national context within which the other fields are situated and reports statistical data on the scope of the problem of at-risk youth. These studies emphasize the growing global concern for youth unemployment (e.g., Elder & Schmidt, 2006; Quintini, Martin, & Martin, 2007). The second field includes empirical research on co-operative, vocational, and work-based education programs that provide at-risk youth with authentic opportunities to enhance career development in workplace settings (e.g., Munby, Hutchinson, Chin, Versnel, & Zanibbi, 2003; Watson, 2005). The third field is developmental research where persistent findings in large-scale studies reveal that academic achievement is one of the strongest predictors of successful transition to adult roles. A frequent recommendation of developmental researchers and policy makers is that educators develop programs that include workplace experience to enhance students' academic accomplishments and to steer at-risk youth away from paths to social exclusion (Bynner & Parsons, 2002; Ferguson, Tilleczek, Boydell, & Rummens, 2005).

Trends in Youth Unemployment

International documents consistently point toward a growing youth labor force, with youth populations increasing faster than youth employment rates worldwide (Elder & Schmidt, 2006). As a result, youth unemployment rates in the last decade have risen to nearly three times the rate of adult unemployment. Youth make up 43.7% of



the world's unemployed despite the fact that youth of working age constitute only 25% of the population (Quintini et al., 2007). While the majority of youth are located in developing countries, rates of unemployment have also increased in developed countries including Canada; recent data show the current unemployment rate for youth, 15 to 24, in Canada is 16.8% while the overall unemployment rate for Canada is 8% (Statistics Canada, 2010). Large-scale studies estimate that, currently, at-risk youth make up about 25% to 30% of youth in Canada and the United States (Burstein, 2005; Saunders, 2008; Scarpetta, Sonnet & Manfredi, 2010; Wilmms, 2002), and recent employment outcome data from the United States suggest that only about 40% of at-risk youth are employed as young adults (Pungello et al., 2010).

Unemployment rates of youth have traditionally been more sensitive to demographic, economic, and social shifts than the rates for adults (Quintini et al., 2007). When the economy is booming, at-risk youth seek employment looking for the success that eluded them in school. When the economy wanes, they are usually the first to be laid off and few return to school, setting up a cycle of temporary employment and marginal attachment to the labor market. At-risk youth are more likely than others seeking employment to use temporary and part-time work as modes of entry into the workforce. Youth who leave education early, particularly those who do not complete secondary school, face increased difficulty in moving out of unemployment (Organization for Economic and Co-operative Development; OECD, 2008b). While improvements occur during economic booms, concerns persist about the ability of many youth to attain career stability (OECD, 2008c).

Improved access to data and multilateral agreements for sharing data have contributed to increased international research on youth transition; however, researchers have argued that decontextualized data make the comparisons superficial and that international comparative studies of the perceptions of youth are nonexistent. In response to critiques of youth transition research in Britain, Bynner (2001) proposed a new paradigm for studying youth transition that enabled

comparisons between countries. He cautioned that comparative research must take account of historical and social influences. Direct comparisons of data in documents from the OECD or Eurostat are problematic because they lack information on the context within which the data were collected. Additionally, the quality of the data varies across countries and data typically present the picture the country wishes to project to the world. The data do not help the reader to understand the political and institutional forces that influence youth transitions. Education, training, and employment systems reflect the government's political agenda and contribute to the pathways youth follow and to defining successful outcomes. Caution must be exercised when making comparisons because each group of youth studied at a particular moment in time experiences a different constellation of contextual and policy influences. In our review of literature, we focus specifically on the following seven contextual influences on at-risk youth: (a) international economic and social factors, (b) fixed individual and family factors, (c) individual and family factors amenable to change, (d) educational contexts, (e) workplace contexts, (f) school-to-work intersection, and (g) outcomes for individuals.

Given the complexities of these influences and our long-term goal of developing a model of person-context relations to inform research on the potential of work-based education programs to engage at-risk youth, our research team completed a collaborative process to analyze international, national, and local documents. The next section of this paper describes the steps we undertook to construct a template for research team members to use to examine the related literature.

Method

A vast body of empirical and non-peer-reviewed literature on school-to-work transition has been published in the past two decades. The documents our research team gathered following a systematic search of related databases and internet-based resources proved to be varied in nature, scope, and veracity. A search was conducted using electronic databases including PsycINFO, ERIC, CINAHL, and Sociological Abstracts

from 1990 to 2009. The original search strategy yielded 264 citations using search terms "at-risk youth," "work," "transition," and "education." The number of citations was reduced by eliminating duplicate citations and documents not available online. Hand-searching the reference lists of these documents identified others resulting in a final list of 29 documents.

Using a template (Appendix A), 29 documents were reviewed in this analysis (see Appendix B for a list of documents). These documents included: 9 peer-reviewed papers which described quantitative and qualitative studies; 4 OECD reports written by policy analysts who accessed large survey data bases on youth transition in selected countries; and 9 reports prepared by Canadian government departments or policy research institutes using Statistics Canada data. There were also 5 documents from Great Britain and 2 reports by specific research or working groups within the province of Ontario, Canada which included curriculum guides and website descriptions of community-based programs offering transition interventions for at-risk youth. A mechanism for analysis was needed to synthesize the diverse and vast information in a way that would inform our research purpose. In order to ensure our document analysis was systematic and objective, we developed a document analysis template including six "clusters" of information aligned with risk and protective factors identified in research on early school leavers (Ferguson et al., 2005; Raymond, 2008). The fifth and final version of the template appears in Appendix A, and the synthesis of findings is reported in the next section.

Results

Descriptive Features of Documents

The 29 online documents, which varied in scope from local studies to syntheses of data from many countries, were uploaded to an online document repository. The intended audience for these documents ranged widely with most intended to influence policy or report on the effects of policy implementation.



Definition of Youth and At-Risk Youth Based on Document Analysis

Individual countries and major international bodies, including the OECD (Quinitini et al., 2007) and the International Labour Organization (ILO; Elder & Schmidt, 2006), have reported on the crisis of youth employment in developed and developing economies, using varying definitions of youth. The OECD documents define youth as 15/16 to 24 years, with a further breakdown into teenagers (15/16-19) and young adults (19-24) (OECD, 2008b; Quintini et al., 2007). The ILO adopts the United Nations definition of youth as 15 to 24 years (Elder & Schmidt, 2006). Many Canadian documents that report Statistics Canada data define youth as 15 to 24 years (Usalca, 2005).

Few international comparison documents provide a clear definition of at-risk youth (Wilmms, 2002). Our use of the term is consistent with the definition in the OECD publication *Our Children at Risk* (Centre for Educational Research and Innovation, 1995), which defines at-risk youth as “those failing in school and unsuccessful in making the transition to work and adult life and as a consequence unable to make a full contribution to active society” (p. 21). Wilmms (2002) estimates that up to 30% of Canada’s youth are vulnerable to later negative outcomes such as unemployment and poor physical and mental health. Some international comparison documents refer to NEET youth meaning those who are neither in employment, education or training (Bynner & Parsons, 2002), a term that is thought to capture the lost potential of the work force. However, NEET refers to one group of at-risk youth while overlooking other groups, such as those with life-long health conditions or disabilities, who are rarely identified in these documents. An exception is the OECD report *Students with Disabilities, Learning Difficulties, and Disadvantages – Statistics and Indicators* (2008b).

International Economic and Social Influences

The first cluster within our template captured data on international and societal influences on transition. Globalization—the interconnectedness, movement,

and communication among individuals, economies, information, and cultures (Burbules & Torres, 2000) - was specifically identified as important to this understanding. Within this globalized era, “education’s challenge will be to shape the cognitive skills, interpersonal sensibilities, and cultural sophistication of children and youth whose lives will be both engaged in local contexts and responsive to larger transnational processes” (Suárez-Orozco & Qin-Hillard, 2004, p. 3). This challenge is amplified for students who seek to enter the labor market directly from secondary school, making globalization a fundamental consideration in school-to-work pathways.

Mills and Blossfeld (2004) compared the effects of globalization on transition to adulthood in 14 countries. Four structural shifts associated with globalization have led to increased uncertainty in the labor market for youth generally and even more so for those who are at-risk—internationalization of markets, intensification of competition, spread of global information networks, and a rise in the economic importance of markets. This uncertainty is filtered through institutions including the employment, education, welfare, and family systems. Youth experience the effects of globalization through the timing and ease of entry to and security within the labor market, availability of a social safety net, and the possibility of partnership and parenthood.

Many documents identified globalization’s direct impact on youth entry to the labor market. Youth are often unprotected by seniority, lack human capital such as education and experience, and have weak ties to work organizations and unions (Elder & Schmidt, 2006; Mills & Blossfeld; 2004; OECD, 2008a). Youth may seek shelter from this uncertainty by remaining in education, relieving the immediate problem of labor market attachment, and hoping enhanced human capital of education will assure a more successful attachment later (Mills & Blossfeld, 2004).

The education system has been directly affected by global trends. The knowledge economy privileges those with education and labor market experience. Youth who cannot accumulate experience must rely on education to

enhance the likelihood of labor market attachment. The rise in more precarious forms of employment, a direct result of globalization, is a trap for youth without education or access to education. Increased uncertainties can also lead to educational preparation that is poorly matched to labor market needs. Youth who rely solely on education for their competitive edge may be disadvantaged compared to applicants who attain workforce experience (Mills & Blossfeld, 2004).

Our analyses identified other effects of international economic and social factors. Welfare regimes (Buchholz, Hofäcker, & Blossfeld, 2006) differ across countries and reflect national ideologies about social equality. Labor market policies and social support mechanisms affect the school-to-work transition and are particularly relevant during economic uncertainty. Some countries have mutual obligation programs where youth must engage in training or education programs in order to continue to receive social assistance (Marks, 2007). Other countries have limited employment insurance schemes that provide insufficient support to those unemployed.

Finally, globalization affects the family system, which is interdependent with the employment system and has direct consequences for the transition from school-to-work and adult life. Mills and Blossfeld (2004) suggest a north-south divide in these effects. In the south, cultures appear to be more familistic, marriage is institutionalized, and there is less tolerance for non-marital unions and alternative co-habitation arrangements. In combination with the economic effects, many young people delay their transition to partnership and parenthood and remain in the parental home. The continuation of education increases the economic dependence of youth on their parents or the government for financial support. Globally this trend is increasing for young women in particular (Mills & Blossfeld, 2004). Data from countries in the north reveal a different trend. A higher degree of tolerance for non-marital unions and alternative living arrangements is more common. High rates of temporary and part-time work may contribute to the



postponement of commitment in the area of family decisions.

Although living standards have increased over time, the gains are disproportionately distributed to certain groups such as those already attached to the labor market, those with education, and those who have acquired rights through association with unions or labor organizations (Elder & Schmidt, 2006). The unprotected or excluded either do not experience increases in living standards or do so on a weaker level. Globalization forces us to develop a multi-level conception that links global transformation to impacts at institutional and individual levels. The remaining clusters of our template address the institutional and individual levels and are discussed next.

Fixed Individual and Family Factors.

These factors included age, gender, family socio-economic status, peer group, health status, disability status, and access to social support. Youth are required to negotiate these multiple factors, which appear to have a cumulative effect on successful transitions.

Age.

Teenagers (15-19 years) typically have the least education and experience and are challenged to obtain the experience valued by employers. These youth often seek part-time, low skill work because it is more attainable. A disproportionate number of youth work in part-time and temporary positions compared to adults (Elder & Schmidt, 2006; OECD, 2008; Quintini et al., 2007).

Gender.

Young women have more difficulties finding work than young men. When they do find work, it is often at a lower rate of pay and in unprotected, low skill jobs (Quintini et al., 2007). When poor parents need to make a choice about which of their children should receive an education, girls tend to be excluded first. Without an education, chances of securing a decent job are almost zero. That is why young girls in the developing world have little option but to marry which, given their poor family background, is most likely a move from one poor household to another.

In OECD countries, male and female school leavers have similar employment rates in the first year out of school but the male employment rate climbs more steadily and steeply than the female rate. In several OECD countries, many young females exit the labor market to become mothers particularly if there are good family benefits (OECD, 2008a).

Family socio-economic status.

Family socio-economic status has been proposed as a fixed factor. Rojewski (1997) noted that adolescents from low income households were the least likely to be employed while still attending secondary school. Theorists have argued that adolescents from families with lower socio-economic status may be exposed to poor role models and develop attitudes based on their parents' negative workforce experiences. This may also be tied to social welfare regimes that act as disincentives to engaging in low-paying jobs that lack security. Family socio-economic status is also linked to levels of parental education (Hango & deBroucker, 2007; Shaienks, Gluszynski, & Bayard, 2008). Adolescents whose parents who did not complete secondary school are over-represented in the data on early school leavers.

Peer group.

Our template included peers as a fixed factor but this was not an evident influence in the documents reviewed. An indirect relationship between peer group and transition was anticipated as negative peer relationships are strongly correlated with low school commitment, which can affect the success of the transition from school-to-work (Zeman & Bressan, 2006). There were no data in the documents we reviewed to support this as a fixed factor that could alone affect the transition process.

Health and disability status.

This factor was identified in some documents; however few dealt with health and disability status in much depth. The OECD documents mention that resources are required to address mental health issues, which are prominent in the workplace (OECD, 2008b). Few data in the documents we reviewed

examined how health and disability factors influence the transition from school-to-work for youth, although Elder & Schmidt (2006) addressed this particularly vulnerable sub-group of youth. They are seen as high risk for poor labor market attachment without intervention designed to reduce their vulnerability. In some documents, youth with disabilities are counted among those labeled NEET (Elder & Schmidt, 2006; Furlong, 2006).

Social supports.

The final fixed factor in our template was access to social supports. As we noted earlier, a country's welfare regime affects the transition from school-to-work. Some countries have virtually no social safety net, and the responsibility for protecting vulnerable youth falls to families. Countries with a conservative welfare regime such as Germany and the Netherlands have social policies aimed to ensure that people who have to leave employment are protected against a decline in living standards (Mills & Blossfeld, 2004). Other countries have a range of social supports aimed at maintaining equity, supporting the underprivileged, and achieving fair income distribution. In recent years some countries have made youth ineligible for social support to encourage greater participation in the labor market (Furlong, 2006).

Individual and Family Factors Amenable to Change

The third cluster in our template categorized factors at the individual and family levels that were likely to be amenable to change and could be addressed through transition intervention programs in schools and in community-based agencies focused on youth and family services. Most of these factors were rarely mentioned in the documents we reviewed on international and national contexts of school-to-work transition, perhaps a limitation of youth transition data collected at international and national levels. Our research team postulated that these factors included family expectations and tolerance, as well as individual motivation, self-efficacy, aspirations, risk taking, and personal agency. We did find evidence that



the long term effects of poor labor market attachment include loss of personal well-being and ongoing erosion of skills, motivation, and self-confidence; for example, the adverse effects of unemployment on youth well-being and mental health have been reported in European statistical studies (Ryan, 1999).

Educational contexts.

Educational contexts that prepare students for the workforce differ widely from country to country. Few international reports explore contexts of education in depth. Some documents point to specific school-to-work programs such as co-operative education or apprenticeship opportunities. For example, the National Pact for Training and Youth Skilled Staff was established in Germany as a bridge between the Ministry of Education, trade unions, and employer organizations (Quintini, et al., 2007). This pact provided government support to employers for training new workers in trades and, subsequently, the German Ministry of Education reported the highest increase in apprenticeship positions since 2000. Similar initiatives across many developed countries make explicit links between school learning and job readiness. These co-operative and apprenticeship programs appear to be effective. Gangl (2003) reported a significant reduction in early career unemployment rates when students engaged in such programs. Ryan (2001) and Steedman (2005) argued that this increase in job success is due to better matching of job readiness in specific skills to workplace demands. Matching educational programs with student interest and workforce labor demands appears to be key in achieving successful school-to-work transition, especially for at-risk youth. In the absence of specialized apprentice or co-operative education programs, at-risk youth encounter difficulties finding meaningful work and often begin in low-paying, temporary employment.

Workplace contexts.

Workplace contexts are at least as diverse as educational contexts. In reviewing literature on contexts of work, three delineating factors were used: (a) labor market attachment factors, (b) wages, and (c) skills. These factors were consistently

cited across international documents as critical contributors to youth engaging in productive occupation.

Labor market attachment factors.

Many youth find it difficult to move from temporary to stable employment with work patterns characterized by a series of short-term contracts (Bynner & Parsons, 2002). Data collected in OECD countries on NEET youth suggest they spend three of the first five years after leaving school in non-employment (Quintini et al., 2007). This instability in early labor market experiences predicts poor labor market attachment in the long-term (Ryan, 1999).

Wages.

Wage is another workplace context factor that contributes to the picture of youth unemployment and transition difficulties. Youth with no experience or training are often paid less for work of equal value than their adult counterparts. In some countries, minimum wage policies are in effect and it may not be possible to support oneself when receiving minimum wage even if one works full-time hours (Elder & Schmidt, 2006). Data from some OECD countries reveals that youth earn less than two thirds of the median hourly rate of 25-54 year olds. Low wages, job loss vulnerability, and sensitivity to the economic cycle all lead to discouragement—the leading reason for labor market inactivity (Quintini, et al, 2007).

Skills.

Most youth in OECD countries are employed in sectors that do not require specific skill sets for entry-level positions. The retail trade sector is the largest employer of young adolescents while the accommodations and food service sectors employ more older adolescents, in part due to liquor licensing laws. These positions usually provide on-the-job training, but turnover is high and most youth work part-time in combination with full-time school (Usalcas, 2005). More advanced positions require more specialized skills and often youth must first engage in specific apprenticeship or co-operative education programs. Adult workers fare better securing work in these positions.

School-to-work intersection.

This section of the template guided us to consider the alignment between school and work contexts. We sought descriptions of partnerships that enhanced the match between school and work. Five OECD countries currently operate what is known as dual or apprenticeship systems (OECD, 2008a). Austria, Denmark, Germany, Switzerland, and Norway structure their secondary education system so that youth are in school part-time and in the workplace part-time, and apprenticeship is part of the formal education system. This relationship between schooling and employment usually lasts three to four years. An examination at the end of the program tests readiness to enter the chosen occupation (Quintini et al., 2007).

OECD countries with this dual system have among the lowest youth unemployment rates and highest early labor market attachment. Avoiding early labor market difficulties is important, because the literature shows that lengthy periods of unemployment can have persistent negative effects on employment probabilities and earning potential (Bynner & Parsons, 2002; Quintini et al., 2007). The German government revamped its apprenticeship system in 2004 with the cooperation of unions and employer organizations (Elder & Schmidt, 2006). In 1998, the United Kingdom developed a labor market activation program called the New Deal for Young People, designed to enhance labor market involvement of youth who had received income support for more than six months (OECD, 2008).

These Active Labour Market Programs (ALMPs) for jobless and disadvantaged youth focused on job search skills, remedial education, job training, and provided direct job creation. ALMPs provide a mix of active and passive measures using the principle of mutual obligation—social assistance is dependent on participation (OECD, 2008a). Two-thirds of the OECD countries with data on ALMPs report that they have resulted in an increased share of youth gaining labor market attachment (OECD, 2008c). Nordic countries pioneered this approach whereby the government commits a place in a training, education, or work program for any



youth who is unemployed and receiving social assistance. Australia implemented a similar mutual obligation policy in 1998 and included participation in work, volunteer activities, education, training, and community based employment programs.

Outcomes for individuals.

The final cluster of the template focused on outcomes for individuals as a result of the intersection between school and work. The international documents offered generalizations based on aggregated data from large surveys. Few documents articulated the lived experience of transition from school-to-work for at-risk youth. The OECD/CPRN (2005) document *From Education to Work: A Difficult Transition for Young Adults with Low-levels of Education* highlights the need for robust research that goes beyond economic implications and reports the marginalization and social exclusion experienced by youth with low levels of education.

Summary

In summary, the international context is a complex and mixed picture of factors that contribute to the challenges for at-risk youth transitioning to productive adult roles. Youth in most OECD countries appear to move between states of employment, unemployment, education, and inactivity. They also appear to engage in multiple states simultaneously. The length of the school-to-work transition is variable across countries. Some youth in all countries appear to leave formal schooling early, which leads to frequent periods of unemployment, temporary work, low pay, and reduced quality of life. OECD countries use a variety of solutions to engage youth in school, but the one commonality in all countries is that school failure appears to trigger difficulties in labor market attachment and creates challenges for school-to-work transition (Elder & Schmidt, 2006; Quintini et al., 2007). The good news is that early and sustained intervention is likely to help prevent the cycle of cumulative disadvantage. Matching interventions to the specific needs and interests of at-risk youth is one way to enhance the likelihood of diverting these youth from the path to social exclusion. We now exam-

ine the transition of at-risk youth in the Canadian context and present a synthesis of the literature that analyzes survey data and interventions.

Discussion and Implications for the Canadian Context

Canada has experienced a period of sustained economic growth and has a flexible labor market that is outperforming most OECD countries (Antunes, 2009; OECD, 2008b). In the decade between 1996 and 2006, youth unemployment dropped from 15.4% to 11.6%, which was below the OECD average. There is, however, a great deal of variability within the regions of Canada (Hango & deBroucker, 2007). Many youth combine education and employment, some delay entry to post-secondary education to travel or volunteer, some move between employment and post-secondary education as finances permit, and most are able to start their careers with permanent, full-time work (Hango & deBroucker, 2007).

Fixed individual and family factors.

Considering fixed individual and family factors, some Canadian youth are not as fortunate as others. Aboriginal youth are more likely to experience difficulties in school-to-work transitions after leaving secondary education prematurely. Among immigrant youth, the school-to-work transition is delayed with many of these youth pursuing post-secondary education for extended periods. Females are less likely to drop out of high school and more likely to go onto post-secondary programs before entering the labor force. They are also less likely to delay the start of post-secondary education. The presence of a long-term limiting condition, a disability or a chronic illness, is a hindrance to further education and these youth are less likely to follow a pathway that leads to completion of post-secondary degrees or diplomas. Risk of dropping out of high school also increases in larger families. Finally, parental level of education is a predictive factor; youth whose parents completed post-secondary education are more likely to proceed to post-secondary education before labor market entry (Hango & de Broucker, 2007).

As our research focuses on at-risk youth, we were particularly interested in data concerning youth with long-term limiting conditions—disability or chronic illness. The Conference Board of Canada (Kitagawa, 2002) reported that in Canada, the income of persons with disabilities is 15% less than the income of people without disabilities, a high differential compared to other OECD countries. The employment rate of persons with disabilities in Canada is 56%. Canada is viewed as actively ensuring that persons with disabilities are integrated into the labor market rather than providing income transfers in the form of pensions or disability allowances. As promising as these data appear, other sources indicate that youth with long-term limiting conditions are vulnerable and at-risk for poor labor market attachment (Hango & deBroucker, 2007; OECD, 2008). These youth are less likely to complete post-secondary education, which leads to employment that offers low wages and limited security. In the recent past, Canadians with disabilities have been three times as likely to be poor and to have repeated episodes of unemployment (Burstein, 2005).

Individual and family factors amenable to change.

Academic achievement plays a role in the pathways to post-secondary education. Marks do matter. The higher a student's marks, the less risk the student will drop out of school which in turn predicts completion of post-secondary education and better labor market attachment (Hango & deBroucker, 2007). Contrary to popular belief, part-time employment during high school years can be beneficial. Youth who work more than 20 hours per week, however, are at higher risk of dropping out or delaying participation in post-secondary education (Saunders, 2008). Parental expectations are also a factor in the pathway followed by Canadian youth. When parents have high expectations, their children tend to have higher educational attainment. Finally, becoming a parent prior to age 19 is associated with greater risk of following a pathway that leads to dropping out of high school or to a second chance program (Hango & deBroucker, 2007).



Educational contexts.

In Canada, education and training are provincial jurisdictions leading to some variance in programming across the country. Overall, students across Canada are comparatively successful on international benchmarks. Canadian students score well above the OECD averages on PISA and TIMSS assessments (OECD, 2008a). Canada also leads OECD countries in the proportion of youth attending university or college. These data reflect that Canadian secondary education emphasizes academic preparation for work in a knowledge-based economy (Association of Universities and Colleges of Canada; AUCC, 2007). This emphasis leaves secondary students with few opportunities to pursue vocational studies and contributes to the skills shortages in the marketplace (OECD, 2008c). The healthy labor market in Canada in recent years has been accompanied by a relatively high drop-out rate compared to other OECD countries, especially in the province of Alberta.

A report from the Conference Board of Canada (Kitagawa, 2002) highlights challenges to transition to work that arise in the education system. A systematic approach for managing youth transitions is lacking in most educational jurisdictions. Stakeholders tend to operate within parameters that serve their interests with little coordination between education institutions, employers, and other work-based education opportunities. There are insufficient resources for helping at-risk youth to stay in school and students who choose not to attend university are particularly poorly served (Kitagawa, 2002). Most curricular outcomes are academically focused and schools seem unaware of the mismatch between these academic outcomes and the skills needed to succeed in the workplace. There is little in the education system that encourages young people to pursue skilled trades after high school. Rather the trades appear to be considered as an afterthought for students not likely to succeed in university, and the apprenticeship system in Canada is largely under-developed (Antunes, 2009).

Workplace contexts.

Employment protection in Canada is among the least strict in the OECD (OECD, 2008c) and paid work by teenagers starts very early (OECD, 2008c). In the province of Alberta the minimum working age recently dropped from 14 to 12, while the minimum working age in most European countries is 16. Youth in Canada tend to have low entry wages but then move into higher paying jobs fairly quickly. Unlike their adult counterparts, youth cannot access employment insurance in Canada. Employer demand for skilled trades-people exceeds the available supply in Canada. Unlike some countries like Germany, Canada does not have a tradition of developing skilled trades. Immigration has traditionally been the solution to the skills shortage in the Canadian workplace.

School-to-work intersection.

This is an area where Canada appears to lag behind other OECD countries. There is a weak apprenticeship system in Canada and it varies from province to province. Co-operative education programs have been developed in a number of provinces and other work-based education programs are developing in response to the needs of students who are not well served by the academically focused mainstream curricula (Nova Scotia Department of Education, 2008). Partnerships between industry and educational institutions are beginning to be developed.

Saunders (2008) completed a synthesis report of the eight studies in the Canadian *Pathways for Youth to the Labour Market* project. This synthesis showed the pathways groups of youth are likely to take to the labor market and identified data to inform the design of interventions aimed to divert at-risk youth from social exclusion. The synthesis shows that there is no national career development strategy or standards for the quality of career development services. Programs and services are limited, decentralized, and organized by provincial governments or community organizations. Some provinces are attempting to revitalize the secondary vocational curriculum through partnerships with post-secondary institutions and employers, primarily in response to

a local need for skilled workers—a decentralized market approach to training. Co-operative education programs that demonstrate a clear link between school and a possible future career are promising initiatives; however, uptake of these programs remains limited.

Outcomes for individuals.

Research rarely reports the experience of transition from the perspective of the youth who endure the process. An exception was a report commissioned by the Ontario Ministry of Education and Training. Ferguson, Tilleczek, Boydell, and Rummens (2005) conducted an interview study with 193 early school leavers where the collective voice of disengaged youth expressed determination, hope, and plans to return to school. The risk and protective factors they identified within and outside the school context were consistent with the factors identified in our document review; for example, educational systems must be more flexible and proactive, while parents must stay involved, provide guidance, and hold realistic expectations. Most importantly, youth need to stay in school.

This qualitative study can inform the design of interventions to keep potential drop-outs on pathways to productive adult life and labor market attachment. Further research like the Ferguson et al. (2005) study with at-risk youth following other pathways could inform the design of interventions matched to the needs of these vulnerable youth.

Future Directions for Research and Implications for Policy Development

To summarize, reviewing the research makes it clear that youth who are disengaged from school are more likely to drop out and to enter paths of social exclusion. The international research provides a complex picture of factors that contribute to the challenges at-risk youth face as they make the transition from school to work. Global forces affect individuals in their communities, contributing to youth moving between stages of employment, unemployment, inactivity, and education; these forces generally lengthen the time required for youth to achieve stable labor market attachment. Comparing the Canadian con-



text with factors affecting this transition in international data yields a number of implications for research and for policy.

Preventing at-risk youth from disengaging from high school must become a priority. Reviewing a large number of Canadian and international documents demonstrated the dearth of research on the experience of at-risk youth and on their perspectives on what would keep them engaged in school. What studies there are suggest that, in Canada, these students lack alternatives to the academic stream, such as co-operative education, apprenticeships, and other forms of work-based education that are prevalent in countries such as Germany, Austria, and the Netherlands. Education systems in these countries work closely with the labor market to provide a straightforward alternative to an academic education enabling youth to begin a direct transition to the trades and other careers while still in high school. These countries not only meet the needs of youth who might be likely to leave school early, they also meet their national need for skilled trades people without relying on immigration, as we do in Canada.

Another strategy that has been effective in increasing the share of youth gaining labor market attachment is Active Labour Market Programs (ALMPs) for jobless and disadvantaged youth which focus on job search skills, remedial education, job training, and provided direct job creation. ALMPs, which use the principle of mutual obligation (social assistance is dependent on participation), have been particularly effective in the Nordic countries and in Australia.

These findings suggest a research agenda that focuses on the experiences and recommendations of at-risk youth and their educators, perhaps beginning by studying successful work-based education programs from which we can learn how to design programs and interventions that meet their individual needs. Canadian data also point to the need to focus research on Aboriginal youth who have extremely low rates of labor market attachment and to take advantage of the potential of school-to-work programming, one of the most effective means to secure a successful transition to the workforce. Finally, to

meet the need for re-engagement of jobless youth, who have left school early, research is required on the characteristics of effective ALMPs that would be attractive to these marginalized young people.

While Canadian students may generally be better positioned than students in many other countries to engage in meaningful work, and while research on these issues may point to made-in-Canada solutions, policy changes are also necessary. A key feature of successful transition programs appears to be matches among school curricula, workforce demands, and student needs and interests. Thus developing apprenticeship, co-operative education, and mutual obligation programs requires the cooperation of education, training, labor market, and social assistance sectors. Although provinces like Nova Scotia, Ontario, and Alberta have recently added educational opportunities to meet the needs of at-risk youth during the high school years, a much more focused and widespread effort will be required to achieve policies that prevent social exclusion of our most vulnerable youth and that re-engage those already experiencing social exclusion.

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Appendix A

Draft Nov18 – Template For Reviewing Papers – *Individual and Contextual Factors*

Reviewer:	Code:	Country (scope):
APA Citation:		
Youth Definition:		
Study Design / Type of data analysis used and/or produced:		
Type of Document: Refereed Journal Article (Empirical Study)		
Path to locating Document:		
Other Leads:		
Brief impressionistic sketch or Purpose / Research Question:		

*Code each line with first 3 letters of author's last name or acronym of organization, last two numbers in year, initials of reviewer, Example: For Furlong paper reviewed by Researcher One (FUR06RO). Purpose of research: to answer, **which WBE programs are most likely to be effective for specific disengaged youth?** We will develop a model of person-context relations for youth and programs. Use this template in concert with the detailed clusters (oct1 & oct14). In the space below, on paper or online, write a brief description of what is in the paper, not just the name of the item. Remember, not all items (or clusters) will be in every document. With your suggestions, we will revise this. Code each line with first 3 letters of author's last name or acronym of organization, last two numbers in year, initials of reviewer, and page number. (FUR06-PC-563)



Cluster Pre-1(nov18): Society as Context (e.g. political, economic, social factors) that provide high level context for problems and solutions
Cluster 1(nov18): Individual and Family Factors that are Fixed (e.g., age, SES, disability status)
Cluster 2(nov18): Individual & Family Factors Amenable to Change (e.g., expectations, identity)
Cluster 3(nov18): Educational Contexts (e.g., curriculum options, evaluation, school's expectations)
Cluster 4(nov18): Workplace Contexts (e.g., country, social context, induction)
Cluster 5(nov18): School-to-Work Intersection (range from match to mismatch to needs of individuals) (e.g., partnerships)
Cluster 6(nov18): Outcomes for Individuals as a result of the Intersection or Match (e.g., employment status, duration of transition)
What was missing from the template:

Appendix B

Documents Used In Analysis

Burstein, 2005	Leitch Review of Skills, 2006
Bynner, 2001	Maguire & Rennison, 2005
Bynner, 2005	O'Connor, 2003
Bynner & Parsons, 2002	OECD, 2008a
Department of Children, Schools and Families, 2007	OECD, 2008b
Dusseldorf Skills Forum, 2007	OECD, 2008c
Elder & Schmidt, 2007	Quintini et al., 2007
Ferguson et al.,2005	Raymond, 2008
Finnie, 2000	Ryan, 1999
Franke, 1998	Saunders, 2008
Fryer, 1997	Taylor, 2007
Furlong, 2006	Usalcas, 2005
Gauthier & Furstenburg, 2002	York Consulting, 2005
Goldenberg, 2006	Yates & Payne, 2006

Students' Experiences of a Women-Only Automotive Service Technician Pre-apprenticeship Program

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Abstract

A career in the skilled trades offers women many benefits, yet efforts to recruit women into this career path have had limited success. A longitudinal study was conducted to explore students' experiences with a women-centered Automotive Service Training pre-apprenticeship program that included innovations designed to support women entering this skilled trade. The women-only program provided a gender-sensitive classroom environment, and holistic program content to meet the needs of women holding multiple roles, as well as social and personal supports in the form of coaching, mentoring and advocacy. Results of the study indicate that participants made gains in key workplace competencies and were very satisfied with the program. The program provided several advantages: it helped students to decide if this was indeed the career for them, prepared them for the work world, and gave them the confidence and skills they needed for success.

Women are a largely untapped source of labour for the skilled trades, however, efforts to recruit them have had limited success. This is unfortunate as women can make a much-needed contribution to the general Canadian workforce by alleviating the chronic labour shortages in the skilled trades (Construction Sector Council, 2010). Though women made up slightly less than half of the total workforce in 2001, they accounted for two-thirds of the overall labour force growth during the 1990s. There is one notable exception: this growth is not seen in the skilled trades. In 2004, only 7% of workers in transportation, trades and construction were women. In 2003, just 9.7% of registered apprentices and 10.6% of completed apprenticeships were held by women (Canadian Council on Learning, 2006).

A career in the trades offers wage benefits; as much as double or triple the wages earned in a traditional female job (Greene & Stitt-Godhes, 1997). While there are numerous opportunities for job training and advancement and job mobility, women frequently encounter workplace barriers to their career development. The 2004 Canadian Apprenticeship Forum (CAF) summit report, *Accessing and Completing Apprenticeship in Canada*, included a special report on women's perceptions of workplace barriers. The Forum report noted that, despite policy priorities that support greater and more consistent participation of women in non-traditional occupations, little progress has been made over the past decade and little research or evaluation has focused specifically on issues relating to recruitment, training and career development.

The CAF consultation described seven barriers reported by women. Three barriers, negative attitudes toward apprenticeship and the trades, a lack of information and support in the secondary school curriculum, and investment in community resources to promote apprenticeships and training for women, speak to broader social trends which often limit women and other under-represented groups who are considering trades and apprenticeships. While some improvement has been noted over the years, most of the other barriers identified in the CAF report reflect the culture of non-traditional workplaces and training settings which makes those sites less welcoming to women. This is reflected in biased or discriminatory hiring practices, unequal pay for comparable work, sexual harassment, and isolation of women at the work or training site. The Ontario Overview Report of the National Apprenticeship Survey (Ménard, Chan, & Walker, 2007) noted that nearly 9% of women, compared with 2% of men, reported harassment, discrimina-

tion, dispute, conflict of interest, or not getting along at work as reasons for discontinuing their apprenticeship studies.

WOMEN-CORE, a European consortium concerned with women in industry and construction, attempted a comprehensive scan of qualitative research in those fields in 2006 (WOMEN-CORE, 2006). They identified an important research gap regarding women in industry and construction. Accordingly, the team extended the scope of their research to include women in science, engineering, and informatics, and other disciplines in which women are relatively under-represented. Their analysis identified several systemic barriers to skilled trade careers. They also identified factors that support retention of women in the non-traditional workplace. Where social conditions support women's participation, where management actively promote women, or where government, educators, employers and unions provide leadership on family-sensitive social and labour policy, women are successful in these non-traditional occupations at essentially the same rate as men.

Canadian groups have also been working to identify initiatives that support women in the trades. Women Building Futures (WBF) is an initiative that has been active in Edmonton since 1998. They have been successful in increasing the recruitment and retention of women in the construction trades to address persistent labour shortages in that province. A partnership between Edmonton Social Services and the North Alberta Institute of Technology led to the development of a 16 week Journeywoman Start program which combines academic upgrading, hands-on learning, work experience and job retention support for women entering the construction trades (Women Building Futures, 2009).

In 2006, the Women Building Futures group evaluated their approach



from an economic perspective. After tracking graduates for two years, the author of the WBF report (Bubel, 2009) estimated that the initial investment of approximately \$100,000 in the pre-apprenticeship training of 11 women in 2006-07 resulted in a net value of \$53,000 per participant. This included \$515,000 in increased income and assets for participants, approximately \$130,000 to government in tax revenue and reduced health and social benefits for these clients, and almost \$225,000 in reduced costs in recruitment and training for employers.

While these initiatives are exciting and appear to have merit, there are several research gaps. Although numerous consultations with women and other equity groups on access to the skilled trades have identified the difficulties of navigating the culture of the non-traditional workplace for women, little work has been done to determine the value of specific women-centred programming in helping women build the networks needed to sustain them through the apprenticeship period. The need for efficacy-based academic interventions is considered very important for 'at risk' students and those who face challenging school/workplace environments (Hackett, 1999).

To address that research gap, the School of Transportation in an Ontario community college was funded by the Ministry of Training, Colleges and Universities to offer a one-year, women-only, Automotive Service Technician (AST) pre-apprenticeship program.

The Automotive Service Technician Pre-apprenticeship Program

The Ontario Ministry of Training, Colleges, and Universities supports and funds pre-apprenticeship programs at several Ontario colleges to address barriers faced by potential trainees, and is normally designed as three, 12-week semesters. The first semester focuses on academic upgrading, the second provides lectures and labs and the third semester includes a work placement with an approved employer.

The innovative AST pre-apprenticeship curriculum piloted in this study included content and learning activities identified in the literature as beneficial

for women apprentices. The new program provided a women-only admissions policy, a gender sensitive classroom environment, holistic program content and social and personal supports for women trainees in the form of coaching and mentoring on family and work issues (Government of Yukon Women's Directorate, 2005). Other curriculum innovations that were tested included:

- Trading UP, a specialized vocational assessment tool used in recruiting which focuses on women's skills and orientation for entry to trades and includes an information session, tour of facility, an assessment test in mathematics and English and an interview with the program coordinator;
- A four-week module integrated at the end of the academic upgrading semester called "Busting the Barriers Career Readiness," that develops women's workplace confidence by building personal and inter-professional skills in communication, assertiveness training and personal safety prior to beginning work in the automotive service workplace, followed by a 12 week program in AST Theory;
- Trained, gender-aware instructors, trainers and job coaches and a women-only classroom/lab environment;
- Work placements of 12 weeks, selected and monitored to promote and maintain a positive learning experience;
- Coaching and mentorship until the end of the Level 1 Apprenticeship;
- Access to a network of collaborative relationships with employers who recruit women apprentices to facilitate the best possible work experience for both the women trainees and employers.

Research Objectives and Approach

The purpose of the study was to explore the impact of the program innovations on women's pre-apprenticeship experiences and their self-efficacy as they progressed through the year-long program in this early and critical part their career development process.

A participatory research (PAR) design was selected as this approach addresses real world problems and results can be applied rapidly. PAR is a well-established research methodology aimed at improving practice by changing it (Stringer, 2004). PAR requires that project participants introduce a change or innovation, actively participate, and work collaboratively to evaluate the innovation. The PAR design is particularly appropriate as a tool to accomplish our project goals and appeals to educators as a rigorous method where the results translate into action more quickly than traditional research (Cave & Ramsden, 2003).

The theoretical framework for the study was based on self-efficacy theory, developed by Bandura (1977) as part of his social-cognitive theory, which fits well with PAR. Self-efficacy is the belief that one has the knowledge, skills and capability to undertake and complete those actions required to manage a given situation. Those feelings of self-efficacy in turn influence a person's behaviour and degree of perseverance. Bandura suggested that psychosocial skills are a more important component of career success than occupation-related technical skills and that higher levels of self-efficacy are associated with better functioning in the workplace (Bandura, 1994).

Sampling

All students who enrolled in the new AST program were invited to participate in the study ($n = 17$). The study was approved by the Community College Ethics Review Board. All participants gave written informed consent at the start of the study and were reminded of the consent process at each subsequent data collection point.

Data Collection and Analysis

To explore the career development process, a mixed methods, longitudinal approach was used. Data were collected from students at three points over eight months using surveys and interviews. Descriptive statistics, such as means, and measures of central tendency, were calculated using SPSS for the demographic survey items, program satisfaction survey, and self-efficacy survey to provide a



profile of participants and survey results. The interviews were taped, transcribed and analyzed using a content analysis approach (Lincoln & Guba, 1985). The transcripts were coded using each participant statement as a unit of analysis. The researchers began by reviewing the overall data and developing a categorization scheme then progressed to identifying key themes, variations in experience and recommendations for change.

Demographic Survey

Four surveys were administered to students: a demographic survey, a general self- efficacy survey, a pre-post workplace self-efficacy survey and a program satisfaction survey. The demographic survey, administered at the start of the course, was developed by the researchers to provide a profile of the learners that included age, education, job experience and reasons for enrolling in the program. It also included a section that measured student satisfaction with the different aspects of the Busting the Barriers Career Readiness curriculum.

General Perceived Self-efficacy Survey

The General Perceived Self-efficacy Survey consists of 10 items related to personal confidence, problem solving and resiliency and provides a profile of participants' overall feelings of general self-efficacy at the start of the program. Learners use a four point Likert scale in their responses where 1= strongly disagree and 4 = strongly agree. The survey has been extensively tested for validity and reliability (Schwarzer & Jerusalem, 1995).

Workplace Self-efficacy Survey

A pre-post workplace self-efficacy survey was used to measure learners' perceptions of change in their self-efficacy regarding eight competencies that were identified as unique outcomes of the women-only program. The survey items were developed by members of the evaluation team under the guidance of the program coordinator to enhance item validity.

The survey included a seven-point Likert scale to measure participants' perceptions of their competency in program outcomes skills where 0 = 'cannot do it at all' and 7 = 'certainly can do' in

relation to each item. Sample items include using ergonomics and safe work practices to promote personal and professional safety, using critical thinking, listening and questioning skills to analyze and evaluate issues of power, privilege and equity in the workplace, and establishing a personal and professional support network to strengthen access to opportunity in the workforce. The Cronbach alpha for the Workplace self-efficacy survey was .92 in this study; scores over .70 are considered acceptable evidence for reliability of survey items (Polit, 2010).

Program Satisfaction Survey

The Program Satisfaction Survey was used to measure learners' satisfaction with the overall program, and was administered at the end of the program. The survey was modified from an existing survey developed by Ryan, Campbell, & Brigham (1999). The survey consists of 11 items that measure satisfaction with program outcomes, content and learning activities with a view to improving the curriculum for the next student intake. Respondents use a four-point Likert scale ranging from 'Strongly disagree' to 'Strongly agree' to respond to survey items. The Cronbach alpha for this survey was .85 in this study, providing further evidence for the reliability of these items.

Interviews

An understanding of women's experiences and recommendations for the program was gained through in-depth interviews conducted at three points,

timed to capture women's experiences and perceptions at key points in their educational journey:

- Twelve weeks after the program started, at the end of the Busting the Barriers/Career Readiness Training unit;
- Six months after the program started, after completing the Level 1 theory;
- On program completion: during or after the 12 week workplace placement.

Results

Demographic Survey

All participants (n = 17) completed the demographic survey. The mean age was 28.8 (SD 8); ages ranged from 21 to 48. Ten (58.8%) women had completed high school and 7 (41.2%) had completed college. Regarding their ability to speak English: 1 (5.9 %) said it was 'poor', 1 (5.9%) said 'fair', 2 (11.8%) said 'good' and 13 (76.5%) said 'excellent'. The participants came from 13 different ethnic backgrounds.

Academic Upgrading and Busting the Barriers Career Readiness Survey

The students were asked for their feedback on the different components of the academic upgrading portion of the program they had just completed, referred to as "Busting the Barriers". This component builds students skills in English, mathematics, computer literacy, self-awareness, communication, assertiveness training, finances and personal safety (Table 2).

Table 2. Mean scores for Academic Upgrading and Busting the Barriers Career Readiness Survey items (maximum score is 5)

Item	Mean (SD)
Computer literacy	4.5 (.51)
English	2.9 (1.3)
Math	4.8 (.37)
Interview	3.1 (1.1)
Resume building	3.6 (1.1)
Lab	3.6 (1.1)
Team skills	3.8 (1.2)
Busting the Barriers helped prepare for next stage of the program	4.0 (1.2)
Busting the Barriers Career Readiness was important for success in AST pre-apprenticeship program	4.1 (.93)



The mean scores were high for items related to computer literacy and mathematics. The scores on the items related to the utility of the Busting the Barriers Career Readiness module were also high. Students reported time spent building job preparation skills such as preparing for interviews and resume building as less helpful. The item for English upgrading had the lowest mean score of 2.9 and reflects different opinions regarding the need for English upgrading.

General Perceived Self-efficacy Survey

Participants also completed the General Perceived Self-efficacy survey at the start of the program to measure their perceptions of their overall confidence. Mean scores for each individual item were high, all were greater than three out of a possible four. The mean score on the total survey was 34.1 (SD 3.9) or 85/100 and ranged from 67.5/100 to 100/100. The Cronbach alpha for this survey was .90 providing evidence for the reliability of survey items.

Results: Pre and Post Course Scores on the Workplace Self-efficacy Survey

Thirteen students completed the Workplace Self-efficacy Survey at the start and at the end of the program to measure their perceptions of their confidence regarding key competencies critical to workplace success. The survey included a seven point scale where 1 = 'Cannot do at all' and 7 = 'Certainly can do' (Table 3).

The mean score on the total pre-program survey was 43.3 (SD 8.3) or 77.3/100. Scores ranged from 51 to 100/100. The mean score on the total post-program survey was 50 (SD 6.0) out of a possible 56 or 89.2/100.

Course Satisfaction Survey Results

All 14 students who completed the program were surveyed at the end regarding their satisfaction with different aspects of the program. The mean score for the total Course Satisfaction Survey items was 37.5 (SD 4.8) out of a possible 44 or 85.2/100 and scores ranged from 59/100 to 100/100.

Table 3. Pre and post mean scores on the Workplace Self-efficacy Survey items

Item	Mean ± std PRE COURSE	Mean ± std POSTCOURSE
Use psychological and physical skills for personal safety	5.7 (1.2)	6.5 (.96)
Establish a personal and professional support network to strengthen access to opportunity in the workforce	5.5 (1.0)	5.8 (1.5)
Use problem solving, listening and questioning skills to analyze and evaluate issues of power, privilege and equity	5.4 (1.2)	6.3 (1.0)
Use ergonomics and safe work practices to promote personal and professional safety	5.5 (1.2)	6.0 (1.1)
Make informed decisions about a career in the skilled trades	5.5 (1.4)	6.3 (.96)
Create and implement a plan for professional success	5.4 (1.5)	6.0 (1.1)
Communicate clearly, verbally and in writing at work	5.2 (1.5)	6.6 (.65)
Analyze your current financial supports for maintaining current career path.	5.0 (1.3)	6.23 (1.2)

All survey items had a mean score of 3.0 or greater out of a possible 4, indicating that most students felt the program had been useful and their time had been well spent. Items with the highest scores were, "The program provided information that is useful" (mean of 3.8) and, "I would recommend the program to other women" (mean of 3.6). The two items with the lowest mean scores were: "The amount of practice time in the lab was enough to prepare me for apprenticeship" (3.0) and, "The women only learning environment was helpful" (3.1).

Interviews

Week 4: busting the barriers-career readiness.

Three rounds of interviews were held during the eight month program. The first were held four weeks after the program started, with 14 (82%) students to describe their early program experiences and to capture their impressions of the Busting the Barriers Career Readiness curriculum.

All students reported that their experience to date had been positive, and that the program was worthwhile. They noted that the program coordinator and faculty provided invaluable support in supporting their decision to enroll and then to stay in the program when the workload increased. Some students

were very enthusiastic, describing the program as 'life changing'. One student commented,

Now I realize how valuable this is and if you can get skilled...women have the potential to have a lot of growth in this industry; they could do really well. And so I totally opened up that different side to it and sort of un-cloud those myths about what this industry is like.

Response to the women- only aspect of the program was positive for most students. One of the benefits was that the program provided the opportunity for students to become familiar with the cars and tools in a 'safe' environment. Some students noted that they would have been equally comfortable enrolling in a co-ed program; their reason for applying was not strictly because of the women-only focus, funding had been a critical factor as well. These students felt there would be some value to studying with men at least part of the time to prepare them for the work world.

The Busting the Barriers Career Readiness module was cited as helpful by almost all the students. They reported that the content on self- defense, personality testing, financial planning, the his-



torical perspective of women in the trades and managing harassment in the workplace had been helpful. The opportunity to pro-actively discuss challenges that students might face in the workplace was viewed as particularly useful. Some students, however, were impatient with the amount of classroom time; they were keen to "get to the cars". This view was balanced by students who recognized the value of taking time to reflect before going forward in the trade. One student commented,

I'd say yes, that Busting the Barriers was really helpful to us. So, although sometimes we all want to be working on cars, that's the most anxious part. But when you actually sit back and look at it, you say okay, knowing a bit about yourself actually can help you in a career later on if you want to start your own business, whether its mechanics or anything else its good to know those things about yourself.

A small number felt that more time should have been spent learning with men. One student commented, "I think we should work with the guys more often, like even if it's just two days out of the week, because they're trying to teach us to work with men, right?" Some students felt that their shop activities had been crowded, that there hadn't been sufficient opportunity for hands-on practice.

Four months: level 1 theory.

Interviews were held with 11 (79%) students at four months, to gain insight into their experiences with the Level 1 automotive theory and their readiness for their automotive placement. The students felt that the program supported women in the trades, they had learned a lot from their teachers, the program coordinator provided valuable support and that the program should continue. One student commented, "...this is a wonderful program. I think it is a great opportunity and I feel like this has been a life changing experience. I would recommend it anybody interested in the automotive industry".

Some students were not satisfied with certain aspects of the program and

felt that less time should have been spent preparing for gender issues in the workplace and more time building hands-on skills than allocated in the standard 12 week unit provided in the Ministry guidelines. One student noted, "If you've ever worked with a male in any industry before you came into this one, you'll know that, you know what I mean- they're not that bad," and, "We could have been doing much more educational things other than busting barriers."

Students were asked to comment on their experience with the automotive theory part of the program. Responses ranged widely from very positive to very dissatisfied. The majority of students said they had had a very positive, although at times, overwhelming experience. They noted that they had improved their knowledge of vehicle parts, operations and maintenance. Some students were less satisfied; they were frustrated that some students were not taking the program seriously. One commented, "You can tell who's serious about being a mechanic and getting focused and people who were just kind of here to see what was happening."

Time 3: eight months in- the workplace experience.

Students were interviewed for a third time, at the end of their program, during the scheduled work placement. Thirteen (93%) students participated. At the time of the interviews seven students had completed or largely completed their placement, four were part way through and two had not yet found a placement. Most students reported that they had had a good or great experience. A great experience was one that students described as a busy auto shop and where the co-workers and boss were supportive. Two students specifically commented that the staff had been great. One noted, "Anytime I'm struggling with something or I can't do something, if I asked them for help they were more than willing to help me".

Some negative feedback was shared: one student had heard that a customer had made derogatory comments about a woman working in the shop. Another student started a placement but found it too slow and changed to a large chain where she was ultimately hired. One

student had a placement but left after one month. She said that it had not worked out, "There were a lot of head games with the service guys". One student was frustrated with her placement experience; she felt she was being given minimal hands-on experience and spent her time moving and washing cars and quit. Another student described her placement as good but added that there was not a lot of hands-on work so far and that although she was 5 feet 8 inches tall she struggled with heavy work such as taking off tires. One older student who had not yet been placed felt that her age and gender were barriers.

Program experience.

Students were asked to describe their experience with the pre-apprenticeship program; all were positive and said they would recommend it to others. One commented, "It gets you ready for the real world". They felt that the automotive theory gave them an advantage in the workplace. Another student described the program as a personal journey. She felt that she had received a lot of academic and personal support through that process, particularly from the program coordinator. Some students commented that the academic upgrading component had been very useful. Several students commented that they were grateful they had the opportunity to participate in the program. One remarked,

"This program made me feel better about doing my apprenticeship in the automotive workplace by providing exposure to this field and helping me to gain some experience with different vehicles. As a petite, female, minority, it would be difficult for me to enter this profession without some type of training. Who would hire someone with this type of body structure to perform a job that requires strength and with no knowledge or experience in this field? It's extremely beneficial for the employee to have the knowledge needed to fix and maintain vehicles."

Most students said the program had helped by boosting their confidence, teaching them not to give up and about



the need to be responsible on the job. Several students commented that the hands-on skills they had learned such as oil changes, working on brakes and suspension system, tire repairs and battery checks had really helped them make a successful transition to the workplace. Others students felt the program had less impact. The reasons for this were that they felt under-prepared in some skill areas. They also realized that it takes time to adjust to the workplace.

The students' reflections, when looking back to the Busting the Barriers Career Readiness component, varied. Three students felt that it had been very helpful by increasing their confidence in asking questions at work and helping to cope with workplace issues. Some students commented that gender had not been an issue. Students reported that program staff had been very supportive, their coaching and mentoring was appreciated. Staff in the workplace were also viewed as supportive and the students, by striving to be reliable and well prepared, reported that they had had a good experience.

Student recommendations.

Students were asked if there were any recommendations they would like to make regarding their program. These included:

- More lab practice time;
- Devote more time to job search skills (interviews, approaching an employer);
- Add a midterm break to make the program more manageable for women with families;
- Move the component 'Workplace Practices' forward, before going into lab, so students are more comfortable handling tools;
- Monitor the workplace placements to ensure they provide a worthwhile experience;
- Add a body mechanics component to prepare the students for physically challenging work

Students were asked to share their thoughts on the women-only program. All students were supportive of the program, however, the majority recommended that a co-ed component be

introduced earlier in the program. One student noted, "I think if we do this again there should be an interchange where we're in the lab with the men, just so that we get a feel of how it's going to feel to work with the men, because, it's a man's field, so we're going to be seeing a lot of men."

Discussion

This study was one of the few identified that explored women students' perspectives as they prepared for an automotive apprenticeship. The use of both surveys and interviews added to the depth and validity of study results. The students were a very diverse group, coming from 13 different ethnic backgrounds. They also started the program with a wide range of academic skills, and English language skills, in particular. This variation in skills has implications for improving screening and streaming for the English upgrading part of the program. Upgrading in computer literacy and math were valued as essential for today's workplace.

Participants completed the General Perceived Self-efficacy survey at the start of the program to measure their general sense of confidence or ability to manage situations. The mean score for the total survey was 85/100. This suggests that most participants came to the program with a healthy perception of self and confidence in their ability to manage life's eventualities. This finding was also reported in an earlier study of women in agricultural education, another area where women are traditionally under-represented (Kelsey, 2007). The women in Kelsey's study reported that they felt they needed to prove themselves and were confident that they could. These results are encouraging as women entering non-traditional occupations have the resiliency that will support them in their career choice.

The workplace-specific self-efficacy survey indicated that students made gains in their workplace competency scores during the program. This result provides evidence for the value of supportive programs for women embarking on non-traditional careers.

Interviews were conducted with students at three points over the eight month program and provided an inter-

esting picture of their development over time. Results from the interviews held with students four weeks after the program started indicated that most students were initially anxious and that they were enthusiastic about the women-only program. Key success factors identified by the students included the coaching and mentoring they received from the program coordinator and faculty, many of whom were women with automotive service expertise.

Some students were impatient with the amount of classroom time and content, however, this view was balanced by students who recognized the value of taking time to reflect and build professional skills before going forward in the program. That said, several students recommended less time be spent on self-reflection activities and more time on the body mechanics and finance management activities to prepare for work. Students were interviewed a second time, four months after starting the program. The need to build car skills was a persistent theme and reflected in the varying levels of readiness or confidence students expressed regarding the next stage- their workplace placement. A final round of interviews was conducted eight months after the program started, after the workplace placement. Several students were very enthusiastic about their work placement; the effort taken by the coordinator to secure student friendly learning environment had been worthwhile. Students had been productive and staff had been very supportive. Challenges related to gender were not raised by these students. This could be the result of working in shops that had been 'vetted' to provide a positive experience. This finding could also reflect the gradually changing workplace where there is an increasing acceptance of women. Some students reported an unsuccessful placement where things did 'not work out'. It is difficult to tell if the issue was related to gender or to the student's attitude and lack of work skills.

Students reported that the program had been worthwhile and had physically and mentally prepared them to work with men, a finding reported in an earlier study of women in a similar skilled trades program (Bower, 2007). The program helped them decide if this was in-



deed the career for them and gave them the confidence and skills they needed for success. Thinking back on the Busting the Barriers Career Readiness component, many reported it as interesting and helpful, however, after their placement they made a strong recommendation for more time in the lab and more hands-on practice with automotive skills. Interestingly, while expressing strong appreciation for the women-only program, most students recommended that the program keep that component but also provide opportunities to work with men, earlier in the program, to better prepare them for work. Earlier studies have suggested that female students perform better and are more comfortable in a single-gender setting (Burke & Murphy, 2006; Warrington & Younger, 2001). The findings from the present study suggest, however, that while students found support in the women-only program, they also feel that it is critical to spend some time learning with men to prepare them for work.

The interview results were supported with results from Course Satisfaction Survey where students indicated that their time had been well spent. The two items that pulled down the mean related to the amount of time in lab and the women-only learning environment. Lab time was crucial for the women in this study, the majority of whom have not had the years of car experience or automotive field role models that many of their male counterparts have had. The amount of lab time is partly regulated by the Ministry of Training, Colleges and Universities curriculum guidelines; feedback regarding an increased need for lab time needs to be conveyed to the Ministry. The second item with a lower score related to some participants' wish to have some learning time with men which was also heard in the interviews. This finding suggests that a program modification, where students spend some time learning with men in the first year of the program, might be worthwhile.

Threaded throughout the interviews was the theme that the coordinator plays a key role in recruiting, coaching and supporting students, reducing attrition and acting as the 'glue' that holds the program together. A critical component

to the ongoing success of the program is ensuring a coordinator is in place who understands the needs of women students in AST, has a strong background in AST and who liaises well with employers.

Study Limitations

It should be noted that the results generated from the qualitative interviews in this study are not intended to be generalized. Further, the study's sample was small and self-selected and may not be representative of the larger population of woman students learning a skilled trade. A further limitation is that self-report measures were used to measure students' program competency gains. That said, the numerous data collection points enabled the research team to validate their findings with the participants at each data collection point. The finding that students want more time practicing 'hard' skills is important, however, it needs to be viewed in the context of the new graduate. Recent graduates often only recognize the importance of communication and other 'soft skills' as they mature on the job (Martin, Maytham, Case, & Fraser, 2005). It might be too soon to accurately evaluate the impact of this part of the program. A longitudinal study that follows students several years after program completion is recommended.

Conclusion

There is a critical need to encourage greater numbers of women to enter the skilled trades. The women-only program provided a secure, collegial environment that encourages learning and program satisfaction. The study suggests that both psychosocial skills and occupation-related technical skills are needed for career success. Lessons learned from the study may be of interest to other skilled trades programs for women and for programs that serve other under-represented groups.

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Metaphor Making: Your Career, Your Life, Your Way

Norman E. Amundson
Reviewed by Carl Leggo

Dr. Norman E. Amundson's *Metaphor Making: Your Career, Your Life, Your Way* is a wise and engaging book that will appeal to a wide and diverse network of readers. It is the kind of rare text that constructs sturdy bridges between the scholarly research of the university and professional practices in communities that extend far beyond the academy. Dr. Amundson has a well-established, international reputation as a scholar and leader in career counselling, but what makes his work singular is that he is a public intellectual whose scholarship can be taken up by diverse communities. *Metaphor Making: Your Career, Your Life, Your Way* is not just a book for career counsellors. As Amundson notes, "metaphors play an important role in the process of meaning and knowledge construction in life and in career" (p. 8). Any reader will find immense benefits in engaging with this book.

Dr. Amundson begins with a clear definition of metaphor: "A metaphor is a figure of speech in which two unrelated ideas are used together in such a way that the meaning of one of the ideas is superimposed and lends definition to the other" (p. 1). He then expands on this definition of metaphor with a concise and cogent explanation of the theoretical foundations for metaphor making. He explains that "the use of metaphors in career counselling can be connected to the theory of constructivism and the use of narrative in counselling practice" (p. 7), as well as "a hermeneutic-narrative approach to meaning making" (p. 7). With his long and distinguished academic commitment to researching career counselling, Amundson knows the vast scholarly literature that defines his discipline, and he excels in drawing out connections among approaches that are both differ-

ent and related. A core theme that runs like a thread through the whole book is the conviction that "we conceptualize (frame) and re-conceptualize (reframe) our lives on a regular basis; this process involves language and dialogue with those around us" (p. 8). As a poet, language and literacy educator, and narrative researcher, I resonate with Amundson's wisdom that in order "to work effectively with stories one has to have a good understanding of metaphor" (p. 9).

I am especially glad to note that Amundson interrogates "a static metaphor of stages as the model for understanding the theory that grounds career work" (p. 10). Instead he proposes "the metaphor of a career wheel" which "allows a person to enter into and participate in any of these components any number of times during one's lifetime and career involvement" (p. 11). Amundson's understanding of career decision-making is hopeful. He recognizes how the individual is always writing a story that is not complete, that is not preordained or even predictable, a story that invites creative and conscientious care.

One of my favourite chapters investigates "Obama Oratory." Through careful rhetorical analysis, Amundson reveals the long list of metaphors that Barack Obama used in his inspiring inauguration speech. Based on Obama's use of metaphors, Amundson notes that career counsellors "are very much in the business of raising people's spirits and pointing to new futures" (p. 16). Therefore, career counsellors "will do well to enrich our speech and practice through the use of metaphors" (p. 16). Amundson is also convinced that by attending to metaphors, counsellors will be able to pay more empathetic attention to the metaphors that others are using. Be-

cause Amundson understands the power of language for communicating, he enthusiastically promotes the importance of metaphors in counselling.

After marshalling thoughtful and compelling arguments for the use of metaphors "in all aspects of the counselling process" (p. 25), Amundson then devotes the second part of the book to exploring forty metaphors that represent a wide spectrum of metaphor making in counselling and every day living. With thoughtful and creative explanations, Amundson explores metaphors like: My Life as a Book; The Backswing; The Yellow Brick Road; The Butterfly; Peach or Coconut; Magnetic Attraction; A Game of Chance. Each section that is devoted to a metaphor begins with an evocative quotation. Then, following each explanation, the reader is invited to engage reflectively with possibilities related to the metaphor. As I read *Metaphor Making: Your Career, Your Life, Your Way*, I spent time relating each metaphor to my own lived experiences, and I was often challenged about the ways I have frequently composed and presented my stories. Amundson offers carefully considered strategies for investigating, interrogating, and transforming our understanding of how we live in the world.

Another of my favourite parts of the book is the playful and ruminative way that Amundson includes numerous wide-ranging quotations throughout his text. He cites novelists, poets, musicians, entrepreneurs, scientists, sports celebrities, philosophers, and psychologists. It is not often that I meet Mark Twain, Lao-Tzu, Simon and Garfunkel, John Lennon, Warren Buffett, Albert Einstein, David Suzuki, Fred Shero, Tiger Woods, Friedrich Nietzsche, Mihalyi Csikszentmihalyi, William



James, and Carl Jung all together in one book. And the conversation is rich because of the diversity that Amundson calls together in his writing.

Though I do not generally comment on the physical appearance of a book when I write a review, I need to comment on the graphic design and production values of *Metaphor Making: Your Career, Your Life, Your Way*. It is an attractive book. In metaphorical language, you might not be able to tell a book by its cover, but having been an avid reader and book collector all my life, Amundson's book is attractively designed. The cover is superb, and the text is presented in a way that invites the reader to linger. This is a book for sharing with others.

Also, I commend Amundson for the creative invention of a deck of metaphor making cards. Designed to be used with the book, the cards invite readers to consider the metaphors presented in the book. For example, on the card titled "Ladder Metaphors," the reader is asked three questions, including: "Are you on a ladder to success or doing something else? What are the rungs on your ladder? What is your ladder leaning against?" These questions stimulated in me a wide

range of memories, stories, ruminations, concerns, and hopes. Amundson has a remarkable gift for synthesizing complex experiences in creative ways that honour the original complexity while also opening up perspectives that show possible paths to follow.

Above all, *Metaphor Making: Your Career, Your Life, Your Way* is characterized by a compelling sense of voice. I hear Amundson calling out with a lively sense of urgency and heartfelt commitment. As I hear Amundson's voice, I am reminded of a prophet who knows he must stir up conventional ideas and practices, and I am reminded of a teacher who wants to help others on their journeys of learning and living, and I am reminded of a scholar who knows that a life devoted to words is a life that can transform the world.

Metaphor Making: Your Career, Your Life, Your Way represents the kind of scholarly research and writing that exemplifies the emerging call in academic circles for knowledge mobilization—seeking ways to share the best wisdom of the academy with the expansive world that stretches far beyond the privileged halls and walls of the university.

I trust that this poetic and profound book will invite many readers to engage actively with meaning-making through metaphor making. In his concluding comments Amundson emphasizes "the significance of metaphors as a communication tool that will improve one's ability to deliver effective and efficient career counselling" (p. 140). His book provides compelling arguments to support his conviction, and I am certainly convinced that readers will take up his strategies in order to shape renewed ways of understanding our lives and connecting with one another. So, with an abiding sense of thankfulness, I commend Dr. Norman E. Amundson for a book that is personal and provocative, hopeful and evocative, instructional and inspiring.

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