Barriers to Adolescents’ Information Seeking for Career Decision Making

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Nearly 400 Canadian adolescents were surveyed about their information seeking for career decision making. A written questionnaire gathered data on degree of helpfulness of various information sources and the ways in which these sources have helped and asked about some of the barriers to information seeking faced by adolescents. Thirty semistructured interviews with participants drawn from the same sample asked participants about their decision-making and information-search processes, their concerns about these processes, and the barriers they face in accessing helpful information for career decision making. This article focuses on the data related specifically to the barriers faced by the participants, revealing myriad difficulties that can hinder adolescent career decision makers. Forty percent of youth do not know where to go for help in their decision making, and 38% feel that they need to go to too many different places for the information they require. As well, the respondents revealed that trustworthiness of information sources is critical to the ultimate usefulness of the help received. The discussion suggests some avenues for further research which would advance understanding of these barriers, and makes suggestions for improved delivery of information services to adolescents making career decisions.

Introduction

Research into information seeking in non-work settings has primarily focused on three contexts: Formal information service systems (Dewdney & Ross, 1994; Kuhlthau, 1991; Zweizig & Dervin, 1977), everyday life situations (Chatman, 1992; Savolainen, 1995), and life crisis situations in which people are faced with a gap in their understanding that is outside their typical daily experience (Baker, 1996; Dervin, Nilan, Krenz, & Wittet, 1982). The last context includes information seeking by people facing health crises. However, among the most critical decisions we face during our lives are career-related decisions. During late adolescence career decision making typically begins taking on significance. It is during this life stage that we become fully conscious of the social expectation that we make some plans for our lives following school, and that is the stage when people typically explore their abilities and values in their preparation for career exploration (Dupont & Gingras, 1991; France, 1990). In North American secondary schools, career education focuses on self-assessment and exploration of possible occupations. Self-knowledge and specific information about work are critical components of this process (Cairns, Woodward, & Hashizume, 1992; France, 1990). Students need to be provided the opportunity to explore several issues: their values, strengths, and goals; their educational and career opportunities; their perceptions of the role models and influences of significant others in their lives; and the work world (France, 1990). Career planning requires that students actively seek out information about alternative choices; learn about their own skills, attitudes, values, and interests; and discover educational and career opportunities (Herr & Johnson, 1989).

The decision-making processes adolescents employ in their career planning range from the complex to the highly simplistic. However, regardless of the decision-making process used, information from some source, even if only from adolescents’ own heads, must be obtained and organized. Information used by adolescents in making decisions about their future work lives includes attitudes and beliefs instilled during socialization and in school, and specific information provided by any number of sources: Parents, siblings, other family members, family friends, peers, guidance counselors, teachers, school and public library resources, the mass media, and government career centers. Information can be imparted purposefully by particular sources, as is occasionally done by guidance counselors and parents, or it can be identified by the information seeker who attends, on both an unconscious and conscious levels, to the stimuli and behavioral models in her or his environment. Most important, perhaps, is that the value of such information lies not in its volume (Jepsen, 1989), but in its usefulness to career decision makers.

This research study explored the difficulties faced by young people who are in the process of making decisions
related to their future careers, and who are searching for information relating to these decisions. The research questions asked were:

1. What kinds of information do adolescents want in order to help them make career decisions?
2. What are the sources that adolescents use to get information that helps them make career-related decisions?
3. What kinds of help do adolescents perceive are being provided by these sources of information?
4. What barriers do adolescents find hinder them from accessing information needed to make career-related decisions?
5. Can adolescents’ approaches to career decision making be classified according to Harren’s (1979) categories of rational, intuitive, and dependent decision makers?
6. Are there any gender differences in adolescents’ responses to these questions?

This report focuses on research question #4, identification of the barriers perceived by adolescents as they seek to make career-related decisions.

**Theoretical Frameworks**

One significant theoretical approach to information seeking informing this research was Dervin’s (1983, 1992) sense-making theory of communication. Core assumptions and concepts of sense-making that particularly pertain to this research include: (a) perception of reality is not complete nor constant but discontinuous and filled with gaps; (b) information is not external to humans and does not exist independently of people but is a product of human observation; (c) information is subjective; (d) information seeking and use are activities that people undertake to construct and create sense; (e) people use their own and others’ observations to construct personal pictures of reality which guide their behavior; (f) sense-making behavior is situationally dependent and somewhat predictable on the basis of those situations; (g) sense-making focuses on discovering how people construct personal sense, rather than assuming necessary and predictable connections between information and its use.

The sense-making model centers on a relationship between situations or contexts in which people need to make sense of some problem, gaps in their understanding of how to solve problems (information needs, or the questions that individuals have in their minds), and uses of created sense (information “helps,” i.e., the ways in which information helps people to create sense) to bridge those gaps. In this study, the situation was defined by the researcher as career decision making. The gaps and the uses or helps were identified by the respondents.

Dervin’s (1983, 1992) sense-making theory is incorporated into the assumptions and research questions of this work. The research respondents are assumed to be active constructors of meaning as they make sense of the world. Throughout this article, the terms “information seeking” and “help seeking” will be used interchangeably, since from the perspective of the research respondents, conceptualizing their information needs is often a matter of thinking in terms of seeking help or assistance with a particular question or concern.

Another theoretical framework used to analyze the respondents’ decision-making style was Harren’s (1979) model, developed on the basis of career decision making by college students. Harren categorizes decision-making style according to two dimensions: degree of active information seeking, and degree of reliance on cognitive or intuitive (emotional) processes to make decisions. Harren’s categories are: rational (characterized by systematic information seeking, and logical and objective decision making); intuitive (conduct little purposive information seeking, relying more on self-awareness and emotional factors to make career-related decisions); and dependent (passive, taking no steps to overcome the gaps faced, and not taking personal responsibility for decisions).

A recent and very valuable summary of barriers to information access has been provided by Harris and Dewdney (1994). That summary is based on an interdisciplinary review of information-behavior research in many contexts. Therefore, the interview data were analyzed using content analysis, to determine whether these barriers were evident in this context. The first of the barriers identified by Harris and Dewdney is the situation in which people do not know what information is needed. In the context of adolescents faced with making career-related decisions, these information seekers may not understand that in order to make a rational decision, several kinds of information are required (e.g., self-knowledge, educational opportunities, educational prerequisites with regard to content and achievement, sources of financial assistance, sources of personal support, how to obtain and improve skills in job searching, resume preparation and interviewing, identification of possible barriers to career development, likelihood of the need to be sole support of oneself and one’s children).

The second barrier is not knowing where to find the information that one realizes is needed. Although it seems that few adolescents realize that many of these kinds of information would be helpful in career decision making, it was possible that some respondents might understand that information about these areas would be useful but not know where they could obtain this information, or even whether such information might be completely unavailable.

The third barrier is lack of awareness of the existence of sources for information. Parents, peers, teachers, guidance counselors, and formal information systems such as career resource centers or libraries may be able to provide various bits of this information; but it is doubtful whether any of these sources would be helpful in all these areas, and adolescents may not recognize these as potential sources for the kinds of information they seek.

Another barrier to information seeking is that the information required may simply not exist. Other barriers identified by Harris and Dewdney (1994) include lack of com-
munication skills, lack of self-confidence or ability, discour-
agement by sources approached for information, delays
encountered in information seeking, inaccurate or inap-
priate information received, and information scatter (where
the information need is complex and requires the help of
several sources). Adolescents making career decisions may
be faced with any or all of these barriers. The applicability
of these barriers to adolescent information seeking behavior
could not be assumed, since the barriers were drawn from
research on adults.

Since Dervin’s (1983, 1992) work informed the research
to a large degree, further analysis of the barriers faced by
interview respondents was conducted using a framework
developed by Dervin’s early work (Warner, Murray, &
Palmour, 1973). In this analytical framework, barriers to
information seeking can be categorized as: (a) societal—
those which impede the availability of resources necessary
to satisfy needs in the social system; (b) institutional—those
which arise from an incapacity or unwillingness of an
institutional provider to deliver needed information to a
certain type of information-seeker; (c) psychological—
when an individual is unable to perceive her or his needs as
informational in nature, unable to obtain needed informa-
tion from appropriate providers, or accept (for psychologi-
ical reasons) the possibility that an information gap can be
overcome; (d) physical—such as the absence of physical
accessibility for a disabled person; (e) intellectual—when
an individual lacks the necessary training or expertise to
obtain necessary information.

Methods

Data gathered to address the research questions derived
from a written questionnaire surveying 399 males and fe-
males in late adolescence who were attending two second-
ary schools in a mid-sized Canadian city, and one secondary
school in a small town a few kilometers outside that city.
The questionnaire asked respondents about the degree of
helpfulness of various information sources (drawn from the
literature on adolescent career decision making) and the
ways in which these sources have helped (as suggested by
Dervin’s [1983, 1992] research), and asked about some of
the barriers to information seeking faced by adolescents
(drawn from the literature on adolescent career decision
making). The questionnaire included items with closed
responses, and an open-ended section for commentary at the
end. Included in the participating schools were two large
comprehensive high schools (e.g., providing a mixture of
programs for students), one within the public education
system and one in the separate (Roman Catholic) education
system. The third school was a comprehensive high school
located in a small town a short distance from the city, which
is attended by rural students as well as a small minority of
urban students.

In order to achieve a confidence level of 95% ± 5% a
sample of approximately 360 students was required to com-
plete the questionnaire. This figure was calculated on the
basis of the total grade 12 population (estimated by the
school board to be 3200 students) of the public school board
in the city in which the study was done. This sample size
was achieved by asking all grade 12 students from three
secondary schools to participate in the questionnaire. How-
ever, the three participating schools were each operating
within the jurisdiction of a different school board, so the
study results are not strictly generalizable to the public
school population. Nevertheless, 399 usable questionnaires
were obtained for analysis. Socioeconomic data from the
questionnaires were compared with norms for the province
in which the study was conducted and for Canada as a
whole, and it was determined that the sample was represen-
tative of Canada’s population.

The questionnaire was piloted with two samples of ad-
olescents in the age range of the final questionnaire respon-
dents. Discussion with the adolescents who piloted the
instrument helped to refine wording of some items and
confirm the validity of the questions.

Following the questionnaire, which asked respondents to
indicate whether they would be willing to be interviewed,
semistructured interviews with 15 female and 15 male grade
12 students were conducted. Ten students from each partic-
ipating school were interviewed. The proportion of students
interviewed was balanced according to whether they were
taking general or academic level English, the latter being
required for university entrance. This was done to try to
ensure that the interview participants would present a vari-
ety of career aspirations, since students in academic English
at the high school level may hold aspirations that differ from
those students taking general level English. The interview
transcripts provided additional qualitative data to enrich the
quantitative data, and the triangulation of data gathering
techniques was designed to enhance the validity and reli-
ability of the results. The interviews were intended to solicit
information about the respondents’ decision-making and
information-search processes, their concerns about these
processes, and the barriers they faced in accessing helpful
information for career decision making. The interview ques-
tions were based on Dervin’s (1983, 1992) work but do not
apply the timeline sense-making methodology. Discussion
about the interview questions with a sample of adolescents
prior to the study helped to confirm the validity of the
questions, which are as follows:

- What decisions have you made, are you making, or do
  you feel you should make about your future?
- What kinds of help do you need in order to make deci-
sions about your future?
- Who have you talked or listened to? Where have you
gone? What have you read or watched to find help?
  (Generated list for following questions.)
- For each source mentioned (one at a time), please tell me
  what you found out?
- For each source mentioned, please tell me if and how this
  helped you?
- How were you feeling? What were your thoughts? What

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were you trying to accomplish as you sought information from each source?
- How did you feel after your encounters with each of these sources (ask separately for each source)?
- What concerns or questions do you still have?
- How do you plan to find out more about these concerns or questions?
- Can you describe the perfect source that could provide the help you want to make decisions about your future?
- What would you want to find out?
- What would make this source of help ideal?
- What stops you from getting the help you want? What barriers have you experienced in your search for information?

Ethical approval for the research was provided by the Graduate School of Library and Information Science at the University of Western Ontario. Approval for this research was provided by each of the three school boards involved in the study, as well as by the principal of each school. Questionnaire participants and interview respondents provided signed consent to participate in the research. Participants under the age of 18 years also provided parental/guardian consent. The anonymity of questionnaire participants was protected, and responses of the interview participants were kept confidential.

Questionnaire data were coded numerically and the data were entered into statistical software. Interview tapes were transcribed in full, and coded for patterns of response using content analysis of concepts (Mostyn, 1985). This systematic coding was done similarly to the pattern coding described by Miles and Huberman (1994), in which the meanings of participants’ responses are identified and grouped into similar patterns to identify trends. This approach was applied particularly to identify the gaps faced by respondents (i.e., their information needs, around which they provided their responses to questionnaire items and interview questions). An independent coder also analyzed a sample of all qualitative analyses (content analyses), to test inter-rater reliability. The coefficient kappa was .737.

When specific theoretical frameworks were applied to the data, evidence was sought for each of the categories suggested by the frameworks. For example, evidence for Harren’s (1979) categories of decision-making style was sought on the basis of the dimensions of the theory: information seeking activity, and reliance on cognitive or intuitive processes. According to Harren (1979), rational decision makers were identified by their systematic information seeking and objective evaluation of the results of these efforts. Intuitive decision makers were identified by their low level of information seeking behavior, and apparent willingness to rely on self-awareness for their decision making. Dependent decision makers were identified by an absence of information seeking, and an absence of a personal sense of responsibility for career decisions. The transcripts were compared to provide a relative indication of degree of information seeking activity and evidence for cognitive or intuitive decision making. Interview respondents identified the sources to which they had turned when seeking help for their career decision making, so degree of information seeking activity was easily identified. Evidence for reliance on cognitive or intuitive decision-making processes required more interpretation, and is best described by example, as recorded in the results section.

Evidence for Dervin’s (Warner et al., 1973) framework of barriers to information access and for Harris and Dewdney’s (1994) categories of barriers was drawn from content analysis of the barriers cited by interview respondents throughout the interviews (i.e., not only from direct responses to the question asking them to identify barriers to their information access).

The Research Participants

The questionnaire respondents ranged in age from 15 to 19 years old, but 58% were 17 years of age. Fifty-three percent of respondents were female, and 48% were male. Eighty-eight percent of respondents had part-time work experience, 29% had volunteer experience, and 16% had worked full time. Twenty-five percent had participated in a school cooperative work experience. Only 3% had no work experience of any kind. Eighty-six percent of respondents planned to continue their education following high school, and 5% planned to go immediately into the workforce.

The interview participants included 15 females and 15 males, ranging in age from 16 to 19 years. Four participants were 16 years old, fourteen participants were 17 years old, ten were 18 years old, and two were 19 years old.

Results and Discussion

Questionnaire Data

Responses to the questionnaire item concerning barriers to information seeking are summarized in Table 1. Because items were phrased both in the positive and negative, care must be taken in interpreting the results. For example, responses to item [a] suggest that 10.6% of respondents do not know how to find out about opportunities to continue their education. Responses to item [i] suggest that 59.7% of respondents find it difficult to find out about everything needed to make a career decision.

A majority of respondents (59.7% from item [i]) reported that they found it difficult to find out about everything needed to make a career decision, attesting to the complexity of this process, and perhaps to the scatter of information available. Indeed, 39.7% (item [j]) of respondents indicated that they needed to go to too many different places to get answers to their questions about career decision making, and 13.2% (item [f]) did not think that places exist where they could find answers to questions about their future. About one-quarter (23.4% item [d]) did not feel confident about asking for information related to career decision making. A proportionally greater number of respon-
The questionnaire asked respondents to focus on a recent career-related question or concern, and to indicate whether they tried to get that question or concern answered. Approximately three-quarters of respondents (76.6%) did try to get their question answered, while 23.4% did not attempt to do so. Eighteen percent of those respondents who reported that they did not try to get their original question or concern answered claimed that their reason for not doing so was that it was too difficult, or that there was insufficient information available. However, 53% claimed that they didn’t have enough time or were not sufficiently concerned to try. Three chi-square tests (yes/no by true/false) were conducted on this item by other items asking: (a) whether respondents knew what high school courses are needed to achieve their career goals (2 \( \chi^2 \), \( N=389 \) = 23.11, \( p < .0001 \)); (b) whether the respondent knew what grades were needed to achieve career goals (2 \( \chi^2 \), \( N=391 \) = 17.41, \( p < .0001 \)); and (c) whether respondents found it difficult to find out about everything needed to make a career decision (2 \( \chi^2 \), \( N=384 \) = 10.27, \( p < .01 \)). Thus, the data showed a statistically significant association between respondents not trying to answer their questions or concerns, and reportedly not knowing what high school courses were needed to achieve their career goal, not knowing what grades were needed to achieve their career goal, and believing that it is difficult to find out about everything needed to make a career decision.

These results suggest that adolescents who feel they do not know what they need to do to achieve their career goals may simply not attempt to get their career-related questions answered. The whole process of career decision making may appear too complex a task to begin.

**Summary of Barriers Suggested by Questionnaire Respondents’ Open-Ended Comments**

The written comments provided by questionnaire respondents also pointed out some of the many barriers faced by these information seekers. Some respondents made pointed comments about their general disgust with particular information sources, such as the one who noted the career choice software available at all the secondary schools sampled:

The lack of confidence can pose a significant barrier to obtaining the help necessary to make career decisions, particularly if sources of help are not proactive in providing needed assistance.

The finding that nearly one-quarter of respondents felt that they lacked confidence to actively seek helpful career information is consistent with the results reported by Baker (1985). The role of self-confidence in self-efficacy, as discussed by Hackett and Betz (1981), also points to the seriousness of this barrier, since self-efficacy is strongly related to a level of self-confidence. That is, when adolescents do not believe they have the confidence to ask for appropriate help, their feelings of self-efficacy are diminished, and their potential to make informed career decisions and eventually to achieve career goals is diminished.

Also apparent in the questionnaire data was that some adolescents lacked specific and necessary information, which could hinder appropriate information seeking and decision making. For instance, 38.3% (Table 1, item [h]) of questionnaire respondents answered that they did not know what grades they needed to achieve their career goals, 38.0% (item [g]) did not know what courses they needed in order to achieve their career goals, but only 10.6% (item [a]) did not know how to find out about continuing their education. Over one-fifth of the respondents (23.2% item [c]) did not know how to find out about different jobs, 39.6% (item [m]) did not know how to find out about how to get a job, and 37.9% (item [b]) did not know how to get skills in job searching. A potentially serious barrier to further information seeking was reported by 57.0% (item [e]) of respondents who did not know how to find out about obtaining money to finance further education. These students may feel barred from investigating careers that require further education if they believe that they cannot finance it. Proportionally more females than males indicated that they did not know how to find out about obtaining such financing. Baker (1985), and Taylor and Pope (1987) also report that female adolescents cite inadequate financial resources as a barrier to their career aspirations.

<table>
<thead>
<tr>
<th>Respondents Answering “True”</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I know how to find out about opportunities for continuing my education</td>
<td>89.4</td>
</tr>
<tr>
<td>b. I know how to get skills in job searching</td>
<td>62.1</td>
</tr>
<tr>
<td>c. I know how to find out about different jobs I might enjoy</td>
<td>76.8</td>
</tr>
<tr>
<td>d. I feel confident about asking for the information I need</td>
<td>76.6</td>
</tr>
<tr>
<td>e. I know how to find out about getting money to support my education beyond high school</td>
<td>43.0</td>
</tr>
<tr>
<td>f. I think that there are places where I could find answers to questions about my future</td>
<td>86.8</td>
</tr>
<tr>
<td>g. I know what courses I need to take in high school so I can achieve my career goals</td>
<td>62.0</td>
</tr>
<tr>
<td>h. I know what grades I need in order to achieve my career goals</td>
<td>61.7</td>
</tr>
<tr>
<td>i. I find it difficult to find out about everything I need to make a career decision</td>
<td>39.7</td>
</tr>
<tr>
<td>j. I need to go to too many different places to get the help I need to make a career decision</td>
<td>39.7</td>
</tr>
<tr>
<td>k. I know what I would enjoy doing for a career</td>
<td>68.5</td>
</tr>
<tr>
<td>l. I know where to go to get answers to my questions about my future</td>
<td>62.4</td>
</tr>
<tr>
<td>m. I know how to find out about how to get a job</td>
<td>60.4</td>
</tr>
</tbody>
</table>

**TABLE 1. Specific barriers to information seeking identified from questionnaire.**

The written comments provided by questionnaire respondents also pointed out some of the many barriers faced by these information seekers. Some respondents made pointed comments about their general disgust with particular information sources, such as the one who noted the career choice software available at all the secondary schools sampled:
“Choices SUCKED! I learnt nothing and it was a waste of time.”1 Thus, a potential primary source of help was viewed as unhelpful. Some of the comments referring to another of the major information sources available to students in high schools, pamphlets and books, were also negative. “There are not enough pamphlets and books to take home and compare with others,” noted one respondent. Another noted that “University and college course booklets are difficult to read/understand.”

Others seemed to feel overwhelmed by the volume or variety of information needed to make an informed career decision. One respondent commented, “I find that there is so much to find out and so much I have yet to learn.” Another noted “it is very time consuming.”

Some questionnaire respondents referred specifically to institutional barriers such as an inability to obtain information because of school scheduling. Noted one respondent, “I plan on graduating this year, but my homeroom isn’t an [academic] course, so I do not get all the information on universities and colleges. So I still don’t know what to do, or what I can do.”

Others seemed to feel blocked by people having the authority to help, such as the respondent who commented, “People like to give you the run-around if they feel you might be making a bad choice.” Another respondent wrote, “The librarians are bitches, have a really snobby attitude to give you any help at all. Other than the.. .career center there’s no place to find information easily without reading 30 books.” Some students commented on difficulties they had experienced with their guidance counselors. “Do guidance counselors actually know what they are talking about [?] I don’t know if they are reliable because of personal experiences in the past.” Another noted, “A lot of times, people won’t just give straight answers—Makes the future seem way too complicated.”

Some respondents faced with career decisions seemed blocked by emotional barriers. One example was the respondent who wrote, “I haven’t really done much in finding information about my future. There is a lot of pressure on people my age and I think that makes me back away from finding out. I have truthfully, no idea what I want to do after high school.” Another commented, “It’s really hard and scary trying to find out about things to do with your future and I find that I’ve tried to avoid it and hid from, but I can’t do that for much longer.” Those who attempt to get help sometimes experience other emotional barriers, such as the student who wrote “I feel that whenever I ask questions about different courses and careers people think I am stupid, for example I asked how to register for college and everyone laughed.” Another comment reflected a concern that the respondent may not have felt comfortable raising in class, or even with a guidance counselor. This respondent asked, “do I really need a job if my husband works, will we have enough money [?]” This question also suggests another barrier to information seeking for career decision making: a belief that she can be assured of a secure future even if she does not seek training and/or employment. This finding echoes the findings of Baker (1985), Pedrini (1988), and Taylor and Pope (1987). However, the fact that this issue was raised by only one respondent, suggests that in general, the female respondents in this sample were expecting to work outside of the home. That the female interview respondents also did not raise concerns about balancing relationships with their work roles lends support to this interpretation. It may be that the attitudes of female adolescents toward the future balance of relationships and career in their lives are shifting in favor of career commitment. However, since the questionnaire did not specifically address this issue, and the interview respondents may have been self-selected for females planning to have careers, this result must be treated cautiously and requires confirmation by further investigation.

These written comments indicate that a wide variety of barriers was experienced by the questionnaire respondents, including: being daunted by the volume of information needed, lacking confidence or trust in help providers, institutional problems, and emotional barriers. For some of these barriers, such as emotional ones, recognizing their existence may be all that a service provider can hope to do. Other barriers, such as information scatter and institutional obstacles to obtaining help, may be more amenable to change by those who help adolescents make their career decisions.

**Interview Data**

**Gap Faced**

Using a modified critical-incident technique, the interview participants, like the questionnaire respondents, were asked to focus their responses on a particular career-related decision or concern. These questions and concerns were analyzed to determine the gaps (Dervin’s [1983, 1992] term) they were facing. These results are reported here since they are compared with the data on barriers. The largest group of interview participants, including 19 of the 30, were those who could be categorized as “choosing a career.” This group could be subdivided into two participants seeking to narrow their options, seven participants deciding on a program of study, three participants wondering what jobs are like, three wondering what they as individuals like or enjoy doing, two wondering what they will be good at, one deciding between college or another year of high school, and one deciding between immediate entry into the job force or postsecondary education. These subcategories were suggested by the analysis of the respondents’ descriptions of the immediate concern or question facing them. Although it was clear to the researcher that every participant in this group of 19 was more generally focusing on her or his attempt to decide on a career, each participant characterized her or his particular gap in one of these ways.

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1 The respondents’ original orthography has been preserved as closely as possible.
Another group of five participants were facing a gap that could be categorized as “needing to achieve a specific goal,” and wanting to figure out how to do that. These goals varied widely, including one respondent who wanted to become an R.C.M.P. officer, another who wanted to own a gym, another who wanted to figure out how to go to a university, and two who wanted to figure out if they could attend a particular educational institution. Interestingly, all these participants operationalized their information seeking around their gaps by attempting to select a postsecondary educational institution.

The third category consisted of the remaining six participants who characterized their specific gap as “needing to select a postsecondary educational institution.”

**Decision-Making Style**

Since the analysis of barriers includes comparison with decision-making style, the study results concerning decision-making style are presented here. Analysis according to Harren’s (1979) categories revealed that fourteen (47%) of those interviewed were found to exhibit a rational decision-making style, characterized by systematic information seeking, and logical and objective decision making. These respondents tended to report having approached several sources of help and having future plans to do more information seeking. Moreover they described the decisions they needed to make as ones based on their thinking about the information they found. For these respondents, their decision making was a cerebral experience. For instance, Mary was trying to decide what field to go into when she entered university. She had discussed her options with her parents and her guidance counselor. As well, she had attended presentations by various universities. She expressed firm plans to seek additional information from her guidance counselor when she enquired about scholarship opportunities. She had thought about what she had learned and trusted her ability to make a good decision based on that information. Another rational decision maker, Brenda, had been collecting information about her career decisions for several years. She eagerly sought information wherever she could find it, and said that “I’m constantly on, my ears and eyes are open, trying to find stuff.”

Twelve respondents (40%) were closer to the intuitive decision-making style, since they conducted little purposive information seeking, relying more on self-awareness and emotional factors to make their career-related decisions. For example, although Gerald could describe several sources from which he had received help in his career decision making (e.g., his parents and an interest test taken at school), he had approached only one of these sources (a university presentation) purposefully. Gerald said that he would prefer it “if someone was just to basically say, well you should go here, and that’s it, no decisions, I’ll just go.”

Luke planned to make his career decision on the basis of his enjoyment of high school courses and university courses, thus demonstrating that self-knowledge was important to him in deciding on a career. Thus, Luke, like the other intuitive decision makers, preferred to use his emotions to make his choices. Another intuitive decision maker, Kerry, got her career aspiration from a suggestion made by her bus driver. Kerry said, “. . . as soon as she said art therapy, and told me what it was about. . . it just hit me. . . that’s exactly what I want to do.” Only after that conversation did Kerry explore her career choice. These intuitive decision makers reported that they spent little time actually thinking about their decisions.

Finally, four respondents (13%) were characterized as dependent decision makers. These adolescents were generally passive, taking no steps to overcome the gaps they faced, and did not take personal responsibility for their decisions. Holly was a typical example of this category. She said, “I haven’t made much decisions. . . I haven’t thought so much. I’m not a person that looks ahead. . . I’ve nothing that’s going to be handed down to me.” Although she felt that she had been helped by conversations with parents, friends, and her grandfather, in none of these instances was she deliberately seeking help for her career decision making. Her parents had pressured her into making an appointment to speak with her guidance counselor, but the initiative did not come from Holly herself, nor had this appointment actually occurred before the interview. Holly expressed a preference not to have to make a decision at all, but would have liked her guidance counselor to tell her what field to enter.

After these categorizations were made, however, it became clear that Harren’s (1979) categories of decision makers are not mutually exclusive. Four (29%) of the rational decision makers (three girls and one boy) exhibited elements of the intuitive decision-making style, in that they also relied to a certain extent on self-knowledge when making their career decisions. These were categorized as rational decision makers on the basis of their high degree of information seeking, but this alone was insufficient to describe their decision-making style. In addition, a greater number of the girls than boys among the rational decision makers suggested that self-knowledge was a significant factor in their career decision making, consistent with Belenky, Clinchy, Goldberger, and Tarule’s (1986) argument that females may place generally more importance on self-knowledge than males. However, the interview sample size was too small to provide strong support for their claim.

As well, one of the girls and two of the boys (25%) identified as intuitive decision makers exhibited traits closely tied with the dependent decision-making style, since they conducted such a minimal degree of purposive information seeking. They reported that their decision making was based on their intuitive self-knowledge but were relatively inactive information seekers. Therefore, perhaps Harren’s (1979) decision-making styles may be more usefully considered as steps on a continuum, rather than as mutually exclusive categories. Further evidence would have to be...
gathered to elaborate on these ideas and confirm this interpretation of Harren’s (1979) framework. For the purposes of this study, however, distinct categorization of the interview participants in the three separate decision-making styles according to the framework as presented was not possible, nor prudent, given the data gathered.

Barriers to Information Access

Harris and Dewdney’s Framework

The interview respondents were asked whether they perceived any barriers in their search related to their career plans. Content analysis of responses to this question as well as responses to all the other interview questions was done to determine whether Harris and Dewdney’s (1994) summary of potential roadblocks to information seeking were perceived by these adolescents. As summarized by Harris and Dewdney, these barriers include: not knowing what information is needed; not knowing where to find the information that one realizes is needed; not knowing that sources of needed information exist; finding that no source exists for needed information; lack of communication skills, self-confidence, or ability; discouragement by sources approached for information; delays encountered in information seeking; inaccurate or inappropriate information received; and information scatter. Evidence for each of these barriers was found in the comments of the questionnaire respondents above and was also apparent in the interview transcripts.

Four interview respondents (13%) reported that they felt embarrassed or stupid asking questions related to their information seeking for career decision making. A lack of self-confidence or lack of encouragement by others was cited as a barrier by five respondents (17%). One respondent (3%) noted that she was hindered by her fear of finding information that would discourage her from her goal. Obtaining particular information that stops further information seeking was reported as a further barrier by three girls and six boys (30% of respondents). An example of this was realizing that one’s high school grades were too low to enter a particular university program. Another girl reported that she feared making the “wrong” decision, which stopped her from seeking the help she needed. Five participants (17%) admitted to not knowing where to go, or who to turn to, when seeking help for career decision making. Even when a source of help was identified, some adolescents simply did not know what information to seek. Gerald said that although he attended a presentation by a university, “I didn’t know what questions to ask, so I just sort of sat there, and I still don’t know what questions to ask really. . . I don’t know what I need to find out.” One girl and two boys (10%) specifically said that they felt hindered by their own inexperience in career decision making and not knowing what help was needed. Distrust of their guidance counselors was cited as a barrier by seven respondents (23%). Another girl suggested that pressure from her friends was limiting her information seeking, since she did not wish to leave them behind when high school finished. Eight respondents (27%) claimed that their own lack of initiative or laziness prevented them from obtaining necessary help.

Barriers to information seeking mentioned by interview respondents that could be categorized as external included time constraints, noted by six girls and one boy (23%). Some of these respondents worked at part-time jobs, did homework, and participated in several after-school activities. Chris noted that her use of the public library was limited since it was closed on Sundays, a time during the week when she normally had time to make use of it. Four respondents (13%) reported that their discomfort using the school or public libraries hindered their information seeking. This discomfort seemed mainly to arise from the perceived unhelpfulness of librarians. Organizational problems with career-related activities and assignments arranged by their schools were suggested by three girls and one boy (13%) to hinder their help seeking. Examples of this included barring students one year from high school graduation from attending program presentations by universities, and assigning research projects for jobs on a random basis, so that students could be researching possible careers that held no interest for them. Four girls and one boy (17%) noted that they experienced difficulties using their school’s career center, an area in the school library dedicated to stocking a wide variety of books and pamphlets that describe different careers, and college and university programs. Connie did not know where to start, clearly feeling overwhelmed by the volume of material in the career center, and lacking a strategy to locate items that could have helped her. As she said, “I don’t actually feel comfortable just going in and using it by myself because I really wouldn’t know. . . how to find things. . . I wouldn’t know where to start.” One girl and three boys (13%) said that some of the information readily available, such as that in the career center, was not what was needed. The help that they sought seemed to be unavailable to them. Another girl was frustrated by her difficulties making connections with people in a career of interest with whom she would have liked to discuss their work. One boy stated that he expected that he might be discriminated against, on the basis of his race, in an occupation of interest to him. This expectation had acted to prevent him from investigating that possibility. Other obstacles cited by respondents included information scatter. Connie noted, with regard to the career center information, that she wanted to find what she needed in one book, “because they’ve got tons of books and you find a little information in all the books.” A lack of money or transportation also acted as barriers for three respondents (10%). As Kamal said, “I got up to the university a couple of times just to look up. . . stuff. . . but now I don’t have a car. . . so. . . I can’t go up there no more in this cold.”

Three girls and six boys (30%) reported that they faced no barriers when seeking help for career decision making. Despite this perception, one girl in this category mentioned that her poor marks and a lack of money had prevented her from pursuing a childhood career goal. Although she did not
report specifically that this knowledge was a barrier, it clearly acted to stop her from conducting a serious investigation of her childhood goal. Indeed, at minimum, she could have sought information about student loans to overcome her financial difficulties. Perhaps she was simply unaware that such help existed. One 17-year-old boy who reported facing no barriers revealed during his interview that he distrusted his guidance counselor, that he believed it was too early to begin career decision making, and that he lacked experience in decision making. Any or all of these concerns could have hindered his efforts to seek the help he needed. Another boy, hoping to become a police officer like his father, did not perceive his estrangement from his father, described elsewhere in the interview, as a barrier to seeking help from the personal experience that his father undoubtedly could have provided. Thus, although some adolescents may not consciously perceive the barriers that hinder their efforts in obtaining help with their career decisions, for a proportion of these individuals, barriers clearly existed.

**Dervin’s Framework**

When Dervin’s framework of barriers (Warner et al., 1973) was applied to the interview data, the barriers cited by respondents could clearly be fit into the categories (institutional, psychological, physical, and intellectual). Institutional and physical barriers were grouped as “external” to the respondent, and psychological and intellectual barriers were grouped as “internal” to the respondent. Societal barriers, since these were not mentioned by interview respondents, are outside the parameters of this study (which is focused on barriers experienced in a direct way by individuals), and are probably operational as contributing factors to most of the other barriers recognized by the respondents. An example of a societal barrier is a lack of government funding for school boards which might otherwise employ more guidance counselors to assist students make informed career decisions.

Applying this framework, it was found that respondents cited a mean of 1.2 internal barriers, 1.2 external barriers, and a mean of 2.4 barriers in total. When asked directly if they faced any barriers in their information seeking for career decision making, fifteen respondents (50%) did not report any internal barriers, and fifteen (50%) did not report any external barriers.

Tables 2, 3, and 4 show the distribution of barriers analyzed in this way across sex, and other dimensions of information seeking that were analyzed in other parts of the study: type of decision maker, and gap faced. The ratios are provided to enable comparison between categories. For example, Table 2 shows that females perceived more internal barriers (ratio of 1.53) than did males (ratio of .87), but nearly equal numbers of females and males did not perceive any internal barriers to their information seeking for career decision making.

Males also perceived a smaller number of external barriers (ratio of .93) than did females (ratio of 1.47). However, twice as many males (n = 10) as females (n = 5) claimed that they faced no external barriers to their information seeking. Overall, females reported facing more barriers than did the males (ratio of 3.0, v. 1.8), and twice as many males (n = 6) as females (n = 3) reported facing no barriers at all when seeking help to make their career decisions. Whether the males actually faced fewer barriers overall than the females is unknown. Males may feel a greater self-efficacy in their information seeking, and so perceive fewer potential obstacles as barriers to their searching. They may also have wished to portray themselves as more independent and unconcerned about their searching for help. That females perceived more internal barriers to their help seeking may reflect a greater degree of self-knowledge or introspection on their part than the males. However, the females may actually have faced more internal barriers than did their male peers. Table 3 analyzes perceived barriers by type of decision maker.

More rational decision makers (n = 9) than any other type reported facing no barriers at all (three of the nine

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**TABLE 2. Number of barriers to information seeking mentioned by interview respondents, according to respondents’ sex.**

<table>
<thead>
<tr>
<th></th>
<th>Internal barriers</th>
<th>External barriers</th>
<th>All barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>23/15* (1.53)</td>
<td>22/15 (1.47)</td>
<td>45/15 (3.0)</td>
</tr>
<tr>
<td>Males</td>
<td>13/15 (1.87)</td>
<td>14/15 (1.93)</td>
<td>27/15 (1.8)</td>
</tr>
<tr>
<td>Mean # Barriers</td>
<td>1.2</td>
<td>1.2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

* Number of mentions/respondents (ratio).

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**TABLE 3. Barriers to information seeking mentioned by interview respondents, according to respondents’ decision-making style.**

<table>
<thead>
<tr>
<th></th>
<th>Internal barriers</th>
<th>External barriers</th>
<th>All barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational</td>
<td>10/9* (1.11)</td>
<td>8/9 (0.89)</td>
<td>18/9 (2.0)</td>
</tr>
<tr>
<td>Rational-Intuitive</td>
<td>3/5 (0.6)</td>
<td>3/5 (0.6)</td>
<td>6/5 (1.2)</td>
</tr>
<tr>
<td>Intuitive</td>
<td>9/9 (1.0)</td>
<td>13/9 (1.44)</td>
<td>22/9 (2.44)</td>
</tr>
<tr>
<td>Intuitive-Dependent</td>
<td>10/3 (3.33)</td>
<td>9/3 (3.0)</td>
<td>19/3 (6.33)</td>
</tr>
<tr>
<td>Dependent</td>
<td>4/4 (1.0)</td>
<td>3/4 (.75)</td>
<td>7/4 (1.75)</td>
</tr>
<tr>
<td>Mean # Barriers</td>
<td>1.2</td>
<td>1.2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

* Number of mentions/respondents (ratio).

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**TABLE 4. Barriers to information seeking mentioned by interview respondents, according to gap faced.**

<table>
<thead>
<tr>
<th></th>
<th>Internal Barriers</th>
<th>External Barriers</th>
<th>All Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Choice</td>
<td>28/19* (1.47)</td>
<td>24/19 (1.26)</td>
<td>52/19 (2.74)</td>
</tr>
<tr>
<td>How to achieve goal</td>
<td>6/5 (1.2)</td>
<td>7/5 (1.4)</td>
<td>13/5 (2.6)</td>
</tr>
<tr>
<td>Select an educational institution</td>
<td>26/6 (.33)</td>
<td>56/6 (.83)</td>
<td>76/ (1.17)</td>
</tr>
<tr>
<td>Mean # Barriers</td>
<td>1.0</td>
<td>1.16</td>
<td>2.17</td>
</tr>
</tbody>
</table>

* Number of mentions/respondents, including those who reported no barriers (ratio).
in order to confirm the trends that have been suggested here. They must be tested on a much wider sample of adolescents preliminary, based as they are on exploratory research, and barriers to her information seeking. Facing a decision, and she said she had experienced no pressed it during the interview, was that she was simply nevertheless, her own view of her situation, as she ex-
adhered to innumerable obstacles to accessing information. The lowest ratios of internal, external, and thus all barriers were reported by those participants who were facing the “needing to select an educational institution” gap. Since these participants perceived fewer barriers to their help seeking, they were not hindered in attempting to obtain the information they needed. Although external barriers may be identified by a help provider even for those adolescents who do not perceive such barriers, nevertheless a psychological or emotional advantage may help these students to obtain the help they need for career decision making. That is, if students do not perceive that they are being barred from getting the help they need, then they may take a more positive attitude to their help seeking, which may assist them to obtain what they need.

For example, Bonnie was a single mother who had just returned to high school following an absence of a few months to have her baby. To an outside observer, she appeared to face innumerable obstacles to accessing information that she needed to make wise career decisions. Nevertheless, her own view of her situation, as she expressed it during the interview, was that she was simply facing a decision, and she said she had experienced no barriers to her information seeking.

There is no doubt, however, that these findings are preliminary, based as they are on exploratory research, and they must be tested on a much wider sample of adolescents in order to confirm the trends that have been suggested here.

Summary and Conclusions

Despite the apparent lack of barriers faced by many of the questionnaire respondents (Table 1), 40% of these respondents indicated that they did not know where to go to get help to make their decisions, and a similar proportion felt that there were too many places to go for help in their information seeking. Thus, even if they could identify sources of help, the information was scattered. The large proportion of respondents who claimed not to know where to obtain information about financing future educational endeavors (43%) also demonstrated a large gap in information services delivery.

The results also show that many adolescents did not understand what decisions they needed to make about their futures. They had unclear notions of an appropriate process of career decision making. This lack of clarity led many adolescents to feel anxious and overwhelmed by the decisions they made. Even when offered assistance, some respondents reported that they did not know what questions to ask. This result suggests that adolescents vary with respect to their readiness to conduct information seeking and to make career decisions. As well, adolescents themselves could benefit from a greater understanding of the process of career decision making, so they know what questions are appropriate to ask at which stages of the process and can deal better with their feelings of being overwhelmed by the complexity of the process.

Many of the findings can assist information service providers, such as guidance counselors and librarians, to better understand their clients’ perspectives and needs. For example, service providers can be aware that female adolescents apparently perceive that they face more internal and external barriers to their help seeking than do male adolescents. Decision-making style, too, seems to affect perception of barriers faced, although further research is required to confirm the trends suggested by the interview data. As well, further understanding of the specific problem (gap) faced by an information seeker could also assist information providers to anticipate the kinds of barriers likely to be perceived. For example, adolescents trying to choose a career seem to perceive relatively more internal barriers than those selecting an educational institution (Table 4).

Service providers ought also to be aware of the difficulties encountered by adolescents attempting to negotiate the resources provided by career guidance centers. Another barrier is the difficulty some adolescents report as they try to negotiate information systems such as libraries. Many respondents perceived the information in these books and pamphlets to be scattered, and the arrangement of these materials to be complex and difficult to negotiate. When students are faced with unfamiliar materials arranged in ways that are not transparent, their effective use of such...
resources will be diminished. That many adolescents also question the reliability of the information contained in such materials, as well as that provided by career exploration software and by guidance counselors, suggests that information providers must take steps to overcome this distrust. Clearly, trustworthiness is critical in providing information that is useful to decision makers. A lack of time to adequately seek information was also a theme expressed by the research respondents; both their own lack of time and a perceived lack of sufficient time spent by service providers was mentioned.

Although further research is required to confirm and extend the findings from this study, particularly those based on the interviews, many of the results can be usefully applied to information-service delivery. It is hoped that the perceptions shared by the adolescents in this study, who consented to give voice to their experiences, can be heard by those of us entrusted to assist their information seeking.

Acknowledgments

I wish to thank Dr. Gill Michell, Dr. Catherine Ross, and Dr. Anne Cummings who have provided expertise, guidance, and encouragement. Thanks are also due to the research participants, without whom I could not have learned what I have.

References


