

Evaluation of an Online Psychoeducational Career Workshop

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Abstract

A description is provided of the development, delivery and evaluation of an online career development workshop for post secondary students at two colleges and a university in Canada. The workshop was evaluated using pre-post tests of knowledge, student self-reports of skill and knowledge acquisition, focus groups, and a comparison between students' knowledge outcomes for students participating in the workshop online and in person. The results indicated that career development workshops and perhaps other similar forms of student services could effectively be offered online.

Student support services for post secondary students are commonplace for on-campus students and are increasing in relevance for students who study at a distance (LaPadula, 2003). These services facilitate student admission, registration, retention and other factors contributing to successful student experiences and outcomes. A specific type of student service is that of career counselling and advising, focusing on assisting students with career related decisions, such as choosing courses and acquiring work. This service helps students to make the successful transition from the role of student to worker at the time of graduation. Career counselling and advising can be offered to individual students or to a group in the form of a psychoeducational workshop. Psychoeducational groups are task oriented, facilitate the development of human potential, and use self-assessment and reflection methods to increase self awareness (Authier, 1977).

One such career workshop was successfully offered at the University of Calgary during in-person sessions to groups of 50 students who were preparing to apply for work experience posi-

tions (Crozier & Lalande, 1995). Work experience programs, such as cooperative education, internship programs, and practicum placements allow students to alternate work placements and academic terms, thereby increasing their employability. Students also acquire self-knowledge and knowledge of the world of work, and these insights facilitate life long career decisions. The career workshop for these students was designed to enhance their ability to acquire work experience positions, as the application process for these positions is highly competitive. Informal evaluations of these workshops indicated the participants increased their skills and knowledge in the areas of resume writing, interview strategies and job search techniques.

Due to the increasing numbers of students registering for this service and limitations in resources for staffing and space, the option of delivering this career workshop in an online environment was pursued. Other post secondary institutions in the region that offered similar services were approached to discuss the possibility of collaborating in a project to redevelop this workshop for delivery in an online environment. A group consisting of four post secondary institutions was successful in acquiring funding from Alberta Advanced Education to develop a new Internet based program, "Ex-Scape: Experience student and placement education" (Ex-Scape).

This article provides an overview of the Ex-Scape program along with a description of how the original in-person workshop was redeveloped to meet the needs of the collaborating institutions and also be delivered online. Research conducted to evaluate the effectiveness of the new program will be described along with a summary of

the results of this research. Implications of these results for the future development of online career development services will be considered.

Development and Delivery of Ex-Scape

The collaborating parties met regularly over a two-year period to revise the content of the original workshop and to reformat it for delivery over the Internet. The content was revised to include specific examples that are relevant to students at each post-secondary institution. It was also updated to include the latest information. The learning objectives of Ex-Scape are to (a) acquire the knowledge of effective job search strategies including resume writing, portfolio development, interview strategies, career research, and labor market information; (b) improve knowledge of personal skills, values, interests and accomplishments related to conducting an effective job search; (c) acquire experiential work positions; and (d) improve the decisions students make about educational programs.

In addition to the redevelopment of content, the web site was designed to provide a high quality, learner-centered environment. The in-person workshop provided students with opportunities for personal development through discussions, self-assessments, reflection and easy access to information from the instructor. Ex-Scape included a number of features to maintain this development and further learning. To engage the students, a number of short animations were developed to introduce content sections. Over 200 audio clips of students and employers who offered tips were included throughout the content as a supplement to the text based information. A series of nine short videos of actors in interview situations were included to demonstrate effective

interview strategies. The site is highly interactive, allowing students to complete self assessment quizzes online and prepare sections of their personal resume as they worked through the instructions. Students can also talk to other students and the instructor via the discussion forum or real time chat room, in which employers are occasionally invited to answer questions. Instant access is provided to the many high quality career information resources that are currently available online. In addition to the online program, students participated in two in-person sessions (a) a one-hour orientation session; and (b) a three-hour session where they extend their learning, critique each other's resumes and participate in mock interviews. The program was also designed to be offered as a credit course and includes features for the online administration of competency based assessments and the marking of these assessments by the instructor.

Evaluation of Ex-Scape

Evaluation of career development programs has been identified as a critical component of program design and delivery (Flynn, 1994; Hutchinson, 1994). Collins and Burge (1995) encourage the use of summative evaluations to provide student feedback on the effectiveness of computer-mediated learning. Delivering a program online requires the evaluation to determine whether there are problems with the technology or other factors (Powers, 1997). Reviews and evaluations have been conducted on educational courses that have successfully gone online, however there is a scarcity of information regarding the effectiveness of career workshops that are offered via the Internet (Levin, 1997; Monk, 1996). There was a need to assess the knowledge and skill outcomes of students who participated in this new program. There was also a need to compare the outcome success of students in the new course to those students who learned through the traditional in-person method, to determine the effectiveness of computer-mediated learning. Consequently, the developers conducted an extensive evaluation of Ex-Scape after it had been implemented with the students at three of the post-secondary institutions.

The evaluation was conducted to answer the following questions related to the effectiveness of the Ex-Scape online workshop:

1. Did the students who completed the web-based workshop improve their understanding of how to write a resume, cover letter, and participate in an interview?
2. Did the students who completed the web-based workshop acquire the skills to write a resume, cover letter, and participate in a job interview?
3. Did the students who completed the web-based workshop do as well or better in the careers knowledge and skills outcomes of the course as the students who completed the program offered in the original in-class career workshop?
4. What are the students' experiences regarding participating in an online career workshop?

Method

To assess the effectiveness of the new program, the researchers conducted (a) summative evaluations by measuring career knowledge and skill outcomes through a pre- and posttest design (Kidder & Judd, 1986); (b) an analysis of the students' evaluations of the program; (c) focus groups to determine participants' reaction to the program; and (d) skill and knowledge outcomes for 34 students who completed the program online, as compared to 8 students who completed the program in person.

Participants

Students at three post-secondary institutions in the southern Alberta region of Canada who participated in the ExScape program were invited to participate in the evaluation research. A total of 360 students participated in the evaluation, with 42 students completing pre- and posttest assessments, 291 students completing course evaluations, and 27 students participating in focus groups. The students enrolled in the online course who completed pre- and posttest assessments included 16 out of 25 first- and second-year diploma students from Mount Royal College (MRC) and 18 out of 18 first- and second-year diploma programs from

Medicine Hat College (MHC). The majority of these students were female and the average age was 19. The students enrolled in the last in-class course who completed pre- and posttest assessments included 8 out of 50 third-year students at the University of Calgary (U of C). The majority of these students were male and the average age was 22. All students completed the online or in-class course prior to applying for cooperative education or experiential work placements.

Program evaluations for ExScape were administered and completed by 291 out of 600 second- and third-year students from the U of C and MRC. The participants majored in the areas of engineering, general studies, science, social science, and business administration. The majority of students were male and the average age was 22.

Focus groups were conducted at the U of C, MHC and MRC with a total of 27 students who completed the ExScape program. The students from the U of C were third-year students in cooperative and internship programs in the areas of engineering, science, and general studies. The students from MHC and MRC were first- and second-year diploma students from the areas of health studies and business administration.

Instrumentation

Assessment tools were developed to measure knowledge in the areas of résumé writing, cover letter writing, and interview techniques. The assessments were in the format of a short quiz with a variety of question types including short answer, multiple choice and true/false questions. The résumé quiz included 20 questions, the cover letter quiz included seven questions, and the interview quiz included 21 questions. These quizzes were offered before and after completion of the program in print form to the in-class students, and in print form or online to the online students. Sample questions are provided in Table 1.

Course evaluations were utilized to survey the students' perception of their skill outcomes and to gather information concerning their impressions of the online workshop. Students completed this survey upon completion of the

workshop. The 62-question survey gathered information concerning program objectives, content, instruction, technology, and assignments using a 5-point Likert-type scale. The survey also included six open-ended questions that surveyed (a) students' expectations, (b) features that should be removed or added, (c) their overall rating of the course, (d) whether or not the student would take another online course, and (e) general suggestions or comments.

were conducted with focus groups ranging from two to eight students in each group. The length of the interviews was approximately 1.5 hours. Students in each group were guided by the following questions:

1. Please comment on your experience of registering for the program and whether the program scheduling met your needs.
2. What did you learn from the program you just completed?

have for improving this program.

9. Do you have any additional comments?

Additional questions for students who completed the on-line program:

- Please comment on the benefits you experienced of completing this program online.
- Please comment on the difficulties you experienced due to the program being offered online.

Procedure

Students who participated in the last in person session of the workshop at the U of C were asked to volunteer to participate in the research. After this workshop was completed, ExScape was offered online by different workshop facilitators for students at the U of C, MHC, and MRC. The research was conducted over an 18-month period between 1999-2001. During that time the substantive content of the program did not change, however, changes were made based on the informal feedback of the students regarding how the program was offered, for example the time students were given to complete the workshop on-line varied. All students were required to participate in the workshop prior to applying for the work experiences, however some students completed the program as a credit course, while others completed the program as a non-credit pre-requisite.

Results

Data Analysis

Data was analyzed by addressing each of the research questions separately.

Analysis of pre-and post assessments to determine outcome.

Data from the pre- and posttest assessments and from the course evaluations were analyzed to determine whether students who completed the web-based workshop improved their understanding of how to write a résumé, cover letter, and how to do a job interview.

Résumé knowledge. A paired sample *t*-test was used to compare each of the student's pre- and posttest assessment of their résumé knowledge. Thirty out of 34 students completed both the pre- and posttests. Table 2 illustrates that students significantly ($p < .05$)

Table 1

Sample Questions – Resume, Cover Letter, Interview Knowledge Assessments and Course Evaluation

Resume

Name three courses you have taken that could be highlighted on the Education section of your résumé. What were the criteria you used for choosing these three courses?

The disadvantage of having a Career Objective is _____

Cover Letter

It is acceptable with most employers to take initiative and indicate that you will contact the employer in the future.

True or False

Cover letters have _____ (give a number) main sections, which include (list the sections).

Interview

In preparation for an interview you should review _____ and _____

Name three strategies that you can use during the Opening of an Interview.

Course Evaluation

Please indicate if you had any expectations, other than those listed, for this program that were or were not met by this program.

New features I would like to see incorporated into the course include:

Sample questions from this survey are provided in Table 1.

The students in the focus groups were given an opportunity to express their views regarding their learning experiences after they completed the workshop. A semi-structured interview was used employing a list of 9-11 open-ended questions that the participants were invited to respond to. Each interview was recorded with a tape recorder and later transcribed by a professional transcriptionist. A total of six interviews

3. What was good about how the instruction was delivered?
4. What was bad about how the instruction was delivered?
5. Was the instructor/facilitator helpful?
6. Did you find the information given by students and employers helpful?
7. Were you able to develop tools and strategies that will help you to find or participate in your work/practicum placement?
8. Please give any suggestions you

improved their understanding of how to write a résumé in nine of the 19 questions. Their scores were higher in the posttest than in the pretest for 8 other questions, but not significantly higher. A few of the larger differences may be due to general knowledge of résumés. For example, question two asked for three main purposes of a résumé from an employer's perspective (which may not be general knowledge). The results of the posttest showed a significant improvement of correct answers, whereas, question one, which showed

assessments, two questions from course evaluations addressed students' understanding of how to write a résumé. In the first question, 95% of students agreed or strongly agreed to the statement, "I have learned how to develop the sections of a résumé." In the second question, 88% of students agreed or strongly agreed to the statement, "I know how to profile my skills in a résumé." The close-ended survey data supported the quantitative data that students improved their understanding of how to create a résumé.

out of 32 students who completed both the pre- and posttests, are in given in Table 3. Table 3 indicates that students improved their understanding of how to write a cover letter by showing that of the 7 questions, all show improvement with three of these differences being statistically significant at the 0.05 level.

In addition to the pre- and posttest results, one question from course evaluations addressed students' understanding of how to write a cover letter. The response rate showed that 88% of students agreed or strongly agreed to the statement, "I know how to write a cover letter." The close-ended survey data supported the quantitative data that students improved their understanding of how to create a cover letter.

Interview knowledge. A paired sample *t*-test was used to compare each student's pre- and posttest assessment of the interview. Out of 21 questions, there was improvement in scores for 20 questions in the posttest, with 18 of these differences being significant at the 0.05 level (see Table 4).

In addition to the pre- and posttest results, four questions from course evaluations addressed students' understanding of how to perform in an interview. In the first question, 83% of students agreed or strongly agreed to the statement, "I know how to profile my skills during an interview." In the second question, 86% of students agreed or strongly agreed to the statement, "I have increased my understanding of how to effectively handle the stages of an interview." In the third question, 86% of students agreed or strongly agreed to the statement, "I understand how my values are important in an interview." In the fourth question, 72% of students agreed or strongly agreed to the statement, "I can draw from my past experiences to answer Behaviour Description Questions." The close-ended survey data supported the quantitative data that students improved their understanding of how to perform in an interview.

Analysis of data to determine skills outcomes.

A response frequency analysis of the responses to the course evaluations was conducted to determine whether students who completed ExEscape perceived that they acquired the skills to

Table 2

Paired Samples t-test, Résumé Knowledge Assessment – Online Groups (N=30)

	Maximum Score	Pretest (Mean)	Posttest (Mean)	Post-Pre (Mean)	t	df	Sig. (2-tailed)
Q2	3	1.33	2.50	1.17	2.43	29	.02*
Q7	1	.43	.80	.37	3.27	29	.00*
Q8	1	.27	.53	.27	2.50	29	.02*
Q10	1	.17	.40	.23	2.25	29	.03*
Q12	4	1.53	2.20	.67	2.09	29	.05*
Q13	6	1.80	3.03	1.23	4.03	29	.00*
Q17	1	.27	.63	.37	3.27	29	.00*
Q18	3	1.23	2.10	.87	3.43	29	.00*
Q19	3	1.07	2.33	1.27	5.00	29	.00*

NOTE: All non-significant paired sample *t*-test analyses were omitted.
**p* < .05

little statistical improvement, asked how many pages a résumé should be and found that most students answered correctly on both the pre-and posttests.
In addition to the pre- and posttest

Cover Letter knowledge. A paired sample *t*-test was used to compare each student's pre- and posttest assessment of cover letters. The results of this analysis, based on the responses of 29

Table 3

Paired Samples t-test, Cover Letter Assessment – Online Groups (N = 29)

	Maximum Score	Pretest (Mean)	Posttest (Mean)	Post-Pre (Mean)	t	df	Sig. (2-tailed)
Q1	1	.97	.93	-.03	-.57	28	.57
Q2	1	.97	.86	-.10	-1.80	28	.08
Q3	1	.86	.93	.07	.81	28	.42
Q4	3	1.62	2.96	1.35	4.12	28	.00*
Q5	6	3.27	4.49	1.21	3.57	28	.00*
Q6	1	.76	.90	.14	1.28	28	.21
Q7	1	.38	.79	.41	3.55	28	.00*

NOTE: All non-significant paired sample *t*-test analyses were omitted.
**p* ≤ .05

Table 4

Paired Samples t-test, Interview Knowledge Assessment – Online Groups (N = 32)

	Maximum Score	Pretest (Mean)	Posttest	Post-Pre (Mean)	t (Mean)	df	Sig. (2-tailed)
Q1	3	1.44	2.41	-.97	3.52	31	.00*
Q2	5	3.97	4.63	-.66	2.45	31	.02*
Q3	3	1.09	2.56	-1.47	5.97	31	.00*
Q4	2	.47	1.06	-.59	4.72	31	.00*
Q5	1	.34	.31	.03	-.30	31	.77
Q6	1	.81	.97	-.16	1.97	31	.06
Q7	1	.69	.91	-.22	2.52	31	.02*
Q8	3	2.10	2.74	-.65	3.07	30	.01*
Q9	3	.52	2.45	-1.94	8.91	30	.00*
Q10	5	1.87	3.42	-1.55	2.95	30	.01*
Q11	2	.55	1.68	-1.13	5.62	30	.00*
Q12	4	2.19	3.94	-1.74	5.37	30	.00*
Q13	2	.19	1.32	-1.13	7.11	30	.00*
Q14	1	.16	.45	-.29	3.06	30	.01*
Q15	1	.47	.94	-.47	4.68	30	.00*
Q16	4	.47	3.13	-2.66	7.73	31	.00*
Q17	9	7.28	8.56	-1.28	3.91	31	.00*
Q18	1	.50	.88	-.38	4.31	31	.00*
Q19	1	.94	1.00	-.06	1.44	31	.16
Q20	1	.72	.97	-.31	2.78	31	.02*
Q21	3	1.16	2.81	-1.21	7.76	31	.00*

*p < .05

write a résumé, cover letter, and participate in a job interview.

A total of 291 students from the U of C and MRC taking the online program responded to a survey question asking if they acquired skills to develop a résumé; 98% of students agreed or strongly agreed that they did draft a résumé. From the same group of students, 91% agreed or strongly agreed that they did draft a cover letter. A total of 86% of the same group of students agreed that they have acquired the skills to participate in a job interview.

Analysis of students' reported online learning experiences.

Qualitative analyses were conducted on the responses to short-answer questions in the course evaluation and the focus group data. Out of the 291 students who completed the evaluation survey, 66 students responded to the short answer questions. Each student's response to every short answer question was transcribed and the data was examined to reveal possible categories. Themes quickly emerged for the responses to the short answer questions.

The following themes emerged from students' impressions of what they felt were the most important issues surrounding the web-based course. The frequency of responses categorized in each theme is reported in brackets.

1. Expectations for the course were met (30).
2. Require more time to complete website (20).
3. Would like more interaction with peers, instructors (8).
4. Wanted accurate time line for completion of the course (6).
5. Require more information on specific job search topics (2).

The second theme was identified by students who were given a one-week timeline to complete the workshop. The timeline was adjusted after this group was evaluated.

Out of the 291 students who completed the survey, 194 students indicated that they would take another online course, with 82 students responding to the following question: "In the future, I would take another online course because:"

1. Online course is flexible (42).
2. Can work at own pace (23).
3. Online course was very beneficial (7).
4. Able to go back and review material (5).
5. Easy course; user-friendly (3).
6. More time to complete (2).

Out of the 291 students who completed the survey, 78 students indicated they would not take another online course, with 45 students responding to the following question: "In the future, I would not take another online course because."

1. Prefer interaction with instructor and peers (14).
2. Took too long to complete (13).
3. Lack of interest; already covered information (6).
4. Poor, slow connections (5).
5. Not enough feedback (3).
6. Hard to look at a computer screen for long (2).
7. Motivation was a problem (2).

The majority of students indicated that they would take another online course. Students who said they would not take another online course gave a number of reasons including learning style preference, frustration with technology, and concern that it took more time to complete the workshop online than in-person.

The focus groups were taped and the tapes were professionally transcribed. The transcribed data was combined and divided into statements, then colour coded by meaning, grouped into clusters of meanings and finally transformed into four themes. Students' comments were recorded under each theme. The following themes emerged from the 27 students' impressions of their learning experiences (a) students liked the flexibility of working online, (b) students were able to use the strategies learned online, (c) Ex-Scape offered variety, and (d) special features of the program were helpful.

Comparison of data for in-class and on-line participants.

Data was collected to compare the outcomes of the group of students who completed the workshop in-person with the outcomes of the group of students who completed the workshop online. However, due to the lack of volunteers from the in-class student group the sample size was too small to allow for a

meaningful analysis. A simple comparison of the paired samples *t*-test analysis for both groups indicates that the online group had a similar amount of improvement in their knowledge and skills, as did the in-class group of students. See Tables 5, 6, and 7 for a comparison of

the statistical results of the online and in-class groups in the areas of résumé, cover letter, and interview knowledge outcomes.

The analysis of the focus groups for students who participated in the online and in-class sessions revealed

that both groups (a) thought the information obtained from the workshop was valuable, (b) indicated that they gained confidence for the interview, (c) believed they had prepared a more effective resume upon completion of the workshop, and (d) expressed a desire for more feedback from their instructors. Although the in-class focus group was a small sample size of five students, this data indicates the in-class students had similar experienced outcomes and the desire for increased instructor feedback, as did the students in the online focus groups.

Table 5

Paired Samples t-test, Cover Letter Knowledge Assessment – Online and In-class Groups

	Online groups n=29			In-class group n=8		
	t	df	Sig.	t	df	Sig
Q4	4.12	28	.00*	6.61	7	.00*
Q5	3.57	28	.00*	3.00	7	.02*
Q7	3.55	28	.00*	2.05	7	.08

NOTE: All non-significant paired sample *t*-test analyses in both online and in-class groups were omitted.

**p* < .05

Table 6

Paired Samples t-test, Résumé Knowledge Assessment – Online and In-class Groups

	Online groups n=30			In-class group n=8		
	t	df	Sig.	t	df	Sig
Q8	2.50	29	.02*	3.00	7	.02*
Q19	5.00	29	.00*	2.65	7	.03*

NOTE: All non-significant paired sample *t*-test analyses in both online and in-class groups were omitted.

**p* < .05

Table 7

Paired Samples t-test, Interview Knowledge Assessment – Online and In-class Groups

	Online groups n=32			In-class group n=8		
	t	df	Sig.	t	df	Sig
Q1	3.52	31	.00*	3.04	7	.02*
Q2	2.45	31	.02*	2.38	7	.05*
Q9	8.91	31	.00*	2.39	7	.05*
Q10	2.95	31	.01*	2.91	7	.02*
Q11	5.62	31	.00*	3.42	7	.01*
Q12	5.37	31	.00*	3.32	7	.01*
Q13	7.11	31	.00*	3.86	7	.01*
Q16	7.73	31	.00*	2.38	7	.05*
Q18	4.31	31	.00*	4.58	7	.00*
Q21	7.76	31	.00*	4.58	7	.00*

NOTE: All non-significant paired sample *t*-test analyses in both online and in-class groups were omitted.

**p* < .05

Discussion

The results of this research suggest that the students who participated in ExScape demonstrated a significant improvement in their knowledge in the areas of resume, cover letter and interview. The students also reported that they had acquired the skills to draft a resume, cover letter and perform in an interview. These findings support the use of online delivery as an effective method of delivery for career development workshops.

There is also evidence to suggest that online delivery methods in general can be as effective as in person delivery methods, because there was not a significant difference between the online group and the in-class group in each volunteers' individual pre- and posttest scores. There was also no significant difference when comparing the online group on the in-person group's overall test scores. The effectiveness of the online delivery method, however, is likely determined by the nature of the online web site and instructional design. ExScape utilized a variety of functions to increase student motivation and interaction (animations, interactive forms, samples, video-clips, and audio-clips). In-person instruction was also utilized to supplement the online learning component for skill practice and discussion.

The findings from the students' self reports regarding their positive experiences with online learning in the workshop are consistent with the statistical analysis results. Students indicated that overall they were able to learn from the course and found the flexibility in online learning to be beneficial. The focus

group results further supported these findings.

However, this research had some limitations that suggest caution must be taken in the confidence one has in these results. The study did not look at potential differences in student retention, motivation, learning styles, class conferencing issues, or instructional time spent online or off line. There were difficulties in obtaining complete data from student volunteers. This resulted in collecting a small sample of pre-and posttests from the last in-class group, and relying on the use of self-reports from students through course evaluations to indicate whether or not students were able to write a résumé and cover letter, and perform acceptably in an interview. Larger samples are required to improve the validity of the results and a control group would also be advisable. It is also difficult to determine whether the effectiveness of online delivery is related to the design and delivery utilized in the ExScape program. Further research is recommended to assess the effect of various web site designs and instructional components on learning outcomes.

The study suggests that career development workshops and perhaps other similar forms of student services can be effectively offered online. With the growing number of students in post-secondary institutions and resource shortages in student services, online delivery of similar career workshops may provide a means to provide services to larger numbers of students. This may also be an effective option for educational institutions that offer degrees online, as the demand for student services increases amongst their student populations.

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