

Career Portfolio Completion and Student Interviewing Skills
(Technical Report No. 56)

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Note: In the Fall 2011, Jill Lumsden submitted an IRB proposal for a study, “The Effect of Career Portfolio Completion on Student Interviewing Skills.” Rebecca Bovio was listed as a Co-Investigator along with Emily Kennelly and Debra Osborn. Along the way Sarah Clark and James Hunt provided administrative assistance with the project. Lumsden, Bovio, and Clark left FSU in 2012-2013.

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Abstract

This study examined whether or not students using an online career portfolio, including the matrix for identifying and reflecting on transferrable skills, enabled them to more effectively and confidently communicate their skills in a simulated (mock) job interview. Three groups were studied, those completing the skills matrix in the portfolio, those using the portfolio but not the skills matrix, and those not using the portfolio. Results indicated only one difference across the groups on the five skills self-ratings completed by the students. Specifically, those completing the portfolio skills matrix were less likely to report having taken steps to develop workforce skills than those not using the portfolio. Other findings pertained to difficulties in conducting research on the effectiveness of online career portfolios and suggestions for correcting such problems in the future.

Report

Online career portfolios are popular in higher education and are used in varied ways to increase skills in the use of technology and to encourage reflection on the meaning of life experiences (Kruger, Holtzman, & Dagavarian, 2013). This phenomenon, connected to a massive technology infusion in education (Ayala, 2006), has been marked by claims of the general usefulness of such portfolios (Batson, 2002). For example, von Kinsky and Oliver (2012) reported over 17,000 subscribers one year after introducing an *iPortfolio* at an Australian University. About half (52%) of the student users believed there would be improvements in employability outcomes from portfolio use. However, as Ayala (2006) noted, fewer than 5 percent of over 300 articles reviewed on electronic portfolios provided any data from students about the effects of using a portfolio program. Such a finding suggests difficulties in evaluating the impact of portfolio use on student behavior. We took this as a challenge in planning and executing this study.

The career portfolio literature is descriptive of the features of various portfolio programs, and documents the characteristics of student users and their expectations from portfolio use. Our survey of the literature revealed only a few published articles that included student feedback about an online portfolio system (Reardon, Lumsden, & Meyer, 2005; von Kinsky & Oliver,

2012)). Clearly, there is much work to be done in order to sustain the claims for the student benefits of electronic career portfolio programs.

This exploratory study examined students in three groups. Group A completed an online career portfolio including the skills matrix. A Group B engaged the online portfolio but did not complete the skills matrix. Group C did not use the online portfolio or the skills matrix before participating in the mock interview. The study was designed to assess whether students completing an online career portfolio and the skills matrix (Group A) would more effectively communicate information about their interests, skills, and goals in a mock interview situation than students not completing the skills matrix (Group B) or the online portfolio (Group C). We expected portfolio students using the skills matrix would have a better sense of self-awareness, confidence in their answers, and provide more concrete examples of their qualities and skills. Student self-evaluations were used to examine differences in responses between the three groups.

Online Career Portfolio Program

The Career Portfolio Program (CPP; Lumsden, Garis, Reardon, Unger, & Arkin, 2001) is an electronic portfolio system initiated and maintained by students. It is an online tool enabling students to identify learning experiences leading to the development of desired skills, a collection point for listing students' accomplishments and skills, and a potential marketing tool for students seeking graduate school or employment.

The CPP was under development for five years before its launch in April 2002 (Reardon et al., 2005), and it has been in continuous operation since then. More than 91,469 persons have used the program since it began (L. Mille, Personal Communication, November 17, 2014). There were four goals in developing the CPP, and this study focused on the one related to employers seeking evidence that students were ready to make effective contributions in the workplace.

The career portfolio used in this study included a skills-matrix component in which students were required to reflect on their life experiences, jobs, internships, club memberships, and service as way to learn specific skills. The skills matrix required students to provide and reflect on concrete examples of how they gained skills in the areas of Communication, Creativity, Critical Thinking, Leadership, Life Management, Research/Project Development, Social Responsibility, Teamwork, and Technical/Scientific. Participating in this type of reflection on generic work skills was believed to be effective preparation for interviewing.

CPP staff launched a portfolio contest program for students in 2003 in order to identify portfolios that were exceptionally well done, to increase marketing of the program on the campus, and to involve employers, advisors and other staff in judging the qualities of portfolios submitted to the contest. We wanted to use high quality portfolios from the contest in this study, so we invited students entering the contest in the preceding two years to participate in this study.

More specifically, the idea was that students using the CPP would know how and be able to communicate and market workforce skills to potential employers or graduate schools in a mock interview. We were unable to identify a prior study examining this issue, so we designed a study examining the extent to which the CPP helped students conceptualize strategies for acquiring and documenting general skills obtained from educational experiences within and outside of the curriculum (Reardon & Hartley, 2007). In the process of introducing the online career portfolio to potential users, students often ask about the benefit of completing it and we believed the results of this study would help answer that question.

Mock Interview Program (MIP)

The career center's current mock interview program began in 2002 with one-on-one simulated job interviews that were video recorded, which allowed students the opportunity to practice their interview skills and then receive feedback on their performance. Students were encouraged to provide qualitative and quantitative examples of their skills as often as possible when interviewing. The mock interview focused on how well students knew themselves and their past experiences, how well they knew the industry they hope to enter, and how well they could articulate that information. One-on-one, panel, telephone, and Skype mock interviews were offered to allow students the opportunity to enhance their interview skills in the format of their choice. Trained mock interview mentors (MIMs) interviewed, provided feedback, and assisted students in improving their interview skills. Additionally, students had the opportunity to interview with an employer during Professional Development Week.

Approximately 3,500 mock interviews have been conducted in the Career Center over the past decade, and more than 125 mock interview mentors have been trained. During an interview, MIMs asked questions based on the student's career situation, e.g., seeking a job, internship, or graduate school program.

The Present Study

The study included three groups of students. Group A used the online career portfolio and the skills matrix before participating in a mock interview; Group B used the online career portfolio (but not the skills matrix) before participating in a mock interview; and Group C did not use either the portfolio or the skills matrix before participating in a mock interview. This study was focused on the following three questions:

- (a) Do students completing the skills matrix of an online career portfolio report provide more specific and quantifiable examples of their skills during a mock interview than those who did not use the skills matrix or the portfolio?
- (b) Do students using an online career portfolio but not the skills matrix provide more specific and quantifiable examples of their skills during a mock interview than those who did not use an online career portfolio?
- (c) Do students who did not use an online career portfolio provide more specific and quantifiable examples of their skills during a mock interview than those who used the portfolio skills matrix or those who used the portfolio but not the matrix?

Method

Participants

Students participating in a portfolio contest ($N = 93$) were recruited for participation in the study by e-mail invitations. Other students in this study ($N = 172$; 40 male, 132 female) were not recruited but had simply signed up to participate in the mock interview program (MIP) during the semester.

The 93 students participating in the mock interview program had competed (within two years of the study) in the online career portfolio contest so we judged they had produced high quality portfolios. These students were encouraged to take part in a mock interview by registering for one of the 300 appointments slots available over the course of 9-weeks. The students were informed that a drawing would be held every three weeks and \$50 gift cards for local businesses, vendors, and services such as iTunes would be awarded. Students signing up and participating in a mock interview would have their name added to the drawing.

However, students did not respond to this invitation to participate in the mock interview program. We found only 2 students participating in the portfolio contest ($N = 93$) had been in a mock interview. As a result, we examined how many of the remaining 172 students in the mock interview program had prior experience with the portfolio program even though they had not

participated in the portfolio contest. Examining these students would enable us to compare outcome measures for those who had prior portfolio experience or the skills matrix and those who had none. As a result of this analysis, we found 65 out of the 172 students in the mock interview program had some level of prior experience in the online career portfolio program but only 16 of these students had actually used the skills matrix portion of the portfolio program which was a focal point of our study. These 16 students were added to the 2 in the portfolio contest participants for a total of 18 students in the mock interview program with prior career portfolio skills matrix experience. This became Group A in our study.

We reexamined the records of the 172 students in the mock interview program and found 40 had some portfolio experience but did not use the skills matrix part of the portfolio. This became Group B in our study.

We identified 114 students in the mock interview program with no portfolio experience at all and found incomplete data on 54 of them. As a result, we identified 60 students having no portfolio experience with complete survey responses regarding their use of skills in the mock interview. This became Group C in our study. Altogether, we were able to use the skills survey responses of 118 students participating in the mock interview program in the spring 2012 semester.

Procedures

Each mock interview was approximately one hour in length including 20 minutes of interviewing and 20 minutes of feedback and conversation. All survey data from students and MIMs were collected after each mock interview.

After viewing the interview video and receiving feedback from the MIM, students completed a 5-minute survey including questions about demographic information, the interview experience, and the interviewer. In addition, students responded to survey items judged relevant to the development and use of transferrable workforce skills, e.g., “I felt confident when communicating my workforce skills,” “I articulated my skills well.”

While most of the 172 students in the mock interview program were videoed, 8 students participated in Skype interviews and 7 in telephone interviews which were audio recorded. Ninety-two (53%) students indicated that participation in the mock interview program was part of a class assignment.

We used Likert-type rating scale responses to measure whether students appeared self-confident and self-aware during the interview. After all mock interviews had been conducted, we recorded and compared responses on the student self-ratings from Group A, Group B, and Group C in order to examine possible differences between the three groups.

Instrumentation

Students completed an 8-item questionnaire about their mock interview experience using a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree). Cronbach's alpha for the 5 items we used was .80. To evaluate the impact of a student's ability to communicate their skills in a simulated job interview, we only reviewed 5 of the 8 items on the questionnaire which were most related to skill development. The 5 items were developed based on components of the skills matrix in the FSU Career Portfolio. The skills matrix required students to provide and reflect on concrete examples of how they gained certain skills in the areas of Communication, Creativity, Critical Thinking, Leadership, Life Management, Research/Project Development, Social Responsibility, Teamwork, and Technical/Scientific. The items were created by the research team to help a student reflect on their effectiveness in communicating these skills at the end of their mock interview. The five items used in this study are shown below:

- 1) I identified that I possess important workforce skills
- 2) I felt confident when communicating my workforce skills
- 3) I used specific and concrete examples when discussing my skills
- 4) I articulated my skills well
- 5) I have taken the steps to develop workforce skills

Data Analysis

Multivariate analysis of variance (MANOVA) was used to answer the three research questions, with portfolio status (portfolio plus skills matrix, portfolio only, or no portfolio) as the independent variable and the scores for the skills items as the dependent variable. Follow up univariate ANOVAs were used to determine specific effects.

Results

An initial multivariate analysis of variance (MANOVA) was used to answer the overall research question:

Do students completing the skills matrix of an online career portfolio rate themselves more highly on providing specific and concrete examples of their skills during a mock

interview than those who only completed the portfolio or those who did not complete the portfolio?

The interaction between portfolio use and giving specific/concrete examples of skills was significant (Roy's Largest Root = .13, [$F(2,112) = 2.89, p < .05$; partial $\eta^2 = .11$]. To determine how the dependent variables of skills scores differed for the independent variable of portfolio usage, univariate ANOVAs were conducted.

To answer the first research question, "Do students completing the skills matrix of an online career portfolio (Group A) rate themselves more highly on providing specific and concrete examples of their skills during a mock interview than those who did not use the portfolio skills matrix (Group B)," we examined mean differences via ANOVAs in ratings across the 5 items pertaining to confidence and clarity in communicating skills in the mock interview. Table 1 presents the means and standard deviations of students' self-ratings. No significant overall differences were found between Groups A and B for any of the skills-related questions.

 Insert Table 1 student self-ratings after the interview about here

Our second research question, "Do students completing the skills matrix of an online career portfolio (Group A) report providing more specific and concrete examples of their skills during a mock interview than those who did not use an online career portfolio (Group C)," yielded significant results on the follow-up ANOVA. Post hoc analyses using the Tukey HSD test revealed a statistically significant difference on the item, "I have taken steps to develop workforce skills" between those who had completed the portfolio plus the skills matrix and those who had not engaged the portfolio ($p < .05$), but not among other groups. Specifically, those who had completed the e-portfolio and skills matrix ($N = 18$) were less likely to report having taken steps to develop their workforce skills than those who did not engage in the portfolio [$F(2, 115) = 3.58, p = .031$; partial $\eta^2 = .06$].

Our third research question, "Do students completing some portions of an online career portfolio not including the skills matrix (Group B) provide more specific and concrete examples of their skills during a mock interview than those who did not use the online career portfolio (Group C)" yielded non-significant results on the follow-up ANOVAs.

Discussion

In this section we discuss the findings from the analysis of student self-reported use of skills following a mock interview and the analysis of the procedures used in the study that contributed to the findings.

Use of Skills across Three Groups

Examining the student self-ratings across the three groups revealed that (a) students using the portfolio skills matrix, (b) students not using the portfolio skills matrix, and (c) students not using the portfolio differed in self-ratings for only one comparison out of 15. In that instance, students in Group C not using the portfolio strongly agreed that they had taken steps to develop workforce skills in comparison to Group A who had used the portfolio skills matrix. This finding is somewhat difficult to interpret. On the one hand, students in Group C may simply have felt the need to further develop their workforce skills than those in Group A after the mock interview and feedback from the MIM. On the other hand, students in Group A using the portfolio skills matrix may have become more confident with their skills and felt less need to further develop workforce skills after the mock interview. In effect, they became desensitized to the need for additional work in this area. This finding, along with the other comparisons across the three groups in terms of skills communication and analysis, merits further study because all three groups strongly agreed they had taken steps to further develop workforce skills (1.59 mean rating across the three groups).

Analysis of Study Procedures

In introducing this study we noted the apparent difficulties in documenting the impact of an online career portfolio on student behavior. An important outcome of the present study is increased understanding of these difficulties.

Treatment variable. It is difficult to specify exactly what students in this study actually did in completing an online career portfolio. For example, which sections did they use and how completely did they use them. How motivated were they to use the portfolio? Was it a class assignment or was it preparation for an actual job interview? Our strategy to address this problem was to use participation in the career portfolio contest that provided detailed requirements for participation, e.g., enter information under at least 4 skill headings and 3 experience categories (total of 12 entries), create at least 2 profile sections (e.g., "Goals," "Objectives") that introduce your portfolio, upload a copy of your resume or curriculum vitae, enter at least 2 references, upload at least 3 examples of your work. Additional contest

instructions directed students to customize the portfolio towards personal career goals or a job objective. However, our effort to specify the portfolio treatment variable was undermined by the lack of participation by former portfolio contest participants in the mock interviewing program (only 2 of 93 contest participants engaged in the mock interview program).

Additionally, of 172 students participating in the mock interview program only 18 had used the skills matrix portion of the online career portfolio, and we do not know how much, how long, or how often they used it. As a result, we are not able to specify fully the use of the skills matrix of the portfolio in this study.

Dual treatment interventions. The mock interview program itself provided students with opportunities to document and clarify their transferrable skills because the MIM interviewers asked them questions about workforce skills. In this way, the mock interviews confounded the possible impact of the portfolio skills matrix treatment. Moreover, the MIMs provided feedback to students immediately after the interview and this was generally positive and suggestive of ways to improve interview behavior. Students completed self-ratings of their skills after getting this feedback from the MIMs, and this may have enhanced positive views of their workforce skills. For example, 168 of 172 (98%) of the students participating in the mock interview program reported feeling more confident about their interview skills after participating in the program.

Student self-ratings and interviewer ratings. Inspection of Table 1 shows that students were very positive about their identification, confidence, and communication of workforce skills following the mock interview. They strongly agreed with all five items. MIMs were also positive in their ratings and comments following the interview. It was apparent that MIMs did not want to say anything to the interviewee that might discourage students from further refining their interview skills. This lack of variability in student self-ratings and MIMs ratings reduced the likelihood of finding differences in the student self-ratings across the three groups.

Sample characteristics. The sample in this study was overwhelmingly female, 77%. In contrast, portfolio use from January 1, 2011 through November 2014 was 54% female, a difference 23%. Moreover, 53% of the students indicated the mock interview was part of a class assignment, although 48% indicated they were preparing for a scheduled interview (internship 45%, full-time job 35%, graduate school 8%, other 10%). It is unclear how these sample demographic characteristics might have affected the results of this study.

Implications for Further Research

In conducting research on the effectiveness of online career portfolios, it is important to make sure that the goals of the portfolio are reflected in the outcome measures. This portfolio system features the identification, development, and reflection of generic workforce skills, and the measure used in this study focused on 5 of those skills. We were mindful of the difficulties in evaluating the use of career portfolios (Ayala, 2006; von Kronsby & Oliver, 2012), and took steps to design a study that clearly specified the portfolio treatment variable, focused on student mock interview behavior, and used student ratings of workforce skills.

The design of the study addressed the specification of the treatment variable (portfolio use) through the requirements of the portfolio skills contest but the lack of participation in the data collection (mock interviews) by portfolio users thwarted this strategy. Future portfolio studies will require additional controls of the treatment variable, including student motivation to use the skills sections of the portfolio system and feedback on the quality of the portfolio produced. For example, were students able to explain how their generic work skills had been identified and potentially transferred to a job situation?

In focusing on actual student behavior observed in an actual mock interview, the effort was made to examine the actual impact of portfolio use in a mock interview. However, the mock interview program was itself a career intervention related to developing transferrable skills. Future research should avoid complications from a dual treatment intervention and isolate the use of the portfolio in the study.

The student ratings following the mock interview experience were overwhelmingly positive. To combat this halo effect a 4-item form for student ratings might be used rather than a 5-item form. The positive wording of the five items might also be varied in order to elicit more varied student responses. MIMs ratings used in research should be different from the ratings and comments shared with the students after the interview in order to minimize the response bias. Independent ratings of the five items could be obtained from someone other than a MIM after viewing the recorded mock interview.

Finally, research in actual field settings can be hampered by sampling problems such as the demographic distribution of men and women in this study. It is unclear why men and women are participating unevenly in the portfolio and the mock interview programs, and what might be done to correct that situation.

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Table 1

Student Self-Ratings after the Mock Interview

	Group A Portfolio Skills Matrix N = 18	Group B Portfolio Only N = 40	Group C No Portfolio N = 60
Item	Mean (SD)	Mean (SD)	Mean (SD)
I identified that I possess important workforce skills	1.61 (.61)	1.53 (.60)	1.52 (.70)
I felt confident when communicating my workforce skills	1.78 (.81)	1.65 (.74)	1.65 (.78)
I used specific and concrete examples when discussing my skills	1.71 (.83)	1.73 (.78)	1.93 (.94)
I articulated my skills well	1.72 (.83)	1.88 (.76)	1.88 (.76)
I have taken the steps to develop workforce skills	1.78 (.65)*	1.60 (.60)	1.40 (.53)*

 $p < .05$