Enhancing Career Readiness in Introduction to Psychology

Donna Arteaga Alvarez, Department of Psychology
Hayden S. Hendley, Ph.D., Department of Psychology

ABSTRACT

Even though most undergraduate psychology students enter the workforce directly after graduation, psychology programs often lack adequate career preparation components. The American Psychological Association (APA) recognized this deficiency in their 2023 Guidelines for the Undergraduate Psychology Major, which emphasize the critical need to develop transferable skills for career success. The current study uses a pre- and post-survey design to examine the effect of career readiness activities on student career readiness in an Introduction to Psychology course. The goals are twofold: to identify techniques to fill the gap identified by the APA by preparing undergraduate students for the workforce, and to contribute to the literature on the scholarship of teaching and learning by examining teaching practices in large courses (e.g., 100+ students). Students were presented with four recorded workshops (e.g., resume, cover letter, internships, networking) from the UC Riverside Career Center throughout the span of 10 weeks and engaged in related activities during their discussion sections. Results showed a significant increase in students' career development, $t(16) = -2.36$, $p < 0.05$, and leadership competence $t(16) = -2.15$, $p < 0.05$, between the pre- and post-surveys. This study aims to enhance psychology majors' and non-psychology majors' experience through innovative teaching approaches.

Keywords: Career Readiness, Transferrable Skills, Psychology

FACULTY MENTOR - Dr. Hayden S. Hendley, Department of Psychology

Dr. Hayden S. Hendley earned her doctorate in experimental psychology from the University of California, San Diego and her bachelor's degree in Neuroscience and Art History from Rhodes College. Her research aims to broaden our understanding of visual perception, memory, and learning within applied domains such as radiology and the classroom.

DONNA ARTEAGA ALVAREZ

Donna Arteaga Alvarez is a fourth-year psychology major at the University of California, Riverside. She has an interest in memory and the scholarship of teaching and learning. After graduation, she plans to pursue a Ph.D. in psychology within a cognition and cognitive neuroscience program. She aspires to become a professor and continue research that will enhance students' learning.

Enhancing Career Readiness in Introduction to Psychology

INTRODUCTION

While graduation is supposed to be an exciting moment and a great accomplishment, this may not be the case for many undergraduate students. Graduation may feel daunting if students do not feel adequately prepared for the workforce. For some students, graduating without a prospective job or the necessary skills to conduct an effective job search may result in a setback or an inability to find employment in their acquired degree. Research indicates that only a small fraction of students majoring in psychology go on to attain a higher degree in psychology (Appleby, 2018). More than half of undergraduate psychology students (66%) go on to the workforce right after graduation, making career readiness particularly crucial for the majority who will directly enter the job market (Hamilton et al., 2018). Unfortunately, undergraduate psychology programs frequently fall short in fostering career readiness (APA, 2023). Furthermore, faculty may sometimes pay closer attention to those who plan to go to graduate school (Appleby, 2018), providing focused mentorship to a few while the majority remain without proper career guidance. The lack of attention to students who choose to work right after graduation may put them at risk of being unprepared for the workforce and unable to communicate the relevant skills they've gained in their degree.

The lack of career readiness in undergraduate psychology education is not a recent issue, but a topic that has long been a concern. Every seven years, the American Psychological Association (APA) releases guidelines for the Psychology major (Appleby, 2018). In 2023, the APA issued a recommendation for implementing personal and professional development (Goal 5) in the Psychology major. Goal 5 in the APA psychology major handbook states the importance of students attaining career readiness skills to prepare them for the workforce, if their plans are to work right after their associate or bachelor's degree or to continue on to graduate school (American Psychological Association [APA], 2023). Still, this is not a new topic for the APA, as previous versions of the handbook also underscore the need to implement career readiness to prepare students for employment or further study (APA, 2013).

College degrees are seen as opportunities for better career options (Ciarocco, 2017). Unfortunately, there is often a disconnect between employer expectations and what recent graduates believe will lead to career success (Cheang & Yamashita, 2023). Students may hold the erroneous belief that grades or discipline-specific knowledge alone will be enough to find or maintain a job, but research has shown otherwise (Cheang & Yamashita, 2023). Employers look beyond what is taught in the classroom and value soft skills above technical knowledge (Cheang & Yamashita, 2023). Cheang and Yamashita found that 62% of the employers surveyed expressed reluctance to hire recent graduates who lacked soft skills (2023). Attaining career ready skills is not only essential to maintain work, get a job, or advance in your career (Schweinsberg et al., 2021), but it is also a crucial tool when job searching, especially for recent graduates. As the workforce continues to evolve and advance, the importance of transferable skills is likely to increase (Ciarocco, 2017). This poses a challenge for college students who either lack these career-ready competencies, or do not know how to communicate the skills they have gained. Students would benefit from instructors identifying the skills they are learning within the coursework and describing how to market and use the skills in the future (Troisi, 2021). Despite the lack of career readiness being an established issue, there is little research linking career readiness and pedagogy to increasing work ready competence via undergraduate courses (Schweinsberg et al., 2021).

To increase transparency in employer expectations from recent higher education graduates, the National Association of Colleges and Employers (NACE, 2021) identified eight career readiness competencies, which include career and self-development, communication, critical thinking, equity and inclusion, leadership, professionalism, teamwork, and technology. The NACE career competencies overlap with the areas of skill development suggested by the APA and offer a useful metric to assess career readiness in undergraduate students. Some university career centers, for example, are already using the NACE career competencies to design workshops to help students develop these skills. Clear career competencies may help students know what skills they are gaining in a course and how to use them in a professional setting.

Few studies have investigated ways to implement career readiness directly into psychology course curricula. Troisi

Enhancing Career Readiness in Introduction to Psychology

(2021) examined two approaches to implementing career readiness: first, implementing skill-based instruction in an advanced psychology lab course, and second, bringing in a career specialist from the career center. By implementing both approaches, Troisi (2021) targeted both discipline-specific skills and career readiness. Results showed that students who participated in both the skill development and career readiness course showed improvement over time as opposed to the comparison group (Troisi, 2021). Researchers in Australia implemented a work integrated learning (WIL) experience into the curriculum of psychology capstone courses (Hamilton et al., 2018). Engaging in WIL enabled students to link what they were taught in the classroom to actual practice, which increased their self-esteem, social skills, and network opportunities (Hamilton et al., 2018). Given the focus of these studies on lab or capstone courses, it remains unclear if incorporating these types of techniques would work to increase career readiness in other types of courses, such as large lower division undergraduate psychology courses.

The Current Study

The critical need for developing and communicating career readiness skills in the undergraduate curricula has been identified both in a lack of empirical research and by the APA. The present study aims to examine the effect of career readiness activities on student career readiness competence in a large enrollment Introduction to Psychology course. Students were exposed to four recorded career workshops (e.g., resume writing, cover letter writing, internships, and networking) designed by the UC Riverside Career Center during their discussion sections. To preview our results, we found significant differences in pre- and post-survey results for students' career development and leadership competencies.

METHOD

Participants

Participants were undergraduate students at the University of California, Riverside, recruited from an Introduction to Psychology course. The class consisted of about 556 students. There were 67 students who completed the pre-survey with valid ID's (i.e., they included their name) and 43 who completed the post-survey with valid ID's. Students were excluded if they failed to complete both the pre- and post-survey. The final participant sample consisted of N = 17 undergraduate students. Participants ranged in age from 18 to 21 years (M = 19.41), with 7 identifying as female, 9 as male, and 1 as non-binary. The sample included students across all undergraduate years (First-year: 6, Second-year: 5, Third-year: 3, Fourth-year: 3). The study was approved by the Institutional Review Board at the University of California, Riverside. Students were not compensated, as the study was integrated within the normal design of the course.

Measurements

Career Readiness

Career readiness can be defined as the ability to exercise skills needed for employment (e.g. communication, leadership, problem solving, resume writing, etc.). Career readiness was measured using the NACE Career Readiness Competencies Questionnaire (NACE, 2021). The NACE Career Readiness Competencies Questionnaire (NACE, 2021) measures career and self-development, professionalism, communication, equity and inclusion, critical thinking, teamwork, leadership, and technology. Each area has between five to six statements which are graded based on expertise level (e.g., novice, developing, proficient, and mastery) but for the purpose of the present study these were adjusted to fit a 7-point Likert-scale with 1 = "not at all true of me" and 7 = "very true of me.". Survey questions were distributed through pre- and post-surveys administered via Qualtrics.

The Career and Self-Development competence was measured by statements such as "I seek out opportunities to learn" and "I embrace opportunities to increase my professional awareness and confidence" (NACE, 2021). Professionalism competence was measured by statements such as "I am present and prepared for tasks" and "I consistently meet or exceed goals and expectations" (NACE, 2021). The area of Communication competence was measured by statements such as "I employ active listening, persuasion, and influencing skills" and "I communicate in a clear and organized manner" (NACE, 2021). Equity and Inclusion competence was measured by statements such as "I am open to new and diverse ways of thinking" and "I advocate for inclusive, equitable practices" (NACE, 2021).

Enhancing Career Readiness in Introduction to Psychology

Critical Thinking competence was measured by statements such as "I proactively anticipate needs and prioritize action steps" and "I multi-task effectively in a fast-paced environment" (NACE, 2021). Teamwork competence was measured by statements such as "I build strong, positive working relationships with others" and "I am accountable for individual and team responsibilities" (NACE, 2021). Leadership competence was measured by statements such as "I am a role model to others with my confidence and positive attitude" and "I plan, initiate, manage, complete, and evaluate projects" (NACE, 2021). Technology competence was measured by statements such as "I use technology to improve efficiency and productivity in my work" and "I quickly adapt to new or unfamiliar technologies" (NACE, 2021).

Procedure

The study was conducted over the span of a 10-week quarter. In week 1, a member of the experimental team attended class discussion sections and provided a link to access the pre-survey. Survey questions were administered using Qualtrics and took approximately 10 minutes to complete. Students were also asked demographic questions including year of study, work, student status (i.e., first-generation, transfer, primary caregiver) and reason for taking the class. This same data collection procedure was repeated in week 10 with the post-survey.

Career Readiness Activities

The Career readiness activities were conducted in weeks two, four, seven, and nine in class discussion sections, facilitated by course Teaching Assistants. Students watched clips of recorded workshop videos from the Career Center during the first 10 to 15 minutes of class and then used the remainder of the class to engage in hands-on activities related to the videos. The Career Center workshop videos were retrieved from the University of California, Riverside Career Center website. The videos were examined thoroughly, and notes were taken to indicate important time stamps, which were then re-examined to choose which clips were going to be shown to the students.

In week two, students watched a workshop on resume writing. The resume workshop covered skills such as communication and career and self-development. After the video, students used the remainder of class time to consider the workshop advice and update their resume. In week four, students watched clips of a workshop video on writing a cover letter. The cover letter workshop covered skills such as career management and oral/written communication. After the video, students were given mock job descriptions and asked to write a cover letter for one of the positions and submit the assignment on Canvas. In week seven, students watched clips of a video on internships. The internship workshop covered skills such as critical thinking, career and self-development, and communication. After the video,

NACE Competence Scale	Pre-test α	Post-test α	Number of Items
Career development	0.87	0.79	6
Communication	0.85	0.89	5
Equity & inclusion	0.86	0.90	6
Leadership	0.89	0.88	6
Professionalism	0.91	0.90	6
Teamwork	0.91	0.88	5
Technology	0.89	0.84	5

Table 1

Note: Pre-test values represent the initial assessment, while post-test values represent measurements taken after the intervention. All itmes were assessed using the NACE competence scale.

Enhancing Career Readiness in Introduction to Psychology

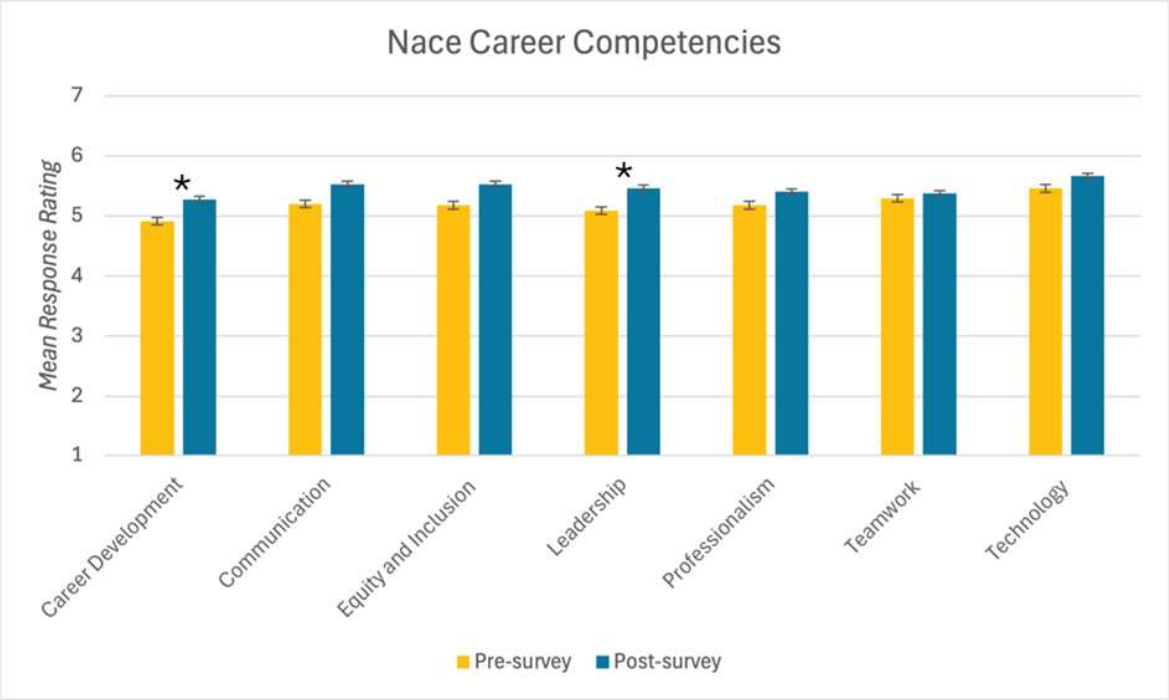

Figure 1: The average pre- and post-survey Likert scale response for each NACE career competency. Error bars indicate standard error. We found a significant difference in two out of the seven competencies: Career and Self Development, and Leadership.

Significant difference (*)

students were asked to log into the UC Riverside Handshake website (an online platform where students can connect with potential employers) to see how they could search for future internships or jobs. The last workshop was held during week nine, in which students watched clips of a video on networking. The networking workshop covered skills such as career and self-development, professionalism, and communication. For this workshop, students were given sample networking prompts and had the opportunity to practice networking with each other and with the teaching assistant.

The purpose of the study was to expose students to career ready skills and examine if this has an impact on career readiness competencies in Introduction to Psychology students as defined by NACE. Each workshop had a set of skills students would gain (e.g., career and self-development, communication, professionalism, and critical thinking). Students were presented with a list of these skills at the beginning of the workshops. We hypothesized that implementing hands-on career readiness activities into the curriculum of an Introduction to Psychology course would positively impact students' career readiness competence by the end of the 10-week quarter.

RESULTS

The NACE Career Readiness Competencies Questionnaire (NACE, 2021) was divided into subgroups, which represented the different subscales of the questionnaire: Career and Self-development, Communication, Equity and Inclusion, Leadership, Professionalism, Teamwork, and Technology. Figure 1 shows the average pre- and post-survey

response ratings for each competency. A paired sample t-test was used to analyze the difference between pre- and post-survey scores for each subgroup.

We found a significant difference in career and self-development competence (M = 4.91, SD = 0.93) in the pre-survey when compared to the post-survey (M = 5.27, SD = 0.81), t(16) = -2.36, $p < 0.05$. In addition, there was a significant difference in leadership competence between pre-survey (M = 5.08, SD = 0.89) and post-survey (M = 5.46, SD = 0.94), t(16) = -2.15, $p < 0.05$. For both competencies, students indicated having higher competence in the post-survey compared to the pre-survey. All other competencies were not significant ($p > 0.05$).

DISCUSSION

The current study aimed to examine if the implementation of career readiness activities in an Introduction to Psychology course impacted student career readiness. For career readiness, two out of the seven subcategories—leadership and career development—showed a significant change between the pre- and post-survey. Due to the relatively small sample size, we were not able to analyze the demographic data to see if there were any differences that were significant between class standing (e.g., did both lower and upper division students see an impact in career readiness?), ethnicity, gender, etc.

The increase in career development and leadership competency aligns with previous literature (Hamilton et al., 2018; Troisi, 2021). The implementation of hands-on career readiness activities appeared to have a significant correlation with the increase in students' career development and leadership competence. Troisi (2021) and Hamilton et al. (2018) saw similar results with an increase in career ready skills after students participated in hands-on skill development activities. There is little to no literature following students after career readiness interventions into post-graduation job placement, although career development skills have been found to increase career readiness self-efficacy which influences positive career choices. An increase in career development may help students seek job employment and maintain a job after graduation.

This study was one of the first to assess career readiness in a large-enrollment (e.g., 100+ students) undergraduate psychology course. A benefit of the current study design was that the workshop videos and activities were facilitated during the discussion sections, which did not take time away from covering course material in the lecture. Furthermore, the discussions sections allowed for small group hands-on activities that reinforced the material from the workshops. Students were able to engage in networking activities in small groups as well as work alone on individual activities. Students were able to interact with the teaching assistants throughout the activities. The study did not only attempt to implement an innovative teaching method in a large-enrollment course, but it also addressed some of the concerns brought out by other studies regarding students' lack of knowledge of the skills they are gaining. At the beginning of each workshop, students were given the list of skills they would develop with each workshop. This allowed them to be aware of the skills they gained and provided a chance for further development.

The current experimental design had several limitations. The content covered in the workshops was broad and not specific to the material covered in the course. Second, there was no control group for comparison, which could control for confounding variables that might affect the difference in career competence between pre- and post-survey. For example, we were not able to rule out if major or class standing may have had an effect on the results, since some majors like business or education are already career ready focused. Therefore, students in majors such as business may be exposed to career readiness skills early in their education. Because of this, we cannot draw any cause-and-effect conclusions based on the results of the current study. Finally, we had a relatively small sample size (17 students completed both the pre- and post- questionnaires, out of a class of approximately 556 students). Our sample may not be fully representative of the students in the course, and we did not have enough data to analyze the demographic data. The small sample size might have stemmed from the voluntary nature of the surveys—students were not required to complete the surveys. Additionally, a majority of the pre- and post-survey responses did not have any identifiers to link them together. This made it difficult to match pre- and post-surveys, resulting in a smaller sample size.

These limitations underscore several opportunities for future research. A future study should include a control group to control for confounding variables (e.g., year standing, major) that may skew the results. This would allow researchers to examine if certain activities cause changes in student career readiness. Changing the structure of how surveys are administered in the course (e.g., requiring them as part of the class), may increase the sample size. Having a representative sample size would allow researchers to examine if the activity has the same effect for all students.

Another future direction would be to conduct a longitudinal study to see how the implementation of career ready activities into the curriculum may affect students' career readiness over time. This would allow researchers to gain insight into how these methods can be used in upper division courses and the effects they have beyond the classroom. Implementing career readiness activities into upper division courses can allow for a focus on more complex career skills.

Other future studies conducted in the classroom can make the surveys required as part of the course. Furthermore, students can be given a unique de-identified tracker to connect pre- and post-surveys, since some students did not include their ID in the present study. These interventions could resolve the small sample size.

Future studies can also examine a link between motivation and career readiness. It would be interesting to investigate if extrinsic motivation or intrinsic motivation plays a part in career readiness and classroom success, as previous studies have found a relation between motivation and learning behavior (Tokan & Imakulata, 2019).

CONCLUSION

Career readiness in the classroom is still a novelty to a certain degree, and with the few available studies yielding positive results, it is imperative that we continue to explore this topic. The disconnect between student and employer expectations is also concerning. Today, transferable work-ready skills are valued more highly than discipline specific technical knowledge. This study can serve as a stepping stone for future research that may delve deeper into the implementation of career ready teaching methods in large-enrollment courses.

ACKNOWLEDGMENTS

I would like to acknowledge Dr. Hayden S. Hendley whose support and guidance was vital to this study. Dr. Hendley provided support and valuable feedback throughout this project. Her guidance with the research design and overall project helped in carrying out this study.

REFERENCES

American Psychological Association. (2013). APA guidelines for the undergraduate psychology major: Version 2.0. Retrieved from http://www.apa.org/ed/precollege/undergrad/index.aspx

APA guidelines for the undergraduate psychology major. (2023). Apa.org. https://www.apa.org/about/policy/undergraduate-psychology-major.pdf

Appleby, D. C. (2018). Preparing psychology majors to enter the workforce. *Teaching of Psychology,* 45(1), 14–23. https://doi org/10.1177/0098628317744944

Cheang, M., & Georgia Lynn Yamashita. (2023). Employers' expectations of university graduates as they transition into the workplace. *European Journal of Education*, 6(2), 22–32. https://doi.org/10.2478/ejed-2023-0013

Ciarocco, N. J. (2017). Traditional and new approaches to career preparation through coursework. *Teaching of Psychology*, 45(1), 32–40. https://doi.org/10.1177/0098628317744963

Hamilton, K., Morrissey, S. A., Farrell, L. J., Ellu, M. C., O'Donovan, A., Weinbrecht, T., & O'Connor, E. L. (2018). Increasing psychological literacy and work readiness of Australian psychology undergraduates through a capstone and work-integrated learning experience: Current issues and what needs to be done. *Australian Psychologist*, 53(2), 151–160. https://doi.org/10.1111/ap.12309

NACE. (2021) NACE competencies self-assessment. *Ludd School of Informatics, Computing, and Engineering*. https://luddy.indiana.edu/doc/career-services/NACE-Competency-Self-Assessment.pdf

Tokan, M. K., & Imakulata, M. M. (2019). The effect of motivation and learning behaviour on student achievement. *South African Journal of Education*, 39(1), 1–8. https://doi.org/10.15700/saje.v39n1a1510

Troisi, J. D. (2021). Improving student skills and career readiness through targeted and embedded instruction. *Teaching of Psychology*, 009862832110379. https://doi.org/10.1177/00986283211037949

Schweinsberg, A., Mundy, M. E., Dyer, K. R., & Garivaldis, F. (2021). Psychology education and work readiness integration: A call for research in Australia. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.623353