

WORK BASED LEARNING AND CAREER OUTCOMES

RESEARCH STUDY
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Project Summary

This report examines whether Work-Based Learning Experiences (WBLE) are associated with students' career readiness and their post-graduation plans. Career readiness was summarized into a single score based on responses to a six-item career readiness subscale. Post-graduation plans were simplified into a binary item response indicating if the student had a job, graduate school placement or service placement (e.g., Peace Corps, Military).

Overall, students who reported participating in a WBLE showed higher career readiness and were more likely to report post-graduation job plans. Among WBLE participants, certain aspects of the experience were more strongly linked to outcomes than others. Specifically, experiences that emphasized engaging in higher-level tasks and having opportunities for skill development were most strongly related to students having post-graduation plans. Receiving assessment/feedback was the aspect of WBLE most clearly associated with higher career readiness.

Finally, we tested whether career readiness helps explain why WBLE participation relates to post-graduation plans. Relationship between WBLEs post-graduation plans appears to work largely through career readiness; WBLEs are associated with higher readiness, and higher readiness is associated with having post-graduation plans.

Purpose

This study aimed to answer the following questions;

1. Is WBLE participation associated with (a) career readiness and (b) post-graduation plans (defined as having a job, graduate school or service placement)?
 - a. Among WBLE participants, do specific WBLE components (tasks and experience aspects) predict career readiness and post-graduation plans?
2. Is there evidence that career readiness mediates associations between WBLE participation and post-graduation plans?

Key Findings

- Overall, having a WBLE increases the overall likelihood of having post-graduation plans by 19%.
- Among WBLE participants, having structured assessment/feedback as part of their experience predicted higher readiness while task level (specifically autonomous tasks and supervised high skilled tasks), opportunities for skill development during the WBLE, and outside-classroom learning were most strongly associated with post-graduation plans.
- Mediation analyses supported indirect pathways between WBLEs and post-graduation plans through career readiness. About half of the impact of WBLEs on post-graduation plans is driven by career readiness.

Implications

Work-based learning experiences prioritizing skills development, structured assessment and incorporating opportunities to work on high skilled tasks seem most impactful for career readiness development and subsequent employment. Overall, the results suggest that career readiness is an important mechanism linking WBLEs to post-graduation planning, supporting continued assessment of career readiness throughout a student's career.

Limitations

The study relied on self-reported measures of career readiness, as opposed to a skills assessment, which may be subject to social desirability or response bias. Additionally, students post-graduate plans are based on their status at the time they took the survey (between October and December 2025). Best practices recommend using 6-month post-graduate job placement as official outcomes. Therefore, the numbers in this report likely underestimate job attainment.

Methods

Data were collected from the Senior Insights Survey (SIS) in the Fall 2025 semester ($n = 690$) as part of the Senior Compass initiative. Final data only included students who had a degree conferred in Fall 2025. Post graduate plans were operationalized by a binary indicator of whether students had obtained post graduate employment (including graduate school attendance, service program or military). Career readiness was assessed using six items on a six-point Likert scale (strongly disagree to strongly agree). To assess WBLE participation, students indicated if they completed 0, 1 or 2 of the following: internship, practicum, clinical, student teaching, undergraduate research, lab/teaching/research assistantship, fellowship, externship, course with external partners. If a student indicated completing one or more WBLEs, they were asked a series of questions about that experience including the types of tasks completed (job shadowing, low skills tasks with supervision, high skills tasks with supervision, autonomous work), whether they had a mentor, opportunities for skill development, structured assessment and feedback and if the experience primarily took place outside

of the classroom. Results for binary outcomes (post-graduation plans) are presented as average marginal effects (AME), or the difference in percentage points (PP) of the outcome between groups using the `mfx`¹ package in R 4.4.1.

Detailed Findings

A total of 690 students were included in the dataset. The majority of students ($n = 422$) were classified as having post-graduation plans and 268 classified otherwise. Career readiness was operationalized as the mean of six items. Internal consistency for the career readiness scale was strong (Cronbach's $\alpha \approx .90$, 95% CI [.89-.91]), supporting the use of a single composite score ($M = 29.7$, $SD = 5.1$, $Range = 9-36$). A majority of students ($n = 585$, 84.8%) reported having at least one WBLE while at JMU; however, only 51% of students who reported having a WBLE ($n = 355$) had an experience with all four components: having a mentor, structured feedback/assessment, opportunities for relevant skill development and occurred primarily outside of the classroom.

Work-Based Learning Experiences (WBLE)

Analyses first examined whether self-reported participation in WBLE was associated with career readiness and post-graduation plans in the full sample. Students who reported participating in WBLE had higher career readiness scores than students who did not, with an average score of 4 points higher. In a linear regression predicting career readiness from WBLE participation, WBLE participation was associated with a 3.93 point increase in the career readiness score ($p < .001$), and the model accounted for 7.80% of variance in career readiness ($R^2 = .078$). A logistic regression indicated that WBLE participation was associated with greater likelihood of reporting post-graduation plans. Specifically, WBLE participants were 19% more likely to have post-graduation plans compared to non-WBLE participants (AME = 0.19 PP, 95% CI [0.09, 0.30], $p < .001$).

Table 1. Outcomes by Self-Reported WBLE Participation

	Completed WBLE ($n = 585$)	No WBLE ($n = 105$)
Mean career readiness (SD)	30.2 (4.94)	26.3 (4.43)
N (%) with postgrad plans	375 (64.1%)	47 (44.8%)

Subsequent analyses focused on students who reported participating in WBLE to evaluate whether specific WBLE aspects were associated with outcomes. In a multiple linear regression predicting career readiness from task level (job shadowing, low skills work with supervision, high skills work with supervision, autonomous work) and four WBLE components (mentorship, assessment/feedback, skill development, and outside-classroom learning), the model explained a small proportion of variance in readiness ($R^2 = .074$). Students who engaged in high skilled tasks with supervision the highest career readiness scores; students engaged primarily in job shadowing ($\beta = -1.49$, 95% CI, -2.91, -0.05, $p < .001$), low skilled tasks with supervision ($\beta = -2.22$, 95% CI, -3.34, -1.16, $p < .001$) and autonomous work ($\beta = -1.25$, 95% CI, -2.27, -0.281, $p < .001$) had significantly lower scores.

¹ Fernihough A (2025). `_mfx`: Marginal Effects, Odds Ratios and Incidence Rate Ratios for GLMs. R package version 1.2-4, <<https://CRAN.R-project.org/package=mfx>>

Within this model, assessment/feedback emerged as the strongest predictor of career readiness. Students reporting assessment/feedback had higher career readiness scores ($\beta = 1.37, 95\% \text{ CI}, 0.44, 2.31, p < .001$), controlling for task level and the other WBLE components.

Figure 1. Mean Career Readiness Scores by WBLE Tasks

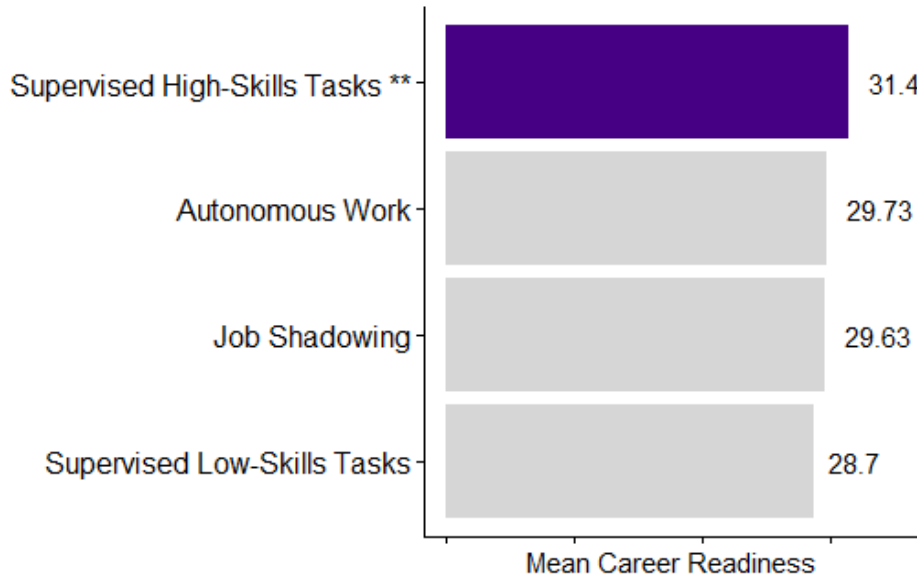
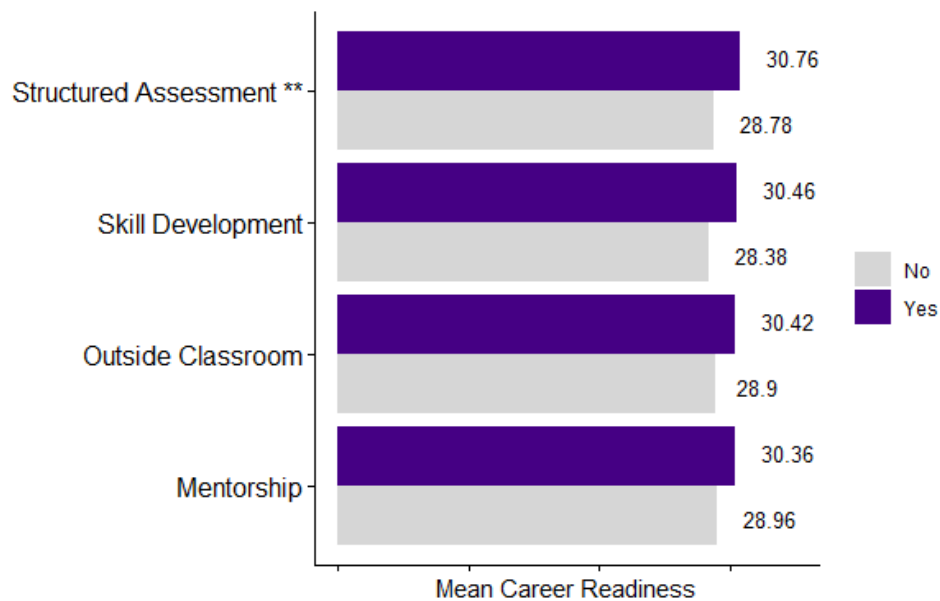


Figure 2. Mean Career Readiness Scores by WBLE Components



A logistic regression using the same set of predictors examined post-graduation plans among WBLE participants. Higher task level was associated with slightly higher probability (AME = 0.04 PP; 95% CI [0.00, 0.09] indicating that each step increase in task responsibility corresponded to approximately 4% higher

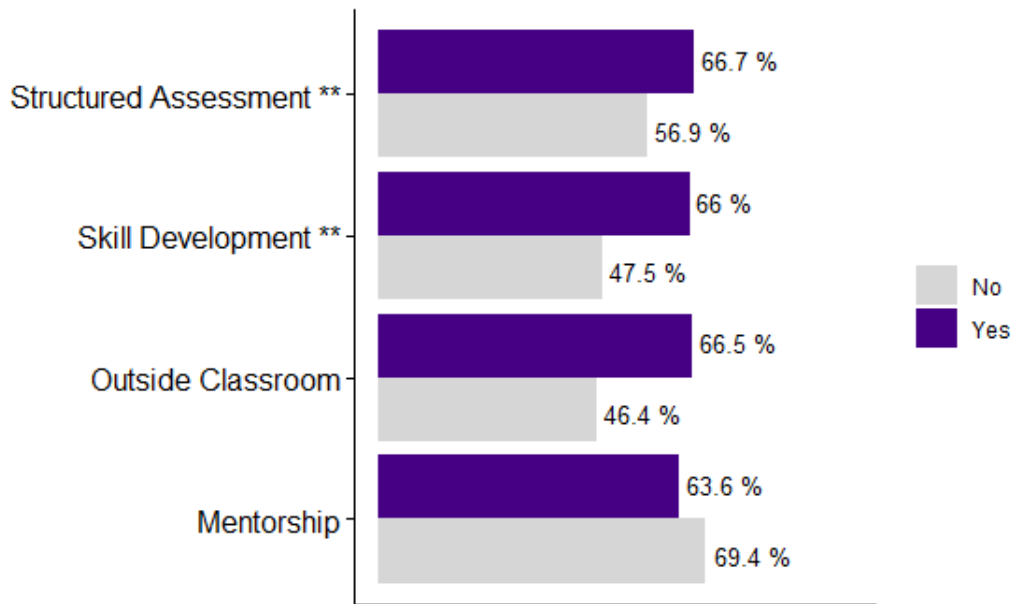
probability of being classified as having post-graduation plans. The highest rate of job placement was in the group reporting primarily engaging in supervised high skills tasks.

Table 2. Post-graduate Placement by WBLE Tasks

	n (%) w/ postgrad plans
Job Shadowing (n = 52)	30 (57.69%)
Low skills tasks (n = 117)	61 (52.14%)
High skills tasks (n = 252)	181 (71.83%)
Autonomous work (n = 164)	103 (62.80%)

Skill development and outside-classroom learning were associated with substantially higher probability of reporting post-graduation plans (skill development, AME = 0.17 PP, 95% CI [0.03, 0.32] outside-classroom learning, AME = 0.20 PP, 95% CI [0.07, 0.33]). Assessment/feedback showed a positive association that did not clearly differ from zero in the adjusted model (AME = 0.07 PP, 95% CI [-0.02, 0.17]). Mentorship was negatively associated with post-graduation plans in the adjusted model (AME = -0.14 PP, 95% CI [-0.27, -0.02]). However, interpretation of the mentorship association warrants caution because the “no mentor” group was small relative to the “mentor” group (49 vs. 536, respectively), and the unadjusted mentorship-only model produced a much smaller and non-significant association.

Figure 3. Post-graduate Placement Rate by WBLE Components

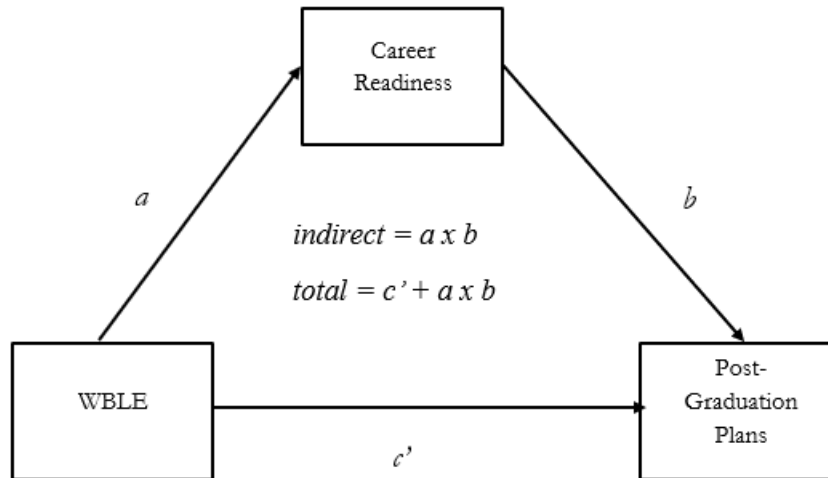


Mediation Analyses

Mediation analyses were conducted to examine whether career readiness helped explain associations between experiential learning and post-graduation plans. In each model, the experiential learning variable was specified as the predictor, career readiness mean score was specified as the mediator, and post-graduation plans was specified as the outcome (see Figure 1). Average marginal effects were obtained using the MarginalMediation package² in R 4.4.1.

Figure 4.

Reference Path Model



A mediation model examined whether career readiness mediated the association between WBLE participation and post-graduation plans. Results indicated that WBLE participation was positively associated with career readiness ($a = 0.655, p < .001$), and career readiness was positively associated with post-graduation plans ($b = 0.13$ PP, $p < .001$). The indirect effect was statistically significant ($indirect = 0.09$ PP, 95% CI [0.06, 0.13], $p < .001$), indicating that WBLE participation was associated with a 9% greater likelihood of reporting post-graduation plans through higher career readiness.

The direct effect of WBLE participation on post-graduation plans, controlling for career readiness, was reduced and not statistically significant ($c' = 0.10$ PP, 95% CI [-0.01, 0.19], $p = .06$). The total effect remained statistically significant ($total = 0.19$ PP, 95% CI [0.08, 0.29], $p < .001$). Taken together, these findings suggest that career readiness partially mediates the association between WBLE participation and post-graduation plans. Overall, having a WBLE increases the overall likelihood of having post-graduation plans by 19%. Approximately half of this impact (49.20%; proportion mediated) is driven by career readiness.

² Barrett TS (2026). `_MarginalMediation: Marginal Mediation_`. R package version 0.7.3, <<https://CRAN.R-project.org/package=MarginalMediation>>.