

Exploring Employability in Higher Education: Accessing Employability for the Future

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Abstract

This study aimed to examine the relationship between learning engagement and employability among undergraduate students. Descriptive statistics and hierarchical regression analysis were employed. The findings are summarized as follows:

- (1) Individual characteristics, including gender, admission channel, department, academic stage, financial status, and first-generation college student status, contributed only minimally to learning outcomes (employability competencies), accounting for a very small proportion of the variance.
- (2) After controlling for individual characteristic variables, learning engagement was found to significantly contributing to learning outcomes.

Based on these results, the study suggests that higher education institutions should plan and implement supportive measures to promote students' learning engagement and further develop their employability competencies.

1. Research Background

Beyond examining student engagement and its association with individual characteristics, this study aimed to advance the understanding of employability assessment and development in higher education. Previous research has increasingly demonstrated a link between student engagement and employability outcomes; however, much of this work has primarily focused on academic performance indicators, paying less attention to how students' learning behaviours in higher education influence their employability.

Accordingly, the present study will investigate how learning engagement interacts with individual attributes and institutional factors to shape employability outcomes. Such insights are crucial for informing practices aimed at career preparedness, particularly within business-related disciplines in the Taiwanese context.

2. Research Question

This study aimed to measure the level of learning engagement among undergraduates and to examine how their individual characteristics and employability are related. Specifically, the study addressed the following research questions:

RQ1: What are the key factors that influence students' learning engagement?

RQ2: What are the key factors that influence students' employability competencies?

RQ3: What are the relationships among individual characteristics, learning engagement, and employability?

3. Methodology

A cross-sectional research design was employed using survey data and institutional records. The study targeted sophomore, junior, and senior students, as these groups possess sufficient learning experience to meaningfully assess engagement and employability outcomes. Freshmen were excluded due to limited exposure to college learning environments and the absence of GPA data at the time of the survey. Of the 937 eligible undergraduates majoring in business-related disciplines, 656 valid responses were obtained after excluding incomplete questionnaires, yielding a valid response rate of 70.01%.

4. Data Collection

To address these questions, data were collected through the following sources:

- (1) Student Learning Engagement Survey: Collected students' perceptions of their learning engagement to assess their learning experiences at the institution.
- (2) Common Employability Competencies Survey: Participants' employability competency scores were obtained from the survey of the University Career and Competency Assessment Network database (Ministry of Education, UCAN Platform).
- (3) Administrative Database: Personal attributes such as gender, department, financial status, and enrollment records were retrieved from the institutional administrative database with formal application and approval.

5. Results

Hierarchical multiple regression analysis was conducted to examine predictors of employability competencies. Demographic variables were entered in Block 1, institutional variables in Block 2, and learning engagement-related variables in Block 3.

- (1) Model 1 explained 2.3% of the variance in employability competencies, with ethnicity showing a significant effect.
- (2) Model 2 added institutional variables and increased the explained variance by 4.1%, indicating modest contributions from departmental affiliation and grade level.
- (3) Model 3 incorporated learning engagement, personal gains, academic performance (GPA), and absence rate, resulting in a substantial additional increase of 21.7%. The final model explained 23.8% of the variance in employability competencies and learning engagement emerged as the strongest positive predictor. After the inclusion of engagement-related variables, the effects of demographic and institutional factors were notably reduced, suggesting that their influence on employability outcomes operates largely through levels of students' learning engagement.

Model	R square	Δ R square	F	Sig.
1. Background variables: Gender, Ethnicity, Financial status, and First-generation College Student	.023	.015	3.055	.010
2. Institutional variables: Department, Admission Channel, and Stage	.061	.041	2.985	.000
3. Learning Engagement -related variables: Personal Gains, GPA, Rate of Absence, and Average of Learning Engagement	.238	.217	11.064	.000

The final regression equation (Model 3) can be expressed as follows:

$$\hat{Y} = -0.180X_{(\text{Gender})} - 0.219 X_{(\text{Ethnicity}=2)} - 0.251 X_{(\text{Ethnicity}=3)} - 0.178 X_{(\text{Financial Status})} + 0.069 X_{(\text{First-generation College Student})} - 0.171 X_{(\text{Department}=1)} + 0.044 X_{(\text{Department}=2)} + 0.222 X_{(\text{Department}=4)} + 0.271 X_{(\text{Department}=5)} - 0.042 X_{(\text{Admission Channel}=2)} - 0.126 X_{(\text{Admission Channel}=3)} + 0.212 X_{(\text{Admission Channel}=4)} - 0.083 X_{(\text{Sophomore})} + 0.177 X_{(\text{Senior})} - 0.008 X_{(\text{GPA})} + 0.006 X_{(\text{Rate of Absence})} + 0.064 X_{(\text{Personal Gains})} + 0.252 X_{(\text{Learning Engagement})} + 6.732$$

Overall, the hierarchical regression results demonstrate that while demographic and institutional factors contribute modestly to employability competencies, **learning engagement plays a central and substantial role** in shaping employability outcomes among undergraduates in business-related disciplines.

6. Conclusion

The findings indicate that individual and institutional characteristics alone provide limited explanatory power for employability competencies. In contrast, students' learning engagement plays a crucial role in shaping employability outcomes. These results suggest that employability development is less dependent on individual attributes and more strongly associated with students' active involvement in learning processes.

Accordingly, institutional interventions that enhance learning engagement, such as active learning pedagogies, experiential learning opportunities, and supportive learning environments, may be effective in promoting equitable employability development among students.

7. Limitations and Future Research

The explained variance of the model was modest, indicating that unobserved psychological, social, and contextual factors likely contribute to the outcome beyond the variables included in this study. Learning engagement may not directly translate into perceived learning gains, and other contextual factors, such as curriculum design, assessment practices, or prior academic preparation were not fully examined. Additionally, the cross-sectional design limits causal inference.

Future research should adopt longitudinal designs to track students' learning trajectories and explore potential mediating or moderating mechanisms linking learning engagement to employability competencies.