

Graduate Competencies, Curriculum Relevance, and Labor Market Alignment in Teacher Education

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ABSTRACT:

The research explored how graduate competencies, curriculum relevance, and labor market alignment were interconnected with teacher education graduates. A descriptive, correlational study was conducted and 479 graduates from technical, vocational teacher education programs were surveyed using a tracer questionnaire. Pearson correlation and chi-square methods were used to assess the relationships between competency acquisition, employability factors, and curriculum relevance. Results show that graduates think that the curriculum fully addresses labor market needs, particularly in terms of skill development, industry alignment, and training in real work environment. However, correlation results did not find any significant statistical relationships between competencies, employability factors, and curriculum relevance ($p > .05$), which means these constructs are independent of each other. On the other hand, some factors still showed strong relationships. There was a strong connection between acquired competencies and academic performance, time to employment, and expected starting salary. Age, civil status, and employment transition variables such as job search method, employment timing, and job type were factors of employability. Curriculum relevance, on the other hand, had a strong association with licensure examination performance and teamwork skills, with teamwork being the major factor. The study implies that even though competencies and curriculum are constantly developed and perceived as relevant, labor market alignment is influenced by the complex interaction of personal characteristics, employability conditions, and structural labor market factors. This research underlines the importance of teacher education programs enhancing work-integrated learning, career support systems, and the development of transferable skills in order to increase graduate employability and alignment with labor market requirements.

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Introduction

Graduate employability is now considered a major issue in higher education policy and practice, especially in professionally regulated areas such as teacher education (Chigbu & Nekhwevha, 2022). With the global labor market becoming more competitive, higher education institutions face the challenge of producing graduates who are not only academically proficient but also flexible, innovative, and equipped to handle the evolving demands of the workplace (Suleman et al., 2024). Therefore, several education systems have changed to competency-based education programs which are focused on producing graduates who are more employment ready, and at the same time, allowing a smoother transition to the labor market. These types of curricula emphasize work-related skills, problem-solving, getting professional skills that go beyond just theoretical knowledge, and thus help to reduce the gap between education and employment (Shuaili, 2025).

On the other hand, the results of worldwide investigations indicate that the relationship between how a curriculum is designed, the development of competency, and the outcomes of graduates in terms of employment is very complex (Misni et al., 2019). A graduate's capability to get a job depends on many factors beyond just their possession of technical or pedagogical skills. These factors include the requirements for licensure and certification, hiring practices of institutions, economic situations, and the availability of jobs in a certain field, which all have a significant influence. Although graduates might be satisfied that their education was competency-based and that it prepared them well in terms of the knowledge and skills required for the job market, the studies indicate that they will still face a longer time of unemployment or that they will have to accept jobs unrelated to their area of specialization (Ramos et al., 2025). This points out the intricacy of the concept of employability and also that competency-based education alone is not a cure-all.

Teacher education programs in the Philippines such as the Bachelor of Technical and Livelihood Education (BTLED) and Bachelor of Technology and Vocational Teacher Education (BTVTED) are focused on responding to the country's national development priorities and meeting the standards set by the Commission on Higher Education (CHED) and the Philippine Qualifications Framework (PQF) (Rivera & Baptista, 2024). These programs set out to educate individuals who are not only technically proficient and pedagogically competent but also capable of handling both formal and non-formal education jobs. However, results from tracer studies still show that education graduates barely share a common experience in terms of employment, thus the question remains as to whether curriculum relevance and graduate competencies are good enough to be used as proxies for labor market alignment (Cabutotan, 2025).

Most of the previous local investigations focused on general employability status or demographic predictors, and few have looked at the intricate relationships between graduate competencies, curriculum design, and labor market outcomes (George & Paul, 2023). It is of great importance to understand this interrelationship in the case of technical–vocational teacher education programs because graduates are expected to move to the labor market almost effortlessly and where job placement is usually considered the chief indicator of a program's success (Barrozo & Escoto, 2024). This study will help curriculum developers, policymakers, and educators who want to improve graduate employability and hence align educational programs with labor market needs by shedding light on these issues.

This study proposes to contribute to the body of knowledge by examining the interrelations of graduates' competencies and how relevant their curriculum is to the labor market alignment indicators in teacher education programs. In the pursuit of these objectives, the study aims: a) to characterize graduates' self-assessed competencies and the extent to which their curriculum was relevant to the labor market; and

b) to analyze the interrelations between graduate competencies, curriculum relevance, and labor market alignment indicators.

By dealing with these issues, the paper hopes to offer an understanding that will lead to the development of evidence-based recommendations for curriculum reforms and policy measures that can enhance the employability of BTLEd and BTVTED graduates and, hence, strengthen the connection between the higher education system and the labor market.

Materials and Methods

Research Design

To ascertain the perceived graduate competencies and curriculum relevance along with their inherent harmony with labor market alignment indicators, the researchers utilized a descriptive–correlational research design.

Participants and Setting

The participants were 479 graduates of the BTLEd and BTVTED programs from the College of Teacher Education of a state university in the Philippines. The graduates who have completed their degrees between the years 2018 and 2024 came from the diverse specializations of Technical Livelihood Education, Food Service Management, Electronics Technology, and Garments, Fashion, and Design.

Instruments and Measures

The researchers were gathering data from the tracer questionnaire they had prepared. In it, they divided the total questions into five main areas of concern: respondent profile, employment status, acquired competencies and their relevance, factors influencing employability, and curriculum relevance to labor market needs. The competency areas that the

researchers focused on include pedagogical competence, technical–vocational competence, communication skills, critical thinking, digital literacy, and entrepreneurial skills. A Likert scale was used to measure Curriculum relevance by giving statements, which the respondents had to agree or disagree with, that were related to the alignment of the curriculum with industry practices and job requirements.

Data Collection Procedures

The distribution of the questionnaires was carried out by direct and online delivery. The participants voluntarily took the questionnaires which were then collected during a set time for data collection.

Data Analysis Techniques

The use of descriptive statistics allowed the summary of competency and curriculum relevance ratings. A Pearson correlation analysis was done to determine the relationships among the acquired competencies, curriculum relevance, and employability-related factors. On the other hand, Chi-square tests and Cramer's V were performed to find associations between selected profile variables and curriculum relevance.

Ethical Considerations

The study followed the ethical standards for social research. Voluntary participation was ensured; informed consent was obtained; the anonymity of the respondents and the confidentiality of the data were guaranteed.

Results and Discussion

Curriculum Relevance to the Labor Market

Graduates' perceptions of curriculum relevance to labor market needs were examined using descriptive statistics. As shown in Table 1, all indicators yielded mean ratings interpreted as Very High Relevance.

Table 1. Curriculum relevance to the labor market.

Indicator	Mean	Interpretation
Curriculum equipped graduates with relevant job skills	4.97	Very High
Courses reflected current industry practices	4.95	Very High
On-the-job training aligned with labor market demands	4.92	Very High
Willingness to recommend the program	4.97	Very High
Need for curriculum updating to match labor needs	4.96	Very High
Overall Weighted Mean	4.96	Very High

Relationships among Graduate Competencies, Curriculum Relevance, and Labor Market Alignment

After the Pearson correlation analysis was completed to study the connections between

acquired competencies, factors influencing employability, and curriculum relevance to the labor market, it turned out that all the correlations were of negligible size and statistically not significant ($p > .05$), see Table 2.

Table 2. Correlation among Key Variables

Variables	1	2	3
1. Acquired Competencies	1.000	−0.007	−0.004
2. Employability Factors	−0.007	1.000	−0.004
3. Curriculum Relevance	−0.004	−0.004	1.000

Note. $N = 479$; all p -values $> .05$.

The lack of significant relationships reveals that competencies, employability, and curriculum relevance are not in a direct connection but rather function separately. It can be interpreted that, even though graduates have a good perception of competencies and relevant curricula, these will not necessarily lead to an improvement in the job market alignment. These results are in line with the idea that employability factors are not only the result of curriculum and skills but also reflect the wider context and structural aspects.

Graduate Profile, Competencies, and Labor Market Outcomes

Chi-square test showed that most profile variables are not significantly associated with acquired competencies ($p > .05$), which means development of competencies is almost the same among graduates. Nonetheless, general weighted average (GWA) on the other hand was significantly related ($p = .044$) to competency

implying that academic performance may determine the importance of competencies.

In relation to labor market results, time to employment ($p = .048$) and expected starting salary ($p = .003$) were two out of four variables significantly related to competencies, i.e., graduates perceiving themselves as competent will have the ability to employ without delay and at the same time they will be able to negotiate for higher salary.

Employability and Labor Market Transition

Two main demographic factors, age ($p = .000$) and civil status ($p = .036$), were significantly linked to employability factors and implicated the impact of life stage and personal context, respectively. Besides that, employability was significantly related to some major career transition variables such as job search method ($p = .009$), time to employment ($p = .001$), nature of employment ($p = .036$), and employment sector ($p = .003$).

Such results suggest that aligning with the labor market depends primarily on the ways in which graduates find and secure jobs, as well as on the characteristics of the labor market, as opposed to solely based on their educational qualification.

Curriculum Relevance and Labor Market Alignment

Table 2. Significant Relationships with Curriculum Relevance

Variable	χ^2	p-value	Decision
Civil Status	4.215	.040	Significant
LET Passing	5.573	.018	Significant
Teamwork Skills	67.560	.000	Significant

On the other hand, civil status ($p = .040$) and LET performance ($p = .018$) were significant factors, showing that personal background and licensure results influence perceptions of curriculum relevance. Interestingly, teamwork skills ($p = .000$) had the highest correlation, which brought out the necessity of collaborative competencies when assessing curriculum labor market alignment.

The results indicate that competencies and curriculum are certainly being developed and are considered relevant. However, labor market alignment is not directly set by these factors but rather by a mix of academic performance, employability context, job search methods, and especially transferable skills such as teamwork.

This emphasizes the fact that teacher education programs need to do more than just competency development; they also need to augment work-integrated learning, career support, and strong industry linkages for improved graduate labor market alignment.

Conclusion

This research shows that although teacher education graduates see their skills as very good and the curriculum as meeting the demands of the labor market quite well, these in themselves do not mean that graduates are really aligned to the labor market, which can be seen by the fact that there are no significant correlations among skills, employability factors, and curriculum relevance. The study reveals that the labor

As shown in Table 3, most profile variables were not significantly associated with curriculum relevance ($p > .05$), suggesting a generally uniform perception of curriculum alignment among graduates.

market outcomes are actually the result of a continuing interaction of academic performance, individual traits, and labor market experiences. Factors like general weighted average, time to employment, and expected salary determine the relevance of competency perceptions; on the other hand, employability has significant associations with age, civil status, and employment transition processes. Besides, although the curriculum relevance is more or less the same among graduates, licensure results and especially teamwork skills are major determinants of perceptions of alignment with work place demands. The study results indicate that implementation of competency-based education is unable to achieve employability alone, and hence teacher education programs must consider providing work-based learning, creating stronger linkages with industries, and developing career support systems as major components to equip graduates with skills for dealing with the labor market challenges.

Limitations and Future Research

This study has a number of limitations. First, its descriptive-correlation type only shows associations among variables, not causes. Second, it is based on graduates' own feedback which can be influenced by personal and social desirability bias. Third, since it is based on graduates of one university only, the results cannot be considered representative of all universities. Fourth, the indicators chosen for this study might not give the full picture of labor

market orientation and career patterns. A longterm follow-up study with a combination of qualitative and quantitative data collection methods would give more insight on the impact of competencies and curriculum relevance on employability. Besides, including a number of Higher Education Institutions and different program types will improve the representativeness of the study and its making

valid for a wider context. Taking into account the views of employers, analyzing employment data, and a thorough investigation of work-integrated learning, internships, and industry partnerships will be helpful in understanding the role of teacher education programs in aligning academic preparation and labor market outcomes.

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