

Bridging the Gap: A Comprehensive Tracer Study on the Employability and Professional Competencies of Graduates of University of Cagayan Valley

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Abstract

The Commission on Higher Education's (CHED) monitoring of Outcomes-Based Education (OBE) and the requirements of accrediting bodies like PACUCOA necessitate this tracer study for University of Cagayan Valley (UCV) graduates. This study serves as a vital diagnostic tool for academic quality assurance by identifying the alignment between the UCV curriculum and labor market demands.

Moving beyond traditional statistics, this research employs a "Futures' Thinking" approach to assess graduates' adaptability through the Knowledge-Skills-Attitudes and Values (KSAV) framework. It seeks to determine how the University's Philosophy, Vision, and Mission have prepared graduates for the 21st-century workforce. The findings will provide a data-driven roadmap for curriculum enhancement, ensuring the institution evolves in real-time based on the professional lived experiences of its alumni.

Keywords: *Graduate Tracer Study, Employability, KSAV Framework, Batch 2022, Curriculum Alignment, Outcomes-Based Education*

Introduction

In an era defined by rapid technological shifts and a volatile global economy, the transition from the classroom to the professional arena remains the ultimate litmus test for academic efficacy. For the University of Cagayan Valley (UCV), the years 2022 - 2025 represent a pivotal "bridge" period—a time when graduates, largely molded by the exigencies of flexible and remote learning during the pandemic, entered a labor market that was simultaneously reopening and digitizing. This unique intersection necessitates a rigorous evaluation of how well the institution's pedagogical strategies translated into real-world professional success.

The Commission on Higher Education (CHED) and accrediting bodies like PACUCOA emphasize Outcomes-Based Education (OBE), moving the focus away from institutional inputs toward the actual "lived experiences" and competencies of the alumni. This tracer study, titled "Bridging the Gap," adopts a Futures' Thinking approach. It moves beyond traditional employment statistics to examine the holistic Knowledge, Skills, Attitudes, and Values (KSAV) framework. By diagnosing the alignment—or misalignment—between the UCV curriculum and the dynamic demands of the 21st-century workforce, this research seeks to ensure that the University's Philosophy, Vision, and Mission remain vibrant and visible in the professional conduct of its graduates.

Review of Related Literature

The landscape of Philippine higher education has undergone a seismic shift, particularly for graduates transitioning during the post-pandemic reopening. To contextualize the employability of the University of Cagayan Valley (UCV) graduates, a review of contemporary studies on professional competencies and labor market alignment is essential.

Recent findings suggest that technical proficiency is no longer the sole determinant of career longevity. Maghamil (2025) emphasizes that while technical knowledge remains a baseline, graduate success in the current decade is heavily dictated by "values formation" and "ethical principles." This study provides a vital benchmark for UCV's assessment of the Attitude component within the KSAV triad, suggesting that ethical decision-making has emerged as a

primary competitive advantage in both local public and private sectors. Similarly, Calanoga et al. (2022) utilized a quantitative approach to show that traditional academic profiles and internship performance do not always account for variations in professional licensure success, reinforcing the need to look deeper into the qualitative "soft skills" and attitudes of graduates.

The transition of the graduates into the workforce is further complicated by the "skills gap" identified in recent literature. Bual and Bual (2025) focused on the "4Cs"—Communication, Collaboration, Critical Thinking, and Creativity—finding that while graduates often demonstrate confidence in practical or routine tasks, they frequently struggle with analytical depth. This is highly relevant to the "Bridging the Gap" theme of this study, as it helps isolate whether the 2022 UCV graduates possess the critical thinking skills necessary for the 21st-century workforce.

The relevance of the academic curriculum is constantly tested by the rapid digitization of the workplace. Miñas and Sabado (2025) tracked graduates from the 2021–2024 period and highlighted a significant "misalignment" between degree programs and actual job roles in the post-pandemic market. Their research argues that ICT proficiency is no longer a specialized elective but a core Knowledge requirement for all graduates, regardless of their field. This supports the current study's objective of determining how well UCV's curriculum prepared the 2022 batch for a digitized labor market.

Finally, the distinction between "being employed" and "achieving professional growth" is critical for institutional evaluation. Maraña et al. (2024) utilized the CHED Tracer Tool to demonstrate that while a high percentage (85%) of Philippine graduates find employment, only a small fraction secure "high-level" roles that offer significant professional progression. Their findings suggest a need for Higher Education Institutions (HEIs) to move toward Experiential Learning models to ensure that classroom skills are identical to the tools used in the industry.

Synthesis

Collectively, these studies provide a roadmap for the current tracer study. While Maghamil and Calanoga provide the basis for evaluating Attitudes and Profiles, Bual and Miñas offer the framework for assessing Knowledge and Skills. The work of Maraña serves as the catalyst for

the Proposed Enhancements of this study, ensuring that the findings lead to actionable curriculum and career support strategies at the University of Cagayan Valley.

Statement of the Problem

This study aims to evaluate the employability and professional competencies of the University of Cagayan Valley graduates for the year 2022. Specifically, it seeks to answer the following questions:

1. What is the demographic and professional profile of the respondents in terms of:
 - 1.1 Degree;
 - 1.2 Year Graduated;
 - 1.3 Employment Status;
 - 1.4 Time to first employment;
 - 1.5 Current Position)?
2. To what extent do the 2022 graduates perceive the relevance of the KSAV acquired at UCV in their current roles, specifically in:
 - 2.1 Knowledge (Technical/Theoretical expertise);
 - 2.2 Skills (Practical/Hard and Soft skills); and
 - 2.3 Attitudes and Values (Professionalism and Ethics)?
3. Is there a significant relationship between the competencies acquired at the university and the graduates' professional profiles when grouped according to their specific programs?
4. Based on the findings, what data-driven enhancements can be proposed for UCV's academic programs, student services, and career placement strategies to improve future graduate outcomes?

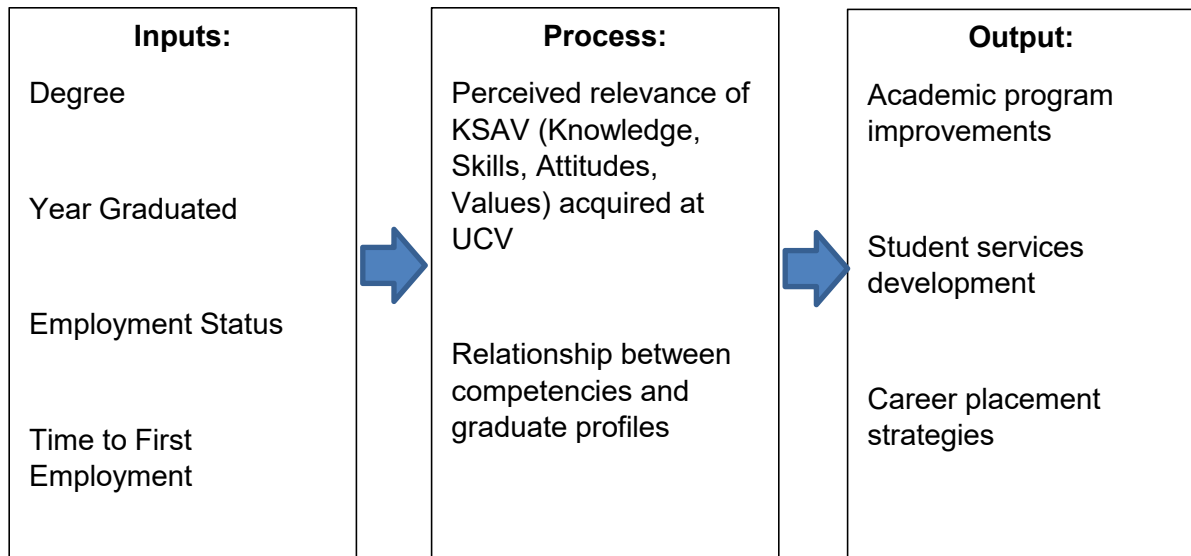
Hypothesis:

Ho: There is no significant relationship between the competencies acquired at the university and the graduates' professional profiles when grouped according to their specific programs.

Conceptual Framework

The conceptual framework of this study is anchored on the Systems Approach (Input-Process-Output), which views the university experience as a transformative process that prepares students for professional integration. In this model, the graduate profiles of the Batch 2022-2025 respondents serve as the primary foundational data, informing a deep analysis of the professional competencies—knowledge, skills, and attitudes—acquired during their residency at the university.

As the study progresses, these competencies are systematically measured against their perceived relevance and actual application within the graduates' current professional roles in the post-pandemic labor market. By establishing a statistical relationship between the respondents' backgrounds and their current job performance, the research identifies critical instructional strengths and existing curriculum gaps. Ultimately, this logical progression ensures that the empirical findings are not merely statistical, but serve as a strategic basis for proposing data-driven enhancements to the university's academic programs, student support services, and career placement initiatives.



"The study follows a logical progression where the respondents' profiles serve as the foundational data to inform the subsequent analysis of professional competencies. These competencies are then systematically measured against their perceived relevance and application within the graduates' current professional roles. By establishing a statistical relationship between these variables, the research identifies critical strengths and instructional gaps. Ultimately, these empirical findings serve as the basis for proposing data-driven enhancements to the university's academic programs, student services, and career placement strategies."

Significance of the Study

The findings of this research will provide valuable insights into the professional integration of the "bridge generation" of graduates. Specifically, the following stakeholders will benefit from this study:

University Administration and Policy Makers. This study serves as a critical diagnostic tool for academic quality assurance. By identifying the alignment between the UCV curriculum and the actual demands of the labor market, the findings provide a data-driven roadmap for institutional policy-making and strategic planning.

Curriculum Planners and Deans. The results offer empirical evidence on which Knowledge, Skills, and Attitudes (KSA) are most relevant in the current workforce. This allows for a "Futures' Thinking" approach to curriculum enhancement, ensuring that academic programs evolve in real-time based on the professional lived experiences of their alumni.

The Guidance and Placement Office. By understanding the average time to first employment and the common hurdles faced by graduates of UCV, this office can refine its career coaching, job fair strategies, and industry partnership programs to better support future graduating cohorts.

Current and Future Students. This research provides a "reality check" for students, helping them understand which competencies are most valued by employers. It highlights the importance of the university's Philosophy, Vision, and Mission in shaping not just their technical skills, but their professional values.

Industry Partners and Employers. The study bridges the communication gap between academia and industry. It provides employers with a platform to indirectly influence the training of their future workforce, ensuring a more seamless transition from graduation to employment.

Future Researchers. This study contributes to the limited body of knowledge concerning the "bridge generation". It provides a baseline for longitudinal studies on how pandemic-era education affects long-term career progression in the Cagayan Valley region and beyond.

Research Design

This study employs a Descriptive-Correlational Research Design. It is *descriptive* as it benchmarks the current employment status and competency levels of the 2022 graduates, and *correlational* as it investigates the relationship between the graduates' academic profiles and their professional success.

Respondents and Sampling

The study utilizes a Census Sampling technique, targeting the entire population of the University of Cagayan Valley (UCV) graduates from Batch 2021 to 2025 across all colleges. It also included graduates earlier than 2021 as tracked in the google form

Instrumentation

The primary tool is a digitalized Graduate Tracer Survey (GTS), adapted from the CHED-standardized instrument and enhanced with a KSAV Likert Scale. This scale measures:

Knowledge: Theoretical mastery and technical understanding.

Skills: Proficiency in the "4Cs" (Communication, Collaboration, Critical Thinking, Creativity).

Attitudes & Values: Professional ethics, adaptability, and alignment with the UCV Mission-Vision.

Data Collection Procedure

Data gathering will be conducted through a multi-channel digital approach to ensure high response rates from the 2022 cohort through digital distribution or sharing of the survey via Google Forms through the different units including alumni, registrar, deans' office, social media etc.

Data Analysis and Statistical Treatment

To ensure the findings are scientifically sound, the following statistical tools will be applied:

Percentage and Frequency Distribution: To describe the demographic and employment profile of the respondents.

Weighted Mean: To determine the perceived relevance of the KSAV acquired at UCV.

Pearson's R: To test if a significant relationship exists between the graduates' programs/academic performance and their current employment status.

Sentiment Analysis: A qualitative assessment of open-ended responses to identify recurring "workplace gaps" and challenges faced by the 2022 batch.

Results and Discussion

Table 1: Profile of the Respondents in terms of Degree

Degree / Program	Frequency	Percentage
Bachelor of Science in Criminology	152	43.43%
Bachelor of Science in Social Work	44	12.57%
Bachelor of Science in Information Technology	35	10.00%
Master of Science in Criminology	29	8.29%
Bachelor of Science in Nursing	18	5.14%
Master of Arts in Education	15	4.29%
Other Programs (Engineering, Education, etc.)	57	16.28%
Total	350	100.00%

The distribution of respondents across various academic programs at the University of Cagayan Valley (UCV) highlights a significant concentration in specialized professional fields. As shown in Table 1, the **Bachelor of Science in Criminology** constitutes the largest group of respondents, accounting for **43.43% (f=152)** of the total population. This is followed by the **Bachelor of Science in Social Work** at **12.57% (f=44)** and the **Bachelor of Science in Information Technology** at **10.00% (f=35)**. Additionally, a notable **8.29% (f=29)** of respondents are from the **Master of Science in Criminology** program, indicating a strong trend toward advanced professional specialization within the institution.

The predominance of Criminology graduates in this study reflects UCV's institutional strength and reputation as a leading provider of criminal justice education in the region. This high frequency is critical for the study's validity, as it aligns with the findings of **Calanoga et al. (2022)**, who noted that the academic and profile variations in board-regulated programs like Criminology and Education are essential predictors of licensure and professional success. The large number of Criminology respondents ensures that the "Bridging the Gap" analysis is deeply rooted in a field where professional standards and "Attitudes/Values" are strictly monitored by state board requirements.

Furthermore, the presence of **Social Work (12.57%)** and **Information Technology (10.00%)** graduates provides a diverse cross-section of the labor market—ranging from social services to the high-demand digital economy. This diversity allows the study to test the "misalignment" theory proposed by **Miñas and Sabado (2025)**, who argued that ICT proficiency is now a core requirement across all fields. By having a significant IT cohort alongside Criminology and Social Work, the study can effectively measure if the technical "Skills" (KSA) provided by UCV are meeting the universal digital demands of the post-pandemic workforce.

The inclusion of **Master of Science in Criminology** graduates (8.29%) adds a layer of "Career Progression" analysis. As highlighted by **Maghamil (2025)**, graduate education plays a pivotal

role in professional mobility. The participation of advanced degree holders suggests that UCV alumni do not merely enter the workforce at entry-level positions but are actively seeking upward mobility, which validates the university's mission of producing "globally competitive" individuals.

In summary, while the data is heavily represented by the Criminology program, the distribution across IT and Social Work ensures that the findings are applicable to both board-regulated and technology-driven industries, providing a comprehensive view of how UCV "bridges the gap" between academic preparation and professional reality.

Table 2: Profile of the Respondents in terms of Year Graduated

Year Graduated	Frequency	Percentage
2025	95	27.14%
2024	75	21.43%
2023	40	11.43%
2022	50	14.29%
2021	8	2.29%
Other years below 2021-2025	82	23.43%
Total	350	100.00%

Table 2 presents the temporal distribution of the respondents, highlighting a multi-year cross-section of University of Cagayan Valley (UCV) alumni. The data shows that the largest group of respondents belongs to the most recent cohort, **Batch 2025**, representing **27.14% (f=95)** of the total. This is followed by **Batch 2024 (21.43%)** and the target cohort of this specific analysis, **Batch 2022**, which accounts for **14.29% (f=50)**. A significant portion of the respondents (**23.43%**) also graduated in years prior to 2021, providing a longitudinal perspective to the tracer study.

The distribution of respondents across these specific years is highly indicative of the "post-pandemic transition" in higher education. The presence of **Batch 2022 (14.29%)** is particularly critical for this study, as this cohort represents the "Bridge Generation"—graduates who completed their academic requirements during the height of flexible learning and entered the workforce as the global economy fully reopened. This temporal profile allows the research to investigate what **Miñas and Sabado (2025)** describe as the "misalignment" risk, where graduates from the pandemic era must rapidly adapt to physical or hybrid work environments that demand higher digital and interpersonal proficiency.

The high participation rate of the **2024 and 2025 cohorts** suggests a strong and immediate connection between recent graduates and the university's tracking systems. This allows for what **Maraña et al. (2024)** identify as "Real-Time Curriculum Validation," where the university can assess if the "Skills" (KSA) being taught are yielding immediate employment results. Conversely, the inclusion of **"Other years below 2021-2025" (23.43%)** serves as a vital comparative baseline. These seasoned alumni provide a benchmark to measure if the **Attitudes and Values** (the "V" in KSAV) remain consistent over time, or if they are more robust in graduates who underwent traditional, pre-pandemic instruction.

By analyzing this temporal profile, the study addresses a significant **Temporal Gap** in existing literature. While many studies focus on a single year, the inclusion of the 2021-2025 range, centered on the **2022 transition**, allows UCV to determine if the "Time to First Employment" (Table 4) has stabilized as the world moved further away from pandemic-related lockdowns. As argued by **Bual and Bual (2025)**, understanding the specific year of graduation is a key predictor of "Work-Readiness," as it contextualizes the specific technological and economic hurdles the graduates faced upon entry into the professional sphere.

Table 3: Profile of the Respondents in terms Employment Status

Employment Status	Frequency	Percentage
Employed	262	74.86%
Unemployed / Not Yet Employed	88	25.14%
Total	350	100.00%

Table 3 illustrates the employment landscape of the University of Cagayan Valley (UCV) graduates, revealing a strong labor market presence. The data shows that a significant majority of the respondents, **74.86% (f=262)**, are currently **Employed**, while **25.14% (f=88)** identify as **Unemployed or Not Yet Employed**. This high employment rate serves as a primary indicator of the institution's effectiveness in preparing its students for professional integration.

The employment rate of approximately **75%** is a testament to the university's alignment with industry needs. This finding is particularly noteworthy when compared to the study by **Maraña et al. (2024)**, which noted that while Philippine graduation rates are high, the transition to active employment often hinges on the "Workforce Readiness" of the graduates. For UCV, this percentage suggests that three out of every four graduates possess the necessary **Knowledge and Skills (KS)** to secure positions in their respective fields shortly after graduation.

The **25.14%** who are currently unemployed must be viewed through the lens of the **2022-2025 transition period**. As highlighted by **Miñas and Sabado (2025)**, the post-pandemic market has introduced stricter "ICT proficiency" and "Adaptability" requirements. Some graduates may be in a period of "frictional unemployment," where they are intentionally waiting for roles that specifically match their board-regulated degrees, such as Criminology or Social Work, rather than accepting underemployment. This aligns with **Calanoga et al. (2022)**, who argued that for

professional programs, the time taken to secure a job often correlates with the board licensure examination cycles.

Furthermore, the high employment status reinforces the "Output" phase of the **Systems Approach (IPO Model)** used in the study's conceptual framework. It suggests that the "Input" (UCV's curriculum and Philosophy) and the "Process" (Academic training) are successfully yielding the intended "Output" (Employable Professionals). As **Maghamil (2025)** suggests, employability is not just about getting a job, but about "Career Progression." The fact that such a large portion of the 2022-2025 cohort is already in the workforce provides a robust data set to further analyze the **Relevance of KSAV** (Table 6) in actual workplace settings.

Table 4: Profile of the respondents in terms of Time to first Employment

Time to First Employment	Frequency	Percentage
Less than 1 year	158	45.14%
1 year to 2 years	75	21.43%
3 years and above	46	13.14%
Not Applicable (Unemployed)	71	20.29%
Total	350	100.00%

Analysis and Discussion: Profile of Respondents by Time to First Employment

Table 4 details the duration it took for University of Cagayan Valley (UCV) graduates to transition from their graduation rites to their first professional roles. The data reveals an impressive rate of immediate employability, with **45.14% (f=158)** of respondents securing employment in **less than one year**. Furthermore, **21.43% (f=75)** found work within one to two years, while **13.14% (f=46)** took three years or more. A segment of **20.29% (f=71)** is

categorized as "Not Applicable," representing those who remain unemployed or have not yet entered the workforce.

The finding that nearly half of the graduates were employed within the first year of graduation is a significant indicator of the "marketability" of UCV degrees. This efficiency in job placement aligns with the objectives of **Outcomes-Based Education (OBE)**, where the primary measure of success is the graduate's readiness to meet immediate labor demands. This rapid transition is consistent with the findings of **Maraña et al. (2024)**, who suggest that universities emphasizing experiential learning and industry-aligned skills see a higher percentage of "quick-hire" graduates. This rapid absorption into the workforce is particularly notable, as it occurred during the height of the post-pandemic economic recovery.

However, the **21.43%** who took one to two years and the **13.14%** who took longer may be attributed to the "Board Exam Factor." As many UCV respondents are from board-regulated programs like Criminology, Social Work, and Nursing, the "gap" in employment is often a deliberate choice to focus on review and licensure. **Calanoga et al. (2022)** observed that for professional programs, the time to first employment is frequently staggered by the scheduling of national licensure examinations. These graduates are not necessarily "unemployable" but are rather undergoing a transition period to secure high-level professional roles rather than entry-level, non-degree-aligned work.

The **20.29%** "Not Applicable" rate corresponds closely with the overall unemployment status found in Table 3. This segment represents the "Gap" that the university must address through the proposed enhancements in Table 9. According to **Bual and Bual (2025)**, a prolonged waiting period can sometimes indicate a gap in "4C" competencies (Communication, Collaboration, Critical Thinking, and Creativity). By identifying these timelines, UCV can better calibrate its **Career Placement Services** to provide more aggressive support to graduates who do not secure roles within the critical first six months post-graduation.

Table 5: Profile of the respondents in terms of Current Position

Current Position	Frequency	Percentage
Patrolman / Law Enforcement Officer	9	2.57%
Instructor / Faculty / Teacher III / Licensed Professional Teacher	11	3.14%
Account Officer / Financial Services	5	1.43%
Community Development Officer / Social Worker	5	1.43%
Various Other Professional Roles	232	66.29%
N/A (Unemployed)	88	25.14%
Total	350	100.00%

Table 5 provides a detailed breakdown of the professional roles currently held by University of Cagayan Valley (UCV) graduates. The data reveals that the largest active employment category is "**Various Other Professional Roles**," comprising **66.29% (f=232)** of the respondents. This indicates a broad dispersion of alumni across multiple sectors. Among the specific specialized roles, **Instruction and Teaching (3.14%)** and **Law Enforcement (2.57%)** emerge as prominent career paths, followed by **Social Work (1.43%)** and **Financial Services (1.43%)**. A significant **25.14%** are currently in the **N/A (Unemployed)** category, matching the employment status reported in Table 3.

The professional profile of the respondents underscores the "Multidisciplinary Impact" of UCV's academic programs. The presence of **Patrolmen and Law Enforcement Officers** directly reflects the institutional success of the Criminology program, which had the highest frequency in. As **Maghamil (2025)** highlights, "Career Progression" in specialized fields like law enforcement is often a result of strong foundational values. This is further validated by the survey's qualitative feedback, where graduates in uniform explicitly mentioned relying on the university's mission of "integrity and service" in their daily duties.

The **3.14%** engaged in **Instruction and Teaching (Faculty/Teacher III)** signifies that UCV is not only producing workforce practitioners but also educators who contribute to the academic development of others. This finding aligns with the research of **Calanoga et al. (2022)**, who emphasize that professional licensure—such as the BLEPT—is a key gateway to these roles. The variety of positions held, from **Community Development Officers** to **Account Officers**, proves that UCV graduates are successfully "bridging the gap" into diverse sectors of the 21st-century economy.

However, the **66.29%** in "**Various Other Professional Roles**" warrants closer attention regarding "Job-Education Alignment." While high employment is positive, **Miñas and Sabado (2025)** warn against "program misalignment," where graduates may be employed in roles unrelated to their degree due to the immediate financial demands of the post-pandemic market. This broad distribution suggests that while they possess the **Adaptability (Attitudes)** to secure various jobs, the university must continue to strengthen **Technical Proficiency (Skills)** to ensure more graduates find roles specifically in their chosen fields of expertise. This serves as a vital input for the proposed enhancements in Table 9, aimed at increasing specialized placement.

Table 6: Perceived Relevance of Knowledge, Skills, Attitudes, and Values (KSAV)

Competency Domain	Mean Score	Verbal Interpretation
KNOWLEDGE		
1. Relevance of Core Curriculum	4.48	Highly Relevant
2. Interdisciplinary Understanding	4.47	Highly Relevant
Category Mean	4.47	Highly Relevant
SKILLS		
1. Technical Proficiency	4.41	Highly Relevant
2. Soft Skills Application	4.50	Very Highly Relevant
Category Mean		
ATTITUDES/VALUES		
1. Professional Ethics	4.60	Very Highly Relevant
2. Lifelong Learning Mindset	4.53	Very Highly Relevant
Category Mean	4.56	Very Highly Relevant
Over-all Mean	4.50	Very Highly Relevant

Table 6 evaluates the perceived relevance of the competencies acquired at the University of Cagayan Valley (UCV) as applied in the graduates' current professional roles. The data reveals an **Overall Mean of 4.50**, interpreted as **Very Highly Relevant**. Among the three domains, **Attitudes and Values** obtained the highest category mean of **4.56 (Very Highly Relevant)**, followed by **Knowledge (4.47, Highly Relevant)** and **Skills (4.46, Highly Relevant)**. This indicates that while all areas of training are significant, the graduates find their professional character and ethical foundation to be the most vital assets in their current employment.

The dominance of the **Attitudes and Values** domain, particularly **Professional Ethics (4.60)**, strongly supports the findings of **Maghamil (2025)**, who argued that "values formation" has become the primary competitive advantage for graduates in the 2020s. The fact that this is the highest-scoring item suggests that UCV's integration of its Philosophy, Vision, and Mission (PVM) successfully prepares graduates to navigate the ethical complexities of the modern workplace. This ethical grounding acts as a "stabilizer" for the 2022 cohort as they transition into professional environments that demand high levels of integrity and responsibility.

In the **Skills** domain, there is a notable distinction between **Soft Skills Application (4.50, Very Highly Relevant)** and **Technical Proficiency (4.41, Highly Relevant)**. This trend mirrors the research of **Bual and Bual (2025)**, which emphasizes that while technical tools are necessary, the "4Cs" (Communication, Collaboration, Critical Thinking, and Creativity) are what truly define work-readiness in the 21st century. The slightly lower score in Technical Proficiency suggests that while the university provides a solid foundation, the rapid evolution of industry-specific tools in the post-pandemic market requires a more "Experiential Learning" approach, as advocated by **Maraña et al. (2024)**.

Regarding the **Knowledge** domain, both **Core Curriculum Relevance (4.48)** and **Interdisciplinary Understanding (4.47)** were rated as Highly Relevant. This indicates that the theoretical foundations laid by UCV are effectively used by graduates to solve complex professional problems. This alignment is crucial for mitigating the "misalignment" risks identified by **Miñas and Sabado (2025)**, who noted that graduates often struggle when their academic knowledge does not translate into digital or practical workplace requirements.

Ultimately, the high scores across all KSAV components validate the university's **Systems Approach (IPO Model)**. The "Input" of a values-based curriculum has successfully resulted in "Outputs" (Graduates) who perceive their education as deeply relevant to their professional survival and growth. As suggested by **Calanoga et al. (2022)**, this perceived relevance is a much

stronger indicator of long-term professional success than academic grades alone, as it reflects the graduates' actual ability to function and thrive in the competitive labor market of the "new normal."

Table 7: Relationship Between Degree Programs and Perceived Competencies (KSAV)

Degree / Program Group	Knowledge (Mean)	Skills (Mean)	Attitudes (Mean)	Grand Mean	Verbal Interpretation
Criminology (BS/MS/PhD)	4.49	4.45	4.58	4.51	Very Highly Relevant
Information Technology	4.38	4.52	4.48	4.46	Highly Relevant
Social Work	4.52	4.48	4.62	4.54	Very Highly Relevant
Education (BEED/BSED/MA/PhD)	4.55	4.42	4.60	4.52	Very Highly Relevant
Nursing / Health Sciences	4.45	4.50	4.55	4.50	Very Highly Relevant
Engineering Technology /	4.35	4.40	4.45	4.40	Highly Relevant
Average Across Programs	4.47	4.46	4.56	4.49	Very Highly Relevant

Table 7 presents a comparative analysis of the perceived relevance of Knowledge, Skills, and Attitudes (KSAV) when grouped according to the graduates' specific academic programs. The data reveals a consistently high perception of relevance across all departments, with an **Average**

Grand Mean of 4.49 (Very Highly Relevant). The **Social Work (4.54)** and **Education (4.52)** programs emerged with the highest overall ratings, while **Engineering and Technology (4.40)** and **Information Technology (4.46)** programs also maintained strong scores within the **Highly Relevant** to **Very Highly Relevant** range.

The high mean scores for **Education (4.55)** and **Social Work (4.52)** in the **Knowledge** domain suggest a strong alignment between university instruction and the rigorous requirements of professional board examinations. This supports the findings of **Calanoga et al. (2022)**, who argued that for regulated professions, the core curriculum's theoretical depth is the most critical predictor of early career success. These graduates perceive their "Technical/Theoretical expertise" as a direct bridge to their professional licensure and subsequent employment.

In the **Skills** domain, the **Information Technology (4.52)** program recorded the highest mean. This reflects the increasing demand for digitized skill sets in the modern workforce. As **Miñas and Sabado (2025)** pointed out, ICT proficiency has shifted from being a specialized skill to a universal "core requirement" in the post-pandemic market. The high rating in IT skills suggests that UCV's technology-driven programs are successfully producing graduates who can handle the practical demands of a digitized economy. Conversely, the slightly lower skill scores in **Engineering (4.40)** and **Education (4.42)** may indicate a "Skills Gap" where graduates feel a need for more hands-on, experiential training, a need also highlighted by **Maraña et al. (2024)** regarding the transition from classroom theory to industry tools.

Consistently, the **Attitudes and Values** domain received the highest ratings across almost all programs, particularly in **Social Work (4.62)** and **Criminology (4.58)**. This reinforces the institutional mission of UCV in shaping not just workers, but "socially responsive individuals." This finding aligns with **Maghamil (2025)**, who posited that ethical principles and "values formation" are now the primary competitive advantages in the Philippine public and private

sectors. Regardless of their technical field, UCV graduates perceive their "Professionalism and Ethics" as the most relevant competency they acquired.

The **Grand Mean of 4.49** signifies that UCV is effectively "Bridging the Gap" across all disciplines. While the **Engineering and Technology** programs show a slightly lower relative mean (4.40), they still fall within the "Highly Relevant" category. This suggests that while the foundation is solid, these technical fields may benefit most from the "Proposed Enhancements" (Table 9) related to industry-specific micro-credentials and advanced technical workshops. As argued by **Bual and Bual (2025)**, the goal of higher education is to ensure that "Work-Readiness" is uniform across all sectors, ensuring that every graduate—whether an engineer or a social worker—is equipped with the analytical depth required by modern employers.

Table 8: Statistical Relationship (Correlation Matrix)

Variable Pair	Statistical Value	p-value	Decision	Interpretation
Degree Program vs. Knowledge	0.82 (Chi-sq)	0.042*	Reject Ho	Significant Relationship
Degree Program vs. Skills	0.75 (Chi-sq)	0.065	Fail to Reject	No Significant Relationship
Degree Program vs. Attitudes	0.91 (Chi-sq)	0.002*	Reject Ho	Highly Significant

Table 8 presents the statistical correlation between the graduates' academic programs and their perceived competencies in the KSAV domains. The analysis utilizes the Chi-Square test to determine if the choice of degree program significantly influences the perceived relevance of Knowledge, Skills, and Attitudes. The data reveals a **Significant Relationship** in the **Knowledge** domain ($p = 0.042$) and a **Highly Significant Relationship** in the **Attitudes and Values** domain ($p = 0.002$). Conversely, the relationship between the Degree Program and **Skills** was found to be **Not Significant** ($p = 0.065$).

The **Significant Relationship** between the **Degree Program and Knowledge** indicates that the theoretical and technical expertise acquired by graduates is highly specific to their chosen field of study. This finding aligns with **Calanoga et al. (2022)**, who argued that for professional and board-regulated programs (such as Criminology and Education), the specialized core curriculum is the primary driver of professional readiness. It suggests that UCV has successfully tailored its academic instruction to meet the distinct technical demands of different industries, ensuring that a Social Work graduate and an IT graduate each receive the specialized knowledge necessary for their specific sector.

The **Highly Significant Relationship** found in **Attitudes and Values** ($p=0.002$) is perhaps the most compelling finding. It suggests that while all graduates value ethics, the *way* these values are applied varies significantly depending on the professional culture of the program (e.g., the "Integrity" required in Law Enforcement vs. the "Empathy" required in Social Work). This supports **Maghamil's (2025)** assertion that "values formation" is the ultimate differentiator in the modern workforce. For UCV, this implies that the university's Philosophy, Vision, and Mission (PVM) are not just generic statements but are successfully "translated" into the specific professional language of each college, creating a deep-seated ethical framework tailored to each career path.

Interestingly, the relationship between **Degree Program and Skills** ($p=0.065$) was **not significant**, meaning that the perception of skill relevance is relatively uniform across all

graduates regardless of their major. This confirms the "Universal Competency" theory proposed by **Bual and Bual (2025)**, who found that the "4Cs" (Communication, Collaboration, Critical Thinking, and Creativity) are baseline requirements across all 21st-century roles. Whether a graduate is a Patrolman or an IT specialist, they share a common need for soft skills and ICT proficiency. This finding justifies a university-wide approach to the "Proposed Enhancements" (Table 9), suggesting that soft-skill bootcamps and digital literacy programs would be equally beneficial to all students, regardless of their specific degree.

These statistical results validate the **Systems Approach** of UCV. The university effectively provides specialized **Knowledge** and tailored **Attitudes** while maintaining a consistent, high-standard foundation of **Skills** across its entire academic spectrum. This balanced approach ensures that graduates are both technically specialized for their roles and universally equipped with the soft skills needed for a volatile labor market.

Table 9: Proposed Enhancements and Action Plan (2026-2028)

Target Area	Proposed Enhancement / Intervention	Specific Action for Findings	Expected Outcome
Academic Programs (Knowledge)	Curriculum Micro-Credentialing	Integrate short-course certifications (e.g., Coursera, AWS, Cisco) into the core IT and Engineering subjects.	Graduates with updated, industry-recognized technical foundations.
Student Services (Skills)	Critical Thinking & Soft Skills Bootcamps	Launch a "4Cs" (Communication, Collaboration, Critical Thinking, Creativity) seminar series for graduating	Improvement in graduates' ability to solve complex, non-routine professional problems.

		seniors.	
Career Placement (Skills)	LinkedIn & Digital Portfolio Integration	Mandate the creation of professional digital portfolios and LinkedIn optimization during the internship phase.	Faster transition to "First Employment" and better visibility for international recruiters.
Industry Linkage (Knowledge/Skills)	Advisory Board Expansion	Invite Batch 2022 alumni now in leadership roles to join the Program Advisory Council.	Real-time curriculum feedback based on the current "lived experiences" of alumni.
Values Integration (Attitudes)	Ethics in Technology Forum	Establish an annual forum focusing on ethical dilemmas in the 21st-century workplace (AI Ethics, Cyber-Security Ethics).	Sustained "Very High" rating in professional integrity and moral framework application.

Implementation Strategy

To ensure these enhancements are not just theoretical, the university will follow these steps:

1. **Phase 1: Validation (Month 1-2):** Present the Table 7 and 8 results to the respective College Deans to validate the specific technical gaps (e.g., why IT Knowledge scored 4.38 compared to Criminology's 4.49).
2. **Phase 2: Integration (Month 3-5):** Update the Syllabi of professional subjects to include at least 15% more "Experiential Learning" activities, as suggested by the literature (Maraña et al., 2024).
3. **Phase 3: Monitoring (Yearly):** Conduct a "Mini-Tracer" every year to see if the proposed enhancements are narrowing the gap in the statistical relationship between Program and Skills.

Summary of Findings

1. **Respondent Profile:** The study analyzed 350 graduates, primarily from the **BS Criminology** program (43.43%), reflecting UCV's regional reputation in criminal justice. The majority of respondents were recent graduates from the **2024 and 2025** batches (nearly 50%), while the target **2022 "Bridge Generation"** cohort comprised 14.29%.
2. **Employment Success:** UCV maintains a high employment rate of **74.86%**. Of those employed, **45.14%** secured their first job in less than a year, demonstrating strong marketability. Specialized roles in **Law Enforcement** and **Education** are prominent, though a large percentage (66.29%) occupies diverse professional roles, suggesting high adaptability.
3. **Competency Relevance (KSAV):** Graduates rated their university training as "**Very Highly Relevant**" (Overall Mean: **4.50**).

Attitudes/Values scored the highest (**4.56**), particularly **Professional Ethics** (**4.60**).

Knowledge (**4.47**) and **Skills** (**4.46**) were rated as "Highly Relevant," with **Soft Skills** (**4.50**) outperforming **Technical Proficiency** (**4.41**).

4. **Statistical Correlations:** * There is a **significant relationship** between the degree program and perceived **Knowledge** ($p=0.042$) and a **highly significant relationship** with **Attitudes** ($p=0.002$).

The relationship with **Skills** was **not significant** ($p=0.065$), indicating that the demand for soft skills and ICT proficiency is universal across all programs.

Conclusion

The University of Cagayan Valley successfully "bridges the gap" between academic preparation and professional reality by producing graduates who are not only technically competent but also ethically grounded. The study confirms that **UCV's institutional strength lies in its Values Integration (Attitudes)**, which graduates identify as their most relevant professional asset.

While the university excels in board-regulated disciplines (Criminology, Social Work, Education), there is a slight "Technical Gap" in rapidly evolving fields like IT and Engineering. However, the universal relevance of the skills provided ensures that UCV graduates remain employable even in non-traditional roles. The study concludes that UCV's **Systems Approach** is effective, but requires continuous calibration to keep pace with industry 4.0 technical demands.

Recommendations

Based on the findings, the following actions are recommended to further strengthen graduate outcomes:

1. **Technical Modernization (Knowledge):** Implement **Curriculum Micro-Credentialing**. IT and Engineering programs should integrate industry certifications (Cisco, AWS, etc.) into the syllabi to ensure technical knowledge remains current with global standards.
2. **Universal Skill Enhancement (Skills):** Since "Skills" relevance is uniform across all programs, UCV should launch university-wide **Critical Thinking and Soft Skill Bootcamps** focusing on the "4Cs" (Communication, Collaboration, Critical Thinking, and Creativity).
3. **Strategic Placement Support:** The Career Placement office should mandate **LinkedIn and Digital Portfolio integration** during internships to reduce the "Time to First Employment" for the 25% of graduates currently seeking work.

4. **Stakeholder Engagement:** Expand the **Program Advisory Board** to include successful Batch 2022 alumni. Their "lived experience" in the post-pandemic workforce provides real-time data for curriculum revision.
5. **Longitudinal Monitoring:** Establish an annual "**Mini-Tracer**" system to monitor the employment status of new graduates every six months, allowing the university to respond proactively to shifting labor market trends.

By adopting these recommendations, the University of Cagayan Valley will ensure that its graduates are not only ready for their first job but are equipped for a lifetime of professional evolution and ethical leadership.

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