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From Classroom to Career: Evaluating Graduate Employability and Program Effectiveness in Physical Education and Sports Science

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Abstract. An evident gap between academic preparation and employment outcomes in physical education and sports science has prompted the need for a comprehensive evaluation of graduate employability and program effectiveness. Investigating how well a program's curriculum aligns with labor market results in an improved curriculum and eventually facilitate graduates' transition from classroom to career. This study traced a total of 317 graduates from 2016 to 2024 and utilized a quantitative research design, specifically a cross-sectional survey, as data were collected at a single time from graduates who had already transitioned into the workforce. Results show that the graduates have a highly favorable overall experience at the university and in their degree programs. The majority evaluated the curriculum and student services favorably, emphasizing the availability of extracurricular activities and instructors' innovative teaching methods. In terms of employment status, most graduates secured jobs within three to six months after graduation, with several obtaining full-time positions. Numerous graduates found employment as professional teachers, soldiers or police officers, and sports coaches or trainers. Currently, most graduates have secured employment. Interestingly, they assert the relevance of the curriculum in their first and second jobs, particularly highlighting that the communication skills taught in the classroom were useful competencies in the workplace. The graduates from the teaching track articulated a more fulfilling overall experience in the university, a better quality of overall experience in their degree program, and a more positive rating of the curriculum and student services than their non-teaching counterparts did.

Keywords: Graduates' employability; program effectiveness; curriculum competencies; teaching track; non-teaching track

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1. Introduction

Graduate employability and program effectiveness are key indicators of the success of higher education programs. The degree programs offered in higher education institutions (HEIs) shape students both in the classroom and through practical experience, guiding them toward becoming well-prepared professionals in their chosen careers. There is a continuous demand for skilled professionals in response to societal and global needs; hence, it is crucial to evaluate how effectively academic programs equip graduates for the workforce. Mendoza-Villafaina & López-Mosquera (2024) have presented the reality of the changing landscape of the labor market. This market requires students to be better prepared for their professional insertion, explicitly presenting a stringent selection of manpower to meet the demand of the global market. In response to this demand, universities must offer an educational experience that is perceived as useful for the future.

This is the purpose of directing every goal of HEI programs to the relevance of degrees in society. The outcomes of the degree program outlined in the CHED Memorandum Orders (CMOs) should depend on the requirements of the global community and the quality of the workforce that industries demand. Therefore, the crucial responsibility of the curriculum of each degree program is to incorporate the necessary knowledge, skills, and attitudes that enhance graduates' employability because the quality and employment rate of graduates across various industries, institutions, and agencies serve as indicators of a program's success. According to Ma'dan et al. (2020), the role of the institution is important in responding to industry demand for high-quality graduates. This role is not only to enhance the economic development of the country but also to produce capable talent that will serve the community in various aspects and circumstances.

The effectiveness of a program is measured by the employability of its graduates. A high demand for graduates in both local and international job markets indicates the success of a degree program. Highly sought-after graduates from HEIs reflect the achievement of both program and institutional outcomes. According to Andaya et al. (2024), the competencies and skills honed through their preparation and training during the completion of their degree programs enable graduates to provide effective performance in their jobs and to contribute to the goals and objectives of the industries, institutions, or organizations that hire them.

Literature presents the employment trajectory of graduates and effectiveness of their curriculum preparation in their jobs. Interestingly, Roman & Villanueva (2023) found that the employment rate of graduates is significantly higher than the targeted employment rate set by a university. Graduates from teacher education display a consistent rating of 'very satisfactory' in their workplace, which is a manifestation of the university having developed in them the intended program outcomes and competencies that ultimately resulted in their better teaching performance (Olvido et al., 2024). Additionally, graduates thought that their college degree was relevant to their first job (Tutor et al. 2021). Sports science graduates claimed to be fully equipped with personal readiness to react and present themselves to employers; additionally, they obtain employment in the

workplace within a short period of time (Tan et al., 2014) and are hired because of their employability skills and work experience (Polland et al., 2015).

Other studies present gaps in graduate unemployment and in the landing of jobs which are not related to the degree they completed. Unemployment of graduates is associated with graduates' perspectives in connection to their preferences and priorities (Hwang, 2017) and employment difficulty is also linked to imbalanced market demand (Wu, 2021). A career mismatch is somewhat linked to having no interest in getting the job (Alejandre et al., 2015). Mismatches are also associated with graduates not sufficiently developing communication, critical thinking, and problem-solving skills (Tutor et al. 2021). Graduates who are not employed report stiff competition for a job and unavailability of job vacancies as reasons for delayed employment or unemployment (Vidania et al., 2023).

In the local context, particularly at a university in the Northern Philippines, a similar situation arose that led to the unemployment of the majority of graduates from the physical education and sports science programs between 2016 and 2024. Most of these graduates have encountered difficulty finding employment, even to the present time. There has been a persistent mismatch between the programs completed and opportunities in the existing job market, a situation even more challenging for sports sciences graduates. While graduates report positive academic experiences, many encounter challenges securing employment relevant to their degree. This misalignment is exacerbated by rapid changes in labor market requirements and the readiness of the labor market.

There is a significant gap in documenting the employment outcomes of physical education and sports science graduates in the Philippine context. This lack of quantitative tracer studies limits institutions' ability to develop a strategic plan to improve the curricula and student services of the two programs. The results of the disparity between teaching and non-teaching tracks in graduate satisfaction and program effectiveness have not been explored, raising questions about equitable access to quality education and employment preparation.

Given this premise, this study aimed to evaluate the employability outcomes of physical education and sports science graduates in the Philippines, as such employability outcomes reflect the effectiveness of these programs in their professional careers. Specifically, (1) the study describes the graduates' experiences, including their overall experience at the university and in their degree program, their evaluation of the program curriculum and student services, the availability of extracurricular activities, and the program's integration of new and innovative teaching techniques; (2) it determines graduates' employment status within three to six months after graduation, as well as their current employment status, to provide a clear picture of their workforce integration; (3) it examines curriculum relevance and competencies to the graduates' first and second jobs, and identifies the key competencies acquired from their programs that are useful in their workplaces; and (4) it compares graduates' overall university experience, degree program experience, and evaluation of the curriculum and student services between those who pursued teaching careers and

those who pursued non-teaching careers. Ultimately, the study aimed to generate data-driven insights that would inform curriculum development, student support services, and policy decisions to enhance graduate employability and program quality in the field of physical education and sports science.

2. Literature Review

2.1 Graduate Employability

Graduate employability reflects the effectiveness of higher education programs, and the feedback from graduates regarding their experiences in their degree programs reinforces the effectiveness of these programs. A study by Ali et al. (2014) found that while students perceived their completed programs positively, their marketability outcomes still needed improvement. Oliver (2015) emphasized the importance of distributing tasks effectively throughout students' completion of their degree program, employing assessments that should be carefully mapped to ensure a greater concentration of high-level tasks in the latter years. This structured approach encourages students to develop essential skills, knowledge, and personal attributes that help their ability to secure and create meaningful paid and unpaid work. In so doing, graduates can contribute positively to themselves, the workforce, the community, and the broader economy (Oliver, 2015).

To enhance graduates' employability, degree programs have to take a competence-centered approach in developing skills and must set out a taxonomy of skills. Degree programs should offer guidelines and real-life examples in higher education that help students learn these important skills. Furthermore, degree programs have to inculcate in graduates the appropriate attitudes and values that are equally critical in the labor market. As Charterina et al. (2020) put it, among the generic skills most valued in an inexperienced graduate, human resources managers rank attitudes; in particular, intrapersonal attitudes are ranked first, followed by interpersonal attitudes and values, which are frequently mentioned and highly valued competencies.

At present, technology skills are a requirement for employment, and HEIs have to integrate the emerging competencies that the labor market requires into the curriculum. A study by Oraison et al. (2019) demonstrates that practical competencies and 21st-century skills, such as problem-solving and communication, are the set of employability criteria that employers seek and prioritize in hiring. According to Mei et al. (2023), information processing has also emerged as the most important competency of the future workforce for digital technology implementation in higher education.

This finding suggests that digital tools are relevant to the present demand of the world market, equipping students with essential skills and confidence to enter the job market successfully. Aside from technical skills, soft skills are one key work competency employers prefer in an emerging economy (Chandler, 2024). Finally, a positive college experience (in its multiple dimensions) is generally associated with better employability (Orbeta et al., 2021).

2.2 Program Effectiveness

Program effectiveness in higher education is often associated with the employment readiness of graduates. Studies show the influence of program preparation of graduates on their present employment with high employability of graduates linked to their application of skills gained from their degree programs and relevant degrees (Cruz & Cruz, 2023). Similarly, Saong et al. (2023) acknowledged that a vast majority of graduates are employed locally in positions that are relevant to their programs. This is a result of how the university adequately prepares the graduates for jobs related to their degrees and how satisfied they are with the high-quality instruction provided by their degree programs. This study further claimed that graduates' high level of employability both locally and globally is a result of adequate academic preparation received at the university.

In another study, superior teaching, communication, and human relations skills in workplaces and core and professional courses were relevant to graduates' professional work (Cruz & Chanjueco, 2024). Domingo et al. (2024) showed that a degree program effectively prepared students for their professional roles. The study revealed trends in employment status, with a significant proportion of graduates securing employment in roles directly related to their field of study, evidence of the relevance and impact of degree programs on graduates' career paths. Moreover, graduates acquired adequate 21st-century skills such as communication, pedagogy, information communication technology, time management, and flexibility from their respective degree programs, skills which proved to be beneficial in their work (Caingcoy et al., 2021).

3. Conceptual Framework

This study is anchored in the following theories that will shed light on the employment rate of graduates and how key areas in academic completion contribute to their successful integration in the labor market. The theory of Human Capital Theory by Becker, as cited by Leoni (2023), states that the skills and knowledge of students are enhanced through education and training, making them more productive and employable. Education is like an investment that is reciprocated by competent graduates who contribute to society as a result of training and education received from an institution.

Consequently, placing graduates of physical education and sports science, who have specialized skills in coaching, fitness, and sports management, gains a competitive advantage in the job market. The quality education provided by these programs has prepared them with the knowledge, skills, and attitudes necessary to become valuable members of the workforce.

Another theory that provides employment data of graduates from physical education and sports science programs is Employability Theory by Hillage and Pollard (1998). This theory characterizes employability as a combination of knowledge, skills, and personal attributes that enable individuals to gain and maintain employment; it highlights how curricular programs should focus on developing both technical competencies and transferable skills such as

communication, leadership, and problem-solving. The technical competencies and skills of physical education and sports science programs were transferred to the graduates through their training and education, which readily prepared them for their chosen employment.

The outcomes of these programs directly impact the quality of the workforce of stakeholders who hire these graduates. This concept is associated with Freeman's (1984) Stakeholder Theory, as cited by Peng et al. (2024), which provides a workable framework for researching the sustainability of an education. Stakeholder Theory places value on the voices and needs of various stakeholders that promotes collaboration and inclusive program implementation. This approach provides relevant feedback to the program for improving services and modifying strategies to fit the needs of learners and the dynamic demands of the labor market.

In this study, this theory accentuates the significance of considering various stakeholders—students, employers, faculty, and policymakers—when assessing program effectiveness. The effectiveness of physical education and sports science graduates is echoed in industry expectations, as their preparedness and competence influence stakeholder satisfaction in their respective fields of employment.

4. Methodology

4.1 Research Design, Respondents and Sampling Technique

This study employed a cross-sectional survey designed to evaluate graduate outcomes in physical education and sports science. Data from a cross-sectional survey were collected at a single point in time from graduates who had already transitioned into the workforce. A cross-sectional survey does not analyze data to establish causal relationships, but rather to assess associations between concepts; cross-sectional data limit statements related to temporal causality. Data gathered through cross-sectional design improves credibility by reporting research in detail and transparently, and ensures appropriate sampling (Maier et al., 2023).

The target population consisted of all alumni of the Physical Education and Sports Science program who graduated between 2016 and 2024. Using convenience sampling, respondents were recruited via alumni networks and online platforms. In practice, an ideal sample size could be estimated using Cochran's (1977) as cited by Hasan & Kumar (2024) along formula based on the finite population and desired confidence level but, given the sampling approach, the emphasis was on actual participation. Ultimately, a total of 317 graduates completed the survey and were included in the analysis, representing the actual sample obtained for this study. Schomburg (2003), as cited by Gines (2014), claimed that this number of respondents is acceptable for a tracer study, as it falls within the expected response rate of 30 to 60 percent on the conduct of graduate tracer studies.

4.2 Research Instrument

Data were collected using a semi-structured questionnaire specifically developed for this study, drawing on existing graduate tracer studies and relevant literature.

The instrument was composed of seven sections, each addressing a specific dimension of the research objectives. Section A gathered general information, including demographic and academic background such as age, gender, and year of graduation. Section B focused on the exit survey, capturing the respondents' perceptions of their university experience, program quality, and readiness for employment. Section C covered any training, certification, or advanced studies pursued after graduation. Section D explored current employment data, including job title, sector, time taken to secure employment, and relevance to the degree program. Section E addressed job satisfaction and the relevance of acquired competencies to current roles. Section F examined services and support systems needed by the graduates for further career development, while Section G identified employment-related issues or challenges encountered in the job market.

The final questionnaire included a total of 52 items, consisting of both closed-ended (e.g., Likert scales and multiple-choice) and open-ended questions, and typically took respondents approximately 20 to 30 minutes to complete. To facilitate wide participation, the survey was administered online through Google Forms and distributed via email and alumni social media channels.

4.2.1 Content Validation and Reliability

To ensure content validity, the draft questionnaire was reviewed by a panel of experts in physical education, sports science, and educational research. The expert reviewers examined the items for relevance, clarity, and completeness. Based on their feedback, several items were refined or rewarded to improve clarity and ensure that all key aspects of graduate employability and program effectiveness were adequately covered. The internal consistency reliability of the multi-item scales in the questionnaire was assessed using Cronbach's alpha.

The alpha coefficients obtained indicate high internal consistency for the main scales: Section B (Exit Survey) had $\alpha = 0.91$, Section D (Employment Data) had $\alpha = 0.86$, and Section E (Job Satisfaction and Competency Relevance) had $\alpha = 0.89$. These values exceed the commonly accepted threshold of 0.70, providing evidence that the items within each of these sections reliably measured the same underlying construct.

4.3 Data Gathering Procedures

This study used a semi-structured questionnaire designed for graduate tracer studies. The institution developed the survey instrument and validated it through expert reviews, pilot testing, and revisions. The survey was mainly administered through Google Forms for easy access and efficient data collection. To improve response rates, graduates were also contacted through mobile phone calls and personal emails. Direct follow-ups were made to those who did not respond. In-person visits were arranged for graduates within the university's locality to address any concerns. All responses were securely recorded in a centralized database. Data accuracy, confidentiality, and integrity were maintained throughout the analysis.

4.4 Data Analysis

The study applied descriptive statistics such as frequencies and percentages to summarize employment outcomes, curriculum evaluation, and university experience ratings. For comparative analyses, the study employed non-parametric tests due to violations of normality assumptions. The Mann-Whitney U test was used to compare the perceptions between teaching and non-teaching track graduates of their experience. The test was conducted in Jamovi at 0.05 level of significance.

5. Results

5.1 Multifaceted experiences of graduates

5.1.1 Graduates' overall experience at the university

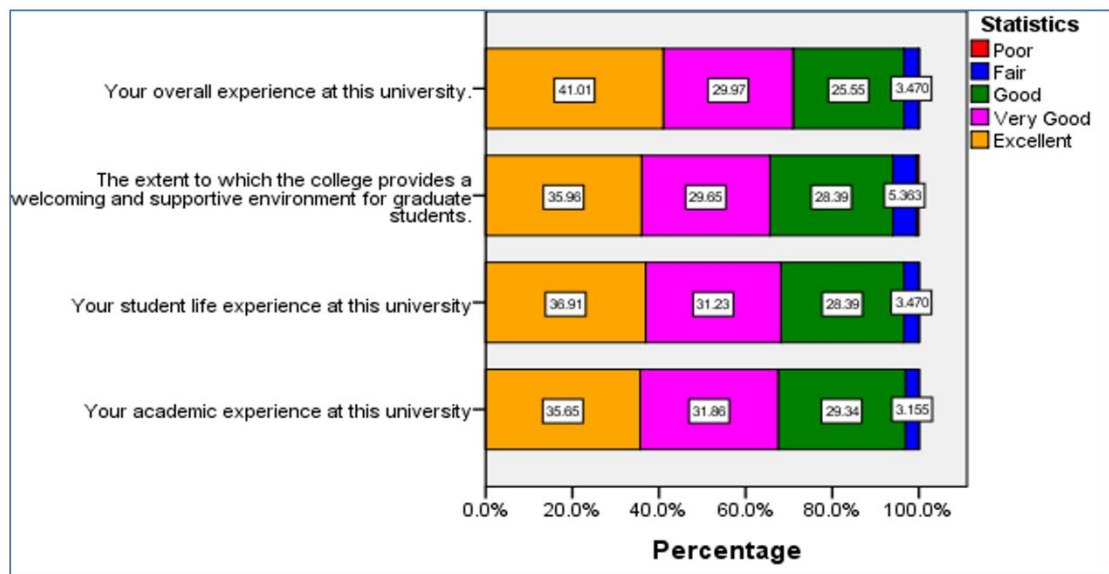


Figure 1: Perception of the graduates about their overall experience at the university

Figure 1 presents graduates' overall experience of the university. A specific objective of this study was to describe graduates' overall experience during their university tenure. Notably, 41.01% of graduates rated their overall experience at the university as "excellent", while 36.91% rated their life experience at the university as "excellent," and 35.96% perceived the college environment as welcoming and supportive. Just over a third (35.65%) of graduates described their academic experience at the university as "excellent."

A substantial number of graduates had a positive general experience at the university, suggesting a great degree of happiness, good life experience at university, a suitable college environment, and a good academic experience. These results show that the institution is usually successful in providing a conducive and fulfilling atmosphere for its students, which could help to produce favorable results, including student retention, involvement, and maybe improved employment upon graduation.

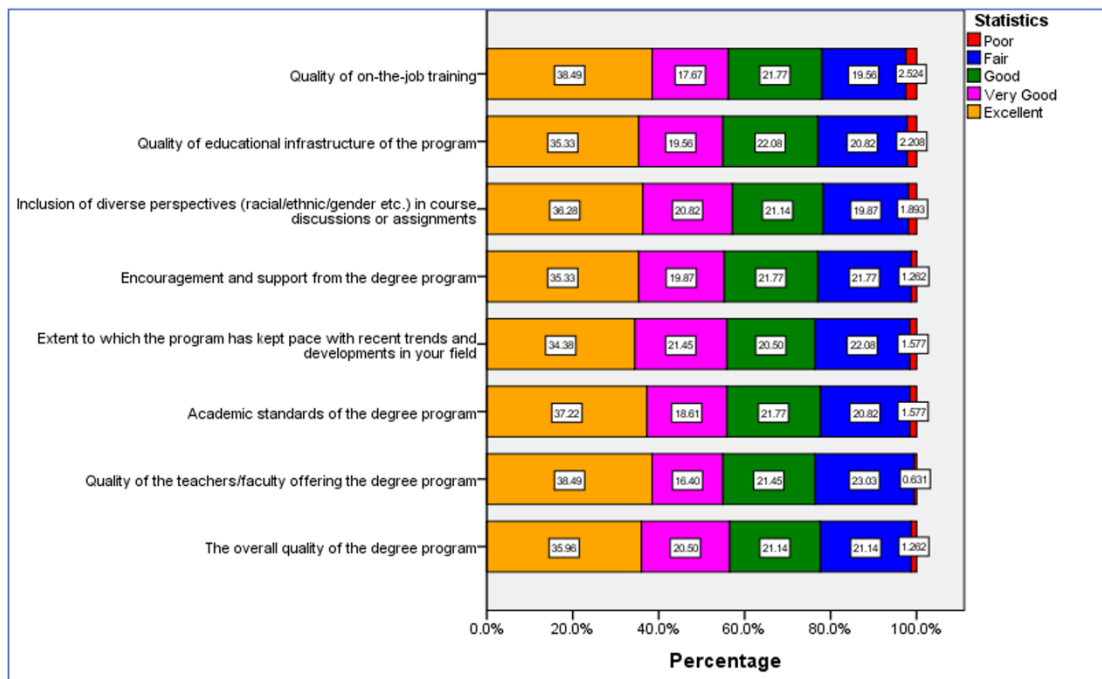


Figure 2: Perception of the graduates about their overall experience with the degree program

One of the specific objectives of this study was to describe graduates' overall experiences with their degree programs. The Figure 2 indicates that 35.96% of graduates rated the overall quality of their degree program as "excellent" while 38.49% of respondents rated both the quality of the faculty and the quality of the on-the-job training as "excellent."

"Excellent" ratings were recorded for the academic standards of the program (37.22%), the inclusion of diverse perspectives in course discussions or assignments (36.28%), and both the quality of the educational infrastructure and the level of encouragement and support provided by the program (35.33%). Finally, 34.38% of respondents rated the extent to which the program kept pace with recent trends and developments in the field as "excellent." In all the areas of the services the programs were rated as "excellent."

These results indicate a generally high degree of graduate satisfaction with the key areas of their degree programs. Graduates received an exceptional service through solid instruction, significant practical experience, the general caliber of their program, the professors, and the elements of practical training. A good evaluation of the program support and infrastructure in such an educational system mirrors the learning environment and student services that sufficiently meet the needs of graduates.

The results imply that the degree programs are carefully crafted to offer relevant preparation for professional demands, quality education, and active faculty involvement. This shows the strengths of the program to be preserved and those

to build upon, as well as those areas where ongoing innovation and financial support could improve graduate results.

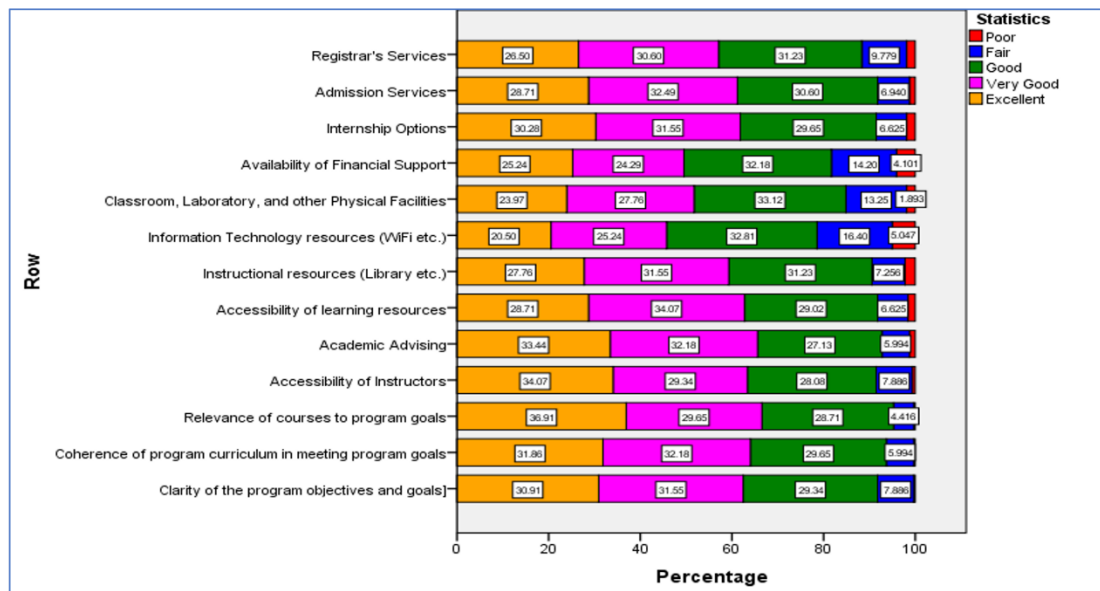


Figure 3: Evaluation by the graduates of the curriculum of the program and student services

Figure 3 illustrates graduates' evaluation of the curriculum and student services provided by the programs during their university tenure. One of the specific objectives of this study was to describe graduates' assessments of both the program curriculum and the student services offered. Graduates rated the relevance of courses to program goals (36.91%), instructor accessibility (34.07%), and academic advising (33.44%) as "excellent."

Accessibility of learning resources (34.07%), admission services (32.49%), coherence of the curriculum in meeting program goals (32.18%), clarity of program objectives, instructional resources such as the library, and internship opportunities (31.55%) were rated as "very good." Finally, classroom, laboratory, and other physical facilities (33.12%), information technology resources such as Wi-Fi (32.81%), availability of financial support (32.18%), and registrar's services (31.23%) were evaluated as "good."

While graduates attest to a strong academic core of the curriculum, there is always room for development. Many of the alumni stated the courses' fit to program goals was "excellent," implying that the contents of the curriculum almost perfectly match the desired outcomes of the program. Likewise, there is evidence of strong faculty participation and support through the accessibility of instructors and academic advice, implying that graduates were well guided by their professors in terms of their academic-related needs.

However, some of the key areas of the curriculum and student services received ratings of just "good," opening a door for the university to work on improving

these areas. These are areas of infrastructure and support, such as classrooms, laboratories, and other physical facilities; information technology resources; availability of financial support, and registrar's services. This result captures an uncomfortable classroom, the non-existence of a laboratory, outdated sports science equipment, and unreliable or non-existent technology resources such as Wi-Fi.

It also reflects financial funding distribution of the university that allots a not sufficient amount for technology resources and an unsatisfying administrative service. Such results may be improved by allocating additional funding for student scholarships and providing training for registrar staff to become more responsive. Furthermore, modernizing labs, creating conducive and well-equipped classrooms, and upgrading sports science equipment and IT infrastructure are also crucial.

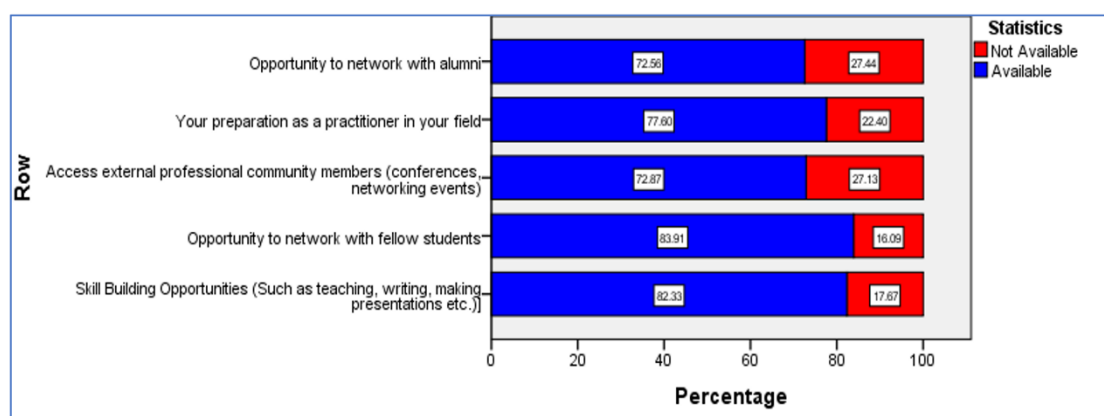


Figure 4: Perception of the graduates about the availability of extracurricular activities

Figure 4 presents graduates' perceptions regarding the availability of extracurricular activities within their programs. A specific objective of this study was to describe how graduates perceived the accessibility of such activities. The majority of graduates reported positively on the availability of opportunities to network with fellow students (83.91%), to engage in skill-building activities such as teaching, writing, and delivering presentations (82.33%), and to prepare for professional practice in their field (77.60%).

Additionally, access to external professional communities through conferences and networking events (72.87%), as well as opportunities to connect with alumni (72.56%), were perceived as available. Graduates enjoyed opportunities for extracurricular activity that translated theories learned in the classroom into a relevant and meaningful milieu. The majority of graduates claimed that networking opportunities with colleagues and alumni provide an avenue for a strong social support system both inside and outside of the university.

The considerable availability of skill-building activities shows that programs effectively provide practical experiences basic for professional competency, including teaching, writing, and presentation skills. The perspective of

preparation for professional practice and access to outside professional networks underlines that the programs link graduates to real professional contexts and resources, enabling their transition into employment. Significantly, these results present a picture of extracurricular activities within the classroom, which eventually improve graduate preparedness, simulation of professional development, and job-seeking opportunities.

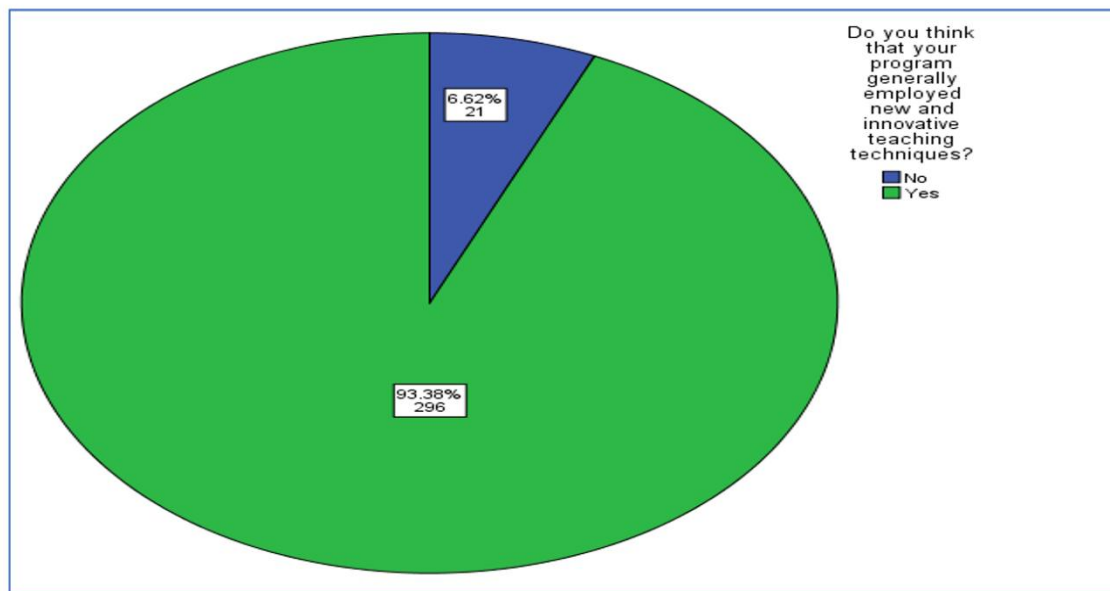


Figure 5: Graduates' opinion on whether the program integrated new and innovative teaching techniques

Figure 5 indicates the degree of innovative and unique teaching strategies used by alumni. This objective specifically sought the opinions of graduates on the inclusion of such teaching approaches into their courses. The large majority of graduates (93.38%) claimed their academic experience contained innovative and unique teaching strategies. This is proof of modern and innovative teaching being actualized in the classroom, as experienced by the graduates, indicating that the curriculum of their degree programs involved teaching methods that fit contemporary education trends and are appropriate to their learning needs. The integration of innovative techniques by teachers is believed to enhance students' engagement, facilitate understanding, and prepare them for the evolving workplace of this present time.

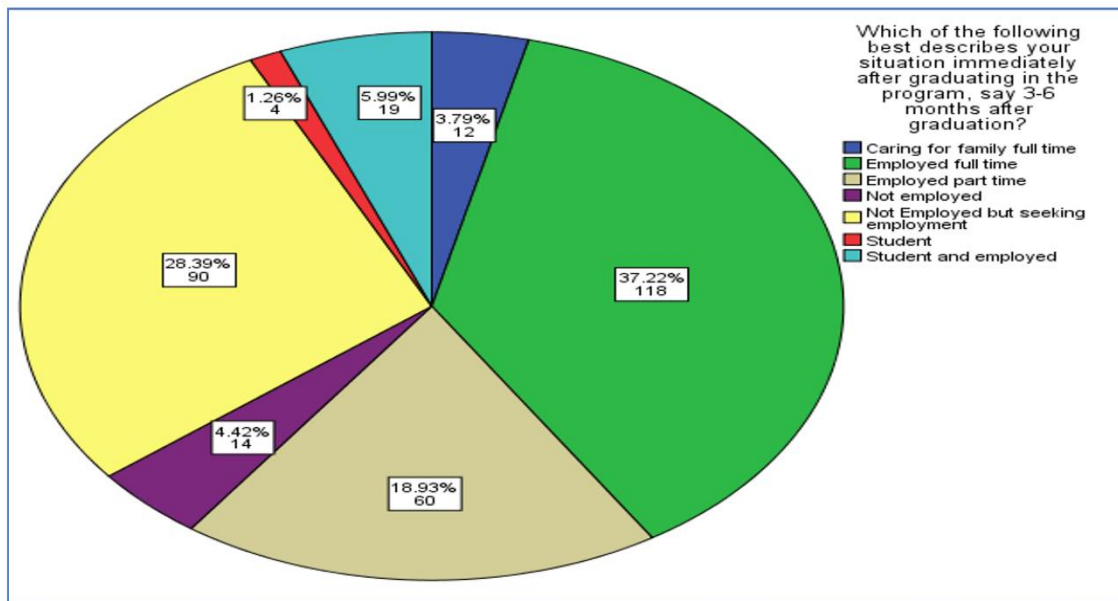


Figure 6: Graduates' employment status three to six months after graduation (Specific)

Figure 6 shows the specific employment status of the graduates three to six months after graduation, revealing that 37.22% of the graduates were employed full time and 28.39% of the graduates were not employed but were seeking employment. Moreover, 18.93% of the graduates were employed part-time. A small percentage of graduates were students but employed (5.99%), others were caring for family full time (3.79%), and some were still students (1.26%). Only 4.42% of the graduates were unemployed.

According to the data, a significant portion of graduates found full-time work three to six months after graduation, but the sizable portion of those either unemployed or still negotiating the job market reveal a discrepancy in immediate job preparation or labor market alignment. Graduates must also deal with a variety of situations, depending on the jobs they pursue, such as juggling employment and education, family care, and ongoing student enrollment. Finally, there is a record of graduates of unemployed and non-seeking jobless people who may need assistance from the university to support them in their employment.

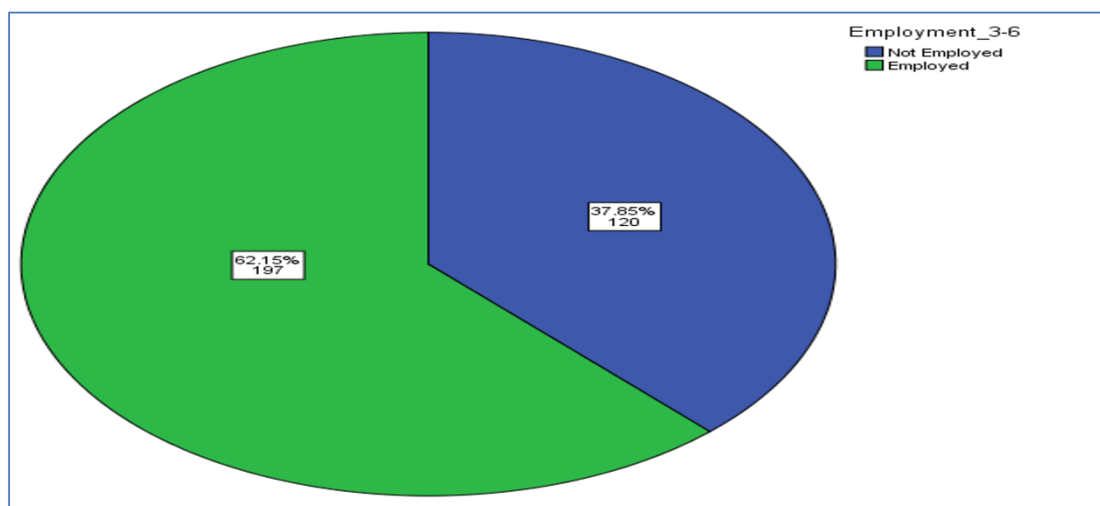


Figure 7: Binarized employment status of the graduates three to six months after graduation

Figure 7 indicates the binarized employment status of the graduates three to six months after graduation. Interestingly, 62.15% of the graduates were employed three to six months after graduation, although 37.85% of the graduates were not employed. The figures reveal a fairly good employability rate since most of the graduates were working within three to six months. Nevertheless, over the same period many remained unemployed. The rather high unemployment rate of the early post-graduation period points to possible problems in labor market absorption, graduate competitiveness, or alignment between academic preparation and workforce expectations. This outcome emphasizes the need for plans guided by data to enable fresh graduates to join the workforce.

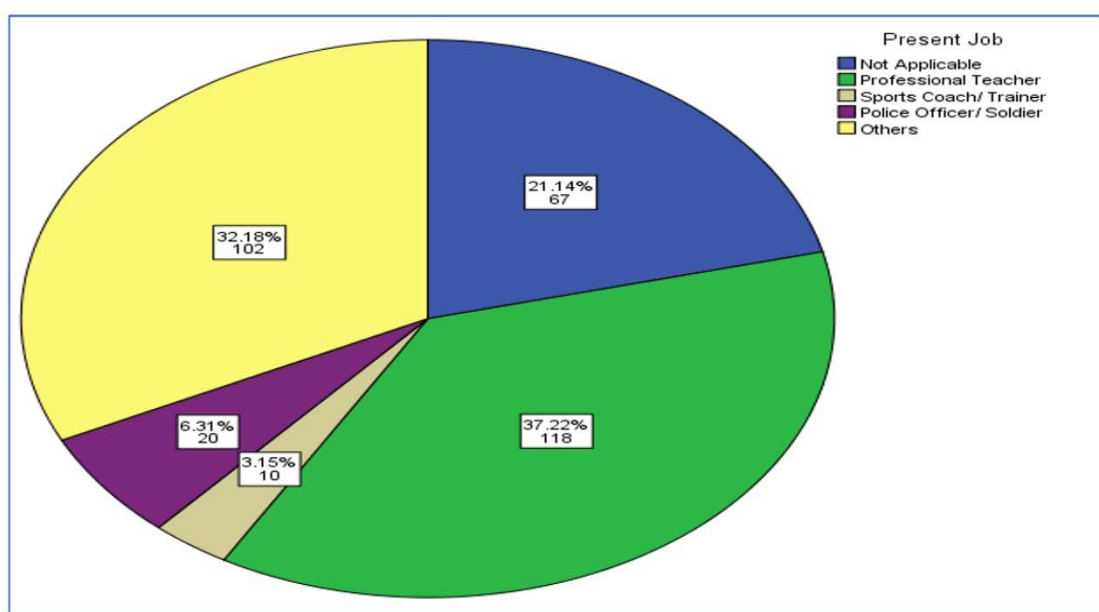


Figure 8: Current employment status of the graduates (Specific)

Figure 8 depicts the specific current employment status of the graduates. The figure shows that 37.22% of the graduates are currently employed as professional teachers, 6.31% as police officers/soldiers, and 3.15% as sports coaches/trainers. By contrast, those in the 'Others' group (32.18%) and the 'Not applicable' group (21.14%) apply to graduates who are either in sales, are self-employed, or choose not to work due to caring for family full-time; some are students or are still seeking employment. While many graduates find employment as professional teachers, suggesting a good fit with the advised career path, statistics show that many have either followed other careers or are not now employed.

This exposes a diverse employment situation whereby some graduates may have chosen non-traditional career paths or battled to find field-specific employment while others are working in positions immediately linked to their area of study. These results underline the need to modify the course of instruction, improve career counseling, and build ties with other sectors to produce jobs compatible for graduate degrees.

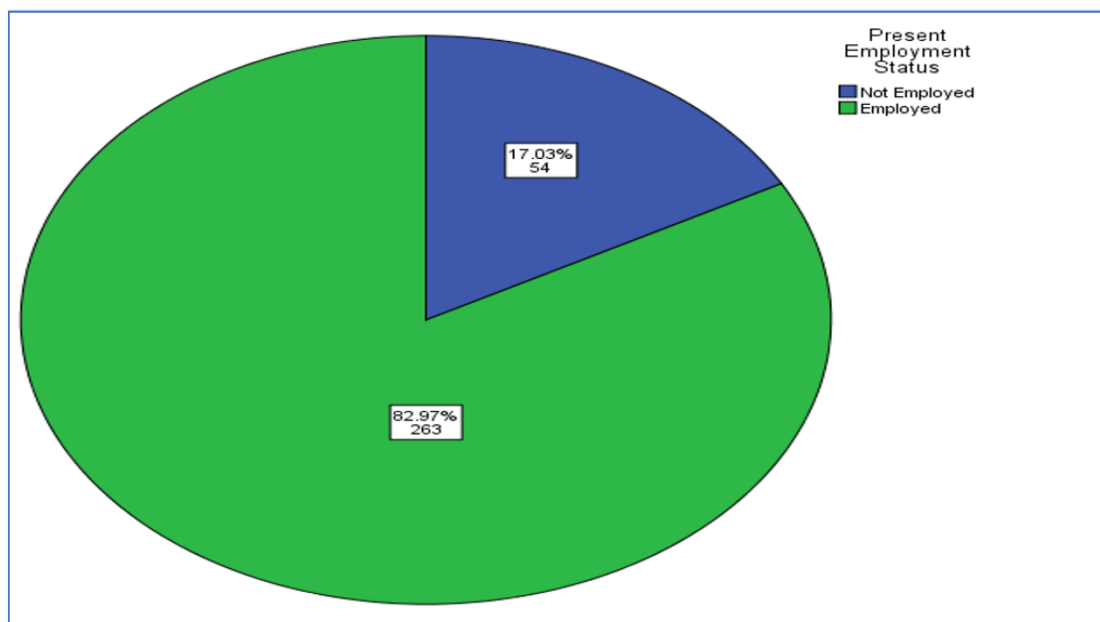


Figure 9: Binarized current employment status of the graduates

Figure 9 shows the binarized current employment status of the graduates. The larger percentage of graduates are employed (82.97%), with only 17.03% of the graduates are not employed. That most of the graduates are already employed points to a good long-term employability outcome. Although employment may not have immediately followed graduation, this high employment rate shows that most graduates finally find employment, thereby implying the program's ability to provide students with useful skills in the employment market over time. Some unemployed graduates still need support in employment placement to help them overcome job search challenges. These findings stress the importance of ongoing strategies that promote employability and ensure all graduates are included in the workforce.

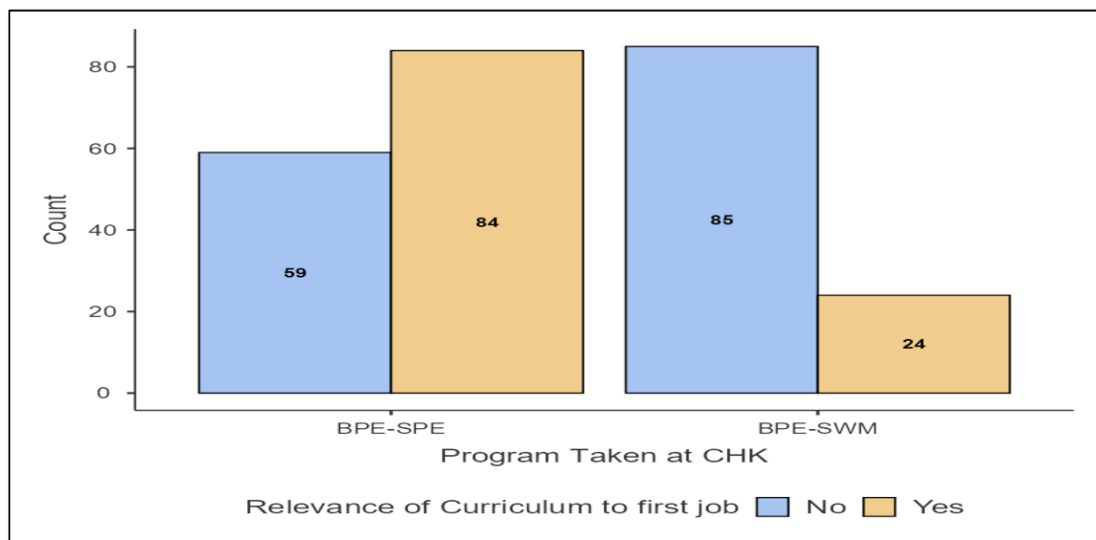


Figure 10: Opinion of the graduates on the relevance of the curriculum to their first job

Figure 10 shows graduates' view on the applicability of the curriculum to their first employment. Of the alumni from Bachelor of Physical Education Major in School Physical Education (BPE-SPE), 84% of them confirmed that their degree curriculum was applicable to their first employment. and Bachelor of Physical Education Major in Sports and Wellness Management (BPE-SWM), 85% of them confirmed that their degree curriculum was applicable to their first employment.

Effective knowledge and skills acquisition prepared the graduates for the demands of the labor market. The confirmation of the relevance of the curriculum to their first job reveals a match between the academic program and first employment criteria, suggesting that the degree programs provided students with the necessary information, skills, and practical language use required for admission into a profession, and confirms that successful training increases graduate preparation and satisfies labor market needs. This response emphasizes the importance of constantly evolving the curriculum of the programs to guarantee long-term employability and ensure program relevance to changing labor market needs.

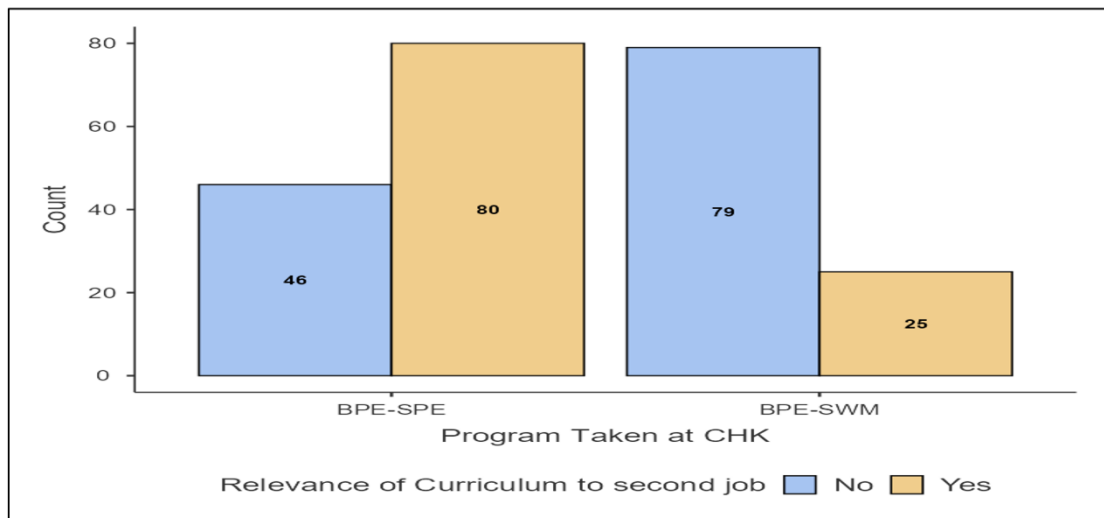


Figure 11: Opinion of the graduates on the relevance of the curriculum to their second job

Figure 11 shows graduates' opinions on the relevance of the curriculum to their second job. Seventy-nine percent (79%) of the Bachelor of Physical Education Major in Sports and Wellness Management (BPE-SWM) graduates believe their degree content is relevant (this clause is correctly stated as far as the purpose of the diagram is concerned) to their second employment with 80% of the Bachelor of Physical Education Major in School Physical Education (BPE-SPE) graduates feel this as well, evidence that most of these graduates believe their college education continues to be useful even as they progress in their fields.

The results show that the material of the program is relevant long beyond the initial employment of graduates as it is still assured in their second employment. Clearly the information and skills gained during the program are not only appropriate for entry-level employment but also facilitate career development and adaptation in changing employment settings.

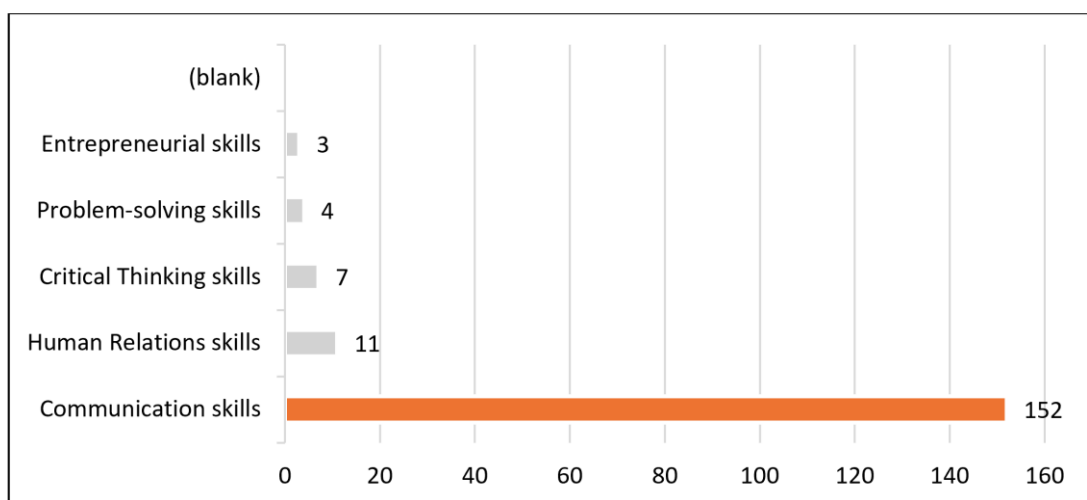


Figure 12: Frequency of useful curriculum competencies in the job

Figure 12 reveals the usefulness of curriculum competencies in the job and shows that of all the competencies taught in the curriculum, graduates claim they most frequently find communication skills useful in their employment. Clearly, communication skills, as taught in the program, are not only relevant but also highly applicable in the workplace. The results suggest that graduates often use their communication abilities in the various fields of employment. The results confirm that the focus in degree programs on improving communication skills has effectively turned into useful, employment-related benefits for the graduates.

The meaningful relevance of the graduate's communication ability in the different working environments supports the need for didactic interpersonal communication in the teaching and learning process. The emphasis on communication skills in teaching and learning opportunities should parallel other competencies to promote graduates' whole professional preparation.

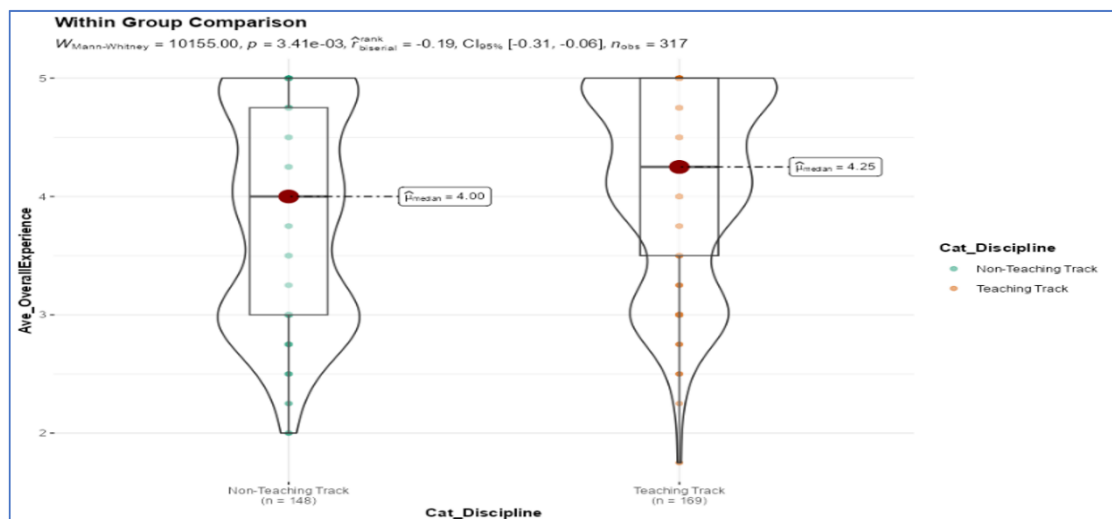


Figure 13: Comparison of non-teaching and teaching track graduates' perceptions about their overall experience at the university

Figure 13 displays the comparison of graduates' perceptions about their overall experience in the university between the non-teaching and teaching tracks. Teaching track graduates show a more positive perception of their overall experience in the university than non-teaching track graduates, indicating that teaching track graduates found academic and student life more fulfilling and supportive than non-teaching track graduates, that is, graduates in the teaching track perceived their overall university experience more positively than those in the non-teaching track.

This finding suggests that all activities, both academic and extracurricular, may have been more aligned with the needs and expectations of teaching track students, eventually providing a more fulfilling and engaging university experience. The difference in overall experience between teaching and non-teaching track graduates' surfaces data on potential gaps in the academic and co-

curricular support provided to them. To establish equitable student satisfaction and success, the university has to implement inclusivity and responsiveness of services and learning experiences across all program tracks.

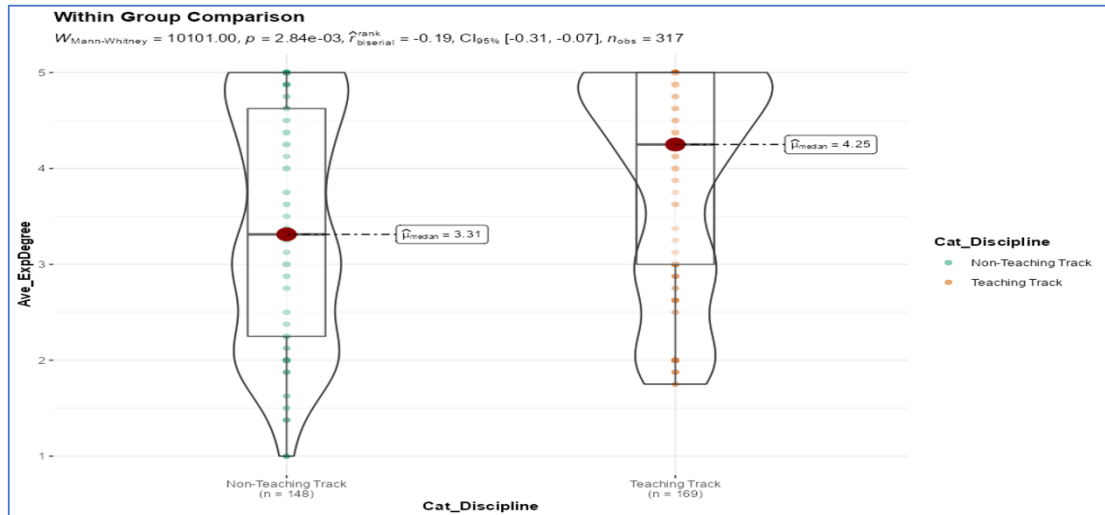


Figure 14: Comparison of non-teaching and teaching track graduates' perceptions of their overall experience with the degree program

A comparison (Figure 14) of graduates' perceptions of their overall experience in the degree program between the teaching and non-teaching tracks shows that teaching track graduates perceive their experience as being of higher quality than do non-teaching track graduates. The finding indicates that the teaching track program provided better on-the-job training, more appropriate educational infrastructure, more qualified faculty, higher academic standards, greater inclusion of diverse perspectives in course discussions, stronger encouragement and support, and more up-to-date content related to trends and developments in the field.

Teaching track graduates perceived a higher quality of experience in their degree program than their non-teaching track counterparts, suggesting that the teaching track offers more stringent and stronger academic and practical training components. The program establishes better-structured on-the-job training, superior educational infrastructure, more qualified faculty, and stronger academic rigor within the teaching track.

Moreover, the program seemed to include more diverse perspectives, greater support and encouragement, and more current content aligned with labor market requirements that further contributed to the positive evaluation. These results evidence the need for program improvements in the non-teaching track to ascertain all students get the same quality, useful education, and support, so improving their overall learning experience in the degree program.

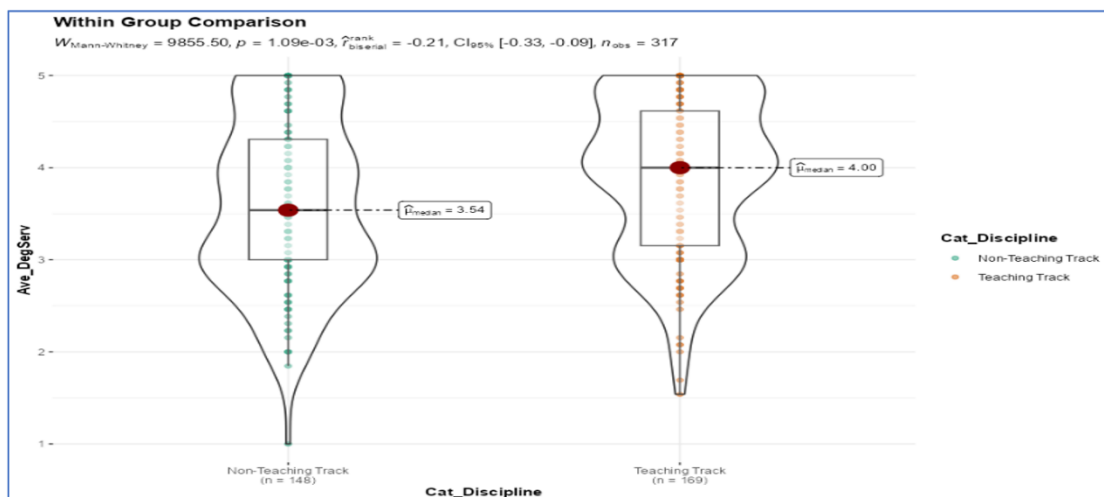


Figure 15: Comparison of non-teaching and teaching track graduates' evaluation on the curriculum of the program and student services

Figure 15 compares the responses of non-teaching and teaching track graduates' evaluation of the curriculum of the program and student services. The findings reveal that the teaching track graduates view the curriculum and student services more favorably than those on the non-teaching track. This response presents a more ordered and motivating academic experience distinguished by easily available and efficient student services like admissions, internships, financial aid, and suitable teaching track facilities. Positive evaluations on academic advice, teacher accessibility, and course relevance indicate that the quality of the teaching track curriculum is coherent, goal-oriented, and well-delivered. These variations call for different approaches meant to enhance the non-teaching track, particularly in terms of enhancing curricular coherence and strengthening research.

6. Discussion

This study examined the effectiveness of the curricula of various programs in higher education institutions (HEIs) in the Philippines, particularly in relation to the demands of both local and global labor markets and how the high employability rates of graduates reflect the effectiveness of these programs. This study contributes to the existing body of knowledge by addressing a gap in previous research. The report is the first of its kind to look at the job paths of physical education and sports science graduates in the Northern Philippines and to show to what extent their degrees prepare them for work.

It provides new information and points of view that can help both theory and practice. For the first time in a study with the objective of evaluating the employability trajectories and program effectiveness of the curricula of physical education and sport science graduates, this study collected data over a longer period of time—from 2016 to 2024—which provided useful information in a specific context. A quantitative method and a validated institutionalized questionnaire made the results deeper and more reliable.

Graduates rated their overall university experience as excellent, reflecting highly positive feedback and a favorable overall experience at the university. Their

responses showed constructive experiences at the university, which contributed to remarkably beneficial outcomes during their time at the university and led to the successful completion of their degree. According to Lin et al. (2022), college experiences influence students' educational aspirations, ultimately leading to degree completion. Exceptional experiences within the university foster a strong motivation for students to achieve their academic goals. The achievement of their academic goals explains the program outcomes of their degrees that are translated into more productive and employable graduates, as highlighted in human capital theory.

The overall experience of the graduates of the degree programs is excellent. This experience reflects the excellent quality of the teachers/faculty offering the degree program, the program's ability to keep up with recent trends and developments in their field, the quality of on-the-job training, the quality of educational infrastructure and the encouragement and support from the degree program, the inclusion of diverse perspectives in the courses, and the academic standards of the degree program. This study reflects the findings of Ching et al. (2022), which indicated that the factors pushing students to progress to the next level of their education include college choice, educational expectations, and the college experience domain.

The graduates' evaluation of the curriculum and student services was generally "very good." The majority of the graduates evaluated the curriculum and student services favorably, expressing satisfaction on both academic and support aspects of their educational experience. This is clearly supported by the study of Luciano et al. (2022) which claims that the graduates were very satisfied with the student affairs services offered by their university. Similarly, in a study by Toquero & Ulanday (2011) graduates expressed satisfaction with the curriculum that was relevant to their present employment.

Graduates perceived the availability of extracurricular activities in their programs differently, rating the "availability" of extracurricular activities more highly than "not available." This means that the graduates regarded these activities, which served as hypothetical preparation of graduates for the real world of employment, as widely accessible or present during their time at the university. Networking with fellow students and alumni served as a platform for information assimilation and inspiration for the graduates on how to navigate the world of employment or the job market. As Bu et al. (2024) put it, networking creates important social capital as it has a significant impact on college students' career development.

The majority of the graduates reported that their teachers used new and innovative teaching methods in the degree programs they completed. This points to graduates' academic experiences that included modern, creative, and non-traditional teaching methods, positively reflecting the institution's efforts to enhance teaching quality and adapt to the evolving needs of students and the job market. According to Kalyani and Rajasekaran (2018), innovative teaching and learning methods in the classroom are about giving the students a new way to train their skills. Teachers are encouraged to adopt new technology methods in

the classroom and use multimedia to modify the contents of the material because this will help them present the lessons in a more meaningful way.

The specific employment status and binarized employment status of the graduates three to six months after graduation reveal that more than half of the graduates (62.15%) were employed within that time period, and several obtained full-time positions (37.22%). In terms of specific current employment and binarized current employment, graduates were employed as professional teachers, soldiers/police, and sports coaches/trainers. The majority of graduates currently hold employment positions that indicate stable career paths and effective integration into the workforce.

According to Saong et al. (2023), graduates' high employability both locally and globally is a result of adequate academic preparation received at university. Saong et al. (2023) also found that graduates' high employability was a result of satisfaction with their high-quality instruction at the university. This evidences employability theory that employability of graduates is a result of acquiring both technical competencies and transferable skills that enable them to gain and maintain employment.

The graduates' responses indicated that they felt the curriculum was relevant to both their first and second jobs. Notably, they recognized that communication skills taught in the classroom are useful curriculum competencies in the workplace. This recognition is supported by Bacay and Mame (2022), whose study showed that graduates' course/degree and the curriculum in college were both relevant to their first job.

Communication skills taught in the curriculum proved to be the most useful skills in the view of the graduates, and skills acquired by the graduates at university, such as communication, critical thinking, and problem-solving, were also found to be useful competencies in their first job (Bacay & Mame, 2022). This assumption is supported by stakeholder theory that employers as stakeholders resonate the effectiveness of degree programs if they hire graduates who possess crucial competencies such as communication skills.

Teaching track graduates perceived their overall university experience as more fulfilling than non-teaching track graduates did. The former felt more supported and welcomed throughout their academic journey. Teaching track graduates also claimed a higher quality of overall experience in their degree program and evaluated the curriculum of the program and student services more favorably than their non-teaching track counterparts did. It is possible that the teaching track students benefited from greater access to guidance, resources, and a stronger sense of community that was evident during their time at the university.

Mufidah (2019) showed that the feedback teaching track students received from their supervisors in the teaching practice program helped pre-service teachers improve their teaching performance. Additionally, university student-teachers' experiences revealed the benefit of extra classes from lecturers, tutorials from

student associations and peers, assistance from advisers, and support services in the institution (Odutayo & Ramsaroop, 2023).

Even if non-teaching track graduates (sports sciences program) showed a lower level of fulfillment than the teaching track graduates (physical education), a study showed sports sciences graduates perceive their university as prestigious (Yıldız et al., 2021). Another finding echoes the experience of engineering students and their professors who manifested appropriate delivery of lessons and observed varying attitudes, characteristics, and care for the students' learning (Flores, 2020). Molina-García et al. (2024) state that redefining education in sports sciences is to prepare sports graduates for the importance of competencies like teamwork, critical thinking, decision-making, entrepreneurial skills, and ICT competencies, as these have been underscored in the field.

Lastly, the teaching track graduates perceived the curriculum of the program and student services as more favorable and more positive than the non-teaching track graduates did. This echoes the findings of Bueno (2023) that students who perceive their needs as valued and receive high-quality services and facilities have a more positive perception of their school experience and feel a stronger sense of belonging within the academic community.

7. Limitations

The study utilized a quantitative cross-sectional survey design, which inherently limits the depth of understanding regarding respondents' lived experiences and the causal relationships between academic preparation and employment outcomes. The data were collected at a single point in time; hence the design could not account for changes in employability status over time or the long-term impact of program effectiveness. As the data is self-reported, there may be a response bias by graduates overestimating or underestimating competencies acquired from their programs and their employment satisfaction. This study successfully traced 317 graduates from Physical Education and Sports Science programs confined to one state university in the Northern Philippines, a geographic and institutional scope that may limit the generalizability of the findings to other regions, institutions, or disciplines.

The study does not present the experiences and employment data of graduates from other academic programs or from different socio-economic contexts that could possibly present differences. Finally, there are no qualitative components of this study which could have presented richer insights into the nuances of graduate experiences, job readiness, and curriculum relevance. Although the findings are valuable in presenting the employment trajectories of graduates and the effectiveness of their degree programs, necessary caution should be observed when making broader claims about all graduates or academic programs.

8. Conclusion

Excellent work success and strong educational experiences clearly reveal a connection for graduates from physical education and sports science in the Philippines. The excellent university experiences and rapid employment of

graduates within three to six months reflect a labor market-aligned curriculum. Moreover, the graduates claimed that pedagogical innovations were relevant to their preparation and training for the labor market requirements. One crucial skill in their preparation was communication ability, which is considered a top employability skill. Established and sustainable student support services and extracurricular activities were also found to be a relevant part of the program curricula since they provide formative experiences outside the classroom. Furthermore, higher satisfaction among graduates from teaching tracks points to the need to connect courses with certain career routes.

These findings support human capital theory, which explains that education and training enhance the skills and knowledge acquisition of graduates, making them more employable. According to this theory, education invests in graduates, and their competence serves as a basic requirement for employment. Similarly, employability theory holds that graduates gain and maintain employment as a result of their acquired knowledge, skills, and personal attributes through their curricular programs. Additionally, stakeholder theory places the value of different stakeholders' needs in employing these graduates. Employers, in particular, are the primary stakeholders whose needs are met by hiring graduates.

In this study, communication skills – found to be an employability skill – are one quality companies value in hiring. This study suggests the practical application of communication skills to academics, (This is accepted. Thank you very much for your kind suggestion) administrators, and policymakers at the institution to sustain quality education, a suitable learning milieu, and a relevant curriculum to favor the employability of graduates of both physical education and sports sciences.

9. Conflict of Interest

This study, funded by Cagayan State University (CSU), was conducted in complete adherence to ethical standards and applicable research protocols. The authors declare that there is no conflict of interest.

10. Acknowledgement

The researchers sincerely thank the Research and Development Unit of Cagayan State University, for their approval and financial support of this study.

11. Recommendations

1. Communication skills for graduates of physical education and sports sciences were identified as highly useful competencies in the workplace and could be developed in the curricula of the program.
2. The faculty could provide more up-to-date and industry-relevant content in courses to better prepare students for evolving market demands.
3. The College dean and the faculty should regularly update and review curricula to keep pace with current trends and demands in the physical education and sports science fields. Additional support and resources to non-teaching track programs should be provided to improve graduate satisfaction and employment outcomes.

4. The Cagayan State University administrators could encourage each college to conduct graduate tracer studies and use data to inform policy and funding decisions.

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