Alumni's Retrospective Evaluation of Their Undergraduate Secondary Teacher Education Training

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Abstract

Alumni feedback has emerged as one of the central pillars of the quality process due to the valuable insights from the alumni in evaluating the academic programs and services of higher education institutions. This study determined the Bachelor of Secondary Education (BSED) alumni's retrospective evaluation of their undergraduate teacher training as to the adequacy and relevance of acquired 21st-century skills. It also sought their satisfaction and recommendations for curricular and service improvements. A survey procedure was used to collect data from 602 BSED graduates from a Philippine State University from 2013 to 2017. Results indicate that overall, the traced BSED alumni were highly satisfied with the pre-service training – both in terms of curriculum and services offered. The 21st century skills they acquired were claimed to be highly relevant to their current jobs. They, however, call for greater exposure with authentic pedagogical preparations and research, and for improved facilities. Moreover, they recommended a regular curriculum review to check on the courses' relevance, arrangement, and "balance". Meanwhile, variety, relevance, and practicality were among the discipline-specific recommendations forwarded. In conclusion, the satisfaction of the alumni with their undergraduate training was evident, but there are areas of improvement that the institution must consider.

Introduction

Today's fast-paced and extremely competitive environment constantly influences the operations of educational institutions. Higher education institutions (HEIs) are expected to produce qualified graduates who can satisfy the demands of the modern workplace (Gonzales et al., 2017). Moreover, accreditation, international standardizations, and other quality assurance mechanisms propel educational institutions to revisit the effectiveness of their programs and reassess their practices in terms of both operations and services (Twum-Ampomah & Danso, 2013).

The higher education institutions' impact on society can be measured in varied ways. To gauge institutional quality and effectiveness, various stakeholders, such as legislators and policy makers, parents, students, faculty, employers, industry representatives, accrediting bodies, alumni, and the general public come into the picture. Of these stakeholders, employers and industry bodies representing specific professions

are of prime importance as they could provide honest and factual feedback on the performance of their employees (Shah et al., 2015).

Of the stakeholders who can assess learning outcomes, the alumni are often the most neglected (Saunders-Smits & de Graaff, 2012). Recently, however, the collection of feedback from alumni about their experiences in tertiary institutions has become one of the central pillars of the quality process (Williams & Cappuccini-Ansfield, 2007; Okogbaa, 2016).

What is unique about alumni feedback is that it is action-oriented (Harvey, 2003). There are six main reasons why alumni feedback is collected. These reasons, according to Harvey (2003) and Okogbaa, (2016) are that alumni feedback:

-provides information for improvement;
-provides information for prospective students,
-provides information for current students;
- address accountability issues,
- provide benchmarking information,
-may be used to make comparisons between and within institutions.

The case institution is a capital-town campus of a state-owned university in the Philippines, chartered as per Republic Act 7722, or the Higher Education Development Act of 1994. It is a regional university in the North Central region of the Philippines. At present, it has a Graduate School and fourteen colleges. One of its colleges, the College of Teacher Education (CTE) is the largest in terms of student enrolment and the number of graduates produced annually (Sito et al., 2008). The CTE was granted one of the regional Centers of Excellence in Teacher Education by the Philippine Commission on Higher Education (CHED). Recently, the CTE increased its undergraduate program offerings to four. These program offerings, with their new nomenclatures, are as follows: Bachelor in Secondary Education (BSED), Bachelor in Elementary Education (BEED), Bachelor in Technology and Livelihood Education (BTLED), and Bachelor of Early Childhood Education (BECED).

Since its inception as a program in 1993, there have already been three tracer studies conducted on the graduates of the DSTE in the case institution. The first study, which was conducted by Sito et al. (2008), ascertained on the employability of the graduates by identifying

their nature of employment or non-employment, the agency where they are employed, the nature of their jobs, the time of their employment, and the levels they are teaching. The second study by Parcasio et al. (2015) went further by gathering the employers' feedback on the graduates work performances, in addition to gathering the graduates' employment data. Finally, the BSED graduates' employment profiles were compared according to their motivation towards teaching (Bansiong et al., 2020). The level of motivation towards teaching and its effect on employment profiles were compared according to the graduates' specialization.

One aspect of tracer studies constantly neglected in quality assurance procedures is the alumni feedback through their retrospective evaluation of their undergraduate training. Alumni feedback mechanisms are important as the graduates in a program can provide valuable information as to workforce issues and employment (Volkwein, 2010). Moreover, they can offer important perspectives for evaluating academic programs and services, thereby providing information as to the effectiveness of HEIs (Twum-Ampomah & Danso, 2013).

Graduates of teacher education programs can retrospectively evaluate their undergraduate training by assessing their level of acquisition of pedagogical-technological content knowledge and skills, as well as 21st-century skills. The 21st-century skills are knowledge, skills or work habits that enable a person to succeed in the modern world, especially in school work or in future careers (The Glossary of Education Reform, 2016). Examples of these skills include problem-solving and research, leadership and human relations, and information and communication (Gut, 2010; Rotherham & Willingham, 2010), among others.

Finally, the alumni can also become sources of rich information and feedback in matters of curricular and physical plant improvements. They can express their level of satisfaction with the institution's learning facilities and equipment, and provide recommendations on the improvement of the curriculum and teacher training in general.

This study was then conceptualized to gather insights on the BSED alumni' retrospective evaluation of their pre-service teacher training in the case institution. Specifically, the study aimed

to determine the BSED alumni's a) perceived adequacy of their pre-service training as to their acquisition of 21st-century skills, b) perceived relevance of their training to their current jobs, c) level of satisfaction with the services and facilities of the college and the institution, and d) overall and discipline-specific recommendations for the improvement of the program offering.

Alumni's Retrospective Evaluation of Their Undergraduate Teacher Education Training

Several local graduate tracer studies reported on their teacher education graduates' retrospective evaluation of their undergraduate training. These alumni evaluations focused on the following aspect of their teacher training: level of adequacy (Almejas et al., 2017; Gines, 2014), level of satisfaction (Miranda et al., 2022), relevance to present job (Daguplo et al., 2020), problematic issues (Almejas et al., 2017), and some recommendations for improvement (Daguplo et al., 2020).

As to the level of adequacy of their undergraduate teacher training, the alumni respondents from a premier teacher education institution (Gines, 2014) and a center of excellence in teacher education (Almejas et al., 2017) evaluated their respective institutions to be "very adequate" in their programs. Meanwhile, the alumni respondents in the study of Miranda et al. (2022) have expressed their "very high satisfaction" both with their teacher-training and their acquisition of 21st-century skills.

On the perceived relevance of their undergraduate training. The majority (96%) of the respondents in the study of Dumlao et al. (2020) claimed that their overall undergraduate training was relevant to their present job. Similarly, education graduates in a state university rated the skills they acquired in their undergraduate training to be very relevant to their present job (Daguplo et al., 2019).

As to the alumni's recommendation for the further improvement of the college, education graduates in one private institution forwarded more stringent admission and retention policies, improvement of facilities, better exposures to the actual fields, and more enhanced career guidance (Dumlao et al., 2020).

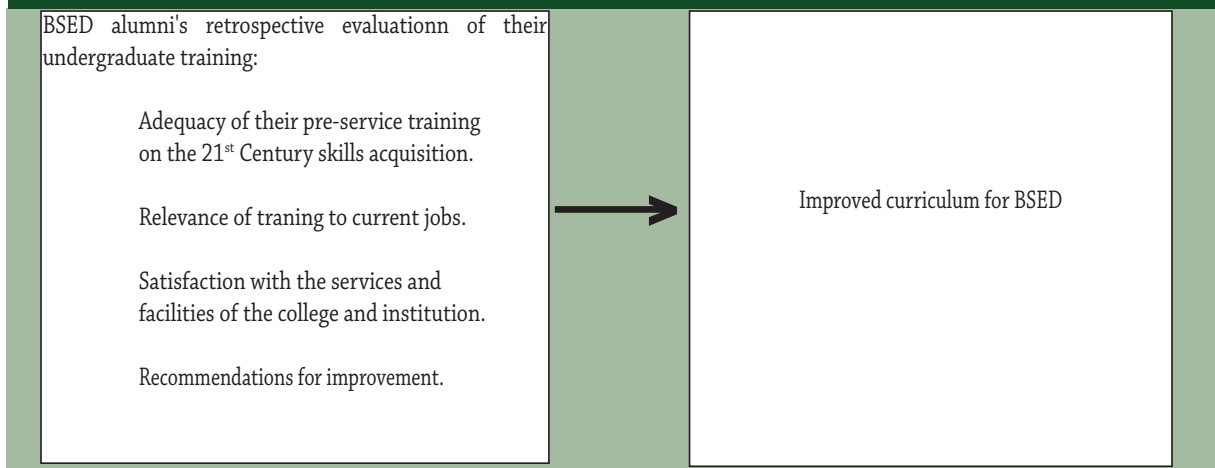Similarly, the education graduates in a Philippine state university identified some problems they encountered during their undergraduate training. These problems were then recommended for the improvement of the college. These problems included "ambiguous types of periodical examinations, lack of laboratory facilities and materials for experiment, lack of instructional facilities and materials and too many written academic requirements are problems encountered by the teacher education graduates" (Almejas et al., 2017).

The aforementioned studies all have a common message. The alumni of the case teacher-education institutions (TEIs) feel that they were very well prepared by their programs, and they showed high satisfaction with the training and the development of 21st-century skills. The skills they acquired were directly applicable to their current jobs. Some suggestions pointed to stricter admissions and retention policies, better facilities, more practical experience in schools, and enhanced career guidance. These evaluations provide valuable insights for TEIs to improve their curriculum and better prepare the next generation of teachers.

This alumni feedback study through retrospective evaluation leverages the concept of program evaluation, the stakeholder theory, and transformative learning theory to provide valuable insights for program improvement. The concept of educational program evaluation emphasizes the use of reliable data to assess a program's effectiveness in achieving its goals. The feedback from alumni allows administrators to identify strengths, weaknesses, and areas for improvement (Shackman, 2017). Stakeholder theory, meanwhile, emphasizes the importance of considering the perspectives of all those invested in a program's success, such as the alumni. Constant feedback from alumni ensures that the program remains relevant to their needs and to that of their employers (Tulankar & Grampurohit, 2020). Finally, transformative learning theory posits the importance of reflection on past experiences (Mezirow, 2000) and that retrospective evaluation allows the alumni to reflect on their encounters with the program and assess how it affected their professional growth.

Results of this study will demonstrate how the BSED program has equipped teacher trainees to become successful in their chosen careers, based on the graduates' retrospective evaluation and recommendations. Figure 1 shows the conceptual paradigm of the study.

Figure 1

Conceptual Paradigm of the Study

BSED alumni's retrospective evaluationn of their undergraduate training:

       Adequacy of their pre-service training on the 21ˢᵗ Century skills acquisition.

       Relevance of traning to current jobs.

       Satisfaction with the services and facilities of the college and institution.

       Recommendations for improvement.

→ Improved curriculum for BSED

Methodology

Research Design

This study was descriptive in design, mainly employing the survey procedure to collect qualitative and quantitative data. The quantitative was used in determining the BSE graduates' retrospective evaluation of their collegiate experience on the level of adequacy of their acquisitions of the 21ˢᵗ century skills, the perceived relevance of the skills they acquired to their present job, and their level of satisfaction with the services and facilities. The qualitative procedure, meanwhile, was employed to provide data on the graduates' recommendations for the improvement of the program offering.

Furthermore, the epistemological stance adopted in the study were both the constructivist and the pragmatist traditions. It is assumed that the alumni respondents responded to the survey based on their individual experiences and interpretations (constructivism) and based on how well the program prepared them for the realities of teaching (pragmatism). These expressions of unique perspectives will be of great importance in the understanding of the program's effectiveness.

In terms of ontology, the study adopted the critical realist approach. This approach acknowledges objective realism (e.g. in the giving of recommendations for the improvement of the program) but recognizes subjective interpretivism (i.e., individual experiences will influence the evaluation process). In this study, both objective outcomes and subjective experiences were considered in uncovering the alumni's evaluation of their program.

Population of the Study

On the BSED alumni's retrospective evaluation of their pre-service experience in the case college, 439 of the 1,060 alumni from the years 2013 to 2017, or 41.42% responded to the survey. This sample size falls within the expected graduate tracer response rate proposed by Schomburg (2003), which is from 30% to 60%. The greatest responses came from the graduates of 2015, with a 47.84% response rate, followed by the graduates of 2016, with 41.39% of graduates responding. However, only 20% of those who answered the GTQ gave their recommendations and suggestions for the improvement of the program offerings.

Research Instruments

A four-part graduate tracer questionnaire (GTQ) in both online and print versions was prepared. The GTQ was based on the graduate tracer survey (GTS) developed by the Philippine Commission on Higher Education (CHED). Since the CHED GTS was not designed for specific

programs and educational levels, only the items appropriate for the graduates of undergraduate teacher education were adopted and modified to suit the study objectives. Modification involved contextualizing the GTS to secondary teacher education graduates, and deleting the items that are not covered in the study` scope.

The third part of the GTQ was used in this study. This portion of the GTQ solicited the BSED alumni's retrospective evaluation of their pre-service teacher training and their recommendations for the improvement of the program offering. The quantitative portion of the instrument part was administered using a four-point scale.

Data Gathering Procedures

Upon approval of this research by the college dean, the digital versions of the GTQ were sent to the social media accounts of the BSE alumni of the target academic years. To increase the response rate, hard copies of the instrument were also personally handed to the target respondents. The faculty members teaching in the program and the Advanced Studies, and the siblings and relatives of the alumni who were currently enrolled in the program, assisted in the distribution of the hard copies of the GTQ.

Data gathering lasted for a year, from January to December 2018. The accomplished hard copies of the GTQ were collected and placed in sealed envelopes and kept in a locked cabinet prior to data analysis. The responses in both digital and hard copies were uniquely coded for anonymity and the analyzed data were destroyed six months after the termination of the study.

Data Analysis

The quantitative data were summarized using frequencies, means, and standard deviations. The retrospective evaluation was interpreted using the following scales:

As to the qualitative data on the alumni's recommendations for improvement of the program offering, responses (narratives) were subjected to thematic analysis, following Braun and Clarke's (2010) procedure, to cull out the underlying themes. All narratives were written in English, and thus, no translation was done. The qualitative responses were read and reread to gainfamiliarity with the underlying messages. The responses were then manually coded before they were manually clustered into themes. The two authors reviewed and deliberated on the clustering of statements until a consensus was reached. The same processes of review and deliberation were employed in the assigning of themes. Separate analysis was employed in general and discipline-specific recommendations.

The trustworthiness of the themes, significant statements, and frequencies were decided upon by three qualitative research practitioners through a round-table discussion. The said practitioners (a socio-anthropologist, a psychologist, and a linguist) were published and cited as researchers who handle qualitative research courses at the graduate and undergraduate levels. Initially, there the average conformance on the themes created was 97%. However, after clarifying some terms in the individual responses, the experts reached a 100% consensus. For consistency, however, the experts suggested the use of gerunds in naming all themes.

In the presentation, the participants' responses were coded with characters that identify their specialization, followed by their number, and sex. For example, for the 13th male alumni who specialized in social studies, the code "SSTA 13, Male" was used. Similarly, the code "EA 6, Female" identified the female English alumni who responded sixth.

SCALE	ADEQUACY	RELEVANCE	SATISFACTION
3.50-4.00	Extremely adequate (EA)	Extremely relevant (ER)	Very high satisfaction (VHS)
2.50-3.49	Substantially adequate (SA)	Substantially relevant (SR)	High satisfaction (HS)
1.50-2.49	Minimally adequate (MA)	Minimally relevant (MR)	Low satisfaction (LS)
1.00-1.49	Not adequate (NA)	Not relevant (NR)	Very low satisfaction (VLS)

Results and Discussions

BSED Graduate's Perceived Level of Adequacy of Their Pre-service Training on the Exercise of the 21st Century Work Skills

The respondent's believed that the level of adequacy of their training on the 21st century work skills were all substantially adequate (Figure 2). This substantially adequate level was consistent across all the years covered and across all specializations. This finding implies that the respondents are satisfied with how their institution has prepared and trained them to acquire these useful competencies. Incidentally, such findings are similar with the results of Gines (2015) and Gonzales (2017), who reported their graduates claiming a "very adequate" undergraduate training on 21st-century skills.

A comparison of the perceived level of adequacy of the undergraduate training on the 21st-century skills reveals some important trends. For instance, training on research, communication, and problem-solving skills was perceived to be the least adequate, while they feel they were most adequately prepared in terms of human relations and information technology skills. Such is also a trend in all specializations, except in the mathematics group. This pattern of results is consistent with the findings of Gonzales et al. (2017) on their graduates' assessment of the adequacy of their undergraduate trainings.
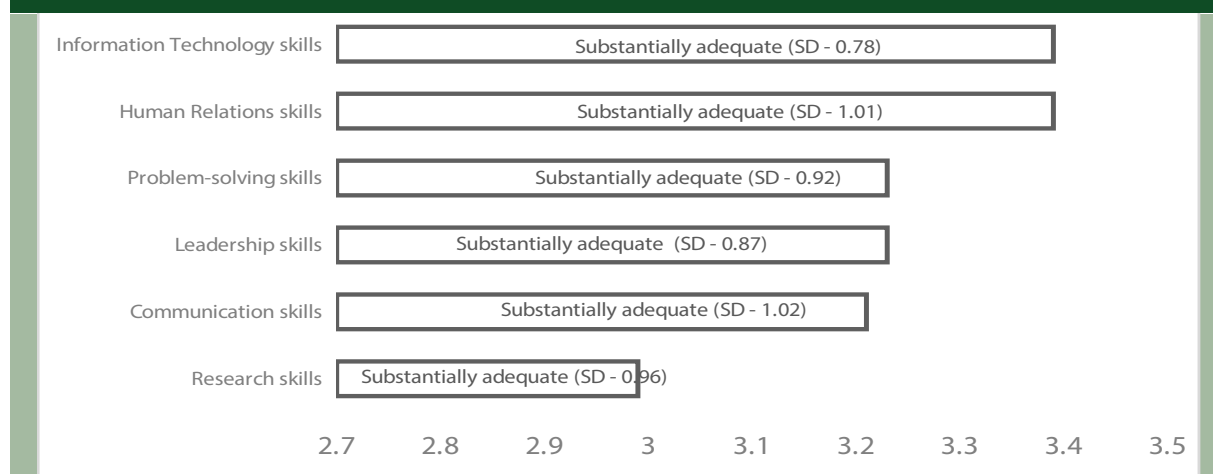
The particular research skills the respondents are still wanting are those related to (a) Formulating testable hypotheses and (b) Applying the appropriate statistical tool in processing data. In terms of communication skills, the respondents claim that they are least adequately trained on (a) Communicating in various forms and styles and (b) Using grammatically correct language and vocabulary.

Such results bear important implications for curriculum revision and professional skills development for secondary teacher trainees. While the alumni respondents felt that their trainings on the 21st century skills were substantially adequate, the college needs to device programs and activities that will further hone the prospective teachers' communication and research skills. Perhaps, the college may encourage students to put up an organization that aims to develop the communication skills of all students, regardless of specialization. The members must then be encouraged to be engaged not only in public speaking, but also in active discourses that allow them to express their thoughts and opinions.

Moreover, since research is now becoming the trend in education, and research has become a course in senior high school, the research skills of prospective teachers must be developed. One scheme that may be considered to develop the research skills of prospective teachers is through closer supervision and mentoring. Also, while it may still be ambitious to require individual

Figure 2

BSED Alumni's Perceived Level of Adequacy of the Trainings Received on the Exercise of the 21st Century Skills

Skill	Level
Information Technology skills	Substantially adequate (SD - 0.78)
Human Relations skills	Substantially adequate (SD - 1.01)
Problem-solving skills	Substantially adequate (SD - 0.92)
Leadership skills	Substantially adequate (SD - 0.87)
Communication skills	Substantially adequate (SD - 1.02)
Research skills	Substantially adequate (SD - 0.96)

2.7   2.8   2.9   3   3.1   3.2   3.3   3.4   3.5

research, a group of not more than three members may be considered initially. This will maximize each member's experience with the research process. Finally, a student organization that exposes prospective teachers inro research may also be considered. Here, the students get to practice the skills of data gathering, organization, and analysis. These schemes, together with others mechanisms may be considered during academic planning sessions in the case of college.

BSED Alumni's Perceived Level of Relevance of the Competencies They Acquired on Their Current Job

The respondents claim that the competencies they gained from their pre-service training are highly relevant (Figure 3) to their current jobs. This evaluation holds in all specific competencies on knowledge, skills, and attitudes, as well as planning, organizing, coordinating, and decision-making. Moreover, this high degree of relevance is a characteristic of the respondents from all years, except in 2016 in terms of knowledge and attitudes, where there is very high relevance. There is likewise a very high level of relevance in terms of the correct attitudes acquired by the Biological Sciences, English, Social Studies, and Values Education group, and in terms of knowledge gained by the Filipino and Social Studies group. This result on the acquired skills being highly relevant to the present job conforms to the findings of Biscante et al. (2019), Daguplo et al. (2019), and Dumlao et al. (2020).

Comparing the respondents' ranks on the relevance of the competencies gained in their undergraduate training, they considered proper attitudes or dispositions in doing tasks the most relevant. Conversely, perceived relevance was relatively lower in planning, organizing, coordinating, and decision-making. These findings indicate that the respondents can outweigh the consequence of their lack of skills or decision-making with proper attitudes and disposition.

Many employers and leaders value attitudes and disposition over other skills. In the study by Ho (2015), employers rated personality higher than technical skills. These employees specifically seek employees who are ambitious, disciplined, and loyal. (p. 9). Also, many employers tend to seek graduates who are adaptable to the culture of the workplace; who use their abilities and skills to bring change to the organization (CareersEvent.com, 2021; Bernard, 2022). It is therefore important for teacher educators to continue instilling in the teacher trainees the proper attitudes and dispositions when they do teaching-related tasks. This can be done by fully explaining the purpose of the task and the benefits that can be gained from doing the task. Moreover, it is wise for teacher educators to include "proper attitudes and disposition while doing the task" as one of the criteria in scoring performance tasks. This is a way of communicating to the learners the importance of possessing the right attitude and disposition.

Figure 3

Perceived Level of Relevance of the Competencies Acquired to Their Current Job
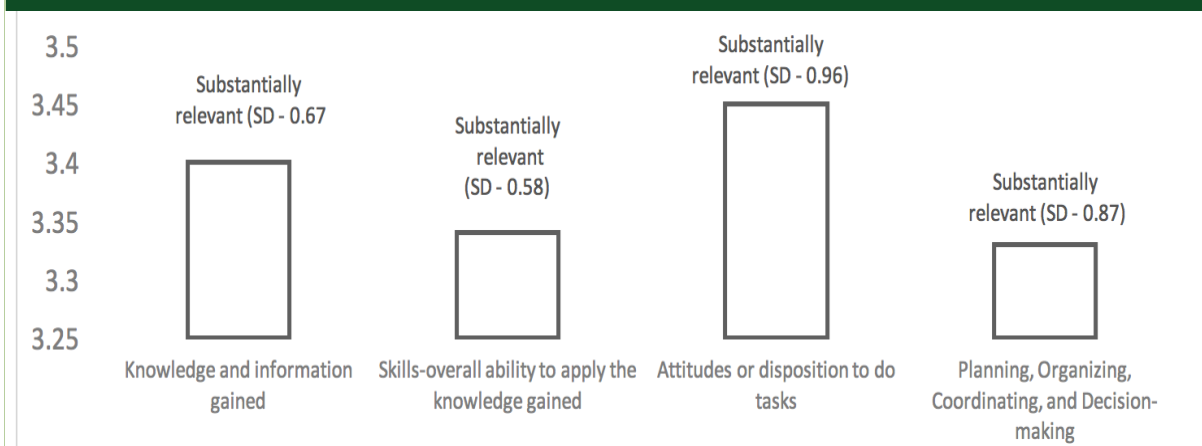
Alumni Respondents' Level of Satisfaction with the Services and Facilities of the Case College and Institution
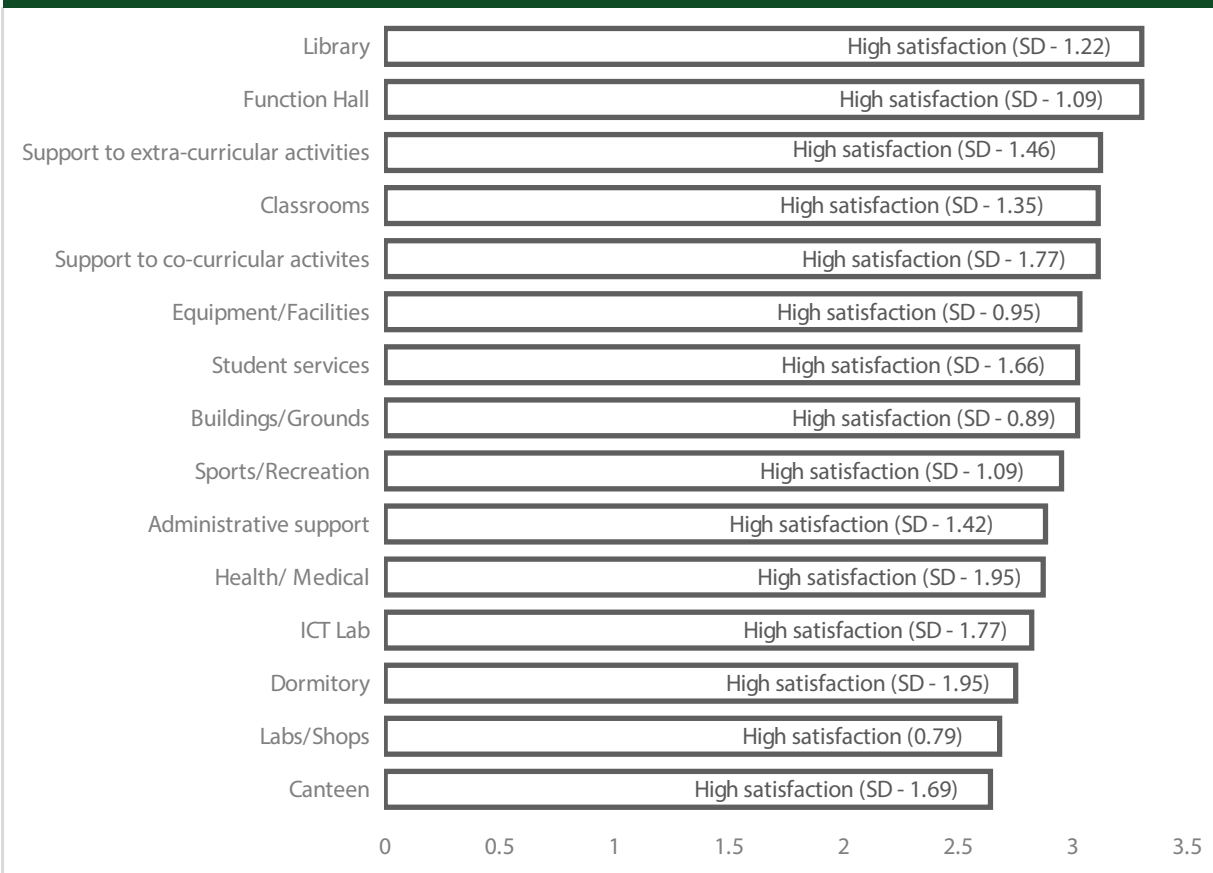
Student or alumni satisfaction of their institution has become a popular indicator of quality in higher education (Bramming, 2007; Okogbaa, 2016). It was found in this study that the alumni respondents were highly satisfied with all the services and facilities of the case college and institution (Figure 4). This high satisfaction was true in all specializations and all the years covered. Moreover, this high satisfaction with the undergraduate teacher trainings acquired echoes the results of the tracer study conducted in one of the external campuses of the case institution by Miranda et al. (2022).

The alumni respondents in this present study were most satisfied with the services of the library and the function hall. Indeed, the university library services of the case institution deserve the credit as it has recently been awarded one of the most efficient libraries in the Philippines. Likewise, the library area often receives the highest marks during program accreditation. The CTE function hall, meanwhile, is the largest in the university and is often exploited as a venue for meetings and conferences that require a relatively larger number of participants. On the other hand, the graduate respondents' satisfaction was lowest in the canteens, laboratories, and dormitories. This result post some implications on how the university manages and operates the services that cater to the most basic needs of food and accommodation, and how to improve facilities that provide hands-on experiences to the learners. Efforts must be made to equip laboratories and other learning needs, while providing more food choices and more convenient dormitories. This way, graduates become better prepared and fully

Figure 4

BSED Alumni's Level of Satisfaction on the Services and Facilities of Case College and Institution

Facility	Satisfaction
Library	High satisfaction (SD - 1.22)
Function Hall	High satisfaction (SD - 1.09)
Support to extra-curricular activities	High satisfaction (SD - 1.46)
Classrooms	High satisfaction (SD - 1.35)
Support to co-curricular activites	High satisfaction (SD - 1.77)
Equipment/Facilities	High satisfaction (SD - 0.95)
Student services	High satisfaction (SD - 1.66)
Buildings/Grounds	High satisfaction (SD - 0.89)
Sports/Recreation	High satisfaction (SD - 1.09)
Administrative support	High satisfaction (SD - 1.42)
Health/ Medical	High satisfaction (SD - 1.95)
ICT Lab	High satisfaction (SD - 1.77)
Dormitory	High satisfaction (SD - 1.95)
Labs/Shops	High satisfaction (0.79)
Canteen	High satisfaction (SD - 1.69)

0   0.5   1   1.5   2   2.5   3   3.5

equipped to face the jobs and professions they are prepared themselves to be in.

Alumni Recommendations for the Improvement of the Case College's Curriculum and Services

The alumni respondents were asked to recommend areas in the curriculum and service or facilities that they feel need improvements. Using manual thematic analysis procedures, the recommendations were clustered into six themes. Table 1 shows the researcher-generated themes, some relevant statements, and the frequency of the response per theme. These recommendations are further detailed in the subsequent section.

Enhancing Pedagogical Competence

Among the themes identified, enhancement of

pedagogical competence is the most recommended. In particular, the alumni respondents request that teacher educators model in their teaching the varied teaching strategies they are enumerating in their teaching methods courses. Such a finding also arose as one of the recommendations in a similar study conducted among education graduates (Bueno, 2020). To maximize the teacher trainees' exposure to varied teaching strategies, the respondents recommend that the student reporting strategy should be minimized.

Another pedagogical competence of the BSED alumni reminds the faculty members in the Professional Education courses to emphasize classroom management. Indeed, classroom management and discipline remain the most challenging aspects of teaching and learning, both during teaching internships (Bansiong, 2021) and in-service teaching. These recommendations

Table 1

Alumni Respondents' Recommendations for the Improvement of the BSED Program

Theme	Significant Statements	Frequency
Enhancing of pedagogical competence	"More exposure of students to various teaching strategies"[MA 18, Female] "Limit the use of student reporting as teaching strategy" [PMA 6, Female] "Emphasize on classroom management" [EA 12, Male]	20
Developing 21st century and other skills	"Provide trainings for general skill enhancement (for employment purposes)" [MA 19, Male] "Provide avenues for the development of communication skills" [VEA 7, Female] "Integrate ICT in lessons" [FA 1, Female]	18
Strengthening institution-agency collaboration	"Introduce the K-12 –based lesson plan innovations" [PSA 3, Male] "Orient PSTs on how to fill in/accomplish the DepEd forms and other documents" [VEA 9, Female)	17
Maximizing experiential learning	"Longer time, more extensive practice teaching (in and off-campus)" [BSA 27, Female; EA 8, Female] "College supervisors should closely monitor STs in the field" [PSA 21, Female]	15
Concretizing instruction	"Incorporate more practical and realistic applications of the topics discussed" [BSA 17, Female] "Provide the applications of Prof. Ed. theories, principles, and concepts" [PSA 19, Female] "Integrate real-life applications and values learned" [SSTA 7, Male]	13
Preparing for the future	"Train students how to answer interviews", [EA 22, Female] "Introduce topics such as contract signing, resume writing, etc." [MA 4, Male] "Provide seminars on stress management and financial literacy" [SSTA 12, Male]	12

point to the respondents being cognizant of the importance of effective instruction and a well-managed learning environment.

Developing 21ˢt Century and Other Skills

The BSED alumni respondents recommend that the college council consider crafting programs, activities, or projects that will develop the students' employability skills. The specific skills and attributes perceived to be crucial in teaching are leadership, communication, Information and Communications Technology (ICT) skills, and creative and critical thinking.

Leadership skills must be developed in pre-service training because according to Gavoni (2023) "Teachers with strong leadership skills can create a positive, inclusive, and supportive learning environment. They can set a tone that promotes respect, curiosity, and a love for learning." Also, communication skills.

Communication skills must also be developed among future teachers for the obvious reason that successful teaching, according to Sword (2020) is 50% communication (the other 50% being knowledge). Efforts must therefore be exerted to develop teachers who can use the four modes of communication – listening, speaking, reading, and writing.

ICT skills and creative and critical thinking skills are among the skills that are extremely important in this modern and digitized age. Graduates who possess these skills tend to have a competitive advantage over those who do not possess them (Hummel, 2024). Thus, prospective teachers must be given more opportunities to develop such important skills during pre-service teacher training.

The recommendation for the creation of programs and projects for the holistic skill development and employability of students echoes the result of Rogayan (2019). Indeed, teachers are expected to be flexible, multi-faceted, and versatile, and they must be sllowed to develop goodpedagogical and other professional skills as early as their pre-service teacher training.

Strengthening Institution-Agency Collaboration

As a teacher-training institution whose graduates are to be employed in DepEd, the alumni respondents recommend a stronger collaboration between the institution and the said government agency. This emerged as one of the top recommendations from the respondents. Incidentally, the respondents in the study by Caňizares (2014) share the same recommendation on the closer collaboration between teacher-training institutions and DepEd. In particular, five respondents urged the faculty members in the Professional Education subjects to consider introducing the DepEd format in lesson planning. One respondent remarked, "*My cooperating teacher laughed at my lesson plan, saying it's quite obsolete*" (EA 6, Female).

The alumni respondents also encouraged the faculty members of the college to be updated with and share with the prospective teachers the latest innovations and issuances in the DepEd. As often as necessary, ´personnel from DepEd may also be invited to speak on these changes. Such actions allow students to imagine what takes place in the actual field and prepare for them, thus making the teacher-training experience more relevant and industry-driven.

It has been described in many studies that one of the major causes of unemployment and underemployment is an education-skills mismatch (Adely et al., 2021; Kupets, 2016). As such, the authors recommend a stronger institution- industry collaboration. Teacher training institutions must therefore consider agency needs and educate the prospective teachers on the skills to fulfill these needs. This scheme will help address the mismatch issue, leading to a reduced incidence of unemployment or underemployment.

Maximizing Experiential Learning Experiences

Two recommendations related to experiential learning emerged from the qualitative data analysis – one about teaching internships, and the other on field study courses. Under teaching internship, the recommendations pointed to a longer duration of teaching internships, increased supervision by college supervisors (CS), and the addition of challenge and variety for the experience.

Specifically, 11 alumni respondents claim that the duration of a full-time teaching internship is not enough for a teacher intern to experience the realities of teaching. Hence, they are advocating the lengthening of the practice teaching

experience. For emphasis, this suggestion topped the list of all the recommendations from the respondents. Such a recommendation echoes that of the education graduates in the study of Dumlao et al. (2020).

Some respondents also mentioned the closer and more regular supervision of teaching internship by the CSs. This recommendation has its merits because, in the current practice, the CSs are monitoring the interns only once. This single monitoring scheme is due to three factors—the large number of interns, the considerable distances of the cooperating schools where interns are deployed, and the other classes the college supervisors need to attend. It is therefore daunting for college supervisors and a challenge to the case college's administrative council due to its personnel and fiscal implications.

The alumni respondents also wanted to be exposed to more diverse and mature learners during an internship, implying that shifting within grade levels during the internship should be made mandatory. Other respondents also wish that, for greater challenge in terms of content, interns should "*be allowed to teach in the senior high school*" (MA 4, Male). Such recommendations mean the respondents wanted to develop flexibility and challenge – values they believe to be important in their future careers.

It can be surmised from the recommendations that during the teaching internship, respondents experienced insufficient duration of teaching internship, limited supervision by college supervisors, and a lack of variety in terms of the learners handled. These recommendations are indicative of the respondents' recognition of the importance of full, well-supervised, and varied field exposure, leading to the development of skills, competence, and attitudes of prospective teachers.

Other related recommendations include the "compression" of the field study courses, the exposure of teacher interns in the senior high school, and the close monitoring of college supervisors during teaching internships. Some alumni feel that the field study courses are repetitious or redundant. Hence, the recommendation of their compression. This recommendation, however, is somehow addressed in the advent of the country's new teacher education curriculum. Here, the six one-unit field study courses are merged into just two 3-unit

courses. These two courses are now offered the semester before the teaching internship, similar to the scheme practiced some years ago.

Concretizing Instruction

The alumni respondents seem to feel that in their teacher training, there is a great divide between educational theory and practice. This is evidenced by their recommendation on the concretization of instruction, both in the professional education and specialization courses. Ten alumni respondents clamored for the use of more authentic applications of the topics taught in these courses. This result implies the respondents' pragmatic stance. They are concerned with such issues as "*how should the topics be taught to the level of students in the basic education*" (MA 10, Male), or "*how will an abstract/foreign topic be presented to learners of a different trait or upbringing*" (SSTA 16, Female).

The emphasis on the practical application of teaching and learning theories also emerged as a recommendation by some education graduates in the report of Ratri et al. (2019). Such a recommendation is in place and is clearly understood since course relevance is an important determinant of learner motivation (Albrecht & Karabenick, 2018). Learners need to see the practical application and the values derived from their day-to-day lessons. Based on the schema theory (Boutyline & Soter (2021), learners better appreciate lessons that are familiar to them, leading to them taking part in meaningful discussions.

Preparing for the Future

Some alumni respondents recommend to the college stakeholders the enhancements of students' employment-related skills such as resume writing (three responses), responding to job interviews (five responses), and filling of forms (two responses). While the institution's office of student services sponsors trainings on the development of these skills, some respondents think that these relevant skills can still be integrated into their general education courses. Rather than teaching random topics seemingly bereft of practical value, general education courses should adopt a more utilitarian approach. Such is one of the key features of a responsive and relevant teacher-education curriculum (Korthagen et al., 2006).

In addition, trainings on stress management and even financial literacy were suggested by the alumni respondents. Indeed, these two topics are emerging issues and conditions that beset teachers and other school workers. While trainings on such topics can easily be provided in their respective employment schools, the alumni thought that it might be wise to receive these trainings as early as during teacher-preparation courses. Such results could stem from the fact that teachers in the Philippines are prone to financial mismanagement, pushing them into huge debts (Ferrer, 2017; Mencias-Tabernilla, 2023).

Discipline-Specific Recommendations

Further content analysis of the responses revealed some recommendations specific to the fields or specializations. Except for the Filipino majors, there were discipline-specific recommendations from all specializations. These discipline-specific recommendations are shown in Table 2.

The discipline-specific recommendations on the alumni respondents' teacher training can be clustered into two major themes – curriculum enhancement and physical resources upgrading. Physical resources include laboratories, facilities, and equipment. Incidentally, the former was a common recommendation among all the fields, while the latter arose from the graduates of the more hands-on fields of sciences, TLE, and PEHMA, with the addition of English.

Curriculum Enhancement

As for curriculum enhancement, some

Table 2		
Discipline–Specific Recommendations by the Alumni Respondents		
Theme	Significant Statements	Frequency
Specialization: Biological Sciences		
1. Physical resources upgrading	"Upgrade science laboratory rooms and equipment" [BSA 3, Male)	6
2. Curriculum enhancement	"Include courses in physics and probability and statistics in the curriculum of BSED-Biological Sciences" [BSA 20, Male] "Include courses in probability and statistics" [BSA 11, Female] "Offer BSED with specialization in Chemistry or General Science" [BSA 20, Male] "Provide opportunities for student engagement in research, particularly technical research"[BSA 28, Female]	7
Specialization: English		
1. Physical resources upgrading	"Improve and let English majors maximize the use of the speech laboratory" [EA 19, Female]	3
2. Curriculum enhancement	"Emphasize more on the content core (major) courses" [EA 12, Male] "Balance grammar and literature in the BSE-English program" [EA 10, Male] "Offer courses in research and in technical writing" [EA 29, Female]	7
Specialization: Mathematics		
1. Curriculum enhancement	"Check the arrangement/prerequisites of subjects. i.e., Basic statistics should come before probability" [MA 17, Male]	2
Specialization: Physical Education, Health, Music and Arts (PEHMA)		
1. Physical resources upgrading	"Provide more sports equipment" [PMA 1, Female] "Improve the music room and supply more musical instruments" [PMA 6, Female]	4

Table 2 *Continuation...*

2. Curriculum enhancement	"Add more Arts subject." [PMA 14, Female] "Four years is not enough for students to master all four PEHMA components" [PMA 4, Female]	3
3. Teacher competence	"Assign teachers who are really qualified to teach the PEHMA subjects." [PMA 6, Male]	1
Specialization: Physical Sciences		
1. Physical resources upgrading	"Upgrade or improve the Physical sciences laboratories" [PSA 8, Female] "Develop a mentoring/coaching program for research, or provide opportunities for students to conduct research"	6
2. Curriculum enhancement	"Require individual, not group research" [PSA 12, Female] "Split inorganic chemistry into two courses. Add Biology and more Earth Science courses in the PS curriculum."[PSA 36, Male] "Offer more specialized science courses (BS Bio., BS Physics, etc.) for STEM schools." [PSA 4, Male]	4
3. Skill enhancement	"Provide trainings on laboratory management" [PSA 36, Male] "Develop a mentoring/coaching program for research, or provide opportunities for students to conduct research" [PSA 4, Male]	4
Specialization: Social Studies		
1. Curriculum enhancement	"Integrate indigenous knowledge systems and practices in the social studies curriculum" [SSTA 13, Male]	1
Specialization: Technology and Livelihood Education		
1. Physical resources upgrading	"Upgrade the shops and trade laboratories, as we share resources with the high school students" [TLEA 4, Female] "Provide adequate equipment" [TLEA 8, Female, TLEA 10, Male]	12
2. Curriculum enhancement	"Offer specializations under TLE" [TLEA 2, Female] "Include ICT as a TLE component" [TLEA 14, Female]	2
3. Skill enhancement	"Coordinate with TESDA for possible NC certification. Provide an opportunity for TLE majors to do OJT outside the school" [TLEA 4. Female]	3
Specialization: Values Education		
1. Curriculum enhancement	"Offer Master of Arts in Values Education" [VEA 2, Male]	1

respondents appealed for additional courses, years of study, specialization, emphasis on the core courses, and even degree programs. Other alumni requested a more "balanced", "logical", and "responsive" curriculum and vertically-articulated master programs.

Of the requested courses, the most prominent were research, statistics, and technical writing. These recommendations were forwarded specifically by the alumni respondents who specialized in Science and English. This result is similar to the findings of Rogayan (2019) whose science graduate respondents identified "more exposure for research and innovation" as a significant recommendation. These recommendations could have arisen because of the DepEd requirement that teachers conduct research not only for their promotion but for the development of reflective practice and improved learning outcomes. Moreover, science and mathematics teachers serve as coaches and

advisers to students in science and math investigatory projects. Also, research has already become a regular course in many senior high school tracks. As such, prospective teachers must develop the knowledge, skills, and right attitude towards research.

The above clamor for more research courses and exposures for the next BSED students somewhat echoes the quantitative result described earlier in the previous sections. Here, the alumni respondents claimed that their research preparation was the least adequate (Figure 1).

Physical Resources Upgrading

The graduates of the Sciences have expressed a desire for the upgrading and improvement of science laboratories and equipment. On the other hand, the English group wished for the full utilization and improvement of the speech laboratory. In addition, the PEHMA and TLE graduates suggested the upgrading and proper furnishing of the music room, and shops, respectively.

The inadequacy of laboratories and the lack of instructional facilities and materials were the same concerns raised by the respondents in the study of Almejas et al. (2017). Indeed, with an ill-equipped laboratory for learning, the intention of exposing and training students to actual processes and procedures is greatly undermined, affecting future performances in the field.

Aside from recommendations concerning curriculum enhancement and physical resources upgrading, some minor suggestions from the alumni respondents included skill enhancement to the graduates (TLE and Physical Science) and the clamor for more qualified teachers in the specialization courses (PEHMA). Such suggestions imply that the respondents in some specializations are somewhat dissatisfied with the skills and competence of teachers. Therefore, the case institution need to be cautious in the selection of faculty members who will fill vacant positions.

The specific recommendations per discipline are briefly described and explained in the following sections.

Biological Sciences

The facilities-related recommendation by the

alumni respondents under the Biological Sciences cluster concerned the improvement of science laboratories. This means that this particular cohort, just like those in the study of Rogayan (2019), considers science laboratories as a crucial and integral part of excellent training for science teaching. Meanwhile, the curriculum-related recommendations concern including technical research and statistics in their course prospectus. As future advisers in science projects, Biological Sciences graduates need to be equipped with the rigors of science research and statistics.

Another curriculum-related suggestion is the inclusion of physics subjects in the biological sciences curriculum. This is understood because the new science curriculum in the Philippine basic education follows the non-disciplinary, spiral-progression approach. As such, a thorough understanding of all science disciplines is necessary.

Finally, some graduates under this specialization recommend separate specializations for Earth Science and Chemistry. This suggestion, however, contradicts the spiral progression approach of science teaching that is now followed in basic education. These recommendations may have been forwarded by the graduates who wish to teach at the senior high school level, where science courses are taught in a more discipline-based approach. Unfortunately, the BSED curriculum is designed to prepare teachers to teach in the junior high school level, and not in the junior high school.

English

Among the English education alumni, the improvement and maximum use of the speech laboratory was the facilities-related recommendation. Indeed, the speech laboratory needs to be improved and maximized to help enhance the phonetics skills of future English teachers, whose pronunciation and enunciation skills are crucial in their future roles. This is especially so because of the prevalence of regional defects in this part of the country.

Meanwhile, some of their curriculum-related recommendations include the balancing act of grammar and literature courses. One English education alumni laments, "*Our is laden with literature courses, with practically zero courses in grammar. We have little advantage over other*

specializations in terms of grammar. We appreciate if more grammar courses be added in our curriculum." (EA 10, Male). Indeed, since English teachers are also expected to teach English grammar, then, grammar competence, alongside literature, should be built during teacher preparation courses in college.

While the case college cannot create its curriculum, as it adopts the curriculum mandated by CHED, the former may consider adding grammar courses in its list of subject offerings. This is especially true since there are no courses in the present general education curriculum that cover grammar. The college may also tap student organizations to craft programs, activities, and projects that build English grammar competence.

Other English education alumni requested more research and technical writing courses. Such recommendations may have been forwarded because it has become a requirement for teachers to conduct classroom-based research. More research and technical writing courses will equip the graduates with skills and experience in these emerging fields.

Finally, one respondent in this cohort recommended emphasizing on the major or core subjects, suggesting that the core subjects are not emphasized that much. It could be surmised that the recommendation is coming from someone more interested in learning English as a field of study, and not necessarily on its teaching component. This particular recommendation, however, might be difficult to implement as prospective English teachers must also take courses in pedagogy as part of their preparation as English teachers.

Mathematics

The graduates of BSE mathematics only have a single curriculum-related recommendation. It came from an alumnus who happened to be a mathematics educator in the case institution. This recommendation concerns the observance of the proper arrangement of mathematics courses following prerequisite knowledge. Specifically, it involves the offering of basic statistics before probability and not the other way around. This implies that the math graduates know what courses are the prerequisites to others. Such a recommendation highlights the importance of

a regular curriculum review, involving faculty members from service-colleges (who teach specialization courses.

Physical Education, Health, Music, and Arts (PEHMA)

As to facilities, the PEHMA alumni sought the refurbishing of the music room and the acquisition of more music and PE equipment. This specific recommendation is understood because PEHMA as a field is skills-based and requires special facilities and equipment for more authentic trainings.

As for curriculum-related recommendations, the alumni respondents requested more arts subjects. These results imply that some PEHMA alumni see an imbalance in the offering of the four PEHMA components, where other components are less emphasized than others. The case institution may consider enriching the arts component of the curriculum, and provide more avenues in honing the arts competencies of the students.

Some PEHMA alumni feel that it is not wise to congest all four PEHMA components in a four-semester duration. Thus, they are suggesting that BSED-PEHMA be offered for five years. This recommendation is quite sound, considering that there are specific competencies under each component. The arts, for example, include visual arts, performing arts, and so on. It could be difficult to master all components in just a short period. This could be why physical education is now offered as a straight program in the case institution. There is likewise a plan in the case institution to open a culture and arts program that caters to the music, arts, and culture components. Such highly concentrated programs, however, may affect the employment of future graduates.

The personnel-related recommendation of this cohort pertains to the hiring of qualified PEHMA teachers. Some PEHMA alumni insinuate that some of their teachers do not have the competence to teach specialized skills in the course. In this case, the college should then hire professors who have the ability and pedagogical skill to teach the PEHMA components, so as not to shortchange the students.

Physical Sciences

Apart from the usual facilities and curriculum recommendations, the Physical Sciences alumni respondents also clamored for the development of laboratory management skills. This is so because, in public high schools in the Philippines, the management of science laboratories is the responsibility of science teachers. Science teachers should therefore master the skills in managing science laboratories.

The Physical Sciences alumni recommended the refurbishing of the physical sciences laboratory because in the present set-up, these laboratories are designed as ordinary lecture rooms. There are no permanent fixtures for physical science apparatuses. These apparatuses are instead confined in stock rooms, which are only brought out when needed. Such movements could damage sensitive apparatuses.

As for recommendations involving the curriculum, research skill development in the students is desired by the alumni. This is probably because similar to the recommendations of the biological science alumni, physical science teachers are expected to coach or advise students in their investigatory projects. As dictated by logic, one cannot give what he/she does not possess. Unfortunately, the mandated research course in science teacher education is not along the technical research that characterizes investigatory projects. Instead, it is more on science teaching. Thus, the clamor for research courses, especially those that will train prospective science teachers for technical research, may not be addressed by the research course offering.

Other curriculum-related recommendations include the offering of more biology and earth science courses in the specialization area. This specific recommendation has already been addressed in the merging of the two science specializations into a single science strand in the new curriculum for teacher education. Thus, the present cohort of science majors is now mandated to take all branches of science.

Despite the mandate of the spiral progression approach in science teaching, some Physical Sciences alumni respondents still suggest more discipline-based offerings. This recommendation could be thought of as a preparation for teaching in the Science, Technology, Engineering, and Mathematics (STEM) strand in the senior high school. This recommendation has somehow been addressed with the case institution offering BS Biology and BS Chemistry degrees.

There was also a clamor for the splitting of inorganic chemistry into two courses. Such a recommendation is supported by junior high school chemistry teachers. The two groups believe that a more extensive course in general and inorganic chemistry is more useful than analytic chemistry, a regular part of the science education curriculum.

Social Studies

The social studies alumni respondents recommended the infusion of indigenous knowledge, systems, and practices (IKSP) in the curriculum. This recommendation is in place because of the directives from the Department of Education on Indigenous Peoples' Education (IPEd) program. In essence, the IPEd program curriculum was designed to make the curriculum culturally responsive to the specific community context of IP learners (DepEd, 2016). Owing to this program, teachers are enjoined to apply contextualization and indigenization practices in their teaching. Such practices are ultimately geared towards important education goals such as "education for all" and "inclusive and equitable education" (Nataño, 2023).

Technology and Livelihood Education (TLE)

Many of the TLE alumni respondents recommended upgrading trade shops and the supply of shop equipment. It seems that these graduates feel that the shops they used in their trainings were ill-equipped or undersupplied. This scarcity in materials and facilities can undermine their training as technology and livelihood teachers.

As to curriculum, the TLE graduates request more specializations and for ICT as a component. Also, they clamor for skills in on-the-job training, aside from student teaching, and for the institution to coordinate with the Technical Education and Skills Development Authority (TESDA) for national certifications. When these recommendations are considered by the case college, there could be better employment opportunities for the TLE graduates.

Values Education

The Values Education alumni forwarded a single recommendation. This is on the offering of a Master of Arts in Values Education program. So far, the institution offers a Master of Arts in Guidance program. However, some graduates prefer a graduate program that is more vertically articulated with values education. This recommendation is sound as many employers require employees to follow a vertically-articulated educational program. The mandate began in higher education institutions, but even the department of education has begun following the trend.

Some of the discipline-specific recommendations forwarded by the alumni respondents were somehow addressed with the advent of the new teacher education curriculum (TEC) in 2018. For example, in the new TEC, the biological science and physical science specializations are now combined to form a single science major. Also, the case college conducts a regular curriculum review committee which involves the faculty members in the service college. During the curriculum review, the arrangements of courses are reviewed and revised when necessary. In some cases, new courses are added to the curriculum to address some needs. As to facilities, the administration is doing its best to lobby for funds to improve facilities and provide more educational materials and equipment. After all, the recommendations forwarded by the alumni are almost the same with those suggested in program accreditation, ISO, and other quality assurance procedures.

This alumni feedback study has presented a comprehensive evaluation of the program offering of the BSED. General and discipline-specific recommendations for the further improvement of the program offering were likewise forwarded. However, one of the limitation of this study is its methodology, specifically in the use of self-reports. Self-evaluations are prone on the respondents' subjective evaluation based on perceptions. Also, data from older alumni may not be fully accurate as there might be changes in the curriculum and improvements in facilities and resources. Thus, the results and conclusions in the study must be interpreted with caution.

Conclusions

This study reports on the BSE graduates' evaluation of their undergraduate training and relates this training with their current jobs. Their recommendations to further improve the program offering were likewise determined. Generally, the BSE alumni in this study have nothing but positive remarks regarding their undergraduate teacher training. These imply that alumni were contented with the trainings they received, even acknowledging that the skills and competencies they gained during their stay in the case college made them more adept and functional in their current jobs. Such excellent trainings may have been enhanced by the provision of excellent services and facilities by the case college and institution. However, the institution has to continuously improve the services that deal with the most basic needs of food and shelter, while continually improving those functioning well. Despite the excellent feedback, some alumni respondents clamor for more exposure to and experience with more practical and authentic pedagogical approaches, and for improvements of facilities and the procurement of more learning materials and equipment. Moreover, recommendations were made along curriculum in terms of additional courses (research), relevance, and balance. Finally, the BSED alumni respondents suggested offering vertically articulated graduate programs, more specializations, more elevant courses, and the granting of skills certifications.

Recommendations

Despite the excellent "marks" received from its BSED alumni, the case institution must not cease working towards further improvements. The college's executive and academic councils may continuously benchmark for best practices by other teacher training institutions, and strengthen its inter-agency collaboration, especially with the Department of Education. The case college may likewise establish a closer collaboration and partnership with industries for it to be updated with the skills, competencies, and attitudes that are relevant to the workplace. Other researchers may likewise provide another lens to tracer studies by seeking employer feedback on the BSED alumni or determining the work performance of

alumni using more objective measures (for e.g. observation tool, document analysis, etc.). Finally, the recommendations forwarded by the alumni respondents may be considered and prioritized by the case college and the institution during curricular enhancements and budget allocations.

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