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Program Satisfaction of the Pioneering Graduates of the Bachelor in Secondary Education –Science in a Philippine State University

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ABSTRACT

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After the implementation of the new teacher education curricular program, the BSE major in Science program had its first batch of graduates in the academic year 2021-2022. Yet, studies on the implementation of this new curricular offering have not yet been carried out. This study utilized a descriptive survey as a method of research. This study uses a scale to gather data on the BSEd - Science program graduates' satisfaction with the curriculum and instruction, facilities, and student support. Data were treated using mean, frequency, and rank. Interviews with college administrators, graduates, and the employers of the graduates were also conducted to gather relevant data that could help in the analysis of results. Results showed that the graduates are "satisfied" with the program's curriculum and instruction, support to students, and facilities, with a mean of 4.4, 4.37, and 4.01, respectively. Further, the strengths and areas

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for improvement of the program were identified. The identified strengths of the program are an organized and flexible curriculum, learner-centered and academic freedom, relevant competencies, approachable and competent faculty, and good resources and facilities. The identified themes for the areas for improvement of the program are the improvement of the laboratory room and apparatus, hands-on laboratory activities, and others. Overall, the students are "satisfied" with implementing the new program.

INTRODUCTION

Every academic institution's goal around the globe is to produce competent and highly qualified graduates who are competitive in local and global environments. This is one of the categories being considered in the different world rankings of universities, such as the QS World University Ranking and Times Higher Education University Ranking, to determine the University's impact in the global arena (Sadlak & Cai, 2009; Rainsbury et al., 2002). Looking at the satisfaction of the graduates with their program experience is one of the critical aspects in ensuring the check and balance in the institution's work of producing competent and highly qualified graduates (Abdullah et al., 2014; Butt & Ur Rehman, 2010).

In the last ten years, there have been significant changes in Philippine education. It has been seen in the structure and the curriculum for basic and higher education. In structure, basic education added two years, known as senior high school, and institutionalized the kinder grade level, which changed the ten years to 13 years of basic education (Okabe, 2013). In higher education, this has been seen in the revisions done in the previous 5-year course to a four-year course, like engineering. In the curriculum, basic education added subjects such as mother tongue for grades 1 to 3 alongside the new subjects in senior high school (Deped Order no. 12, s. 2019). This was complemented by the changes made to the curriculum in higher education, including the teacher education program (CMO no 75, s. 2017).

In the advent of the K to 12, a science teacher in the junior high school teaches all the areas of Science such as earth science, biology, chemistry, and physics as a result of the spirally integrated science disciplines for each year level, which was previously a disciplinal approach. In response, the Commission on Higher Education revised its teacher education program, specifically the Bachelor in Secondary Education (BSE), previously with majors in general Science, biology, chemistry, and physics, to a more comprehensive major today termed "science." In this revised program, undergraduate students studied all the majors

in the field of sciences. The BSE major in Science is a four-year program that has a good number of chemistry and physics courses to enable the graduates to teach physical sciences courses. It also has biology and environmental science courses on top of the professional and general education courses that equip the science teachers with the content and pedagogical knowledge. Its goal is for the graduates to demonstrate a deep understanding of scientific concepts and principles, apply scientific inquiry in teaching and learning, and utilize effective science teaching and assessment methods.

Studies have been conducted in the different areas of research in science majors in teacher education, such as the assessment of process skills of students (Aktamis & Ergin, 2008; Cañete et al., 2017; Laguatan, 2020; Özgelen, 2012), academic performance, teacher's quality, pedagogy, and learning material as intervention (Beltran-Cruz & Cruz, 2013; Dacorro et al., 2022; Diez et al., 2022; Palacio et al.,2012), tracer study (Cuadra et al., 2019; Basagre, 2020) and on licensure examination (Bañez & Pardo, 2016; Ferrer et al., 2015) but literature suggest that evaluation on the new BSE major in Science in the teacher education was not yet carried out.

One of the teacher education institutions that adopted these changes is the Central Bicol State University of Agriculture (CBSUA), a state-run university in the Bicol region mandated under Republic Act 9717 to provide advanced instruction and research in agriculture and allied technological sciences, including education, arts, and related sciences. The College of Development Education is the CBSUAs' unit that offers teacher education courses, including a Bachelor in Secondary Education major in Science whose graduates are highly respected professionals.

The college fully implemented the new teacher education program under CHED Memorandum Order no. 75 series of 2017, including the BSE major in Science, and had its first batch graduate in the academic year 2021-2022. With one of its missions to enable transformative and inclusive learning experiences and its commitment to lead innovations in instruction as reflected in its integrated management policy, it is, therefore, a necessity for the University and the college to evaluate the new Bachelor in Education major in Science program to see how effective its implementation and towards the attainment of the mission; however, there is no study conducted yet that evaluate the implementation of Bachelor in Secondary Education major in Science program and its graduates. This study sought to determine the graduate's satisfaction with the program, its strengths, and areas for improvement.

FRAMEWORK

The **CIPP model** on program evaluation theory, developed by *Daniel Stufflebeam* (1971), serves as a framework for the foundation of this study. The CIPP (*Context, Input, Process, and Product*) program evaluation model focuses on the continuous improvement of the four areas of a program. One of these areas is the process, which focuses on the implementation, monitoring, and feedback from the program.

Analyzing the satisfaction level of the graduates and soliciting insights on the strengths and areas for improvement of the program based on their actual experiences is aligned with the principles of the process evaluation. This approach underscores the importance of gathering feedback to assess how effectively the program was implemented and how to further enhance it.

Also, the **Hierarchy of Needs** by *Abraham Maslow* (1948) can provide a valuable lens for examining program satisfaction among BSEd-Science graduates. This theory describes the hierarchy of human needs, and according to the theory, individuals must satisfy the most basic human before the higher-level ones.

The graduates' satisfaction, in this study, may reflect whether the program successfully addressed the fundamental needs of the graduates, such as quality teachers, nurturing curriculum, adequacy of facilities, and strong student support to finish the program. The graduates who perceive that the program is enabling them to achieve their goals and provide academic growth would likely express satisfaction with the program. Maslow's hierarchy of needs provides a reasonable framework for this study.

OBJECTIVES OF THE STUDY

This study aimed to determine the program Satisfaction of the Pioneering Graduates of the Bachelor of Secondary Education major in Science. Specifically, it sought to (1) determine the satisfaction level of the Pioneering Graduates of the Bachelor in Secondary Education –Science in the implementation of the program along; (a) Curriculum and instruction, (b) Facilities, and (c) Student Support, and (2) identify the strengths and areas for improvement identified by the pioneering graduates in the implementation of the program?

METHODOLOGY

Research Design

This study utilized a descriptive survey as a method of research. The goal of descriptive research is to collect information on current conditions or occurrences in order to describe and interpret them (Aggarwal, 2008). This study uses a scale-type questionnaire to gather data on the satisfaction of the BSEd - Science program graduates with the Curriculum and Instruction, facilities, and student Support. The items on the scale were selected from the indicators on the self-survey questionnaire of a program accreditation under curriculum and instruction, facilities, and student support. At the end of the questionnaire, the respondents were asked about the program's strengths and room for improvement. The graduate tracer study questionnaire by the Commission on Higher Education was used to gather relevant data about the graduate's current status. Only questions related to the graduates' employment were included in the questionnaire to gather only the data needed for the study.

Participants

This study was participated in by twenty-four (24) BSE Science graduates of State University in Bicol Region, Philippines, for the academic year 2021-2022. These are the first graduates of the revised program. There were nine boys and 15 girls. All the graduates, employed or unemployed, were asked to participate in the data gathering. In this study, the College Dean and two (2) program chairpersons were also interviewed to respond to some interview questions for data triangulation. Table 1 provides the socio-demographic data of the graduates.

Table 1
Socio-Demographic Status of the Respondents

	Frequency	Percentage
Age		
22	13	54.2
23	8	33.3
24	2	8.3
31	1	4.2
Gender		
Male	9	37.5
Female	15	62.5

In Table 1, it can be seen that more than half of the respondents are 22 years old(54.2%), followed by 23 years old(33.3%), then 24 years old (8.3%), and 31 years old(4.2%). On the other hand, 62.5% of the respondents are female, while the remaining 37.5% are male. This is in consonance with the results of Ferrer et al. (2015) that females dominate teacher education graduates. Tracing the employment status of the participants is an integral part of the study. It provides a clear relationship between what is learned in higher education and actual work. Table 2 shows their employment status.

Table 2
Employment Status of the Research Participants

	Frequency (f)	Percentage (%)
Current Employment Status		
Presently Employed	20	83.3
Not Employed	4	16.7
Type of Employment Status		
Regular	5	25
Contractual	15	75
Present Occupation		
Teacher	12	60
Customer Service Representative	6	30
Checker	1	5
Enumerator	1	5
Reasons for Unemployment of the Respondents		
Family Concern and Decided not to look for work	2	50
Did not look for a job	1	25
LET Review	1	25

A large proportion of the BSEd Science graduates are currently employed, reaching 83.3%, while the remaining graduates are unemployed at 16.7%. Of the 20 respondents who voluntarily answered the question about their type of employment status, 15 BSEd graduates, or 75%, are on a contractual basis. In contrast, the remaining five graduates, or 25%, landed regular or permanent

employment. Of the 20 respondents, 12 are in the field of education. Some teach in private schools, while others teach staff or tutors. Two respondents work as checkers and enumerators. The rest of the BSEd graduates presently work in the customer service industry. Most of the graduates are currently employed in nearby cities, such as Camarines Sur, Iriga City, and Naga City, to name a few, while one respondent is currently employed in Quezon City as a customer service representative.

Out of the 18 students, the majority work in the education sector (55.6%), followed by the Business Process Outsourcing companies (33.3%), food production (5.6%), and survey field (5.6%). We asked the respondents why they remained in their present jobs. When asked about their reasons for unemployment, most of them answered they had family concerns and decided not to look for a job (75%), while the rest of the graduates (25%) went straight to the review classes for the Licensure Examination for Teachers (LET).

Procedure

In the study, the list of graduates with BSE majors in Science was derived from the records of the college chairperson's office. After determining the list, the researcher asked the respondents to attend a short Google Meet meeting to explain the program evaluation process and ask for their consent to participate in the research undertaking. Thereafter, the questionnaire in a Google form about their employment status and the graduate's satisfaction with the program's Curriculum and Instruction implementation, facilities, and student support was sent to either email or FB messenger respondents. The respondents were personally messaged by the researcher for follow-up.

After the initial analysis of the results of the online questionnaires, a focused interview with selected respondents was conducted to gather a deeper analysis of the initial results. The selection was based on the interesting answers of the respondents about the strengths and room for improvement of the program and on the availability of the respondents. In the focus interview, the respondents were also asked how and why questions on why the program is effective or ineffective for them. Furthermore, the employers of the graduates were consulted about the performance of the BSEd Science graduates. Finally, the dean of the College of Development Education and the two (2) program chairpersons were interviewed to triangulate the initial data gathered from the respondents.

Statistical Analysis

Data were tabulated, analyzed, and treated using descriptive statistics such as mean, frequency, percentage, and rank. Also, interviews with college

administrators, graduates, and employers of the graduates were conducted to gather relevant data that could help analyze results.

RESULTS AND DISCUSSION

Satisfaction Level of the BSEd - Science Graduates on Curriculum and Instruction, Support to Students, and Facilities. Satisfaction is the pleasure of doing something or getting something needed (Collins Dictionary, 2022). In this study, the graduates are asked to rate their satisfaction on the three major categories: curriculum and instruction, student support, and facilities. The table below shows the results of the satisfaction survey. For the interpretation of the student's satisfaction level, the verbal interpretation used by Labaria (2016) in her study "Job Satisfaction and Employability of Education Graduates of Western Philippines University Quezon Campus "was used as follows: 4.51 – 5.00 as Very Satisfied (VS), 3.51 – 4.50 as Satisfied (S), 2.51 – 3.50 as Moderately Satisfied (MS), 1.51 – 2.5 as Unsatisfied (US), and 1.00 – 1.50 as Very Unsatisfied (VU). The table below shows students' satisfaction in terms of the curriculum and instruction of the BSEd science graduates.

Table 3
Satisfaction Level of the Graduates on Curriculum and Instruction

Indicators for Curriculum and Instruction	Mean	Verbal Interpretation
The subjects are logically sequenced, and prerequisite courses are identified.	4.56	Very Satisfied
The curricular content is responsive to the needs of the country and the recent developments in the profession.	4.32	Satisfied
The curriculum content covers the professional and technical preparation required of its graduates.	4.48	Satisfied
Opportunities for participation in hands-on activities, such as immersion/practical training and field study, are maintained in the curriculum.	4.16	Satisfied
The program of study allows the accommodation of students with special needs and provides opportunities for them to finish the degree.	4.12	Satisfied
The faculty prepares syllabi with comprehensive contents and distributes a copy to students.	4.2	Satisfied

Teaching strategies stimulate the development of the student's higher-order thinking skills (HOTS), such as critical thinking, analytical thinking, and problem-solving.	4.28	Satisfied
Classroom instruction is enriched through the use of the following strategies: Symposia, seminars, workshops, professional lectures, Educational tours, learning visits, other co-curricular activities, Peer teaching/cooperative learning, Computer-assisted instruction (CAI), and computer-assisted learning (CAL)	4.88	Very Satisfied
Varied evaluation measures such as rubric assessment, portfolio, skills demonstration, oral examination, and paper and pencil test are used.	4.52	Very Satisfied
Assignments are designed to reinforce teaching, which results in maximum student learning.	4.32	Satisfied
Individual and group reports and projects encourage and monitor independent work and performance.	4.44	Satisfied
The student evaluation and grading system is defined, understood, and disseminated to students.	4.32	Satisfied
The students are regularly informed of the course's academic requirements.	4.44	Satisfied
Graduating students conduct research and undergo practicum and other activities prescribed in the curricula.	4.72	Very Satisfied
Dialogues and consultations are conducted between the administration, faculty, and students.	4.32	Satisfied
Students are given recognition for exemplary academic and non-academic performances.	4.32	Satisfied
Overall	4.4	Satisfied

It can be seen that most of the students are satisfied with the curriculum and instruction of the BSEd program offered by the University. Of the 16 questions answered by the students, only four questions were rated "Very Satisfied" by the graduates. These are the items on logical sequences of the subjects with a mean of 4.56; use of different strategies to enrich classroom instructions like seminars, workshops, symposia, and the like with a mean of 4.88; use of various evaluation measures like portfolio, oral exams with 4.52 mean and the conduct of research and practicum of graduating students with a 4.72 mean. The mean score of the curriculum is 4.4, which falls under "Satisfied."

In the interview with selected graduates, they mentioned that the program brought them many improvements from when they entered the program to when they graduated. As elaborated, they gain confidence in facing both students and

parents, and they also acquire the necessary skills to address potential problems inside the classroom, like how to handle students with special needs. The graduates mentioned that they acquired the valuable and relevant skills needed for teaching in the K to 12 curricula, such that the content of the science subject is spiraling. As a graduate states,

> *I've noticed that the curriculum we've followed has really prepared us to be flexible and adaptable science teachers. Being a science major nowadays is really challenging; as science teachers, you must know every discipline of Science, whether Bio[Biological Science] or PhySci {Physical Science], since the Science curriculum in DepEd is a spiral progression. I must say that with the preparation we had in college, I am confident to say that we can teach both fields.*

One of the graduates further explained that they are trained to do research in college, and teaching research subjects in the senior high school of the K to 12 Curriculum becomes easy, thus making the curriculum relevant. The interview results with the graduates and of the identified employer reflected that the BSEd Science program effectively created a graduate with mastery of the subject matter and the necessary skills and attitude as a 21st-century science teacher. Science process skills are requisites in the acquisition of knowledge as foundations of learning Science among students, pre-service teachers, and in-service teachers (Cañete et al., 2017). Moreover, according to Aktamis and Ergin (2008), science process skills are useful in improving scientific creativity and academic achievement. Thus, the development of science process skills in teacher education can enhance the students' science creativity.

Another area that was evaluated by the students was "Support to Students." It refers to the student's services and programs that help the student in his academic life, including services/program operations and processes, which, according to Strong (2006), are essential for students to graduate on time. Below is the satisfaction level of the graduates on the criteria of support to students.

Table 4
Satisfaction Level of the Graduates on Support to Students

Indicators for Support to Students	Mean	Verbal Interpretation
The institution has a student services program (SPP)	4.28	Satisfied
Prompt, courteous, and efficient services in the handling of business transactions with students are evident.	3.88	Satisfied
Appropriate intervention programs and services are adopted to promote and enhance student welfare and development.	4.2	Satisfied
There is a guidance and counseling program for the students, which is supported by qualified staff.	4.28	Satisfied
Skills development programs are conducted.	4.32	Satisfied
The student body is involved in the development of the student handbook.	4.12	Satisfied
The institution recognizes the right of the students to govern themselves.	4.56	Very Satisfied
Scholarship and financial assistance in various forms are available to students.	3.92	Satisfied
Buildings and facilities that conform to government standards are provided with accessible and safe amenities for persons with disabilities.	4.16	Satisfied
Policies on the use of student facilities are in place.	4.32	Satisfied
Licensed and competent security personnel ensure the safety and security of the students.	4.36	Satisfied
Sports development programs are regularly conducted.	4.32	Satisfied
There is a well-maintained and well-ventilated library	4.84	Very Satisfied
Twenty percent (20%) of the library holdings are current edition, i.e., with copyright within the last 5 years	4.44	Satisfied
Non-print, digital, and electronic resources are available.	4.32	Satisfied

The library provides sufficient research books and materials to supplement the curricular needs.	4.48	Satisfied
The library maintains an extensive Filipiniana collection.	4.56	Very Satisfied
The library provides 3-5 books/journals for professional subjects in the major field of specialization.	4.68	Very Satisfied
Librarians and staff are available during library hours to assist and provide library services	4.72	Very Satisfied
The library services are effectively and efficiently provided.	4.72	Very Satisfied
Overall	4.37	Satisfied

In terms of the support offered by the University to the students, the majority of the students are satisfied. The areas that received the highest mean satisfaction ratings are recognition of the right of students to govern themselves with a mean of 4.56, a library that is well maintained and ventilated with a mean of 4.84, library's extensive Filipiniana collection with 4.56 mean, journals and books for professional subjects provided by the library with 4.68 mean, availability and assistance of the librarian and staff with 4.72 mean and library services with 4.72 mean. The overall mean satisfaction rating of student support is 4.37, which means students are satisfied in this area.

Furthermore, the students evaluated the "Facilities" used by the program. The students use these facilities during their time in the program (Berney, 1989) and are essential to learning acquisition, such as classrooms and health services. Below is the satisfaction level of the graduates on facilities.

Table 5
Satisfaction Level of the Graduates on Facilities

Indicators for Facilities	Mean	Verbal Interpretation
The classrooms are well-maintained and free from interference.	4.08	Satisfied
Buildings, including toilets, are clean and well-maintained.	3.56	Satisfied
Indoor facilities are constructed with appropriate flooring, proper lighting, ventilation, and safety measures.	4.12	Satisfied

Constructed outdoor facilities are free from hazards and with suitable floor surfaces.	4.12	Satisfied
Basic medical and dental medicine and apparatus are available.	3.88	Satisfied
Audio-visual room and facilities with appropriate equipment are utilized in support of the teaching and learning as but not limited to a projector, sound system, and screen,	3.72	Satisfied
The institution has a well-lighted and ventilated student center with supplies and materials.	4.16	Satisfied
Covered walks are provided to protect the academic community from inclement weather.	4.4	Satisfied
Overall	4.01	Satisfied

The table above shows the students' satisfaction level in terms of the institution's facilities. It is important to note that most of the graduates were "satisfied" with the facilities of the University. Of the three areas, although curriculum and instruction were rated the highest, all the areas were rated as "satisfied." Overall, the students were "satisfied" with their experience while on the program.

Identified Strengths of the BSEd – Science Program. The graduates were also asked about the best features of the programs through an online survey, which was followed by an actual face-to-face interview with the selected graduates based on the availability of their schedule and the proximity of their residence and workplace. The table below shows the frequency and rank of the program's strengths.

Table 6
Identified Strengths of the BSEd Science Program

Identified Themes	Frequency	Rank
Organized and Flexible Curriculum	10	2
Learner-Centered, Students have the academic freedom	4	4
Relevant Competencies	16	1
Approachable and Competent Faculty	7	3
training and seminar workshops	3	5.5
Good resources and Facility	3	5.5

Among the strengths identified by the graduates, "Relevant Competencies" rank first. These suggest that the program developed skills that the students can use in their work. This is followed by "Organised and Flexible Curriculum". According to them, the program is organized, gives students academic freedom, provides facilities in good condition, and has approachable, qualified, and high-caliber teachers.

The data revealed that the program helps students to develop knowledge and skills, offers a holistic approach, offers hands-on activities that build students' competence to teach different disciplines of Science, and helps with the growth and development of the learners in a learner-centered environment. As stated by the respondents,

Based Science has an organized curriculum. Teachers from prerequisite subjects into the major subjects. The learning materials were based on up-to-date resources. The lessons were creatively taught. The professors are very competitive and knowledgeable. Also, real-life applications or activities were done to support life-long learning.

Areas for Improvements of BSEd – Science Program. Aside from the strength, the respondents were also asked about the areas for improvement of the BSEd Science Program. This was gathered in the same way that the program's strength was garnered. The table below shows the frequency and rank of the program's areas of improvement.

Table 7
Identified Areas of Improvement of the BSEd Science Program

Identified Themes	Frequency	Rank
Improvement of laboratory room and laboratory apparatus	18	1
Monitoring of Faculty	5	5
Performance of Hands-on Laboratory / Culminating Activities	8	2
Academic Support to Student	6	4
Qualification of faculty and emphasis on the content	4	6
Updating of Teaching and Assessment Pedagogy/Strategy	7	3
Assessment of the Learning Management System	1	7

When asked about the suggestions they have for the science program, they said that the University should improve the laboratory room and facilities, monitor teachers in the program to ensure that they are teaching in class and doing their jobs well, add laboratory apparatuses, use varied assessment, provide more training and workshops, be fair in grading students, have a mandatory evacuation of professors at the end of every semester, provide more teaching materials for subjects especially physics and chemistry, simplification of teaching methods in difficult subjects like chemistry, biochemistry, and analytical chemistry, provide more hands-on laboratory experiments, have their laboratory for the department, make sure the faculty is considerate in giving ample time for students to finish requirements, open opportunities for students in terms of international and local involvement, have good student support, and give more depth on major subjects. As reflected in the table, the suggestions of the students revolve around seven (7) themes, with the improvement of the laboratory room and laboratory apparatus as the number 1 suggestion based on frequency and rank, and the least suggestion is on assessment of the Learning Management System. This result is consistent with the findings of Rogayan (2019) that upgrading the laboratory and instructional facilities in order to improve the science education curriculum was among the recommendations of science students in the state university and colleges which reflect the perennial problem in science facilities and equipment used by students in government funded higher education institution.

Laboratory activities, rooms, and apparatus are essential components of science education (Hofstein & Lunetta, 2004) because students are given a

chance to manipulate the model for them to learn and understand first-hand the science concept (Basagre, 2022), which is critical to the verification of the concept theoretically discussed (Basagre, 2018). Knowing that these graduates coincide with the pandemic, they stayed two (2) years for face-to-face classes and another two (2) years on distance learning. Such identified themes in the suggestions are understandable because it is the period when everyone adjusts to the new normal. Students, faculty, and administrators are looking for the best way to cater to quality education despite the challenges brought on by the pandemic (Towers et al., 2023). In the interview with the program chairpersons of the college, the faculty experienced difficulty adjusting to the needs of distance learning, especially the use of the internet, gadgets, and the implemented learning management system. As the college dean emphasized, faculty manifested their early retirement because of the situation. However, with the proper faculty development initiatives, the faculty accepted and adjusted to the new learning environment, which was similarly observed by Altawalbeh and Al-Ajlouni (2022). Overall, the program is described as satisfactory from the viewpoint of the graduates and was supported by the results of the interview with the employer.

CONCLUSION

Based on the gathered results, the graduates are "satisfied" with the program's curriculum and instruction, support to students, and facilities, with a mean of 4.4, 4.37, and 4.01, respectively. This is supported and reflected in the competencies acquired by the graduates, which was seen in the observations of their employers. Because of their satisfaction with Curriculum and Instruction, Support to Students, and Facilities, they developed skills that enable them to perform in their respective teaching stations.

The identified strengths of the program are that it has an organized and flexible curriculum, is learner-centered, and students have academic freedom; there are relevant competencies; the faculty is approachable and competent; training and seminar-workshop are part of the curriculum, and there are good resources and facilities. The identified themes for the areas for improvement of the program are the improvement of laboratory room and laboratory apparatus, providing of hands-on laboratory/culminating activities, monitoring and on qualification of faculty, emphasis on the content, on academic support to the student, on updating of teaching and assessment pedagogy/strategy and on assessment on the effectiveness of the Learning Management System.

Based on the discussion above, although the students are "satisfied" with the curriculum and instruction, support to students, and facilities, these areas can still

be improved by further capacitating teachers, proposing other student-responsive programs, and procuring laboratory facilities and materials. Since the program has an organized and flexible curriculum and offers relevant competencies, further improvement of the laboratory room and laboratory apparatus, including hands-on laboratory / culminating activities, must be conducted to enhance the program's effectiveness further. Furthermore, a case study among the graduates may examine the program's effectiveness in-depth.

TRANSLATIONAL RESEARCH

The results of this study may be translated into policy output that will revisit and improve the implementation aspects of the new program. Institutional and college training programs may be implemented for personnel involved in the implementation of the program. Furthermore, budgetary aspects can be allocated to the areas needing improvement.

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