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Training Needs and Program of BSIT Faculty in Selected Campuses of Cavite State University: Basis for Policy Enhancement

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Abstract:
The proposed study aimed to contribute to the existing literature generally on the training needs and program of BSIT faculty and to enhance a policy that would support and sustain the professional growth of all faculty. The final output of the study could have been useful to the school administrators of the different campuses of Cavite State University, as it could have been used as a guide and template in decision–making towards enhancing its faculty development program policy. Hence, this study was conducted to find out the training needs of BSIT Faculty in CvSU – CCAT and other satellite campuses and assess the Industrial Technology program to be used as basis for policy enhancement.Descriptive research design was used to determine the significant difference between respondents' assessment on the training Needs and program of BSIT in Selected Universities and Colleges and the problems encountered to develop and proposed policy enhancement.Based on the findings of the study, the conclusions include: 22.92% of BIST faculty were bachelor's degree graduates, 62.2% participated in non-formal local training, 3.57% in international training; for specialization, 50.59% participated in local training and 1.78% in international training; no significant relationship was found between academic preparation and faculty performance; and inputs to policy formulation could bridge gaps between current policies and accrediting agency evaluation criteria for faculty qualifications.
KEYWORDS: *Accrediting Agency of Chartered Colleges and Universities in the Philippines, Accreditation, Industrial Technology, program specialization*

INTRODUCTION

For the longest time, education has been proven to be the prime mover of community progress through the process of acquiring appropriate knowledge and skills, establishing moral values, attitudes, and behavior. Communities continue to produce individuals who are globally competitive and morally upright. Education is considered the groundwork for developing future leaders who utilize resources and maneuver nations in the interest of producing more capable citizens. Wood (2010) emphasized that education plays a crucial role in shaping the growth of nations, communities, and individuals by enhancing job prospects, economic strength, and social progress [1]. Students begin with basic education, comprising primary up to senior high school levels. They then use the learnings and core concepts acquired from basic education as a steppingstone to their tertiary or collegiate level. The collegiate level is said to be more difficult and considerably different from basic education, as it requires professional development, hence the need for the intervention of experts in the profession. Thus, university faculty are undeniably a major component in the continuous development of students' skills, knowledge, and behavioral preparation as they graduate.

Meanwhile, from generation to generation, approaches in education differ as technology evolves, accelerating changes in industry demands. As Marope (2016) stated, the demands of industry can only be met by universities through updating the curriculum in accordance with current trends and issues [2]. The technology we have today is far beyond that of the last century, impacting learners due to changes in their environment. Consequently, research on changing industry demands arises, with the aim of identifying and bridging gaps between employers and trainees. As mentioned in Marope's publication (2016), the UNESCO International Bureau of Education stated that the demands of different sectors and institutions play a vital role in curriculum development. Curriculum development effectively satisfies institutional and industrial needs; furthermore, curriculum revision requires initiators to acquire new learning and skill sets [2].University faculty share their invaluable expertise gained from postgraduate studies and continue to develop through applying their knowledge in their field of work, eventually mastering their specialization over years of experience. However, everything evolves over time, and as they step out and end their careers in the work industry, new technology will emerge.In their research study, Abouelenein (2016) highlighted that there is a growing requirement for faculty development in innovative technologies to better equip educators for the evolving needs of the labor market. Additionally, he emphasized the importance of providing them with programs to upgrade their performance effectively [3]. However, due to advancing technology and globalization alignment, the revolution of modern technology has significantly advanced knowledge and skill set benchmarks. Consequently, university performance is affected, leading to incompetence, failure, and, worst of all, student dropout.Since then, Cavite State University-CCAT campus has been recognized as one of the top builders of professionals in the arts and trades under the Industrial Technology program or the Bachelor of Science in Industrial Technology (BSIT), offering nine different specializations. Over time, other satellite campuses have also adopted the same

program. Furthermore, among the various courses offered at the university, Industrial Technology is recognized as the core program of CvSU-CCAT.

Thus, the proposed study aims to contribute to existing literature on the training needs and programs of BSIT faculty, enhancing policies that support and sustain the professional growth of all faculty. The study's final output could be beneficial to school administrators across different campuses of Cavite State University, serving as a guide and template for decision-making aimed at enhancing their faculty development program policies.

Therefore, this study was conducted to ascertain the training needs of BSIT faculty at CvSU-CCAT and other satellite campuses, evaluate the Industrial Technology program, and serve as a basis for policy enhancement.

Theoretical Framework

This study is supported by the collaborative learning theory of Lev Vygotsky, who articulated a socio-cultural perspective on cognitive development involving both social and individual learning. The collaborative learning perspective perceives learning effectiveness as achievable in the students' learning process. In this framework, faculty members of BSIT from different specializations become learners and continuously enhance and develop their intellectual and professional skills through various trainings aligned with modern technology.

Vygotsky highlighted that interaction plays a significant role in the cognitive development of a learner (Dahms et al., 2007) [4]. According to the theory discussed, More Knowledgeable Others (MKO) refer to individuals who have a better understanding or higher ability than the learner in a particular task, process, or concept. In this study, MKOs refer to teachers who are figuratively described as being "one book ahead" of students in terms of knowledge and skills [4].

Another theory supporting this study is the Transformative Learning Theory by Mezirow, which describes a learning process that changes an adult's perspective. This theory is achieved through a disorienting dilemma—an experience that questions one's prior beliefs and knowledge, prompting deep reflection, encouraging the examination of new information, and fostering empathy for alternative viewpoints (Fleming, 2018) [5]. Educators play a role in helping students learn using different teaching strategies, and this transformative theory emphasizes that providing opportunities for students to learn new things helps them resolve their doubts and dilemmas. Advanced training and knowledge of faculty will enhance student confidence and, subsequently, competency.

These theories are anchored in the present study as it involves faculty development and concerns the competency of both students and teachers. Each of these variables is independent yet interrelated. An action affecting any of these variables could weaken the others. Moreover, faculty development can potentially occur through appropriate trainings. Otherwise, not only will the school face disorienting dilemmas, but the performance of our clients (the students) would also undoubtedly challenge the objective of higher education institutions in the Philippines to offer quality education.

CONCEPTUAL FRAMEWORK

The researcher has opted to use the systems approach model consisting of Input-Process-Output in conducting this research study.

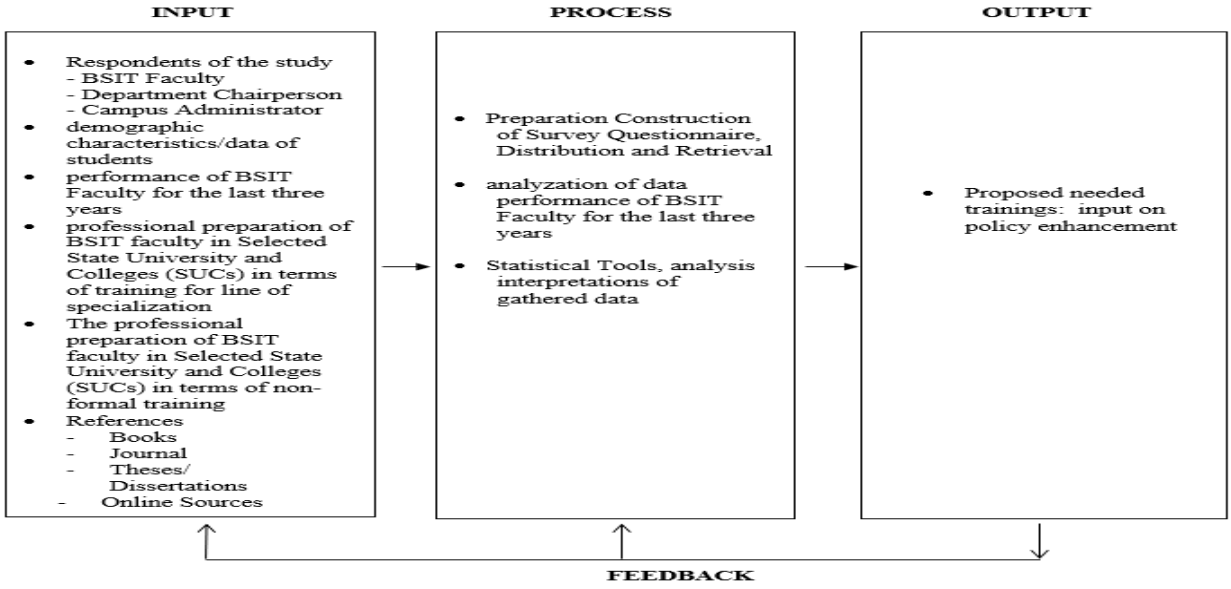

Figure 1. Conceptual Paradigm of the Study

The INPUT box comprises the study's respondents: BSIT Faculty, Department of Industrial Technology Chairperson, campus administrators, and the performance of BSIT Faculty over the last three years.The PROCESS includes identifying the training needs and programs of BSIT faculty in selected campuses of Cavite State University, preparing and

constructing the survey questionnaire, analyzing the performance data of BSIT Faculty over the last three years, distributing and retrieving the survey questionnaire, and analyzing and interpreting the gathered data.

The OUTPUT of the study is the proposed necessary trainings and input on policy enhancement for the Industrial Technology Faculty, serving as the basis for policy enhancement.

Statement of the Problem

The general aim of this study is to identify the training needs and programs of BSIT faculty in selected campuses of Cavite State University. Specifically, the study seeks to answer the following questions:

1. What is the demographic profile of the teacher respondents in terms of:
1.1. Age;
1.2. Gender;
1.3. Civil Status;
1.4. Teaching Experience; and
1.5. Educational Attainment?
2. What are the respondents' professional preparations in terms of:
2.1. Non-formal training; and
2.2. Training for their specialization?
3. What has been the performance of BSIT Faculty over the last three years?
4. Is there a significant relationship between academic professional preparation and Faculty performance?
5. Based on the findings, what inputs for policy formulation may be developed?

Hypothesis

There is a need to develop the training needs and programs of BSIT faculty in selected State Universities and Colleges (SUCs) in line with the requirements of accrediting agencies such as CHED and AACCUP.

Scope and Limitation of the Study

The study primarily focuses on the Training Needs and Program of BSIT Faculty in Selected Campuses of Cavite State University. The respondents of the study include three (3) department chairpersons and forty-five (45) faculty members who have been or are currently handling BSIT students in Cavite State University CCAT, INDANG, and CARMONA Campuses across nine (9) different fields of specialization: Automotive Technology, Drafting Technology, Electrical Technology, Electronics Technology, Fashion and Apparel Technology, Heating Ventilation Technology and Air-conditioning, Mechanical Technology, Stationary Marine Technology, and Welding and Fabrication Technology over the last three (3) years.This study is limited to the perceptions of the respondents and the analysis of data on the performance of BSIT Faculty over the last three years. The study was carried out at Cavite State University – CCAT Campus and other satellite campuses during the school year 2020-2021.

METHODOLOGY

Research Design

The research employed a descriptive approach, commonly referred to as a normative survey. This study is designed to gather information on the various aspects of people's behaviors, beliefs, intentions, opinions, attitudes, interests, and perceptions. Following data collection, the information was systematically analyzed, organized, and interpreted (Calderon & Gonzales, 2018) [6].A descriptive research design was employed to identify the significant differences between respondents' assessments of the Delivery System of the Automotive Program in Selected Universities and Colleges, and to identify the problems encountered in order to develop and propose an intervention plan.

Respondents of the Study

There were two groups of respondents: school administrators and faculty. Table 1 presents the respondents of the study.

Table 1
Respondents of the Study

Respondents	Frequency	Percentage
School Administrators	6	11.11
Faculty	48	88.89
Total	**54**	**100**

As shown in Table 1, the respondents consist of the following: 6 or 11.11 percent are school administrators, and 48 or 88.89 percent are faculty, making a total of 54 respondents who were used as subjects in the study.

Research Instruments

The study used two (2) methods to gather data: indirect/survey questionnaire and direct/interview methods of collecting data.**Questionnaire**: The survey questionnaire aims to gather information about the training needs and programs of BSIT faculty in selected campuses of Cavite State University, serving as a basis for policy enhancement. The survey questionnaire

pattern follows the study of Cielo (2018) as adapted by the researcher for this study [7]. Part I deals with personal information to solicit data on the background of the respondents. Part II covers professional preparation, including non-formal training and training specific to their specialization. Part III addresses recommended training by the Bachelor of Science in Industrial Technology Faculty.

Data Gathering Procedures

The researcher undertook the following procedures in gathering data for this study:

1. Sought permission from the Dean/Campus Administrator of selected Cavite State University Campuses.
2. Upon approval of the request letter, the campus dean/administrator concerned was also sent the survey questionnaire to administer and distribute to the respondents.
3. Personally distributed the questionnaire and also used Google Form to explain it to the respondents, ensuring the receipt of accurate and honest answers.
4. Retrieved the questionnaires after a week and conducted interviews with the respondents regarding the training needs and programs of BSIT Faculty for policy enhancement.
5. Retrieved all completed questionnaires, tabulated, organized, computed, analyzed, and interpreted the data with the assistance of a statistician.

Statistical Treatment of Data

The following statistical tools were employed to interpret the results in relation to the sub-problems:

Frequency: This represents the actual responses to specific items/questions in the questionnaire, where respondents select choices.

Percentage: This descriptive statistic describes a part of a whole.

The formula used to compute percentage in this study is:

% = f/N x 100

On Teacher's Performance

Scale	Description Interpretation
4.500 – 5.000	Outstanding (O)
3.500 – 4.499	Very Satisfactory (VS)
2.500 – 3.499	Satisfactory (S)
1.500 – 2499	Unsatisfactory (US)
below 1.499	Poor (P)

Correlation Ratio. This statistical test was used to determine the relationship between the academic professional preparation, and the Faculty performance.

Formula:

$$E^2 = \frac{n_1 + n_2 - N}{\sum\sum - N}$$

Where:

E^2 = correlation ratio
n = no. of cases per variable
N = total number of cases
$\underline{x_1}$ = mean 1
$\underline{x_2}$ = mean 2
$\underline{x}$ = mean 1 + mean 2

Guide in interpreting coefficient of correlation (Anesthesia & Analgesia, 2018) [8]:

Absolute Magnitude of the Observed Correlation Coefficient	Interpretation
0.00 – 0.10	Negligible correlation
0.10 – 0.39	Weak correlation
0.40 – 0.69	Moderate correlation
0.70 – 0.89	Strong correlation
0.90 – 1.00	Very Strong correlation

RESULTS AND DISCUSSION

Sub-problem No.1. What is the demographic profile of the teachers' respondents as to:

1.1 Age

Table 2 presents the respondents as to age.

Table 2
Respondents as to Age

Age	Frequency	Percentage
56 years old and above	4	8.33
51-55 years old	3	6.25
46-50 years old	7	14.58
41-45 years old	6	12.50
36-40 years old	12	25.00
31-35 years old	11	22.92
26-30 years old	2	4.17
25 and below	3	6.25
Total	**48**	**100**

As presented in the table, there are 12 or 25 percent respondents who belongs to the age range of 36-40 years old; followed within 31-35 with 11 or 22.92 percent; 7 or 14.58 percent within 46-50 years old; 6 or 12.50 percent within 41-45 years old; 4 or 8.33 percent within 56 years old and above; 3 or 6.25 percent within 25 years old and below and 51-55 years old; and 2 or 4.17 percent within 26-30 years old.

1.2 Gender

Table 3 reveals the respondents as to gender.

Table 3
Respondents as to Gender

Sex	Frequency	Percentage
Male	41	85.42
Female	7	14.58
Total	**48**	**100**

As revealed in the table, 7 or 14.58 percent are female respondents and 41 or 85.42 percent are male.

1.3 Civil Status

Table 4 reflects the respondents as to civil status.

Table 4
Respondents as to Civil Status

Civil Status	Frequency	Percentage
Single	17	35.42
Married	31	64.58
Total	**48**	**100**

As reflected in the table, there are 31 or 64.58 percent married respondents; 17 or 35.42 percent are single.

1.4 Teaching Experience

Table 5 illustrates the respondents as to teaching experience.

Table 5
Respondents as to Teaching Experience

Teaching Experience	Frequency	Percentage
26 years and above	8	16.67
21-25 years	11	22.92
16-20 years	12	25.00
11-15 years	6	12.50
6-10 years	7	14.58
1-5 years	4	8.33
Total	**48**	**100**

As illustrated in the table, 12 or 25 percent are in the service for 16-20 years; 11 or 22.92 percent within 21-25 years; 8 or 16.67 percent within 26 years and above; 7 or 14.58 percent within 6-10 years; 6 or 12.50 percent within 11-15 years; and 4 or 8.33 percent within 1-5 years.

1.5 Educational Attainment

Table 6 pertains the data on the respondents as to educational attainment.

Table 6
Respondents as to Educational Attainment

Educational Attainment	Frequency	Percentage
Doctorate Degree	9	18.75
w/ Doctoral units	5	10.42
Master's Degree	8	16.67
w/ Master's units	15	31.25
Bachelor's Degree	11	22.92
Total	**48**	**100**

As pertained in the table, there are 15 or 31.25 percent respondents who earned master's units; 11 or 22.92 percent bachelor's degree; 9 or 18.75 percent doctorate degree; 8 or 16.67 percent master's degree; and 5 or 10.42 percent with doctoral units.

Sub-problem No.2. What is the respondents' professional preparation in terms of:

2.1 Non-formal Training

Table 7 portrays the professional preparation of the respondents as to non-formal training.

Non-formal training has seven (7) criteria given: seminar; workshop; conferences; interclass visitation; scholarship grants; benchmarking; and field trips.

Table 7
Professional Preparation in terms of Non-Formal Training

Non-Formal Training	International		National		Regional		Division		District		School	
	F	%	f	%	f	%	f	%	f	%	f	%
Seminars	1	2.08	2	4.17	9	18.75	21	43.75	29	60.42	48	100
Workshops	3	6.25	6	12.50	12	25.00	32	66.67	33	68.75	36	75.00
Conferences	4	8.33	7	14.58	12	25.00	36	75.00	25	52.08	39	81.25
Inter-class Visitation	2	4.17	5	10.42	6	12.50	7	14.58	9	18.75	10	20.83
Scholarship Grants	0	0.00	0	0.00	5	10.42	0	0.00	2	4.17	5	10.42
Benchmarking	1	2.08	3	6.25	10	20.83	27	56.25	24	50.00	48	100
Field Trips	1	2.08	2	4.17	5	10.42	7	14.58	7	14.58	23	47.92

As to seminar: there are 1 or 2.08 percent respondents attended for international national; 2 or 4.17 percent for national; 9 or 18.75 percent in regional; 21 or 43.75 percent division; 29 or 60.42 percent for the district; 48 or 100 percent for school.As to workshop: 3 or 6.25 percent in international; 6 or 12.50 percent in national; 12 or 25 percent in regional; 32 or 66.67 percent in division; and 33 or 68.75 percent in district and 36 or 75 percent for school.As to conferences: 4 or 8.33 percent in international; 7 or 14.58 percent in national; 12 or 25 percent in regional; 36 or 75 percent in division; and 25 or 52.08 percent in district; 39 or 81.25 percent in school. As to interclass visitation: 2 or 4.17 percent in international; 5 or 10.42 percent in national; 6 or 12.50 percent in regional; 7 or 14.58 percent in division; 9 or 18.75 percent in district; 10 or 20.83 percent in school. As to scholarship grants: there are 5 or 10.42 percent in regional level and 2 or 4.17 percent in school level.As to benchmarking: 1 or 2.08 percent in international; 3 or 6.25 percent in national; 10 or 20.83 percent in regional; 27 or 56.25 percent in division; 24 or 50 percent in district; 48 or 100 percent in school. As to field trips: 1 or 2.08 percent in international; 2 or 4.17 percent in national; 5 or 10.42 percent in regional; 7 or 14.58 percent in division; 7 or 14.58 percent in district; 23 or 47.92 percent in school.

2.2 Training for Line of Specialization

Table 8 characterizes the professional preparation of the respondents as to training for line of specialization.

Table 8
Professional Preparation in terms of Training for Line of Specialization

Training for Line of Specialization	International		National		Regional		Division		District		School	
	F	%	f	%	f	%	f	%	f	%	f	%
Automotive Technology	1	2.08	4	8.33	5	10.42	6	12.50	7	14.58	15	31.25

Drafting Technology	0	0.00	2	4.17	3	6.25	9	18.75	12	25.00	10	20.83
Electrical Technology	0	0.00	3	6.25	8	16.67	13	27.08	8	16.67	11	22.92
Electronics Technology	0	0.00	1	2.08	4	8.33	18	37.50	9	18.75	23	47.92
Fashion and Apparel Technology	1	2.08	2	4.17	2	4.17	12	25.00	6	12.50	18	37.50
Heat Ventilation Air-conditioning and Refrigeration Technology	2	4.17	3	6.25	1	2.08	2	4.17	5	10.42	15	31.25
Mechanical Technology	0	0.00	1	2.08	6	12.50	4	8.33	14	29.17	36	75.00
Stationary Marine Technology	0	0.00	1	2.08	3	6.25	5	10.42	5	10.42	13	27.08
Welding and Fabrication Technology	2	4.17	1	2.08	4	8.33	8	16.67	9	18.75	29	60.42

Automotive Technology: 1 or 2.08 percent attended in International level; 4 or 8.33 percent national; 5 or 10.42 percent regional; 6 or 12.50 percent division; 7 or 14.58 percent district; and 15 or 31.25 percent school level.Drafting Technology: 2 or 4.17 percent national; 3 or 6.25 percent regional; 9 or 18.75 percent division; 12 or 25 percent district; and 10 or 20.83percent school level.Electrical Technology: 3 or 6.25 percent national; 8 or 16.67 percent regional; 13 or 27.08 percent division; 8 or 16.67 percent district; and 11 or 22.92 percent school level.Electronics Technology: 1 or 2.08 percent national; 4 or 8.33 percent regional; 18 or 37.50percent division; 9 or 18.75 percent district; and 23 or 47.92 percent school level.Fashion and Apparel Technology: 1 or 2.08 percent attended in International level; 2 or 4.17 percent national; 2 or 4.17 percent regional; 12 or 25 percent division; 6 or 12.50 percent district; and 18 or 37.50 percent school level.Heat Ventilation Air-conditioning and Refrigeration Technology: 2 or 4.17 percent attended in International level; 3 or 6.25 percent national; 1 or 2.08 percent regional; 2 or 4.17 percent division; 5 or 10.42 percent district; and 15 or 31.25 percent school level.Mechanical Technology: 1 or 2.08 percent national; 6 or 12.50 percent regional; 4 or 8.33 percent division; 14 or 29.17 percent district; and 36 or 75 percent school level.Stationary Marine Technology: 1 or 2.08 percent national; 3 or 6.25 percent regional; 5 or 10.42 percent division; 5 or 10.42 percent district; and 13 or 27.08 percent school level.Welding and Fabrication Technology: 2 or 4.17 percent attended in International level; 1 or 2.08 percent national; 4 or 8.33 percent regional; 8 or 16.67 percent division; 9 or 18.75 percent district; and 29 or 60.42 percent school level.

Sub-problem No.3. What is the performance of BSIT Faculty for the last three years?

Table 9 depicts the performance of BSIT faculty for the last three years.

Table 9

Performance of the Faculty for the Last Three Years

School Year	Mean	Verbal Interpretation
S.Y 2019-2020	4.18	Very Satisfactory
S.Y 2018- 2019	4.12	Very Satisfactory
S.Y 2017-2018	4.13	Very Satisfactory
	4.14	**Very Satisfactory**

Legend:

As depicted in the data, the performance of the faculty for the school year 2017-2018 gained an overall mean of 4.13; for the school year 2018-2019 with 4.12; and for the school year 2019-2020 the overall mean is 4.18 with an interpretation of very satisfactory.

In general, faculty respondents gained an overall mean of 4.14 interpreted as very satisfactory.

Sub-problem No.4. Is there significant relationship between the academic professional preparation, and the Faculty performance?

4.500 – 5.000	Outstanding (O)
3.500 – 4.499	Very Satisfactory (VS)
2.500 – 3.499	Satisfactory (S)

1.500 – 2499	Unsatisfactory (US)
below 1.499	Poor (P)

Table 10 illustrates the significant relationship between respondents' academic professional preparation and their performance.

Table 10
Significant Relationship Between Professional Preparation and Performance for the Last Three Years

Professional Preparation	E^2	df	cv at 5%	Inter.	Decision
Non- Formal Training	-0.22	43	0.288	NS	Accept H_o
Training for Line of Specialization	-0.22	53	0.250	NS	Accept H_o

Legend:

Absolute Magnitude of the Observed Correlation Coefficient	**Interpretation**
0.00 – 0.10	Negligible correlation
0.10 – 0.39	Weak correlation
0.40 – 0.69	Moderate correlation
0.70 – 0.89	Strong correlation
0.90 – 1.00	Very Strong correlation

Given in the data, as to non-formal training and faculty performance, the respondents assessed significant relationship with weak negative correlation, which is, resulted to -0.22, which is less than the critical value of 0.288 at five percent level of significance with 43 degrees of freedom, leading to the acceptance of the hypothesis.

As to Training for line of specialization and faculty performance, the respondents assessed significant relationship with weak negative correlation, which is, resulted to -0.22, which is less than the critical value of 0.250 at five percent level of significance with 53 degrees of freedom, leading to the acceptance of the hypothesis.

Sub-problem No.5. Based on the findings, what inputs to policy formulation may be developed?

STUDY TITLE:TRAINING NEEDS AND PROGRAM OF BSIT FACULTY IN SELECTED CAMPUSES OF CAVITE STATE UNIVERSITY: BASIS FOR POLICY ENHANCEMENT

OUTPUT: INPUT TO POLICY FORMULATION RATIONALE:

The Industrial Technology program employs creative and technically proficient individuals who can help an institution or company achieve efficient and profitable productivity. Alongside this, the fast-changing industry accelerates technological advancements significantly. As mentioned by Villanueva (2018), due to a paradigm shift in the educational system, the competency level of faculty has decreased [9]. To enable BSIT faculty to cope with these changing demands, regular training updates are highly essential to continuously produce competitive graduates. As part of the Faculty Development program (FaCDev), faculty need to upgrade their qualifications and competencies to enhance the quality of teaching in our HEIs (CHED) [10]. Furthermore, to comply with and exceed accreditation standards, Cavite State University must prepare its BSIT teachers to be competent and adaptable.

In the field of Industrial Technology, students need exposure to several technological advancements before completing their courses, necessitating preparation of faculty for these challenges. As a faculty member at Cavite State University, the researcher formulated policy inputs based on the study's findings.

Table 11
Matrix of Input to Policy Formulation

EDUCATIONAL QUALIFICATION			
		PROPOSED INPUT TO POLICY FORMULATION	
CURRENT POLICY[1] [11]	**ACCREDITING AGENCIES[2] EVALUATION CRITERIA [12] [13]**	**SELECTED STRATEGIES**	**PROGRAMS**
SELECTION AND HIRING Faculty members are hired based on the following criteria: a. Educational qualifications b. Relevant teaching/Work Experience	**DEAN/CHAIR** 1. Holder at least a Master's Degree, but preferably a Doctor's Degree (DTE, Ph.D, EdD, DM, DIT) in any of the areas of specialization in the program offered.	*Strengthen the implementation of the university's policy on the BSIT instructors' required educational qualifications, that is aligned with the current required standards set*	*BSIT instructors to be hired should have at least taken Master's degree units which are aligned to their field of expertise, and must have at least three (3) minimum*

c. Academic Honors Received d. Licensure Examination e. Demonstration Teaching f. Personality g. Potential **SCHOLARSHIP FOR FACULTY** Qualification Requirements for the Scholarship: a) Faculty with Regular or temporary status with at least a Very Satisfactory (VS) b) performance rating during the past evaluation c) Below 50 years old a) c) Must have served the university for at least one year from the time they are given a plantilla item(for newly appointed faculty member)	2. Holding at least three (3) years of commendable teaching experience in industrial technology or a technical teacher education institution. 3. With a minimum of three (3) years of highly effective experience in a technical supervisory role. 4. Must possess at least an NC 2 qualification. **FACULTY FOR PROFESSIONAL COURSES/SUBJECTS** 1. Must possess at least an NC 2 qualification. 2. Must hold a relevant master's degree related to the major field of specialization. 3. Must hold a relevant master's degree related to the major field of specialization.	*by the CHED and accrediting Agencies.*	*years of experience in the industry.*
		Oblige permanent and temporary employees to step up to a higher educational level.	*Faculty members under Permanent and temporary status should be encouraged to pursue a higher educational level and apply for scholarship programs offered by the university (i.e. offer added incentives, points, etc.). Further, evaluation sessions on the faculty educational status should be conducted every three (3) years.*
		Strengthen scholarship programs to the Job Order faculty and encourage them to pursue higher educational levels in the academe.	*The scholarship program should have an agreement/contract that clearly explains/binds the responsibilities of the faculty members under Job Order status, as well as corresponding consequences of non-fulfillment/non-completion of the program.*

NON-FORMAL TRAINING			
		PROPOSED INPUT TO POLICY FORMULATION	
CURRENT POLICY[1] [11]	ACCREDITING AGENCIES[2] EVALUATION CRITERIA [12] [13]	SELECTED STRATEGIES	PROGRAMS
4.3. Research Capability Building With the strategic goal of becoming a recognized global and research university by 2022, Cavite State University is offering promising opportunities for research and extension. These opportunities aim to engage the faculty and staff in RDE so that the University will become relevant in sharing on addressing national issues and concerns. **4.4. Strategies and Activities** Further, regular in-house seminars and trainings are being conducted to continuously equip faculty members with the current trends in education. Faculty members are also encouraged to attend national and international seminars and workshops to keep them updated in their respective field of specializations and the profession.	**FACULTY DEVELOPMENT** 1. The institution must have a system in place to support faculty development, including: - pursuit of doctoral studies in major field of specialization - attendance to continuing education, seminars, workshops, conference, and others - research activities related to the industrial technology/technical teacher education program - publication of research outputs in refereed publications 2. The institution should offer opportunities and incentives such as: - tuition subsidy for graduate studies - study leaved with pay - de-loading to finish a thesis or carry out research activities - travel grants for academic development, including special skills training and participation in national or international conferences, symposia, and seminars. - Awards, recognition, and other merit-based incentives.	*Focus non-formal training programs in supporting international and national seminars, workshops, conferences, interclass visitations, scholarship grants, etc.*	*These non-formal training programs should be adaptable with distance-based training, face to face training, and can provide the faculty under the BSIT program with participation incentives.* *Required at least 2 international, 1 national seminars, workshop, conferences per year each faculty with permanent status and temporary status.*

LINE OF SPECIALIZATION			
		PROPOSED INPUT TO POLICY FORMULATION	
CURRENT POLICY[1] [11]	ACCREDITING AGENCIES[2] EVALUATION CRITERIA [12] [13]	SELECTED STRATEGIES	PROGRAMS
4.5. Faculty Training Needs Assessment Regular training needs assessment is being done to continuously determine and address the needs of the faculty. Results of the needs assessment serve as basis for the for the administration in planning and designing activities that would benefit the faculty members.	**c) FACULTY DEVELOPMENT** 1. The institution must have a system in place to support faculty development, including: - pursuit of doctoral studies in major field of specialization - attendance to continuing education, seminars, workshops, conference, and others - research activities related to the industrial technology/technical teacher education program - publication of research outputs in refereed publications 2. The institution should offer opportunities and incentives such as: - tuition subsidy for graduate studies - study leaved with pay - de-loading to finish a thesis or carry out research activities - travel grants for academic development, including special skills training and participation in national or international conferences, symposia, and seminars. - Awards, recognition, and other merit-based incentives.	*Align the BSIT instructors' training qualifications with the current required standards set by accrediting agencies* .	*The BSIT instructors to be hired must at least be an NCII holder on their respective field, and upon staying in the university, must be able to (1) get a higher National Certificate, (2) enroll for Trainers Methodology, and (3) apply for assessorship.*
		Oblige permanent employees to take a higher level of training in their respective field of specialization at least once a year.	*Faculty members under permanent status must be able to (1) get a higher National Certificate, (2) enroll for Trainers Methodology, and (3) apply for assessorship.*
		Provide additional support and assistance to the BSIT faculty applying for higher levels of training and NC competencies.	*The university administration should give additional recognition / incentives to the faculty members upon their completion of every training and passing each training assessments.*

Table 12
Respondents' Recommended Training from different Program/Specialization

PROGRAM/SPECIALIZATION	RESPONDENTS' RECOMMENDED TRAINING
AUTOMOTIVE TECHNOLOGY	Advanced battery and fuel cell development
	Autonomous vehicle Technology

Table 11 shows the policy formulation inputs, illustrated in a matrix format with the following features: current policy, accrediting agency evaluation criteria, and proposed inputs for policy formulation.

	Engine Repair and maintenance
	Fuel from the sky
	Fuel Injection Technology
	Mobile Technology
	NEW generation Vehicles
	HVAC control and air distribution
	SMART HVAC TECHNOLOGY
DRAFTING TECNOLOGY	CADCAM/CAD3D
	Modern technology in Drafting Designing
ELECTRICAL TECHNOLOGY	Advanced automation mechatronics
	air robotics and drone technology
	Photovoltaic technology
	PLC programming
	Smart Grid Technology
	Surveillance camera control system
	Microprocessor Technology
	Nano Technology
ELECTRONICS TECHNOLOGY	Microprocessor Technology
	Nano Technology
	Advanced automation mechatronics
	air robotics and drone technology
	Photovoltaic technology
	PLC programming
	Smart Grid Technology
	Surveillance camera control system
FASHION AND APARREL	3D printing in Fashion/Garments/Apparel
	Electronic Fashion Designing
HVAC-R TECH	GEOTHERMAL/SOLAR HVAC
	HVAC control and air distribution
	SMART HVAC TECHNOLOGY
MECHANICAL TECHNOLOGY	Advanced Mechanical CAD
	digital integration in mechanical machineries
	Metal 3D printing, Graphics Designing
	Pneumatic and hydraulic controls
	Power Plant machineries
	future of welding technology
	Welding Automation
	Welding Inspection and quality
STATIONARY MARINE TECH	Hydra mechanism
	Marine electrotechnology
	Marine propulsion and diesel engine system
	Pneumatic and hydraulic controls
	Power Plant machineries
	Power plant maintenance
	Advanced battery and fuel cell development
	digital integration in mechanical machineries
	engine Repair and maintenance

	fuel from the sky
	Fuel Injection Technology
	future of welding technology
	GEOTHERMAL/SOLAR HVAC
	HVAC control and air distribution
	SMART HVAC TECHNOLOGY
	Welding Automoation
	Welding Inspection and quality
	Photovoltaic technology
	PLC programming
WELDING AND FABRICATION TECH	future of welding technology
	Welding Automoation
	Welding Inspection and quality
	Underwater welding
NON-FORMAL TRAINING	Administration and Management
	Advancement in navigating spreadsheet
	Benching marking with partner companies
	building information modeling(BIM)
	Classroom management for Education 4.0
	Communication Risk Management
	Cyber Security
	data analytics
	Development Program for the Faculty and Staff
	E-learning Platform orientation
	Extension Program Implementation
	Green Technology
	Green-building and solar energy
	Industrial Internet of things
	Industrial Management and Supervision
	Industrial Technology management
	Industry 4.0
	Innovative approaches in modern education
	Intellectual Property
	Labor and human resource issue
	Leadership and management
	Leadership workshop
	Mental health related topics for faculty and students
	Modern Shop and floor Management
	National Certificate Training in different Specialization
	Orientation in Computer based Training
	Removing barriers to industry 4.0 adoption
	Research Publication
	Skill upgrading course for DIT instructors
	Smart cities and industries
	SMART manufacturing
	Stress management
	Total Quality Management

	Trainers Methodology I and II
	Utilization of IOT for education
	Video editing and photo editing
	Virtual Reality and Simulation machine for Education

Table 12 illustrates recommended training for respondents from various programs, shown in a matrix form. These outputs aim to address the latest training needs of BSIT faculty and to meet CHED [12] and AACCUP [13] qualification standards.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Based on the data analysis, the key findings of the study were as follows:

On the respondents' professional preparation in terms of *Non-formal Training*

Non-formal training has seven (7) criteria given: seminar; workshop; conferences; interclass visitation; scholarship grants; benchmarking; and field trips.

As to seminar: 1 or 2.08 percent of the respondents have attended an international seminar; 2 or 4.17 percent for national; 9 or 18.75 percent in regional; 21 or 43.75 percent division; 29 or 60.42 percent for the district; 48 or 100 percent for school.As to workshop: 3 or 6.25 percent participated for international; 6 or 12.50 percent in national; 12 or 25 percent in regional; 32 or 66.67 percent in division; and 33 or 68.75 percent in district and 36 or 75 percent for school.

As to conferences: 4 or 8.33 percent joined in international; 7 or 14.58 percent in national; 12 or 25 percent in regional; 36 or 75 percent in division; and 25 or 52.08 percent in district; 39 or 81.25 percent in school.

As to interclass visitation: 2 or 4.17 percent had international; 5 or 10.42 percent in national; 6 or 12.50 percent in regional; 7 or 14.58 percent in division; 9 or 18.75 percent in district; 10 or 20.83 percent in school.

As to scholarship grants: there are 5 or 10.42 percent in regional level and 2 or 4.17 percent in school level.

As to benchmarking: 1 or 2.08 percent in international; 3 or 6.25 percent in national; 10 or 20.83 percent in regional; 27 or 56.25 percent in division; 24 or 50 percent in district; 48 or 100 percent in school.

As to field trips: 1 or 2.08 percent in international; 2 or 4.17 percent in national; 5 or 10.42 percent in regional; 7 or 14.58 percent in division; 7 or 14.58 percent in district; 23 or 47.92 percent in school.

On the respondents' professional preparation in terms of *Training for line of specialization*

Automotive Technology: 1 or 2.08 percent attended in international level; 4 or 8.33 percent national; 5 or 10.42 percent regional; 6 or 12.50 percent division; 7 or 14.58 percent district; and 15 or 31.25 percent school level.

Drafting Technology: 2 or 4.17 percent national; 3 or 6.25 percent regional; 9 or 18.75 percent division; 12 or 25 percent district; and 10 or 20.83percent school level.

Electrical Technology: 3 or 6.25 percent national; 8 or 16.67 percent regional; 13 or 27.08 percent division; 8 or 16.67 percent district; and 11 or 22.92 percent school level.

Electronics Technology: 1 or 2.08 percent national; 4 or 8.33 percent regional; 18 or 37.50percent division; 9 or 18.75 percent district; and 23 or 47.92 percent school level.

Fashion and Apparel Technology: 1 or 2.08 percent attended in international level; 2 or 4.17 percent national; 2 or 4.17 percent regional; 12 or 25 percent division; 6 or 12.50 percent district; and 18 or 37.50 percent school level.

Heat Ventilation Air-conditioning and Refrigeration Technology: 2 or 4.17 percent attended in international level; 3 or 6.25 percent national; 1 or 2.08 percent regional; 2 or 4.17 percent division; 5 or 10.42 percent district; and 15 or 31.25 percent school level.

Mechanical Technology: 1 or 2.08 percent national; 6 or 12.50 percent regional; 4 or 8.33 percent division; 14 or 29.17 percent district; and 36 or 75 percent school level.

Stationary Marine Technology: 1 or 2.08 percent national; 3 or 6.25 percent regional; 5 or 10.42 percent division; 5 or 10.42 percent district; and 13 or 27.08 percent school level.

Welding and Fabrication Technology: 2 or 4.17 percent attended in international level; 1 or 2.08 percent national; 4 or 8.33 percent regional; 8 or 16.67 percent division; 9 or 18.75 percent district; and 29 or 60.42 percent school level.

On the performance of BSIT Faculty for the last three years

As depicted in the data, the performance of the faculty for the school year 2017-2018 gained an overall mean of 4.13; for the school year 2018-2019 with 4.12; and for the school year 2019-2020 the overall mean is 4.18 with an interpretation of very satisfactory.

In general, faculty respondents gained an overall mean of 4.14 interpreted as very satisfactory.

On the significant relationship between the academic professional preparation, and the faculty performance

Given in the data, as to non-formal training and faculty performance, the respondents assessed significant relationship with weak negative correlation, which is, resulted to -0.22, which is less than the critical value of 0.288 at five percent level of significance with 43 degrees of freedom, leading to the acceptance of the hypothesis.

As to Training for line of specialization and faculty performance, the respondents assessed significant relationship with weak negative correlation, which is, resulted to -0.22, which is less than the critical value of 0.250 at five percent level of significance with 53 degrees of freedom, leading to the acceptance of the hypothesis.

On the inputs to policy formulation

The proposed policy enhancement is illustrated in a matrix form with the following features:

University current policy, Accrediting agencies evaluation criteria, and proposed input to policy formulation, and on the other matrix are the respondents' recommended training from different programs. It aims to address the latest training needed by the BSIT faculty and to comply with CHED [12] and AACCUP [13] qualification standards as the University aims to be acknowledge as center of development.

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

1. Among the BIST faculty, 22.92 percent were still graduate of bachelor's degree.
2. The professional preparation of BSIT faculty in Selected State University and Colleges (SUCs) in terms of non-formal local training with 62.2 percent of faculty participation, while statistics for the international training showed a total of 3.57 percent for faculty participation.
3. The professional preparation of BSIT faculty in Selected State University and Colleges (SUCs) in terms of local training for line of specialization with a faculty participation rate of 50.59 percent, and 1.78 percent of faculty participation for international training for line of specialization.
4. There is no significant relationship between the academic professional preparation and the performance of BSIT faculty in Selected State University and Colleges (SUCs).
5. The inputs to policy formulation can bridge the gap between the current policy and the evaluation criteria of accrediting agencies regarding faculty educational and training qualifications.

RECOMMENDATIONS

For the findings and conclusions, the following are strongly recommended:

1. School Administrators and other school officials should sustain the development of teachers' competence in technical instruction, professional and personal growth through training, seminars, and capacity enhancement activities for the upliftment of their performance.
2. As much as possible, discourage accepting of non-master's applicant during hiring and recruiting of BSIT faculty.
3. Conduct a thorough monitoring and evaluation in the faculty educational qualifications from the administrator up to the least faculty of BSIT to actively comply on the requirements and maintain the university accreditation level.
4. Create a training plan based on the recommended training of Industrial Technology Faculty.
5. The results of this study can be published and disseminated to all concerned for information purposes and to elicit feedback.

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REFERENCES:

[1]. Wood, S. L. (2010). Technology for Teaching and Learning: Moodle as a Tool for Higher Education. International Journal of Teaching and Learning in Higher Education, 22, 299-307.

[2] Marope, M. (2016). *Reconceptualizing and repositioning curriculum in the 21st century: A global paradigm shift*. International Bureau of Education, UNESCO. https://www.fundacionsantillana.com/wp-content/uploads/2020/04/reconceptualizing_and_repositioning1.pdf
[3] Abouelenein, Y. A. M. (2016) Training needs for faculty members: Towards achieving quality of University Education in the light of technological innovations. Academic Journals Vol. 11(13), pp. 1180-1193, 10 July, 2016. DOI: 10.5897/ERR2015.2377 Article Number: 1A8F4FA59196 ISSN 1990-3839.
[4] Dahms, M. et.al. (2007). *The educational theory of Lev Vygotsky: an analysis.* https://studylib.net/doc/5854258/the-educational-theory-of-lev-vygotsky--an-analysis#google_vignette
[5] Fleming, T. (2018). Mezirow and the Theory of Transformative Learning. In V. Wang (Ed.), *Critical Theory and Transformative Learning* (pp. 120-136). IGI Global. https://doi.org/10.4018/978-1-5225-6086-9.ch009
[6] Calderon, J. F., & Gonzales, E. C. (2018). Methods of Research and Thesis Writing. National Book Store.
[7] Cielo, F., (2018). Competency Level of Faculty Teaching Automotive Technology Program in Selected Universities and Colleges in Region IV-A: Basis for an Action Plan.
[8] Anesthesia & Analgesia 126(5):p 1763-1768, May 2018. | *DOI*: 10.1213/ANE.0000000000002864.
[9] Villanueva, J. E.,(2018). *Competencies of technical vocational teachers of the College of Education: Bases for comprehensive training program*. African Educational Research Journal, 6(3): 203-212.
[10] CHED. Faculty Development Program (FacDev). Retrieved from: https://ched.gov.ph/faculty-development-program-facdev/.
[11] Cavite state University – Department of Industrial Technology Syllabus.
[12] Commission on Higher Education (CHED). (2009). Manual of Regulations for Private Higher Education. Retrieved from: https://ched.gov.ph/wp-content/uploads/2017/07/Manual-of-Regulations-for-Private-Higher-Education.pdf
[13] AACCUP. (2022). Stages of Accrediation. Retrieved from: https://aaccup.com/aaccup-accreditation/conduct-of-accreditation.