Skills and Competence Self-assessment and Pedagogical Training Needs: Basis for Higher Education Professional Retooling Plan

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Abstract

Professional development is an institution's endeavor to ensure the quality delivery of its academic function. Constant retooling of the faculty members will improve their profile and student performance. This focused on the relevance of faculty training and their teaching skills and competencies and the pedagogical and technological needs of respondents. The descriptive-correlational research design is used as it described the variables considered in the study. It further established a significant relationship between the dependent and independent variables. There were 158 teacher respondents. Frequency counts and percentages, weight mean and bivariate analysis was used to treat the data gathered. Respondents come from the different colleges of the two campuses of Abra State Institute of Sciences and Technology. More than half of them are completing their master's degrees, and a great number of them are specialized in the English or Filipino language, with instructor positions, and 5 years and below in the teaching profession. Moreover, the respondents strongly agreed that teaching skills and competence are very important. They also extremely agreed that the varied training spearheaded by the Office of the Curriculum and Instructional Materials Development was essential. A significant relationship between the respondents' educational attainment and years in the teaching service and their agreement on the relevance of teaching skills and competencies existed. It also showed a significant relationship between their campus and their training needs along with instruction and research functions. The deep analysis of the processed data has led the researchers to conceptualize a comprehensive upskilling and retooling of the teachers.

Keywords: Skills and competence, professional development, faculty training

Introduction

Professional development of teachers comes in many forms. It is a very important endeavor in any institution to retool or re-engineer the workers to become experts in their fields of specialization. It enables them to become more equipped with the relevant knowledge, skills, and attitudes to bring out their potential and fulfill their roles in the institution. Professional development of teachers pertains to the practices, guidelines, and processes used to enhance the skills and competencies of the organization's teaching personnel to achieve more effective and efficient delivery of services to the clientele. It can be executed through different programs like sending teachers for further studies or providing them programs, training, or seminar workshops that would upgrade their capabilities to fully contribute to the vision and mission of the institution.

Professional development interventions on the quality of teachers and their teaching are several designed activities where faculty members partake in meetings, short sessions, workshops, training, mentoring, coaching, etc. (Kooy, M., & van Veen, K. 2011). These sessions or training workshops are avenues for teachers to acquire new learning and employ these in the conduct of their classes. These may be conducted inside the campus or participants may be sent to attend training in another venue hosted by other institutions. Professional development of any nature is believed to

upgrade and strengthen the teaching competencies of the teachers. Frequent learning opportunities through seminars and workshops have helped teachers teach in a borderless classroom more effectively (Kooy, M., & van Veen, K. 2011).

There is a need to upgrade the teaching capability of the faculty members along with planning, lesson execution, material preparation and utilization, and assessment. These skills are relevant in affecting the teaching process and learning progress of the students. Institutions, to prepare the students to become globally competitive and responsive to the demands in various fields, must give importance to their instruction function. Academic institutions embark on deep educational reforms by investing large amounts of money in teacher learning (Bautista, A. & Ortega-Ruiz, R., 2015). Enhancing the teaching competence of faculty members, as an effective strategy to affect learning progress, is one of the regular activities placed in Faculty Development Plans and concrete evidence of continuous, lifelong, and dynamic learning. To achieve a good portrait of an effective teacher, institutions must emphasize the regular training and updating of the teaching personnel.

Institutions need to venture into faculty development for their professional updating and retooling as a result of the emergence of new educational trends and the presence of the pandemic which crippled the smooth delivery of curriculum because face-to-face classes are restricted. The teaching personnel has to embrace new skill sets in transferring what students should know (Rubin, R. B. & Morreale, S. P., 2000) and be able to perform or demonstrate.

Teaching Competencies

Teaching competencies are the abilities of teachers to demonstrate the necessary knowledge, skills, and attitudes appropriate for the transfer of learning during instruction. Competence is related to the high performance of professional teachers which is directly proportional to the learners' performance (Kulshretha, A. K. & Pandey, K., 2013). Bhargava, A. & Pathy, M. (2011) described a competent teacher does not only possessing knowledge and qualifications to teach but somebody who can understand the nature of the learners and their needs and can adapt and utilize emerging technologies so that learners can compete in the local and international arena. The same authors claimed that there is a strong mapping of teacher competence and effective teaching.

The competent teacher is further described as approachable with clear lesson objectives and careful execution of the planned lesson with good and effective classroom management through maintaining learning interests by engaging in assessment activities. Pulham, E. & Graham, C. R. (2018) identified seven global competency domains which included instructional design, evaluation and assessment, management of learning, pedagogy, and technology utilization. In the study of Catano V. M. & Harvey, S. (2010) using critical work analysis, students expected their teachers to demonstrate their teaching competencies which are social awareness, feedback strategies, problem-solving, communication skills, creativity, innovation, consideration, meticulousness, and the like. Seferoglu, S. S. (2005) conducted a study on teaching competencies of teacher candidates and found that knowledge of the learners, instructional planning, preparation of materials, managing instruction, assessment and evaluation, coaching and guidance, monitoring, and aiding students with disabilities are some of the relevant skills. Albrahim, F. A. (2020) classified the skills and competencies of teachers into six categories namely, social and communication, design, content, pedagogy, technology, and management and instruction skills. Selvi (2010) identified nine dimensions of teachers' competencies; communication, emotion, socio-cultural, lifelong learning, research, field, curriculum, technology, and environment. These affect the teachers' vigor, behavior, goals, practices, and relationships. Moreover, there are core competencies of teachers related to innovative teach-

ing according to Zhu, C., Wang, D., Cai, Y., & Engels, N. (2013) and these are social, technology, learning, and educational competencies which positively affected the teachers' innovative teaching. These identified teaching competencies and skills need to be enhanced through professional development programs or by a series of training, seminars, and workshops.
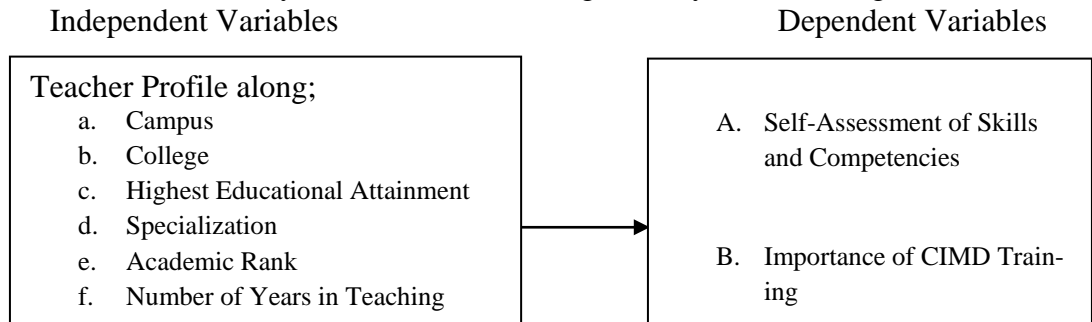
The Need for Self-assessment of Teaching Skills

There must be a mechanism for determining the teaching competencies and skills that need to be enhanced in the individual teacher. This can be done by self-assessment surveys where the individual faculty member identifies his strengths or his limitations. Before planning the training program, there has to be an evaluation of the needs of the participants. This is to check what has been acquired and what the participants expect from attending the training program. The needs assessment explores the problem to be able to determine the purpose, the content, the target participants, and the interventions (Azimi, H. M. & Rahmani, R., 2013) to be implemented to meet the limitations that surfaced from the needs analysis. Assessment of training needs is a process of identifying the needs for training (Brown, J., 2002) which can help the institution develop an effective and successful professional development program (Kaufman, R. & Guerra-Lopez, I, 2013).

Importance and Impact of Training

It was found in the study of Bahar-Ozvaris, S., Aslan, D., Sahin-Hodoglug, N. & Sayek, I. (2004) on Faculty Development Evaluation that teachers were satisfied with the content and organization of their training and reported that many of the training they acquired were employed during their instruction. Moreover, Moeini, H. (2008) emphasized that teachers' development can be enhanced through their training. Barratt, M. S. & Moyer, V. A. (2004) studied the effect of a teaching skills program on faculty skills and confidence. Results showed that the skills and confidence level of the faculty had significant improvement in their teaching performance.

In the conduct of the study, the researchers were guided by the following research model.

Independent Variables   Dependent Variables

Teacher Profile along;
    a. Campus
    b. College
    c. Highest Educational Attainment
    d. Specialization
    e. Academic Rank
    f. Number of Years in Teaching

A. Self-Assessment of Skills and Competencies

B. Importance of CIMD Training

Figure 1. The Research Paradigm

Objectives

General Objective:

a) To determine the level of teachers' skills and competence and CIMD Training to serve as a basis for higher

education advancement project plan.

Specific Objectives:

(a) To determine the profile of the teacher respondents along Campus, College, Department, Highest

Educational Attainment, Specialization, Academic Rank, and Number of Years in teaching.

(b)   To determine the level of teachers' self-assessment on essential skills and competence needed in a state

Education-delivering institution.

(c) To determine the importance of CIMD Training.

(d) To determine a significant relationship between the respondents' profile and their assessment of teaching

skills and competencies.

(e) To determine a significant relationship between the profile of the respondents and the level of importance of

the CIMD Training.

(f) To develop a training matrix to meet the needs of the teachers whenever there will be again face-to-face

teaching restrictions.

Materials and Methods

The study utilized the descriptive-correlational research design. The profile of the respondents, their self-assessment of their teaching skills and competencies, and the level of importance of undergoing training and seminars were thoroughly described. Also, the significant relationship between the respondents' profiles and their teaching skills and competencies self-assessment was analyzed. Moreover, the study looked into the significant relationship between the level of their self-assessment with the importance of faculty training and seminars. There were 158 teacher respondents who answered the survey through a google form. These respondents come from the five colleges of Abra State Institute of Sciences and Technology, province of Abra, Philippines. The respondents were from the two campuses of the college with a total of five campuses. These colleges are the College of Arts and Sciences with 49 teachers, the College of Teacher Education and Home Technology with 30 teachers, the College of Engineering, Vocational and Industrial Technology with 28 teachers, College of Agriculture, Forestry, and Cooperatives with 14 teachers, and College of Teacher Education with 37 teachers. Only those teachers who were willing to conduct modular and online instruction during the pandemic were selected as respondents.

The instrument used was constructed based on the literature reviews and articles read. Other items in the instrument were derived from the prevailing needs of the teachers as warranted by the fourfold functions of the college which are instruction, research, extension, and production. Also, some items included in the instrument along with the faculty needs were the perceived needs which are given roles and responsibilities of the faculty related to instruction outside the classroom.

The survey instrument was divided into three parts. The first part focused on the personal and professional profiles of the respondents. The description of each item in the personal and professional profile used the frequency and percentage. Furthermore, the second part was items that described the respondents' self-assessments along with their teaching skills and competencies. The respondents were asked to evaluate the degree of agreement on the items which described their teaching skills and competencies. The degrees of the agreement were divided into five; the greatest degree of agreement was given a numerical equivalent of 5 while the least was numerically expressed as 1. The norm of interpretation in five cases with a class size of 0.8 in each case was used. Moreover, the last were items that assessed the level of importance of undertaking training and seminars. The same norm of interpretation was used along the level of degree of the respondents' agreement.

After the survey instrument was constructed, the items were reviewed before they were transferred to google forms. The survey link was forwarded to the online faculty Group Chat Rooms of the two campuses. The link was open for two weeks to give the respondents time to access the questionnaire. The results were downloaded and processed for interpretation. Frequency Counts and Percentages, Weighted Mean, and Bivariate Analysis (r) are the statistical tools used in the analysis and interpretation of data. .

Results and Discussions

On Campus. ASIST compose of two campuses which are the Bangued and Lagangilang Campuses. Deducing to Table 1, there are 158 teacher respondents in the study which comprises 89 respondents from the Bangued Campus representing 56.33 percent while 69 came from the Lagangi-lang Campus or 43.67 percent of the total population. This turn out to have portrayed that more respondents came from Bangued Campus.

Table 1.1 Profile of the Teacher Respondents along Campus, College, and Department

Profile of the Teacher Respondents	Frequency (f)	Percentage (%)
1. Campus		
Bangued	89	56.33
Lagangilang	69	43.67
Total	158	100
2. College (Per Campus)		
CTE Bangued	37	23.42
CTE Lagangilang	30	18.99
CAS Bangued	23	14.56
CAS Lagangilang	26	16.46
CEVIT	28	17.72
CAFC	14	8.86
Total	158	100
3. Department (Per College)		
A. College of Agriculture, Forestry and Cooperatives (CAFC)		
Agriculture	11	6.96
Forestry	3	1.90
B. College of Arts and Sciences (CAS)		
Arts, Languages, and Social Sci.	25	15.82
Math, Nat Scie & PE	15	9.49
Information Technology	9	5.70
C. College of Teacher Education (CTE)		
Home Technology	3	1.90
Laboratory High School	35	22.15
Teacher Education	29	18.35
D. College of Engineering and Vocational and Industrial		

Education (CEVIT)		
Engineering	15	9.49
Vocational and Industrial Technology	13	8.23
Total	**158**	**100**

On College (Per Campus). Based on the same table, it is apparent that most of the teacher respondents mostly came from the College of Teacher Education from both campuses of ASIST with the frequency of 37(Bangued) and 30(Lagangilang) with 23. 42 and 18.99 percent respectively. This was followed by the respondents coming from the College of Engineering and Vocational and Industrial Technology and the College of Arts and Sciences from both campuses with the frequency of 28, 26(Lagangilang), and 23(Bangued) which yields to 17.72, 16.46, and 14.56 percentages respectively of the total population. It is significant to mention that amongst all colleges under discussion, the College of Agriculture, Forestry, and Cooperatives represents the least number of teacher respondents with a frequency of 14 or 8.86 percent of the totality.

On Department (Per College).   Inferring further to table 1, it is evident that most of the respondents were represented by the Laboratory High School, Teacher Education, and Arts, Languages and Social Sciences teacher respondents with a frequency of 35, 29, and 25 with 22.15, 18.35, and 15.82 percentages respectively. In addition, there were 15 from both engineering and Math, Scie, and PE departments with a percentage of 9.49 On the other hand, the least representation of respondents along this profile was from the Forestry and Home Technology having the same frequency of 3 or the 1.90 percent of the total respondents.

On Highest Educational Attainment. Along this profile under discussion, it can be observed from table 1.2 that most of the respondents have Master's degree units with a frequency of 55 or 34.81 percent of the totality. It is followed by teacher respondents with a Master's Degree and With Doctorate units with a frequency of 37 and 36 respectively which comprises 23.42 and 22.78 percent of the total population. It is noteworthy to mention that there are 22 Doctorate holders with a percentage of 13.92. While the least representation was the bachelor's degree with only 8 teacher respondents was 5.06 percent. This means that in terms of educational attainment profile of the institution is strong as shown by the presented data. Teachers are committed to undergoing continuous professional and educational advancements.

Table 1.2 Profile of the Teacher Respondents along Highest Educational Attainment, Specialization, and Academic Rank

Profile of the Teacher Respondents	Frequency (f)	Percentage (%)
4. Highest Educational Attainment		
Bachelor's Degree	8	5.06
With MA Units	55	34.81
Master's Degree	37	23.42
With Doctorate Units	36	22.78
Doctorate	22	13.92
Total	**158**	**100**
5. Specialization		
Agriculture Education and Engineering	12	7.59

TLE/Home Technology/Industrial Technology	23	14.56
General Science, Physics, Chemistry, and Nat.Science	16	10.13
Humanities, Philosophy, Social Science, and History	19	12.03
Mechanical, Electrica,l and Civil Engineering	11	6.96
Information Technology and Computer Science	10	6.33
Filipino/English Languages and Linguistics	29	18.35
Mathematics Education, Statistics and Research	15	9.49
Pre-Elementary Education	3	1.90
Physical Education/MAPEH	6	3.80
Prof Ed. And General Ed	11	6.96
HRM/HRS, Accounting and Management	3	1.90
Total	**158**	**100**
6. Academic Rank		
Instructor	106	67.09
Assistant Professor	32	20.25
Associate Professor	17	10.76
Professor	3	1.90
Total	**158**	**100**
7. Number of Years in Teaching		
5 and Below	67	42.41
6 – 10	39	24.68
11 – 15	14	8.86
16 – 20	7	4.43
21 – 25	8	5.06
26 – 30	9	5.70
31 – 35	4	2.53
36 – Above	10	6.33
Total	**158**	**100**

On Specialization. As shown in Table 1.2, most specialization is in 1) Filipino/English Languages and Linguistics, (2) TLE/Home Technology/Industrial Technology, and (3) Humanities, Philosophy, Social Science, and History with a frequency of 29, 23, and 19 respectively. Taking this greatest number of teacher respondents' representations almost yields half of the total population with a total of 44.94 percent. This was followed by the respondent's specializations in (4) General Science, Physics, Chemistry, and Nat. Science, (5) Mathematics Education, Statistics and Research, (6) Agriculture Education and Engineering, (7) Mechanical, Electrical and Civil Engineering, (8) Prof Ed. And General Ed, and (9) Information Technology and Computer Science with a frequency of 16, 15,12, 11, 11, and 10 respectively which will sum up to 47.46% of the total population. While the remaining 7.6 percent of the population came from the specializations (10) Physical Education/MAPEH, (11) HRM/HRS, Accounting and Management, and (12) Pre-Elementary Education with the frequency of 6, 3, and 3 respectively.

On Academic Rank. As presented in table 1.2, most teacher respondents' academic ranks were instructors with 67.09 percent with a frequency of 106. This was followed by the 32 assistant professors, 17 associate professors, and 3 professors with 20.25, 10.76, and 1.90 percentage ratings.

Though most teachers have to continue professional and educational advancements it appears the majority are still instructors, this may be because of the minimum requirements before certain teaching personnel to occupy a *plantilla* position, it is a need to have a master's degree. Where only permanent faculty are allowed to qualify for promotions and reclassifications through NBC cycles and institutional promotions. This can be justified by the data on faculty from the previous table where many are still pursuing their master's degrees and appears that many faculty members occupying a *plantilla* position are also instructors who happen to have not yet undergone reclassifications or promotions. Another reason would be the mass recruitment of teachers because of the k-12 transition program and the opening of new courses offered on each campus.

On Number of Years in Teaching. As shown in Table 1.2, there are 67 respondents whose number of years in teaching is 5 years and below, or 42.41 percent of the total population. It was followed by respondents with 6 to 10 years of teaching experience representing 24.68 percent of the totality. Along these two categories of years in teaching, it can be deduced that it represented two-thirds of the total population almost covering 70 percent of the respondents. This means that most of the teacher respondents are still young in the teaching profession. On the other hand, seasoned teachers with 11 -15 years of teaching are 14 and those who were in the service for 36 years and above is 10 with 8.86 and 6.33 rating respectively.

Meanwhile, it is also noted that there are only 7 who are in the service for 16-20 years, 8 respondents who were teaching for 21-25 years, 9 are teaching already for 26-30 years and 4 are in the service for 36 years and above. This means that seasoned teachers represent one-third of the total population.

Table 2. Self-Assessment of Respondents on the Significance of Teacher Skills and Competence

Teacher Skills and Competency Indicators	Mean	Descriptive Rating
Teachers should use a variety of teaching approaches, methods, strategies, and techniques to achieve high learning outcomes.	4.75	Strongly Agree
Teachers should be regularly monitored during the conduct of classes by their superiors to ensure quality delivery of curriculum	4.23	Strongly Agree
Instructions should employ real-world contexts to prepare students for the actual practice of their chosen profession.	4.60	Strongly Agree
ICT Integration should be done to cater to the needs of digital learners.	4.59	Strongly Agree
Collaboration among learners should still be employed even during this kind of teaching modality.	4.47	Strongly Agree
The designed tasks should allow students to express their creativity and innovative thinking.	4.58	Strongly Agree
There should be activities that foster independent and discovery learning.	4.62	Strongly Agree
Syllabuses in OBE format should be prepared to guide students perform high-end multiple tasks.	4.58	Strongly Agree
Teaching should always be based on the emerging technology	4.44	Strongly Agree

.Exposure to students outside the four walls of the classroom is essential.	4.44	Strongly Agree
.The reading, writing, speaking, and numeracy literacies should be integrated across all disciplines.	4.56	Strongly Agree
.Problems should be used in instruction to enhance the critical thinking skills of the learners.	4.53	Strongly Agree
.Research and other innovations of teachers should be incorporated into the curricula.	4.46	Strongly Agree
.All courses should prepare students to become globally responsive.	4.70	Strongly Agree
.Teachers should have an internal exchange of skills as part of their professional development.	4.55	Strongly Agree
Overall Mean	4.54	Strongly Agree

Norms:

Point Value	*Statistical Limits*	*Descriptive Rating*
5	*4.20 – 5.00*	*Strongly Agree*
4	*3.40 – 4.19*	*Agree*
3	*2.60 – 3.39*	*Moderately Agree*
2	*1.80 – 2.59*	*Disagree*
1	*1.00 – 1.79*	*Strongly Disagree*

Table 2 shows the level of teacher skills and competence significance as perceived by the respondents. When taken as a whole, it yields a mean rating of 4.54 which fall on a "Strongly Agree" descriptive rating. This implies that all indicators are deemed to be of significance as it entails most if not all skills and competencies as a member of the teaching workforce specifically in a state college.

Looking into the details, it is noteworthy to note that item 1; "*Teachers should use a variety of teaching approaches, methods, strategies and techniques to achieve high learning outcomes.*", and item 14; "*All courses should prepare students to become globally responsive.*", item no. 3; "*Instructions should employ real-world contexts to prepare students for the actual practice of their chosen profession.*" and item no. 4*; "ICT Integration should be done to cater to the needs of the digital learners"* yielded the highest mean rating of 4.75, 4.70, 4.60, and 4.59 respectively which all fall to the "Strongly Agree" description. These items may hold the highest mean ratings since item no.1 highlights the use of teaching strategies and methods in achieving high learning outcomes which in turn out to be the challenge in delivering quality education brought about by the disruptions of education because of the COVID-19 pandemic.

This turns out to have a domino effect as emphasized in items 3 and 4. Schools and other education delivery institutions mostly failed to employ real-world context in most of the programs, degree courses, and even in the laboratory high school since most lessons are either synchronous or asynchronous. Most are modular-distant learning approaches, some are blended, and some major subjects are digitized which also means that there are lacking fully realizing the objective of exposing learners to real-world context for actual practice. To add, as teachers take off and abruptly delve

into digitization and technology-aided instructions, many are not that skillful in navigating platforms available because of unfamiliarity and prior skills and knowledge to operate such. All of these are essential factors for the institution to live up to its vision to produce graduates who are locally responsive and globally sustained.

In addition, even if all indicators belong to a "Strongly Agree" description, it is also noted that item no. 2; *"Teachers should be regularly monitored during the conduct of classes by their superiors to ensure quality delivery of the curriculum."* have the lowest mean rating (4.23). This may be attributed that superiors are teacher designees having a quasi-function which function also like any other teacher who has teaching loads and preparations. Even if the superior designations automatically implied that they should monitor education delivery in any modality being used by their faculty members, it is also a fact that they have immediate functions which could affect the frequency of class monitoring. A common concern in many institutions not only in ASIST is being observed and shared by acquaintances from other state colleges and education institutions across levels.

Table 3 presents the level of importance of possible training in curriculum and instructional materials development. It can be seen that the mean rating as a whole is 3.57 which is categorized as 'Extremely Important". This means that all suggested indicators which are possible topics or contexts subjected to be under CIMD training and professional developments are deemed important. This implies that the teacher respondents are willing to be equipped with essential skills and consider all possible continuing learning innovations in venturing into their teaching careers. Thus, staying relevant to the needs of time to be more effective and efficient in addressing students' need for quality education.

Among the item indicators with the highest means are items 1; *"Role of teachers in a global pandemic."* (mean=3.75), 5; *"Development of Instructional e-Materials."* (mean=3.69), 4; *"Utilization of Learning Management System."* (mean= 3.65), 16; *"Managing Stress and Workplace Conflicts."* (mean = 3.63), item 11 and 17; *"Best Practices in Teaching Digital Learners During Offline/On-line Modalities"* (mean=3.61) and *"School and Community Partnership."* (mean = 3.61).

Table 3. Level of Importance of Training in Curriculum and Instructional Materials Development

Importance of Training in Curriculum and Instructional Materials Development Indicators	Mean	Descriptive Rating
Role of teachers in a global pandemic.	3.75	Extremely Important
Use of problem-based teaching.	3.54	Extremely Important
Planning lessons in the OBE-way.	3.54	Extremely Important
Utilization of Learning Management Systems.	3.65	Extremely Important
Development of Instructional e-Materials.	3.69	Extremely Important
Thesis Advising or Paneling.	3.45	Extremely Important
Research/Project Proposal Writing, Presenting, and Publishing.	3.51	Extremely Important
Extending and Sustaining Productivity.	3.43	Extremely Important
Strengthening Extension Engagements.	3.46	Extremely Important
.Understanding and Coaching Independent Learning.	3.56	Extremely Important
.Best Practices in Teaching Digital Learners During Offline/On-line Modalities.	3.61	Extremely Important

.Connecting with the World Trends through Instruction.	3.59	Extremely Important
.Enhancing OJT Skills of Students.	3.58	Extremely Important
.Teaching Methods, Approaches, and Strategies for the Gen XYZ.	3.59	Extremely Important
.Coping Up with the Demands of Fourth Industrial Revolution.	3.56	Extremely Important
.Managing Stress and Workplace Conflicts.	3.63	Extremely Important
.School and Community Partnership.	3.61	Extremely Important
.Extending and Sustaining Productivity.	3.59	Extremely Important
.Classroom Management with Gen Z.	3.52	Extremely Important
.Appropriate Assessment for the Digital Natives	3.57	Extremely Important
.Building Linkages with Deployment Centers	3.57	Extremely Important
.Conducting Laboratory and Fieldwork hands-on Activities in the New Normal	3.53	Extremely Important
Overall Mean	**3.57**	Extremely Important

Norms:

Point Value	Statistical Limits	Descriptive Rating
4	*3.25 – 4.00*	*Extremely Important*
3	*2.50 – 3.24*	*Important*
2	*1.75 – 2.49*	*Moderately Important*
1	*1.00 – 1.74*	*Not Important*

This may be attributed to a sudden shift of modalities in education delivery brought about by the pandemic. This event exposes the unpreparedness of the institution to face this kind of teaching-learning modality which is now slowly being addressed through upskilling and updating and in-service training conducted. Carried by the swift change of processes in catering to the teaching-learning process, teachers caught themselves unguarded to be well versed in IMs development and utilization of LMS which also affected emotional and mental health. Because this also means that coming up with necessary materials to be used in teaching requires much time to prepare, validate, check, use, and eventually integrate into learning management systems for the facilitation of assessment patterns applied in online/offline classes. This directly makes teachers on the verge of burnout which also affects efficiency, effectiveness, motivation, and productivity.

Moreover, based in table 4 specifically on campus, it is evident that both existing campuses are highly significant in terms of the Self-Assessment on Skills and Competencies given by the r-computed value of 0.266 and 0.272 respectively with a 0.01 level of significance. This means that regardless of the campus the teacher-respondent comes from, they do agree that teacher skill and competence are vital in performing their task as an educator. This backed the claim that ASIST as a whole does acknowledge teacher skills and competence as key to delivering the needs of its clientele and serving in its full capacity to uplift life by providing quality education.

Table 4. Correlation Coefficient Showing Significant Relationship between Self-Assessment on Skills and Competencies and the Profile of Respondents along Campus, College, and Department.

Profile	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	As a Whole
1. Campus																
Bangued	0.213**	0.227**	0.282**	0.199**	0.303**	0.237**	0.198**	0.193**	0.300**	0.216**	0.294**	0.241**	0.229**	0.149*	0.726**	0.266**
Lagangilang	0.154**	0.208**	0.247**	0.172**	0.304**	0.236**	0.197**	0.192**	0.302**	0.218**	0.293**	0.241**	0.221**	0.212**	0.241**	0.272**
As a Whole	0.161**	0.209**	0.251**	0.177**	0.307**	0.240**	0.202**	0.196	0.304**	0.221**	0.297**	0.244**	0.224**	0.153*	0.244**	0.276**
2. College and Department																
A. College of Agriculture, Forestry, and Cooperatives (CAFC)	-0.008	-0.101	-0.069	-0.078	-0.007	-0.048	-0.063	-0.014	-0.006	-0.042	-0.088	-0.085	0.012	-0.115	-0.050	-0.060
1. Agriculture	0.064	0.050	0.0199	0.065	0.061	-0.027	-0.101	0.021	0.025	0.022	0.051	0.0199	0.022	-0.008	0.034	0.022
2. Forestry	0.195	0.048	0.090	0.014	0.052	0.030	-0.073	0.163	0.040	0.300	0.343	0.090	0.075	0.162	0.028	0.112
B. College of Arts and Sciences (CAS)	-0.015	-0.112	-0.079	-0.071	-0.003	-0.034	-0.036	-0.004	-0.022	-0.022	-0.090	-0.099	-0.008	-0.105	-0.039	-0.060
1. Arts, Languages, and Soc.Sci.	0.113	0.095	0.050	0.063	0.061	0.012	0.060	0.019	0.021	0.034	0.058	0.028	0.024	0.002	0.052	0.047
2. Math, Nat Scie & PE	0.114	0.082	0.030	0.037	0.042	0.002	-0.048	0.023	-0.016	0.035	0.072	-0.007	-0.002	-0.012	0.035	0.032
3. Information Technology	0.083	0.068	0.017	0.045	0.039	-0.043	-0.108	-0.060	0.001	0.000	0.049	0.008	-0.002	0.014	0.021	0.010
C. College of Teacher Education (CTE)	-0.011	-0.121	-0.080	-0.071	-0.007	-0.033	-0.059	0.000	-0.022	-0.021	-0.092	-0.102	0.001	-0.115	-0.038	-0.063
1. Home Technology	-0.011	-0.128	-0.098	-0.106	-0.013	-0.061	-0.081	-0.032	-0.015	-0.035	-0.103	-0.113	-0.019	-0.143	-0.066	-0.083
2. Laboratory High School	0.078	0.028	0.042	0.040	0.011	0.066	0.004	0.019	0.022	0.039	0.039	0.009	0.007	0.020	0.034	0.022
3. Teacher Education	0.079	0.081	0.033	0.047	0.002	0.047	0.005	0.082	0.002	0.022	0.043	0.012	0.008	0.006	0.037	0.027
D. College of Engineering and Vocational and Industrial Education (CEVIT)	-0.025	-0.106	-0.085	-0.084	-0.013	-0.047	-0.050	-0.016	-0.024	-0.031	-0.103	-0.111	-0.010	-0.119	-0.050	-0.071
1. Engineering	-0.025	-0.106	-0.085	-0.084	-0.013	-0.047	-0.050	-0.016	-0.024	-0.031	-0.103	-0.111	-0.010	-0.119	-0.050	-0.071
2. Vocational and Industrial Technology	0.089	0.083	0.012	0.020	0.042	-0.036	-0.087	-0.007	-0.024	0.034	0.033	-0.005	0.016	0.013	0.043	0.018

Legend: * - 0.05 level of significance; ** - 0.01 level of significance
1 - Teachers should use a variety of teaching approaches, methods, strategies, and techniques to achieve high learning outcomes.
2 - Teachers should be regularly monitored during the conduct of classes by their superiors to ensure quality delivery of curriculum
3 - Instructions should employ real-world contexts to prepare students for the actual practice of their chosen profession.
4 - ICT Integration should be done to cater to the needs of the digital learners.
5 - Collaboration among learners should still be employed even during this kind of teaching modality.
6 - The designed tasks should allow students to express their creativity and innovative thinking.
7 - There should be activities that foster independent and discovery learning.
8 - Syllabuses in OBE format should be prepared to guide students to perform high-end multiple tasks.
9 - Teaching should always be based on the emerging technology
10 - Exposure to students outside the four walls of the classroom is essential.
11 - The reading, writing, speaking, and numeracy literacies should be integrated across all disciplines.
12 - Problems should be used in instruction to enhance the critical thinking skills of the learners.
13 - Research and other innovations of teachers should be incorporated into the curricula.
14 - All courses should prepare students to become globally responsive.
15 - Teachers should have an internal exchange of skills as part of their professional development

On Colleges and Departments. Looking further at the table, it can be deduced that colleges and departments' instruction delivery units do not significantly relate to the self-assessment of skills and competence. This means that it does not hold only in any particular department or college because the skills and competence of mentors in an education delivering agency just like ASIST should literally and figuratively be more advanced to address higher learning. It is implied that teachers are equipped and exposed to all skills and competence to quality assure a productive and meaningful teaching-learning process. Thus, in uplifting and heightening this attribute it is a must that this should be directly addressed to individual units but for the whole ASIST. Bhargava, A. & Pathy, M. (2011) described a competent teacher does not only possessing knowledge and qualifications to teach but somebody who has the ability to understand the nature of the learners and their needs and can adapt and utilize emerging technologies so that learners can compete in the local and international arena.

Meanwhile, on table 4.1 under profile, it is evident that the highest educational attainment has a direct relationship with the Self-Assessment level on Skills and Competencies. Specifically, on the indicators 3, 5, 6, 9, 11,12, 13 and as a whole with computed r-value of 0.178, 0.214, 0.155, 0,167, 0.193, 0.164, 0.152 and 0.167 respectively. This implies that teachers could realize more of the skills and competencies and teaching skills if they submit themselves for professional development and schooling.

Table 4. 1 Correlation Coefficient Showing a Significant Relationship between Self-Assessment on Skills and Competencies and the Profile of Respondents along Highest Educational Attainment, Specialization, Academic Rank, and Number of Years in Teaching

Profile	Level of Self-Assessment on Skills and Competencies															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	As a Whole
3. Highest Educational Attainment	0.13	0.047	**0.178***	0.124	**0.214****	**0.155***	0.098	0.127	**0.167***	0.125	**0.193****	**0.164***	**0.152***	0.129	0.105	**0.167***
4. Specialization	-0.061	-0.028	-0.031	-0.102	-0.044	0.026	0.004	-0.08	-0.048	-0.009	0.008	-0.003	-0.054	-0.011	-0.062	-0.04
5. Academic Rank	0.112	0.102	0.103	0.018	0.058	0.018	0.036	-0.009	0.046	0.035	0.086	0.040	0.021	-0.046	0.009	0.051
6. Number of Years in Teaching	-0.096	-0.062	-0.069	**0.156***	-0.014	-0.145	-0.105	**0.208****	-0.145	**0.165***	-0.041	-0.105	**0.169***	-0.144	**0.199****	**-0.146***

Legend: * - 0.05 level of significance; ** - 0.01 level of significance

1 - Teachers should use a variety of teaching approaches, methods, strategies, and techniques to achieve high learning outcomes.
2 - Teachers should be regularly monitored during the conduct of classes by their superiors to ensure quality delivery of curriculum
3 - Instructions should employ real-world contexts to prepare students for the actual practice of their chosen profession.
4 - ICT Integration should be done to cater to the needs of digital learners.
5 - Collaboration among learners should still be employed even during this kind of teaching modality.
6 - The designed tasks should allow students to express their creativity and innovative thinking.
7 - There should be activities that foster independent and discovery learning.
8 - Syllabuses in OBE format should be prepared to guide students to perform high-end multiple tasks.
9 - Teaching should always be based on the emerging technology
10 - Exposure to students outside the four walls of the classroom is essential.
11 - The reading, writing, speaking, and numeracy literacies should be integrated across all disciplines.
12 - Problems should be used in instruction to enhance the critical thinking skills of the learners.
13 - Research and other innovations of teachers should be incorporated into the curricula.
14 - All courses should prepare students to become globally responsive.
15 - Teachers should have an internal exchange of skills as part of their professional development

Table 5.1. Correlation Coefficient Showing Significant Relationship between Level of Importance of CIMD Training and the Profile of Respondents along Campus, College, and Department

Profile	Level of Importance of Training in Curriculum and Instructional Material Development																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	As a whole
1. Campus																							
Bangued	0.092	0.192**	0.165*	0.337**	0.185*	0.086	0.153*	0.168*	0.105	0.196**	0.113	0.188**	0.114	0.146	0.100	0.025	0.057	0.099	0.123	0.126	0.101	0.064	0.164*
Lagangilang	0.099	0.189**	0.176*	0.346**	0.192**	0.086	0.151*	0.179*	0.116	0.206**	0.122	0.197*	0.123	0.156*	0.110	0.033	0.066	0.108	0.121	0.136	0.110	0.074	0.173*
As a Whole	0.096	0.184**	0.170*	0.341**	0.188**	0.081	0.145	0.174*	0.110	0.201**	0.118	0.192**	0.119	0.151*	0.105	0.029	0.061	0.103	0.116	0.131	0.106	0.069	0.167*
2. College and Department																							
A. CAFC	0.011	0.002	0.003	0.009	0.015	0.079	0.064	0.003	0.047	0.045	0.012	0.148	0.032	0.169	0.188*	0.082	0.136	0.169	0.085	0.112	0.142	0.098	0.093
1. Agriculture	0.048	0.026	0.112	0.027	0.049	0.017	0.072	0.072	0.072	0.121	0.092	0.039	0.015	0.010	0.041	0.011	0.030	0.064	0.009	0.034	0.071	0.052	0.021
2. Forestry	0.127	0.098	0.175	0.119	0.212	0.106	0.120	0.074	0.206	0.339	0.071	0.168	0.196	0.168	0.242	0.151	0.171	0.171	0.279	0.020	0.018	0.290	0.177
B. CAS	0.031	0.031	0.019	0.062	0.002	0.040	0.028	0.029	0.029	0.026	0.088	0.109	0.023	0.150	0.163*	0.062	0.108	0.135	0.074	0.094	0.105	0.071	0.067
1. Arts, Languages, and Soc.Sci.	0.032	0.027	0.118	0.000	0.034	0.030	0.098	0.135	0.075	0.118	0.094	0.036	0.067	0.011	0.033	0.019	0.032	0.051	0.036	0.018	0.029	0.030	0.032
2. Math, Nat Scie & PE	0.001	0.038	0.113	0.005	0.048	0.062	0.097	0.118	0.080	0.095	0.069	0.028	0.070	0.018	0.025	0.025	0.059	0.028	0.001	0.031	0.005	0.037	0.039
3. Information Technology	0.038	0.030	0.132	0.035	0.016	0.056	0.125	0.107	0.107	0.160	0.130	0.002	0.077	0.036	0.009	0.031	0.062	0.022	0.032	0.073	0.030	0.018	0.066
C. CTE	0.061	-0.039	-0.012	0.033	0.005	-0.036	-0.027	0.027	-0.018	-0.028	-0.076	-0.120	0.005	-0.159*	-0.171*	-0.075	-0.111	-0.159*	-0.076	-0.098	-0.116	-0.053	-0.075
1. Home Technology	-0.016	-0.017	-0.116	-0.006	0.060	0.039	-0.051	-0.069	-0.068	-0.129	0.079	0.048	0.003	0.019	0.049	-0.001	-0.019	0.085	0.031	0.024	0.078	0.059	-0.007
2. Laboratory High School	0.002	-0.042	-0.133	-0.002	0.028	-0.054	-0.114	-0.129	-0.097	-0.134	-0.114	0.004	-0.070	-0.021	0.005	-0.036	-0.050	0.037	0.006	-0.048	0.001	0.020	0.054
3. Teacher Education	-0.040	-0.074	-0.173*	-0.040	-0.010	-0.083	-0.148	-0.164*	-0.128	-0.174*	-0.154	0.031	0.105	0.056	-0.028	-0.070	-0.087	0.005	-0.023	-0.084	-0.032	-0.002	-0.098
D. CEVIT	0.076	0.049	0.013	0.039	0.002	0.049	0.044	0.017	0.014	0.039	0.092	0.128	0.005	0.167**	0.178*	0.081	0.119	0.167**	0.085	0.102	0.132	0.054	0.087
1. Engineering	0.023	0.039	0.155*	0.025	0.004	0.062	0.124	0.130	0.078	0.136	0.121	0.026	0.069	0.000	0.023	0.029	0.056	0.042	0.001	0.041	0.032	0.002	0.055
2. Vocational and Industrial Technology	0.026	0.041	0.134	0.031	0.032	0.049	0.125	0.114	0.090	0.124	0.117	0.006	0.079	0.022	0.008	0.047	0.064	0.029	0.000	0.060	0.007	0.033	0.059

Legend: * - 0.05 level of significance; ** - 0.01 level of significance
1 - Role of teachers in a global pandemic.
2 - Use of problem-based teaching.
3 - Planning lessons in the OBE-way.
4 - Utilization of Learning Management Systems.
5 - Development of Instructional e-Materials.
6 - Thesis Advising or Paneling.
7 - Research/Project Proposal Writing, Presenting, and Publishing.
8 - Extending and Sustaining Productivity.
9 - Strengthening Extension Engagements.
10 - Understanding and Coaching Independent Learning.
11 - Best Practices in Teaching Digital Learners During Offline/On-line Modalities.
12 - Connecting with the World Trends through Instruction.
13 - Enhancing OJT Skills of Students.
14 - Teaching Methods, Approaches, and Strategies for Gen XYZ.
15 - Coping Up with the Demands of the Fourth Industrial Revolution.
16 - Managing Stress and Workplace Conflicts.
17 - School and Community Partnership.
18 - Extending and Sustaining Productivity.
19 - Classroom Management with Gen Z.
20 - Appropriate Assessment for the Digital Natives
21 - Building Linkages with Deployment Centers
22 - Conducting Laboratory and Fieldwork hands-on Activities in the New Normal

Furthermore, it is significant to mention that number of years in teaching is also significantly related to the assessment level of skills and competencies. On items 4, 8, 15, and as a whole but yields negative correlation computed values. It implies that season teachers of the institution which also yields a lesser representation of the population considered in this study need to strengthen further their skills and competence.

Mentioning further item no.4 entails the use of ICT in the teaching-learning process, syllabus updates, and peer-to-peer exchange of skills. These indicators backed up the significance as a whole in terms of skills and competence set at a 0.05 level of significance. On the other hand, academic rank and specialization are not significantly related to skills, and competencies. Albrahim, F. A. (2020) classified the skills and competencies of teachers into six categories namely, social and

communication, design, content, pedagogy, technology, and management and instruction skills. Selvi (2010) identified nine dimensions of teachers' competencies like communication, emotion, socio-cultural, lifelong learning, research, field, curriculum, technology, and environment. These affect the teachers' vigor, behavior, goals, practices, and relationships. Moreover, there are core competencies of teachers related to innovative teaching according to Zhu, C., Wang, D., Cai, Y., & Engels, N. (2013) and these are social, technology, learning, and educational competencies which positively affected the teachers' innovative teaching. These identified teaching competencies and skills need to be enhanced through professional development programs or by series of training, seminars, and workshops.

Table 5.1 shows the Correlation coefficient showing a significant relationship between the level of importance of CIMD training and the profile of respondents along campus, college, and department. It can be deduced that in terms of Campus as a whole, it yields a significant relationship to the level of importance of the CIMD training. Given the r-computed value of 0.167 with a 0.05 level of significance. It was backed up by the computed r of the two campuses with 0.164 and 0.173 indexes respectively which both fall on the same level of significance at 0.05. Further, when looking closely at the items which significantly related and also claimed by the respondents to be of more importance are items 2, 3, 4, 5, 7, 8, 10, 12, and 4. These trainings are about the use of problem-based teaching, OBE lesson planning, LMS utilization, IMs development, Research/Project proposal writing, presenting and publishing, extending and sustaining productivity, understanding and coaching independent learning, World trends through instruction, and Teaching methods, approaches, and strategies for Gen XYZ.

Examining further, it can be observed that along with item 15. "*Coping up with the demands of the fourth industrial revolution*; the College of Agriculture, College of Arts and Sciences, College of Teacher Education, and College of Engineering and Vocational and Industrial Technology significantly related to the level of importance of this training with an R-value of 0.188, 0.163, -0.17 and 0.178 respectively at 0.05 level.

Meanwhile, the college of teacher education is also significantly related to the level of importance on items 14 and 18. These trainings are on teaching methods, approaches, and strategies for the gen XYZ. Taking the Teacher education department alone yields also a significant relationship to the level of importance of training on items 3, 8, and 10. These are training in OBE lesson planning, extending and sustaining productivity and understanding, and coaching independent learning.

On the other hand, the College of engineering and vocational and industrial technology significantly related to the importance level of the training along items 14 and 18. These training are on teaching methods, approaches, and strategies for the gen XYZ and extending and sustaining productivity. Subsequently, Engineering alone is significantly related to item no. 3 which entails the training importance of planning lessons in the OBE way.

On profile. Along highest educational attainment, it is revealed the importance of training on item no. 4 which is on utilization of the learning management system has a significant relationship at 0.05 level with an R-value of 0.226. This means that since most of the respondents have gone through professional development, they have experienced advanced LMS from their respective schools where they pursue their further schooling which in turn makes them also wish to have it in their field of work. In addition, the years in teaching have significance also in the importance level of CIMD Training as a whole with an R-value of 0.181. When taken singly along items, it is significant to the following items indicators of CIMD training namely 5, 6, 8, 11, 13, 14,15,16, 18, 19, and 22.

Table 5.2. Correlation Coefficient Showing Significant Relationship between Level of Importance of CIMD Trainings and the Profile of Respondents along Highest Educational Attainment, Specialization, Academic Rank, and Number of Years in Teaching

Profile	CIMD Training																						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	As a whole
3. Highest Educational Attainment	0.055	0.157	0.092	0.226*	0.036	0.158	0.131	0.025	0.134	0.088	0.038	0.010	0.009	0.004	0.027	0.085	0.003	0.054	0.009	0.066	0.003	0.034	0.055
4. Specialization	0.070	0.036	0.023	0.018	0.094	0.003	0.020	0.065	0.006	0.161	0.090	0.052	0.074	0.112	0.115	0.046	0.159	0.162	0.134	0.089	0.096	0.043	0.065
5. Academic Rank	0.000	0.116	0.018	0.092	0.045	0.075	0.064	0.140	0.009	0.012	0.069	0.026	0.106	0.013	0.041	0.122	0.122	0.002	0.043	0.056	0.019	0.053	0.043
6. Number of Years in Teaching	0.086	0.009	0.058	0.095	-0.193**	-0.166*	0.147	-0.206**	0.089	0.094	-0.196**	0.118	-0.199**	-0.194**	-0.219**	-0.236**	0.141	-0.156*	-0.205**	-0.174*	0.060	-0.158*	-0.181*

Legend: * - 0.05 level of significance; ** - 0.01 level of significance

1 - Role of teachers in a global pandemic.
2 - Use of problem-based teaching.
3 - Planning lessons in the OBE-way.
4 - Utilization of Learning Management Systems.
5 - Development of Instructional e-Materials.
6 - Thesis Advising or Paneling.
7 - Research/Project Proposal Writing, Presenting, and Publishing.

8 - Extending and Sustaining Productivity.
9 - Strengthening Extension Engagements.
10 - Understanding and Coaching Independent Learning.
11 - Best Practices in Teaching Digital Learners During Offline/On-line Modalities.
12 - Connecting with the World Trends through Instruction.
13 - Enhancing OJT Skills of Students.
14 - Teaching Methods, Approaches, and Strategies for Gen XYZ.

15 - Coping Up with the Demands of the Fourth Industrial Revolution.
16 - Managing Stress and Workplace Conflicts.
17 - School and Community Partnership.
18 - Extending and Sustaining Productivity.
19 - Classroom Management with Gen Z
20 - Appropriate Assessment for the Digital Natives
21 - Building Linkages with Deployment Centers
22 - Conducting Laboratory and Fieldwork hands-on Activities in the New Normal

The following training indicators are IM development, research mentoring, extending and sustaining productivity, best teaching practices in digital and offline modalities, enhancement of OJT skills of students, teaching methods, approaches, and strategies for the gen XYZ, coping with the demands of the fourth industrial revolution, stress and conflict management, classroom management with Gen Z and in conducting field and laboratory work hands-on activities in the new normal. Albrahim, F. A. (2020) classified the skills and competencies of teachers into six categories namely, social and communication, design, content, pedagogy, technology, and management and instruction skills. Selvi (2010) identified nine dimensions of teachers' competencies like communication, emotion, socio-cultural, lifelong learning, research, field, curriculum, technology, and environment. These affect the teachers' vigor, behavior, goals, practices, and relationships. Moreover, there are core competencies of teachers related to innovative teaching according to Zhu, C., Wang, D., Cai, Y., & Engels, N. (2013) and these are social, technology, learning, and educational competencies which positively affected the teachers' innovative teaching. These identified teaching competencies and skills need to be enhanced through professional development programs or by series of training, seminars, and workshops.

Conclusion

The respondents came from the different colleges of both Campuses of Abra State Institute of Sciences and Technology. A good number of them were completing their master's degrees, with varied specializations, more than half were in Instructor positions, and relatively young in the teaching profession. They were strongly convinced of the relevance of improving their teaching skills and competencies to effectively transfer learning to the students and strongly accepted that the training seminars on curriculum and instructional materials development are essential to improve their teaching skills and competencies.

Their campus, educational attainment, and their year of teaching experience have a significant influence on their assessment of the needed skills and competencies in teaching. In addition, their campus and number of years in the service significantly affected their agreement on professional development like upskilling or retooling in terms of training, workshops, and seminars.

References

Kooy, M., & van Veen, K. (Eds.). (2011). Teacher Learning That Matters: International Perspectives (1st ed.). Routledge. https://doi.org/10.4324/9780203805879

Bautista, A., & Ortega-Ruíz, R. (2015). Teacher professional development: International perspectives and approaches. Psychology, Society and Education, 7(3), 240-251.

Bhargava, A. & Pathy, Dr. M. (2011) Perception of Student Teachers About Teaching Competencies, American International Journal of Contemporary Research, Vol. 1, No. 1, July 2011, https://asset-pdf.scinapse.io/prod/2184495376/2184495376.pdf

Emily Pulham & Charles R. Graham (2018) Comparing K-12 online and blended teaching competencies: a literature review, Distance Education, 39:3, 411-432, DOI: 10.1080/01587919.2018.1476840

Seferuglu, S. S. (2005), A study on teaching competencies of teacher candidates: Proceedings of International Conference on Education (ICE 2005), 709-716, National University of Singapore, Singapore, https://yunus.hacettepe.edu.tr/~%20sadi/yayin/ICE05_Seferoglu_Competencies.pdf

Albrahim, F. A. (2020) Online Teaching Skills, and Competencies, Turkish Online Journal of Educational Technology – TOJET, v19, n1, page 9-20, Jan 2020, https://eric.ed.gov/?id=EJ1239983

Rubin, R. B., & Morreale, S. P. (2000). What college students should know and be able to do. *JACA-ANNANDALE-*, (1), 53-65,

Azimi, H. M., & Rahmani, R. (2013). Importance of Needs Assessment for Implementation of E-learning in Colleges of Education. *International Journal of Information and Computation Technology*, *3*(5), 377-382, retrieved from https://www.ripublication.com/

Brown, J. (2002). Training needs assessment: A must for developing an effective training program. *Public personnel management*, *31*(4), 569-578, retrieved from https://journals.sagepub.com/

Kaufman, R., & Guerra-López, I. (2013). *Needs assessment for organizational success*. American Society for Training and Development. https://books.google.com.ph/

Bahar-Ozvaris, S., Aslan, D., Sahin-Hodoglug, N. & Sayek, I. (2004) A Faculty Development Program Evaluation: From Needs Assessment to Long-Term Effects, of the Teaching Skills Improvement Program, Teaching, and Learning in Medicine, 16:4, 368-375, DOI: 10.1207/s15328015tlm1604_11

Barratt, M. S., & Moyer, V. A. (2004). Effect of a teaching skills program on faculty skills and confidence. *Ambulatory Pediatrics*, *4*(1), 117-120., https://www.sciencedirect.com/

Selvi, K. (2010). Teachers' competencies. *Cultura International Journal of Philosophy of Culture and Axiology*, *7*(1), 167-175.https://www.pdcnet.org/

Chang Zhu, Di Wang, Yonghong Cai & Nadine Engels (2013) What core competencies are related to teachers' innovative teaching?, Asia-Pacific Journal of Teacher Education, 41:1, 9-27, DOI: 10.1080/1359866X.2012.753984

Kulshrestha, A. K., & Pandey, K. (2013). Teachers' training and professional competencies. *Voice of research*, *1*(4), 29-33. http://www.voiceofresearch.org/

Moeini, H. (2008). Identifying Needs: A Missing Part in Teacher Training Programs. *Seminar.Net*, *4*(1). https://doi.org/10.7577/seminar.2488