Resource Requirements And Professional Development Prospects For Fostering A Competency-Based Pre-Service Teachers

Gladys L. Lagura* and Lorly P. Caperida**
gllagura@carsu.edu.ph

Abstract

        Quality education relies on effectively preparing pre-service teachers. A study conducted at North Eastern Mindanao State University (NEMSU) examined the preparation of pre-service teachers across five campuses in Surigao Del Sur, focusing on resource needs, competencies, and professional development opportunities. Involving 236 participants including faculty members, pre-service teachers, and Department of Education resource teachers, the study employed a descriptive-correlational design to identify specific needs, competencies, and relationships between resources, competencies, and professional development participation. Data revealed that Practical experiences such as classroom observation and teaching practice were highlighted as crucial for professional development, with emphasis placed on mentoring, cooperation, and networking. Both professionals and pre-service teachers highly valued mentoring programs, classroom observations, workshops, collaborative lesson planning, reflective practice, and inclusive education training. Professional learning communities and action research were found to be undervalued, indicating a need to enhance field trips and experiential learning opportunities. Moreover, data revealed that there are strong positive correlations between pedagogical skills and instructional resources, professional development initiatives and competencies such as building knowledge and skills, developing reflective practice, building collaboration and communication, and enhancing classroom practice. Recommendations were made to craft a comprehensive curriculum integrating pedagogical theory, subject expertise, hands-on teaching skills, technology, and innovative methodologies.

Introduction

        Providing a high-quality education is contingent upon effective pre-service teacher preparation. Teachers developed by these kinds of programs are essential in molding the next generation's development. They serve as beacons, imparting knowledge, skills, and values that contribute to the formation of young minds. Consequently, pre-service teacher preparation significantly impacts the quality of education delivered to students and influences their lifelong prospects. These individuals are pivotal in enhancing student learning and contributing to the overall advancement of the educational system. To achieve this, it is imperative to establish the highest standards when formulating the objectives, components, and procedures of pre-service teacher education programs. And according to Baronak and Hirsh (2020) this guarantees that pre-service teachers have the flexibility required to successfully handle the various and changing difficulties that 21st-century classrooms bring. In the study of Ganal, Andaya, and Guiab (2016) stressed the importance of practitioners having a clear understanding of the actions necessary to facilitate optimal learning in students. They also emphasized the need for practitioners to be highly proficient in the skills required to execute these tasks. Moreover, according to Haokip (2017), pre-service teachers must be provided with basic counseling and counseling abilities to adequately meet the requirements of their pupils. Moles (2016) stated that mapping assessment activities to curricular frameworks and generating tools and resources can help increase pre-service teachers' academic abilities and competencies. Gomez et al. (2020) also emphasized the need for mentorship as a critical factor in achieving self-perceived confidence among pre-service teachers.

         Lualhati (2017), in her study, raised concerns about certain aspects of teacher education programs and their implementation in enhancing student teachers during the practicum. She asserted that there are doubts about the effectiveness of these programs and suggested that reform measures should be implemented to enhance teacher preparation programs, thereby improving student achievement. This arises from the fact that some programs may fall short in providing comprehensive training in pedagogy, subject

knowledge, and practical teaching skills. This can also be attributed to the study of Chen (2019) that inadequate finance for schools and teacher education programs might limit the availability of critical resources, technology, and professional development opportunities. Moreover, Batugal (2019) observed that pre-service teachers typically perform well but noted deficiencies such as the art of questioning, using innovative slide presentations, providing reinforcement activities, and dealing with students' misbehavior. And on the study of Khalid et al. (2021), reported that 60% of the teachers believed there was a deficiency of the resources essential to practice critical thinking in the classroom.

To address this pressing issue, the study titled " Resource Requirements and Professional Development Prospects for Fostering a Competency-based Pre-service Teachers" was conceptualized. This research endeavor to assess the resources needed and the professional development opportunities needed to empower the pre-service teachers of the future. It tried to investigate resources provided and the school mentors support where student teacher learns knowledge and skills needed in teaching.
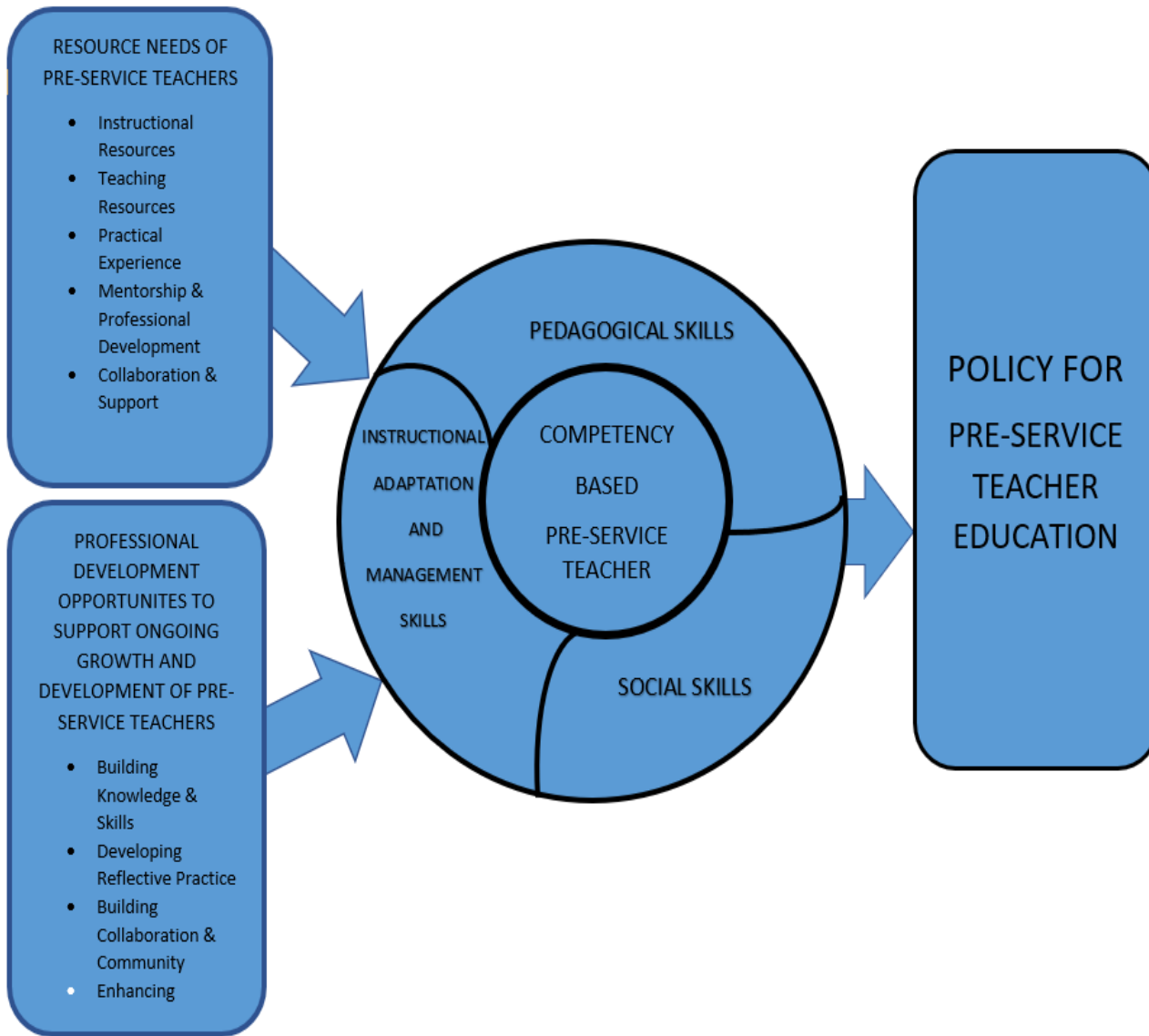
Research Methodology

This study explored the intricate connections within teacher education, investigating essential resources for pre-service teachers, development of essential competencies and the professional development opportunities crucial for empowering the next generation of educators. It examined specific demands and resource requirements for effective competence development among pre-service teachers, such as instructional resource, technology resource, practical experience, mentorship and professional development and collaboration and support.

The study highlighted professional development opportunities, emphasizing on building knowledge and skills, developing reflective practice, building collaboration and community, and enhancing classroom practice. These competencies encompassed subject matter expertise, pedagogical knowledge, classroom management skills, assessment and evaluation strategies, cultural responsiveness, and the ability to create an inclusive learning environment, supporting ongoing growth and development.

The competency of pre-service teachers hinges on their pedagogical, instructional adaptation, and management skills, as well as their social skills. However, these skills face significant hurdles due to various challenges along the journey, hindering effectiveness. Intervening variables include resource limitations (limited funding, infrastructure), program constraints, insufficient support from the learning environment, and diversity and accessibility issues (geographical constraints, diversity, and inclusion challenges), all impeding the empowerment process.

The results of the study served as the basis for developing policy recommendations aimed at enhancing both pre-service teachers and the overall teacher training program.

Figure 1. Schematic Diagram of the Study

Results and Discussion

RESOURCE NEEDS OF PRE-SERVICE TEACHERS

- Instructional Resources
- Teaching Resources
- Practical Experience
- Mentorship & Professional Development
- Collaboration & Support

PROFESSIONAL DEVELOPMENT OPPORTUNITES TO SUPPORT ONGOING GROWTH AND DEVELOPMENT OF PRE-SERVICE TEACHERS

- Building Knowledge & Skills
- Developing Reflective Practice
- Building Collaboration & Community
- Enhancing

PEDAGOGICAL SKILLS

INSTRUCTIONAL ADAPTATION AND MANAGEMENT SKILLS

COMPETENCY BASED PRE-SERVICE TEACHER

SOCIAL SKILLS

POLICY FOR PRE-SERVICE TEACHER EDUCATION

This section analyzes and interprets the data collected, presented in both descriptive and tabular formats. It discusses the results in the context of the research problem outlined in the preceding chapter, providing a comprehensive and logical examination of the findings.

Resource Needs of Pre-Service Teachers to Enhance Educational Capabilities and Effectiveness

Data in figure 2 reveal the importance of different resources and methods in teacher development programs for creating effective and diverse learning environments. Participants underline the value of opportunities for observation (4.62), and support and resources for inclusive classroom (4.59) as their highest resource needs.
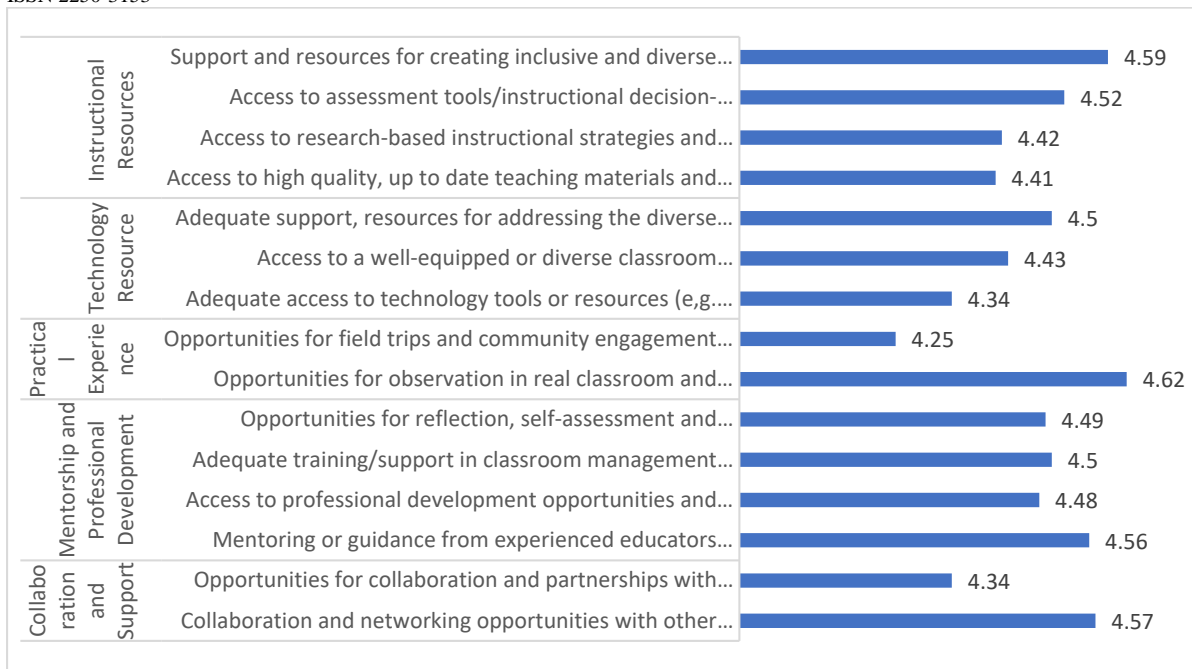
Figure 2 . Mean Distribution of the Resource Needs of Pre-Service Teachers to Enhance Educational Capabilities and Effectiveness.

However, opportunities for field trips and experiential learning (4.25)received lower ratings, there is a definite need to improve practical experiences and mentorship opportunities in teacher preparation programs.

These findings highlight the need for educational institutions and teacher training programs to prioritize resources that support inclusive and evidence-based teaching practices, as these are rated highest in importance. Simultaneously, there is a clear indication that experiential learning opportunities, though currently undervalued, are crucial for comprehensive teacher development. Research from studies such as those by Brown et al. (2023) further emphasizes the importance of mentorship in teacher preparation, aligning with these findings.

Professional development opportunities to support the ongoing growth and development of pre-service teachers

Figure 3 show the summary emphasizing the value of numerous professional development options for pre-service teacher. Mentoring programs (4.61) and classroom observations (4.57) obtain the highest mean scores, indicating that they are helpful in promoting teacher growth. Effective mentoring methods promote personal and professional development by improving classroom management abilities and educational understanding. Collaborative lesson preparation is also important for teacher development, as it increases subject knowledge and promotes inclusivity.
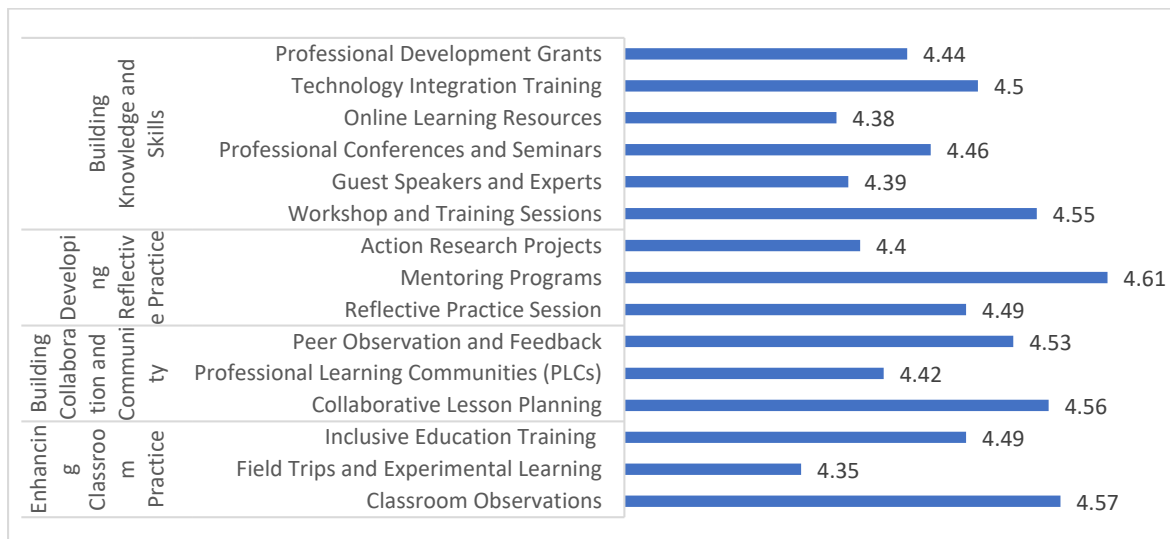
Figure 3 . Mean Distribution of Professional Development Opportunities that can be Implemented to support the Ongoing Growth and Development of Pre-Service Teachers.

While lesson study has been found to improve teachers' instructional strategies, concern for students' needs and performance, and collaboration with colleagues (Suryani et am., 2018). Though, technology integration workshops are valuable, there is a need for more comprehensive training on issues such as classroom management and evaluation procedures.

The contrasting scores of these elements, reflecting the highest and lowest means, provide clear insights for educational communities. They emphasize the need for institutions to focus on areas of high value while addressing shortcomings in less effective practices. This approach will help in forming a more effective and comprehensive strategy for pre-service teacher education, ensuring a well-rounded and relevant educational experience.

Competencies should be emphasized in pre-service teacher training programs to empower them for successful classroom practice

Figure 4 shows that teachers consider that critical thinking (4.58), is the strongest aspects of the pedagogical skills cluster, classroom management and differentiated instruction (4.58) for institutional and management skills and communication skills (4.59) for social skills cluster. The areas of special education and inclusion (4.43) and technology integration (4.51) scored slightly lower, indicating that training programs should pay more attention to these areas. Even though the results are excellent overall, the data points to the possibility that instructors would benefit from more training in special education and inclusion to feel better prepared.
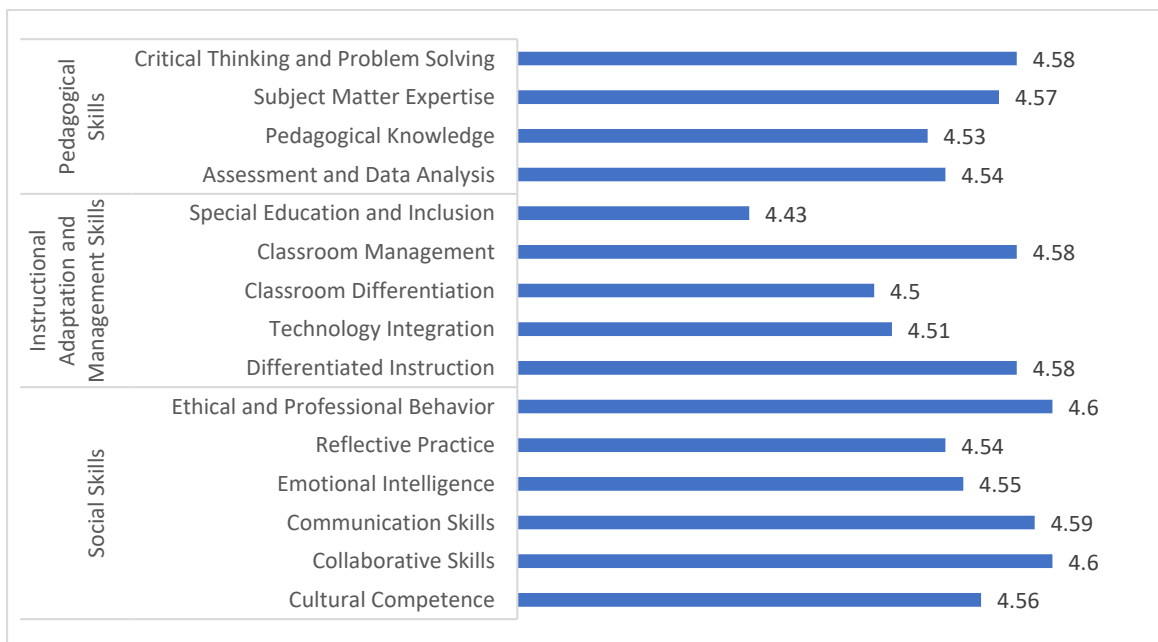

Figure 4. Mean Distribution of Competency among Pre-Service Teachers for Successful conduct of Teaching Internship.

Statistics on the Correlation between the availability of adequate resources, the development of essential competencies, and the participation in effective professional development opportunities for pre-service teachers, ultimately impacting their level of empowerment in the classroom

The correlation analysis in Table 1 reveals compelling connections between the availability of resources and the development of essential competencies for pre-service teachers (PST). The availability of diverse resources and the development of various competencies, including digital, pedagogical and subject-specific competencies, are essential for enhancing the preparedness of pre-service teachers for effective classroom practice.

Table 1. Correlation analysis between the availability of adequate resources and the essential competencies for effective pre-service teachers.

Resource Needs of Pre-Service Teachers

		Instructional Resources	Technology Resources	Practical Experience	Mentorship & Professional Devt.	Collaboration & Support
Competencies for Pre-Service Teachers for Successful Conduct of Internship						
Pedagogical Skills	Correlation Coefficient	.792**	.766**	.756**	.793**	.755**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Instructional Adaptation & Management Skills	Correlation Coefficient	.811**	.805**	.782**	.803**	.789**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Social Skills	Correlation Coefficient	.828**	.792**	.764**	.783**	.778**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	236	236	236	236	236

Across various competency categories, such as pedagogical skills, instructional adaptation and management skills, and social skills, significant positive correlations are evident with different types of resources. For instance, there's a strong correlation between pedagogical skills and instructional resources (r = .792**), technology resources (r = .766**), practical experience (r = .756**), mentorship and professional development (r = .793**), and collaboration and support (r = .755**). Developing pedagogical models that promote collaborative problem-solving and strategic learning skills is vital for preparing teachers for the twenty-first century learning practices (Gualacata-Cevallos et.al., 2022).

Similarly, instructional adaptation and management skills exhibit robust correlations with instructional resources (r = .811**), technology resources (r = .805**), practical experience (r = .782**), mentorship and professional development (r = .803**), and collaboration and support (r = .789**). These correlations emphasize the pivotal role that resource availability plays in shaping pre-service teachers' competency development, suggesting that access to a diverse range of resources significantly influences their preparedness for classroom practice. The development of pre-service teachers' digital competencies is also essential for their future teaching practices (Howard et al., 2022).

Table 2. Correlation analysis between the development of essential competencies, and the participation in effective professional development opportunities for pre-service teachers

		Resource Needs of Pre-Service Teachers				
		Instructional Resources	Technology Resources	Practical Experience	Mentorship & Professional Devt.	Collaboration & Support
Professional Development for PST						
Building Knowledge & Skills	Correlation Coefficient	.734**	.735**	.708**	.688**	.728**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Developing Reflective Practice	Correlation Coefficient	.774**	.775**	.748**	.769**	.786**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Building Collaboration & Communication	Correlation Coefficient	.766**	.774**	.758**	.777**	.800**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Enhance Classroom Practice	Correlation Coefficient	.754**	.764**	.765**	.758**	.790**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	236	236	236	236	236

When examining the correlation coefficients for various aspects of professional development for PST, it becomes evident that these opportunities are closely linked to competency development. There are strong positive correlations between professional development initiatives and competencies such as building knowledge and skills, developing reflective practice, building collaboration and communication, and enhancing classroom practice. For instance, building knowledge and skills shows a significant correlation with instructional resources (r = .734**), technology resources (r = .735**), practical experience (r = .708**), mentorship and professional development (r = .688**), and collaboration and support (r = .728**). Research has highlighted the positive correlation between pre-service teachers' technopedagogical education competency and their perception towards technology (Akay & Incik, 2017).

These findings underscore the importance of ongoing professional growth opportunities in fostering a comprehensive set of competencies among pre-service teachers, highlighting the need for tailored and effective professional development programs within teacher education.

Table 3. Correlation analysis between the availability of adequate resources, the development of essential competencies, and the participation in effective professional development opportunities for pre-service teachers

		Resource Needs of Pre-Service Teachers				
		Instructional Resources	Technology Resources	Practical Experience	Mentorship & Professional Devt.	Collaboration & Support
Competencies for Pre-Service Teachers for Successful Conduct of Internship						
Pedagogical Skills	Correlation Coefficient	.792**	.766**	.756**	.793**	.755**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Instructional Adaptation & Management Skills	Correlation Coefficient	.811**	.805**	.782**	.803**	.789**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Social Skills	Correlation Coefficient	.828**	.792**	.764**	.783**	.778**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Professional Development for PST						
Building Knowledge & Skills	Correlation Coefficient	.734**	.735**	.708**	.688**	.728**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Developing Reflective Practice	Correlation Coefficient	.774**	.775**	.748**	.769**	.786**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Building Collaboration & Communication	Correlation Coefficient	.766**	.774**	.758**	.777**	.800**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
Enhance Classroom Practice	Correlation Coefficient	.754**	.764**	.765**	.758**	.790**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	236	236	236	236	236

** Spearman rho Correlation is significant at the 0.01 level (2-tailed).

Pre-service teachers who have already begun to develop essential competencies are more likely to recognize the value of ongoing professional development and seek out opportunities to refine their skills (Smith & Johnson, 2022). The positive relationship between these variables indicates that the more competent pre-service teachers become, the more they are motivated to participate in professional development to further enhance their effectiveness in the classroom.

Conclusions

Pre-service teachers highly value opportunities for observation and teaching practice in real classrooms. These encounters are regarded as critical tools for their professional development. Mentoring, cooperation, and networking opportunities with other pre-service teachers are also stressed as necessary in building an inclusive and varied learning environment-service teachers do not prioritize or value field trips and community participation experiences for their training and growth, as indicated by their lowest mean rating. It may benefit teacher education programs to reassess their emphasis on field excursions and community participation.

The results highlight how important it is to have access to a variety of resources to be prepared for PST competencies in the classroom. They also highlight how crucial resource availability is in determining the development of PST competencies. Therefore, it is crucial to provide pre-service teachers with a sufficient and diverse range of tools to maximize their efficacy and prepare them to handle the intricate demands of contemporary education.

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