

The Effect of In-Service Training Programs on the Professional Development of Public Elementary School Teachers

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Abstract

This study aimed to determine the effect of in-service training programs on the professional development of public elementary school teachers in Candelaria West District, Division of Quezon. The study used quantitative and qualitative research designs and applied a descriptive-correlational method. The results revealed that professional development in terms of content knowledge and pedagogy, learning environment, diversity of learners, curriculum and planning, assessment and reporting, community linkages and professional engagement, professional growth, and professional development are positively, highly, and significantly related to the in-service training programs' professionalism dimensions and pedagogical components. Likewise, the findings showed that teachers had significant improvements in content knowledge and its application within and across curriculum areas; strategies for promoting literacy and numeracy; strategies for developing critical and creative thinking as well as higher-order thinking skills; teaching and learning resources, including ICT; and learners' gender, needs, strengths, interests, and experiences after attending a number of INSETs. The result suggests teachers should attend INSET programs with a positive attitude and active participation to improve their knowledge, develop their skills, change their behavior and attitudes, and have the ability to perform tasks more efficiently and effectively.

Keywords: in-service training program; professionalism dimensions; pedagogical components ; professional development

1. Introduction

In-service training is essential for improving work performance and motivating teachers in the field. Teachers' professional development will be hampered if in-service training is not provided, and there will be missing gaps between demands and actual achievement levels (Osamwonyi, 2016). Moreover, the more recent competency-based teacher education movement sees 21st-century competencies as essential for navigating contemporary and future life, shaped by technology that changes workplaces and lifestyles (Caena & Redecke, 2019).

Whereas, early teacher professional development in the Philippines was frequently focused on providing teachers with up-to-date subject knowledge, based on the belief that continuous learning and review of both content and instruction is an essential component of the teaching profession. As a result, teacher professional development programs have become increasingly focused on teachers' knowledge bases, which include content knowledge, pedagogical content knowledge, and procedural knowledge. According to this

viewpoint, effective teaching is dependent on how a teacher selects and integrates various strands from those three knowledge bases to create valuable learning opportunities (Shin et al., 2021).

On the other hand, the Enhanced Basic Education Act of 2013 has changed the landscape of teacher quality requirements in the Philippines. The reform process warrants an equivalent supportive focus on teacher quality – high-quality teachers who are properly equipped and prepared to assume the roles and functions of K to 12 teachers. As specified in Teacher Education and Training: In-service Training on Content and Pedagogy: Current DepEd teachers shall be retrained to meet the content and performance standards of the new K to 12 Basic Education Curriculum.

Moreover, in 2019, Republic Act 10912, Continuous Professional Development Law, went into full effect, requiring teachers to earn Continuous Professional Development (CPD) units to keep their license to practice. Given the magnitude of Teachers' Professional Development needs in the system, DepEd faces three major challenges in delivering in-service training: maintaining training quality as it scales; sustaining quality training and making it continuous; and assessing the impact of in-service training on teacher competencies and practice.

With this notable transition, and as the education field has become increasingly unpredictable and dynamic, shifting away from the traditional view of the teacher's professionalism, the current study aims to determine the effect of in-service training programs on the professional development of public elementary school teachers. The results of the study could be fundamental in understanding the extent of the effects of these variables on other teachers.

2. Literature Review

2.1 Professional Development

Professional development should also be consistent with curriculum, classroom learning, and state and district policies. Professional development must be maintained by participating in an interactive learning community cooperatively. Professional development is important in our schools today because it promotes teacher learning and growth. It provides teachers with easy access to content-focused activities. When teachers' instructional capacities are developed, it contributes to students' academic achievement (Foy, 2019).

Effective professional development is a key component in improving school quality and increasing student learning. Professional development that supports co-teachers can increase co-teachers' abilities to collaborate effectively to provide innovative instruction that meets the needs of all learners in the classroom. (Goodhue, 2015).

Due to the nature of the profession, classroom teachers and educational leaders are held to high standards and are exemplars of moral and virtuous actions. Ethics training in preparation programs is designed to help educators successfully navigate ethical dilemmas that they will face in the workforce. Such training improves decision-making by allowing teachers and leaders to use the knowledge gained to do what is right. Educator preparation programs are instrumental in training future teachers and administrators in the necessary ethical knowledge, skills, and dispositions. Likewise, school districts can continue to provide professional development in the areas of pedagogy and professional conduct. Educators need to have subject content knowledge and pedagogical instruction skills, as well as the understanding and disposition to do what is right and the ability to make ethical choices (Harrison, 2019).

2.2. In-Service Training

INSET offers one of the most promising paths to the improvement of instruction. It includes goals and content, the training process, and the context. In-service training is the totality of educational and personal experiences that contribute toward an individual's being more competent and satisfied in an assigned

professional role. The primary purpose of INSET is to enable teachers to acquire new understanding and instructional skills. It focuses on creating learning environments that enable teachers to develop their effectiveness in the classroom (Omar, 2014).

The main aspects of the in-service training for school teams valued by participants were: all topics covered systematically and coherently gave an excellent opportunity to focus on relevant issues, which should be considered in the schools' self-development activities in the field of IE; a practical approach to training structure helped to identify priority areas that need to be developed in particular schools; learning from each other both within their school team and across school teams contributed to finding the best solutions for meaningful implementation (Kivirand et al., 2021).

In the Department of Education (DepEd), twice a year of professional development activities called In-Service Training for Teachers (INSET) are planned by the department and organized per district. Every district in the entire archipelago holds this training every school year. This five-day annual and semesterly break training, approved by the DepEd, talks about current trends and issues in the Philippine education system. They invited experts and practitioners to help them bridge the gap in the perennial problem in the primary education curriculum. The goal of INSET is to educate teachers about national and regional programs that are tailored to the needs of the entire system. to improve the professional growth of the teaching force, abreast of current trends and knowledge. The specified issues in professional development, such as allowing teachers with a low level of quality to attend training, support from the administration, and budget not utilized well (Tupas & Noderama, 2020).

3. Conceptual Framework

In this study, it is assumed that as the teacher-respondents attend in-service training programs in terms of professionalism dimensions, which include knowledge, skills, and values and practice; and pedagogical components, which include competence/needs assessment; planning, designing, resource development; and actual delivery of the program, they perform effectively in their work in terms of content knowledge and pedagogy; learning environment, diversity of learners, curriculum and planning, assessment and reporting; community linkages and professional engagement; and professional growth and development, which are the contributing variables of teachers' professional development.

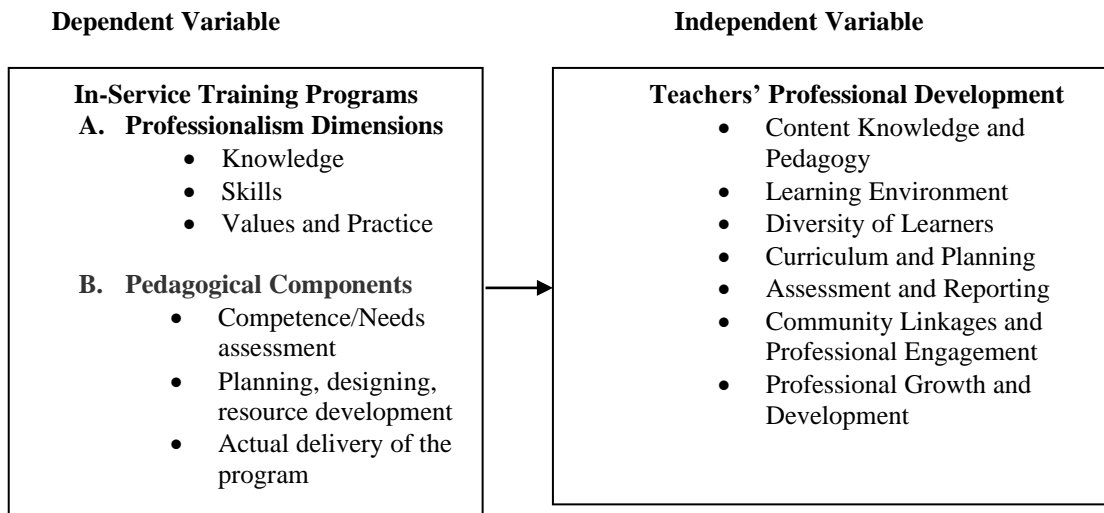


Figure1. Research Paradigm

4. Hypothesis

The in-service training programs attended by the teacher-respondents are not significantly affecting the level of their professional development as to: content knowledge and pedagogy; learning environment; diversity of learners; curriculum and planning; assessment and reporting; community linkages and professional engagement; and professional growth and professional development.

5. Methodology

The research used a quantitative and qualitative research design and applied a descriptive-correlational method, whereas quantitative research deals with quantifying and analyzing variables in order to get results. It involves the utilization and analysis of numerical data using specific statistical techniques to answer questions like who, how much, what, where, when, how many, and how. It also describes the methods of explaining an issue or phenomenon through gathering data in numerical form (Apuke, 2017). While Qualitative research involves collecting and analyzing non-numerical data to understand concepts, opinions, or experiences. It can be used to learn more about a problem or come up with new research ideas (Bandari, 2020). The respondents of this study were the two hundred nineteen (219) public elementary school teachers from 11 schools in the Candelaria West District in the Division of Quezon. The researcher opted to use the total enumeration technique, but because of the unexpected circumstances, only 219 out of 248 became the actual respondents of the study, from mega schools, large schools, medium schools, and small schools, as well as central and non-central schools of Candelaria West District. The researcher modified the instrument from the study of Norwani et al. (2017) and rephrased the PPST strands to create a survey-questionnaire and used it in generating data. Then, the researcher conducted a pilot test on teachers outside the district. To assess the validity and reliability of the questions, Cronbach's alpha was applied, resulting in excellent internal consistency results in all variables. The study was conducted after securing the necessary permits from the authorities. A letter to the school's division superintendent was submitted and approved, after which the researcher submitted a letter to the public school's district supervisor of Candelaria West District. Lastly, to the school principals of the said district, they then proceeded to the actual phases of the study. A Google form was forwarded to the respondents for fast retrieval of necessary data. After the retrieval of data, the data was encoded and treated using statistical tools. Lastly, it was interpreted, analyzed, and used for the study. Several statistical tools were used to present, analyze, and interpret the data gathered. For the descriptive questions, the frequency, percentage, mean, and standard deviation were employed to describe the respondents' responses. For the inferential part, a test of relationship and multiple linear regression were employed to determine which among the professional dimensions and pedagogical components significantly predicted the perceived professional development among teachers. The frequency, percentage, and top five most frequently responded statements were used to describe respondents' responses to qualitative questions.

6. Result

Table 1. Test of Significant Relationship Between the Level of Teachers' Professional Development and In-Service Training Programs in Terms of Professionalism Dimensions and Pedagogical Components

Teachers' Professional Development

In-Service Training Program	Content Knowledge and Pedagogy	Learning Environment	Diversity of Learners	Curriculum and Planning	Assessment and Reporting	Community Linkages and Professional Engagement	Professional Growth and Development	Overall Professional Development
Professionalism Dimensions								
Knowledge	.713**	.676**	.678**	.713**	.740**	.648**	.641**	.765**
Skills	.710**	.685**	.721**	.703**	.691**	.639**	.590**	.754**
Values and Practice	.691**	.731**	.720**	.734**	.685**	.651**	.634**	.771**
Pedagogical Components								
Competence/Needs Assessment	.697**	.703**	.732**	.722**	.678**	.651**	.633**	.767**
Planning, designing, & resource development	.749**	.779**	.759**	.768**	.724**	.669**	.641**	.810**
Actual delivery of the Program	.751**	.774**	.727**	.744**	.721**	.661**	.630**	.797**

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

Table 1 notes a significant relationship between the level of teachers' professional development and in-service training programs. Pearson r correlation analysis reveals that respondents professional development in term of content knowledge and pedagogy, learning environment, diversity of learners, curriculum and planning ,assessment and reporting, community linkages and professional engagement, professional growth and professional development are positively, highly, and significantly related to the in-service training programs professionalism dimensions in terms of knowledge professionalism ($r = .648$ to $.740$, $N = 219$, $p < .01$), skills professionalism ($r = .639$ to $.754$, $N = 219$, $p < .01$), values and practice professionalism ($r = .634$ to $.771$, $N = 219$, $p < .01$) and in pedagogical components in terms of competence/needs assessment ($r = .651$ to $.732$, $N = 219$, $p < .01$), planning, designing, resource development ($r = .641$ to $.810$, $N = 219$, $p < .01$), and actual delivery of the program ($r = .630$ to $.797$, $N = 219$, $p < .01$).

This result agrees with the study of Amadi (2013) that in-service training is a workshop for employed professionals and other practitioners to gain new knowledge, better methods, and improve their skills in order to provide more effective, efficient, and competent service to diverse groups of people in various fields. Furthermore, a workshop like this is a type of training developed for a specific group of instructors at a certain school. A good in-service training program should increase the quality of programming for the growth of in-service teachers by using workshop trainees. He also described professional growth as the acquisition of skills and information for both personal and professional development. Professional development refers to a wide range of supported learning opportunities, including college degrees, formal coursework, conferences, and informal learning opportunities in the workplace. It has been defined as intensive and collaborative, with an evaluation stage preferably included. Professional development can take many forms, including consulting, coaching, and communities of practice, as well as lesson study, mentorship, reflective supervision, and technical help.

Table 2. Effect of INSET Programs on Teachers' Professional Development

	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	0.737	0.155		4.757	0.000
Planning, designing, & resource development	0.375	0.068	0.395	5.519	0.000
Knowledge Professionalism	0.262	0.056	0.283	4.709	0.000
Values and Practice Professionalism	0.205	0.059	0.234	3.496	0.001

R = .847; R squared = 0.717; Adj. R squared = 0.714; F (3,215) = 181.975, p = .000

Multiple linear regression was used to determine which in-service training programs, in terms of professionalism dimensions and pedagogical components, have a significant effect on teachers' perceived professional development. The regression model suggests that the knowledge professionalism and values and practice as a professionalism dimension and the pedagogical component on planning, designing, and resource development significantly predict the teachers' overall professional development. Planning, designing, and resource development have the greatest positive effect on professional development.

The multiple linear regression analysis revealed that planning, designing, resource development; knowledge professionalism; and values professionalism contributed significantly to the regression model F (3,215)=181.975, p=.000 and accounted for 71.7% of the variation in Teachers' Professional Development. Hence, the model suggests that the in-service training programs of teachers in terms of planning, designing, resource development; knowledge professionalism; and values professionalism significantly predict the teachers' professional development.

The final regression model yielded a regression equation of:

$$TPD = .737 + .375 PDRD + .262 KP + .205 VPP$$

where: TPD= Predicted Teachers' Professional Development

PDRD= Planning, designing, resource development

KP=Knowledge Professionalism

VPP=Values and Practice Professionalism

These findings are congruent with the study of Kivirand et al., (2021), which found that to make the topics to be covered meaningful to teachers, the principle of linking theory and practice was implemented by associating concepts from literature, national education policy, with peculiarities of the local community, and the school context. On the same note, one essential component is the instructor's teaching expertise, especially their pedagogical understanding, such as understanding of learning theory, classroom management, and student motivation (Auerbach & Andrews, 2018). Moreover, the professional and personal actions and behaviors of the teacher have a fundamental impact on the quality of pupil life in the classroom as well as on the formation of the pupil's character. The professional decisions teachers make relate to their ethical duties concerning the pupils' development of character, the fostering of good behavior, and actions for future personal and professional life (Olejarova, 2017).

Table 3. Rank of Responses as to Which Professional Development Strands Provided Teachers with

Significant Improvement After Attending a Number of INSETs

Teachers' Professional Development	N	%
Content Knowledge and Pedagogy		
Content knowledge and its application within and across curriculum areas	164	15%
Strategies for promoting literacy and numeracy	147	13%
Strategies for developing critical and creative thinking, as well as other higher-order thinking skills	131	12%
Mother Tongue, Filipino and English in teaching and learning	50	4.6%
Learning Environment		
Learner safety and security	49	4.5%
Fair learning environment	29	2.6%
Diversity of Learners		
Learner's gender, needs, strengths, interests and experiences	64	5.8%
Learners in difficult circumstances	25	2.3%
Learners with disabilities, giftedness and talents	14	1.3%
Learners from indigenous groups	5	0.5%
Curriculum and Planning		
Teaching and learning resources including ICT	90	8.2%
Planning and management of teaching and learning process	50	4.6%
Learning outcomes aligned with learning competencies	42	3.8%
Assessment and Reporting		
Monitoring and evaluation of learner progress and achievement	42	3.8%
Design, selection, organization and utilization of assessment strategies	29	2.6%
Community Linkages and Professional Engagement		
Engagement of parents and the wider school community in the educative process	37	3.4%
Professional ethics	28	2.6%
School Policies and procedures	23	2.1%
Establishment of learning environment that are responsive to community contexts	11	1.0%
Professional Growth and Professional Development		
Professional development goals	29	2.6%
Professional links with colleagues	19	1.7%
Dignity of teaching as a profession	17	1.6%

Table 3 shows that majority of teachers revealed highly significant improvements in their content knowledge and its application within and across curriculum areas, with a total of 164 responses, which garnered the highest percentage of 15%. This was followed by strategies for promoting literacy and numeracy, with 147 responses, or 13%. Then, strategies for developing critical and creative thinking as well as higher-order thinking skills with (131) responses or 12%, all of which fall under the "Content Knowledge

and Pedagogy" domain; while teaching and learning resources including ICT with (90) responses or 8.2%, which fall under the "Curriculum and Planning" domain; and lastly, learners' gender, needs, strengths, interests, and experiences with (64) responses or 5.8%, fall under the "Diversity of Learners" domain.

This revealed that these five professional development strands are highly significant. On the contrary, it was also revealed that teachers had low levels of development or improvements in professional links with colleagues with (19) responses, 1.7%, and professional dignity in teaching with (17) responses, 1.6%, learners with disabilities, gifts, and talents with (14%) responses, 1.3%, establishment of learning environments that are responsive to community contexts (11) responses, 1.0%, and learners from indigenous groups (5), 0.5%.

This shows that the INSET increased the level of teachers' professional development, though not equally in all of the strands outlined in DepEd Memorandum 050, s. DepEd's Professional Development Priorities for Teachers and School Leaders for School Years 2020–2023. This study helped in revealing that the goals, aims, and objectives of the conducted training are enough to cover all the categories in the teacher's professional development in the schools of Candelaria West District, Candelaria, Quezon. It serves its purpose, which is to equip the teachers with additional knowledge and skills so that they can be effective and efficient teachers to the learners.

This result agrees with the study of Alfaidi and Elhassan (2020) that one of the main goals of the in-service teacher training program is to help teachers succeed in their careers while also expanding their professional knowledge and skills. Teachers have the ability to adapt to new situations and enhance their skills in their professional lives. When in-service training programs have a significant positive impact on teacher performance and when teachers meet the needs of their students, the kids' learning outcomes improve. Furthermore, an in-service teacher training program tries to improve a teacher's qualities, which has a positive impact on a teacher's performance.

7. Conclusion

The findings gathered in the study led to the formulation of the conclusion:

The null hypothesis stating that "The in-service training programs attended by the teacher-respondents are not significantly affecting the level of their professional development as to: content knowledge and pedagogy; learning environment; diversity of learners; curriculum and planning; assessment and reporting; community linkages and professional engagement; and professional growth and professional development" is therefore not sustained.

8. Recommendation

On the bases of the findings and conclusion of this study, the following recommendations are hereby suggested:

1. This study suggests that the school head, in cooperation with the learning and development team, may take appropriate actions, such as monitoring and evaluating the INSET programs implemented on a regular basis.
2. Training programs may be put in place in an effort to strengthen the areas that require improvement and maximize their intended effects while requiring the least amount of time and resources.

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