



The Impact of In-Service Training Programs and Professional Development Workshops on the Professional Competence of Primary School Physical Education Teachers: A Field Study in Tissemsilt Province, Algeria



Ahmed Kohli

Ahmed Ben Yahia El-Wancharissi University – Tissemsilt - **Algeria**

Email: ahmed.kohli@univ-tissemsilt.dz

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Abstract

This study aimed to examine the importance of in-service training programs in enhancing the professional competence and performance of primary school physical education teachers. Given the nature of the research problem, a descriptive research design was adopted. The study sample consisted of 55 physical education teachers selected from primary schools across Tissemsilt Province, Algeria.

Data were collected using a structured questionnaire developed following established methodological procedures. The instrument comprised 22 items distributed across two dimensions: (1) the impact of training programs on teachers (10 items), and (2) the impact of training programs on teaching performance (12 items). The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS).

The findings revealed that in-service training programs play a significant role in improving teachers' professional performance, updating their knowledge, and promoting the exchange of professional experiences. Based on these findings, the study recommends giving greater attention to physical education in primary schools and increasing the frequency of in-service training programs by organizing them at the end of each academic term.

Keywords: In-service training programs; Physical education teachers; Primary education; Professional competence; Teaching performance.

Introduction

Education in Algeria constitutes one of the fundamental pillars of social development and national progress. Since the country's independence in 1962, education has occupied a central position in national public policy. The Algerian education system is founded on the principles of free and

compulsory primary education, with the objective of ensuring equal educational opportunities for all citizens. Over the past decades, the sector has undergone a series of reforms aimed at modernizing curricula, improving the quality of teacher education, and expanding the integration of digital technologies into the teaching and learning process.

The Algerian education system is organized into several interconnected stages: primary education, lower secondary education, upper secondary education, higher education, and vocational training. In addition, the government has made sustained efforts to expand access to education in rural and remote areas and to implement literacy programs, recognizing the critical role of education in achieving sustainable development. Despite persistent challenges, including overcrowded classrooms, limited pedagogical resources, and the need for continuous professional development of teachers, Algeria remains committed to improving educational quality as a key driver of a knowledge-based economy and national identity.

Within this educational framework, primary school physical education (PE) teachers play a pivotal role in fostering pupils' physical, motor, and psychosocial development from an early age. Their responsibilities extend beyond teaching fundamental motor skills to promoting values such as cooperation, discipline, fair play, and lifelong engagement in physical activity. PE teachers are also expected to adapt learning activities to pupils' developmental characteristics and individual abilities while ensuring a safe and supportive learning environment. Furthermore, physical education classes provide opportunities for children to discover and develop their athletic potential, thereby contributing to the development of well-rounded individuals with both physical competence and positive social behaviors.

The effectiveness of PE teachers in fulfilling these responsibilities depends largely on their professional competence, including their ability to plan, implement, and evaluate teaching and learning activities. To strengthen these competencies, the Algerian Ministry of National Education, in collaboration with physical education inspectors, regularly organizes in-service training programs and professional development workshops. These initiatives are intended to enhance teachers' professional competence, update their pedagogical knowledge, and facilitate the exchange of professional experiences and best practices. Against this background, the present study seeks to answer the following research question:

Do in-service training programs and professional development workshops contribute to enhancing the professional competence of primary school physical education teachers from the teachers' perspective?

Research Questions

Main Research Question

To what extent do in-service training programs and professional development workshops contribute to enhancing the professional competence of primary school physical education teachers from the teachers' perspective?

Sub-Research Questions

- 1- Do in-service training programs contribute to improving teachers' understanding and implementation of the primary school physical education curriculum?
- 2- Do in-service training programs enhance teachers' instructional competencies, particularly in lesson planning, instructional delivery, and student assessment?

Research Hypotheses

Main Hypothesis

In-service training programs and professional development workshops have a significant positive effect on enhancing the professional competence of primary school physical education teachers, as perceived by the teachers themselves.

Sub-Hypotheses

- 1- In-service training programs significantly improve teachers' understanding and implementation of the primary school physical education curriculum.
- 2- In-service training programs significantly enhance teachers' instructional competencies, including lesson planning, instructional implementation, and student assessment.

Research Objectives

The present study aims to:

- 1- Examine the extent to which in-service training programs improve teachers' understanding and implementation of the primary school physical education curriculum.
- 2- Investigate the role of in-service training programs in enhancing the professional competence of primary school physical education teachers.
- 3- Assess teachers' perceived competence in key instructional skills, including lesson planning, instructional delivery, and assessment.

5. Definition of Terms and Study Variables

5.1. In-Service Training Programs

Conceptual Definition

In-service training programs refer to organized professional development activities in which groups of participants engage in structured discussions and workshops centered on specific educational topics. These programs are conducted under the supervision of a designated facilitator within a defined timeframe and aim to promote professional learning, knowledge sharing, and collaborative discussion among participants (Al-Ghrawi, 1997, p. 54)

Operational Definition

In the present study, in-service training programs are defined as professional meetings and workshops organized by physical education inspectors for primary school teachers to address issues related to teaching and learning processes. These programs may last from one day to several days and conclude with discussions, evaluation of the training objectives, and recommendations for improving professional practice.

5.2. Professional Competence

Conceptual Definition

Professional competence is the individual's ability to perform a specific task, skill, or activity effectively in accordance with established standards, procedures, and contextual requirements. It represents a fundamental principle in teacher education, whereby training is organized around the competencies that teachers are expected to acquire rather than solely around instructional content (Saleh, 1984, p. 25)

Operational Definition

For the purposes of this study, professional competence refers to a teacher's ability to effectively mobilize knowledge, skills, and professional experience to perform teaching tasks with a high degree of proficiency. In the context of physical education, professional competence encompasses three main dimensions: lesson planning, instructional implementation, and student assessment.

5.3. Teacher

Conceptual Definition

A teacher is the leader, organizer, and facilitator of the learning process within the classroom. Beyond transmitting knowledge and developing students' skills, the teacher is responsible for organizing the classroom environment and fostering students' social and educational development (Bastousi, 1997, p. 36)

Operational Definition

In this study, a teacher is defined as the central actor in the teaching and learning process who is responsible for selecting appropriate instructional situations, adapting them to learners' needs and educational contexts, implementing instructional activities, and evaluating learning outcomes. In addition, the teacher serves as a positive role model by demonstrating ethical behavior, respect, empathy, and effective interaction with students.

6. Research Methodology

The term method originates from the Greek language and refers to the systematic process of inquiry, investigation, and the pursuit of knowledge. In scientific research, a research method is understood as a structured approach for organizing ideas and procedures to discover new knowledge or verify existing facts (Boudouda, 2010, p. 12)

Given the nature of the research problem and the objectives of the present study, a descriptive research design was adopted. This approach is considered appropriate for investigating educational phenomena as it enables researchers to collect, describe, analyze, and interpret data related to existing conditions without manipulating the study variables.

7. Study Population

The target population of this study consisted of all primary school physical education teachers working in Tissemsilt Province, Algeria.

8. Study Sample

The study sample comprised 55 primary school physical education teachers from different primary schools across Tissemsilt Province. Participants were recruited using snowball sampling, a non-probability sampling technique. This approach was adopted because data collection took place during the school holiday period, making it difficult to directly access the target participants.

Table 1. Distribution of the Study Sample Across the Municipalities of Tissemsilt Province

Municipality	Tissemsilt	Larjam	Bordj Bounaama	El Ayoune	Khemisti	Boucaïd
Number of participants	15	15	08	05	05	07

9. Pilot Study

Prior to conducting the main study, a pilot study was carried out to evaluate the suitability and clarity of the research instrument and to gain a preliminary understanding of the research context and the phenomenon under investigation.

The questionnaire was administered to 10 primary school physical education teachers selected from different municipalities in Tissemsilt Province. The feedback obtained from the pilot study was used to assess the clarity, relevance, and comprehensibility of the questionnaire items before their administration in the main study.

10. Research Instrument

Data were collected using a researcher-developed questionnaire, which was constructed following established methodological procedures and informed by a review of the relevant literature and previous empirical studies.

Questionnaire on the Role of In-Service Training Programs

The questionnaire was designed to assess the perceived role of in-service training programs in enhancing the professional competence of primary school physical education teachers. It consisted of 22 items distributed across two dimensions:

Dimension 1: The Impact of In-Service Training Programs on Teachers (10 items).

Dimension 2: The Impact of In-Service Training Programs on Teaching Performance (12 items).

11. Psychometric Properties of the Research Instrument

11.1. Reliability

The reliability of the questionnaire was assessed using the test–retest method. The instrument was administered twice to the same group of participants under similar conditions, and the Spearman rank-order correlation coefficient was calculated to determine the stability of the instrument over time.

11.2. Validity

The questionnaire's intrinsic validity was estimated by calculating the square root of the reliability coefficient. The results are presented in Table 2.

Table 2. Reliability and Validity Coefficients of the Research Instrument

	Study Sample	Degrees of Freedom	Significance Level	Validity	Reliability
Questionnaire	10	9	0.05	0.92	0.85

As shown in Table 2, the questionnaire yielded a Spearman reliability coefficient of 0.85, indicating a high level of reliability and temporal stability. The estimated validity coefficient was 0.92, suggesting that the instrument possesses a high degree of validity for measuring the constructs investigated in this study.

11.3. Objectivity

To ensure objectivity during data collection, the researcher administered the questionnaire under standardized conditions, avoiding any form of guidance, suggestion, or influence that might affect participants' responses. In addition, the questionnaire was reviewed by a panel of experts, and the necessary revisions were incorporated based on their recommendations to improve the clarity and appropriateness of the instrument.

12. Presentation and Analysis of the Study Results

12.1. Presentation and Discussion of the Results of the First Hypothesis Training programs play a significant role in understanding and implementing the Physical Education and Sports curriculum at the primary school level.

Table 3: Teachers' Responses to the Items of the First Dimension

Degrees of freedom	Significance level	Critical chi-square value	Calculated chi-square	Percentage	Repetition	Answer	Question
01	0.05	3.84	21.52	%74.45	41	Yes	01
				%25.45	14	No	
				%100	55	Total	
01	0.05	3.84	33.4	%90.90	50	Yes	02
				%9.10	05	No	
				%100	55	Total	
01	0.05	3.84	41.2	%92.72	51	Yes	03
				%7.27	04	No	
				%100	55	Total	
01	0.05	3.84	33.12	%89.09	49	Yes	04
				%10.90	06	No	
				%100	55	Total	
01	0.05	3.84	42.8	%85.45	47	Yes	05
				%14.54	08	No	
				%100	55	Total	
01	0.05	3.84	32.45	%74.54	41	Yes	06
				%25.45	14	No	
				%100	55	Total	
01	0.05	3.84	28.64	%87.27	48	Yes	07
				%12.72	07	No	
				%100	55	Total	
01	0.05	3.84	35.94	%83.63	46	Yes	08
				%16.36	09	No	
				%100	55	Total	
01	0.05	3.84	43.15	%90.90	50	Yes	09
				%9.10	05	No	
				%100	55	Total	
01	0.05	3.84	36.23	%87.27	48	Yes	10
				%12.72	07	No	
				%100	55	Total	

Analysis:

The table shows that the calculated chi-square value for all statements of the axis was greater than the tabulated chi-square value at a degree of freedom of 01 and a significance level of 0.05. Therefore, there is a statistically significant difference between the frequencies of teachers' responses to the statements of the axis. The responses were as follows:

Question 1: The number of teachers who answered "Yes" reached 41 teachers, representing 74.45%, while the number of teachers who answered "No" reached 14 teachers, representing 25.45%.

Question 2: The number of teachers who answered "Yes" reached 50 teachers, representing 90.90%, while the number of teachers who answered "No" reached 05 teachers, representing 9.10%.

Question 3: The number of teachers who answered "Yes" reached 51 teachers, representing 92.72%, while the number of teachers who answered "No" reached 04 teachers, representing 7.27%.

Question 4: The number of teachers who answered "Yes" reached 49 teachers, representing 89.09%, while the number of teachers who answered "No" reached 06 teachers, representing 10.90%.

Question 5: The number of teachers who answered "Yes" reached 47 teachers, representing 85.45%, while the number of teachers who answered "No" reached 08 teachers, representing 14.54%.

Question 6: The number of teachers who answered "Yes" reached 41 teachers, representing 74.54%, while the number of teachers who answered "No" reached 14 teachers, representing 25.45%.

Question 7: The number of teachers who answered "Yes" reached 48 teachers, representing 87.27%, while the number of teachers who answered "No" reached 07 teachers, representing 12.72%.

Question 8: The number of teachers who answered "Yes" reached 46 teachers, representing 83.63%, while the number of teachers who answered "No" reached 09 teachers, representing 16.36%.

Question 9: The number of teachers who answered "Yes" reached 50 teachers, representing 90.90%, while the number of teachers who answered "No" reached 05 teachers, representing 9.10%.

Question 10: The number of teachers who answered "Yes" reached 48 teachers, representing 87.27%, while the number of teachers who answered "No" reached 07 teachers, representing 12.72%.

Based on the frequency of responses and the percentages, it is evident that the majority of teachers' responses regarding the statements of the first axis were positive. This indicates that training courses play an effective role in understanding and implementing the physical and sports education curriculum at the primary school level.

Discussion of the Hypothesis:

Based on the results obtained in this study, it is evident that training courses play an important role in the educational process. This is reflected through their contributions to renewing various theoretical and practical knowledge, as well as enriching teachers' prior acquired skills. This is particularly important given the recent introduction of physical and sports education teachers at the primary school level, which has required those responsible for this field to organize intensive training courses, especially considering the specific characteristics of this age group and the lack of experienced specialized teachers at this level.

These factors have created a positive perception among teachers regarding training courses, due to their benefits, which include improving their understanding of the curriculum and how to implement it in the field. They also help teachers keep pace with new professional and pedagogical developments, in addition to becoming familiar with their rights and duties within the educational field, especially since all primary school teachers in this stage are newly recruited.

Ali Rached states: "The teacher in the field of education needs continuous development and renewal in order to achieve educational and learning objectives." (Rached., 2002, p. 82)

Training is also imposed by modern educational developments and required by rapid technological progress. Well-trained human resources are considered among the most essential pillars for achieving development and progress, as these are the natural outcomes of effective teaching and learning processes. Accordingly, many countries encourage teachers' continuous professional development by offering financial and moral incentives to those who participate in training programs or pursue university studies while in service. This reflects the belief that investing in teachers' professional training has a positive impact on the quality of the entire educational system. (Al-Khouli, 2015, p. 11)

12-2- Presentation and Discussion of the Results of the Second Hypothesis

Training courses contribute to improving teaching skills related to planning, implementation, and evaluation among teachers.

Table No. (05): Shows teachers' responses to the questions of the second axis.

Degrees of freedom	Significance level	Critical chi-square value	Calculated chi-square	Percentage	Repetition	Answer	Question
				%78.18	43	Yes	

01	0.05	3.84	25.15	%21.81	12	No	01
				%100	55	Total	
01	0.05	3.84	31.19	%92.72	51	Yes	02
				%7.27	04	No	
				%100	55	Total	
01	0.05	3.84	26.05	%83.63	46	Yes	03
				%16.36	09	No	
				%100	55	Total	
01	0.05	3.84	30.8	%96.36	53	Yes	04
				%3.63	02	No	
				%100	55	Total	
01	0.05	3.84	31.25	%89.09	49	Yes	05
				%10.90	06	No	
				%100	55	Total	
01	0.05	3.84	20.63	%81.81	45	Yes	06
				%18.18	10	No	
				%100	55	Total	
01	0.05	3.84	23.46	%94.54	52	Yes	07
				%5.45	03	No	
				%100	55	Total	
01	0.05	3.84	33.06	%87.27	48	Yes	08
				%12.72	07	No	
				%100	55	Total	
01	0.05	3.84	24.32	%81.81	45	Yes	09
				%18.18	10	No	
				%100	55	Total	
01	0.05	3.84	26.54	%89.09	49	Yes	10
				%10.90	06	No	
				%100	55	Total	
01	0.05	3.84	30.59	%78.18	43	Yes	11
				%21.81	12	No	
				%100	55	Total	
01	0.05	3.84	21.63	%87.27	48	Yes	12
				%12.72	07	No	
				%100	55	Total	

Analysis:

The table shows that the Calculated chi-square value for all statements of the axis was greater than the tabulated chi-square value value at a degree of freedom of 01 and a significance level of 0.05. Therefore, there is a statistically significant difference between the frequencies of teachers' responses to the statements of the axis. The responses were as follows:

- **Question 1:** The number of teachers who answered "Yes" reached 43 teachers, representing 78.18%, while the number of teachers who answered "No" reached 12 teachers, representing 21.18%.
- **Question 2:** The number of teachers who answered "Yes" reached 51 teachers, representing 92.72%, while the number of teachers who answered "No" reached 04 teachers, representing 7.27%.
- **Question 3:** The number of teachers who answered "Yes" reached 46 teachers, representing 83.63%, while the number of teachers who answered "No" reached 09 teachers, representing 16.36%.
- **Question 4:** The number of teachers who answered "Yes" reached 53 teachers, representing 96.36%, while the number of teachers who answered "No" reached 02 teachers, representing 3.63%.
- **Question 5:** The number of teachers who answered "Yes" reached 49 teachers, representing 89.09%, while the number of teachers who answered "No" reached 06 teachers, representing 10.90%.
- **Question 6:** The number of teachers who answered "Yes" reached 45 teachers, representing 81.81%, while the number of teachers who answered "No" reached 10 teachers, representing 18.18%.
- **Question 7:** The number of teachers who answered "Yes" reached 52 teachers, representing 94.54%, while the number of teachers who answered "No" reached 03 teachers, representing 5.45%.
- **Question 8:** The number of teachers who answered "Yes" reached 48 teachers, representing 87.27%, while the number of teachers who answered "No" reached 07 teachers, representing 12.72%.
- **Question 9:** The number of teachers who answered "Yes" reached 45 teachers, representing 81.81%, while the number of teachers who answered "No" reached 10 teachers, representing 18.18%.
- **Question 10:** The number of teachers who answered "Yes" reached 49 teachers, representing 89.09%, while the number of teachers who answered "No" reached 06 teachers, representing 10.90%.
- **Question 11:** The number of teachers who answered "Yes" reached 43 teachers, representing 78.18%, while the number of teachers who answered "No" reached 12 teachers, representing 21.18%.

- **Question 12:** The number of teachers who answered "Yes" reached 48 teachers, representing 87.27%, while the number of teachers who answered "No" reached 07 teachers, representing 12.72%.

Based on the frequency of responses and the percentages, it can be concluded that the majority of teachers' responses regarding the statements of the second axis were positive. This indicates that training courses have an effective role in improving teaching skills related to planning, implementation, and evaluation among physical and sports education teachers at the primary school level.

Discussion of the Hypothesis:

Based on the results obtained in this study, it is evident that training courses have great importance and an effective role in improving the three teaching competencies: planning, implementation, and evaluation. This is achieved through the recommendations provided by inspectors, as well as the opinions and experiences shared by fellow teachers.

Since the process of lesson planning, selecting appropriate educational situations, and choosing suitable teaching aids requires the planner to have a good understanding of the activity and the objectives to be achieved, training courses enable teachers to acquire skills related to the use of these aids and how to work according to the available facilities. They also allow teachers to identify pupils' needs and learn how to deal with them, in addition to understanding the characteristics and age-related features of this category.

Mustapha Abdel Samie states: "Training connects the teacher with his environment and local community, as well as with the global community, and trains him in planning skills to strengthen the relationship between pupils and their local environment, along with the skills of implementing and evaluating this planning." (Hawala., 2005, p. 173)

Furthermore, providing teachers with basic teaching skills should be the main objective of teacher preparation and training programs. Achieving this objective effectively contributes to enabling teachers to perform their roles with a high degree of accuracy and responsibility, while enhancing interaction between them and their pupils. (Magdy, 1997, p. 3)

13- Discussion of the General Hypothesis:

Based on the results obtained from the study, and after analyzing and discussing the results of the partial hypotheses, it is evident that training courses have an effective role in improving the competence of physical education teachers at the primary school level.

Training courses are considered among the fundamental means that contribute to enhancing the competence of physical and sports education teachers, particularly in primary education, where the teacher plays a central role in developing children's motor and psychological abilities. These courses enable teachers to acquire new knowledge related to modern teaching methods, dealing with individual differences among pupils, and keeping up with scientific developments in the fields of motor and health development.

They also enhance professional competencies through practical training, while developing communication and pedagogical skills. In this regard, Adas Abdel Rahman states: "Continuous education for the teacher is an integral part of the preparation process, and this preparation should continue throughout the teaching career, with the aim of acquiring new knowledge, gaining necessary practices and new experiences, keeping pace with growth and development in this field, staying connected with its new developments, and compensating for what may have been missed during initial preparation." (Abdel Rahman, 1996, p. 48)

Furthermore, these training programs contribute to correcting inappropriate practices and improving performance inside and outside the classroom. They also motivate teachers to innovate and adopt new approaches in delivering lessons, which positively affects pupils' learning outcomes.

Since the primary school stage is considered the foundation for building the child's personality, having a qualified and well-trained teacher ensures effective and balanced physical education. Therefore, investing in continuous training represents a direct investment in improving the quality of education and advancing the educational system as a whole.

Conclusion:

Training courses represent a fundamental tool for strengthening competencies and developing human capacities in accordance with the requirements of the modern era and the constantly evolving labor market. They are not merely complementary educational activities; rather, they constitute a strategic investment in human capital, with positive effects reflected at the level of the individual, the institution, and society as a whole.

From this perspective, it is necessary to give continuous training the attention it deserves and to adopt it as a systematic approach for achieving sustainable development and improving performance across various sectors.

These courses represent a vital element in preparing individuals capable of interacting with contemporary challenges and making effective contributions to their communities. Within the educational system, training courses contribute to achieving sustainable development goals by improving the quality of education and preparing qualified educational professionals capable of meeting the demands of the modern era.

Therefore, investment in continuous training and professional development is an integral part of any reform vision for the educational sector. This requires the systematic integration of these courses into educational policies targeting all categories of educational staff.

Suggestions and Recommendations:

- The necessity of programming field internships for students of Physical Education and Sports Institutes in primary schools.
- Organizing study days and scientific seminars at the university level on teaching physical and sports education in primary schools, in coordination with subject inspectors.
- Emphasizing the importance of teachers in service attending training courses and participating in scientific research related to the field.
- Intensifying training courses and organizing them periodically at the end of each academic term.
- Conducting field visits by inspectors to identify deficiencies and available resources.
- Allocating specific financial resources for physical and sports education at the primary school level.

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