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The role of professional learning communities in promoting a sustainable professional development for teachers

دور مجتمعات التعلم المهنيةPLC في تعزيز التنمية المهنية المستدامة للمعلمين

Le rôle des communautés d'apprentissage professionnel dans la promotion du développement professionnel durable des enseignants

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ملخص:

يتناول هذا المقال مجتمعات التعلم المهنية كاستراتيجية للتنمية المهنية المستدامة للمعلمين. حيث سنتطرّق في البداية إلى مفهوم مجتمعات التعلم المهنية ثم سنبيّن أهمية هذه الاستراتيجية في تطوير كفاءة المعلمين ومهاراتهم لتحقيق أداء تربوي فعال. لنعرّج بعد ذلك إلى أسس بناء وتنظيم مجتمعات التعلم المهنية استنادا إلى الدراسات السابقة والأدبيات ذات العلاقة. ثم سنشير بعد ذلك إلى مفهوم التنمية المستدامة للمعلمين وتبيين أهميتها من خلال ذكر أهم العوامل الداعية لتنمية المعلمين مهنيا وتطوير مهاراتهم، لنوصي في النهاية بتطبيق فعّال لمجتمعات التعلم المهنية في البيئات التعليمية.

الكلمات المفتاحية: مجتمعات التعلم المهنية؛ التنمية المهنية المستدامة؛ التكوين المستمر؛ جودة التعليم.

Abstract :

This article addresses professional learning communities as a strategy for a sustainable professional development for teachers. At the outset, the study will address the concept of professional learning communities by indicating the importance of this strategy in developing teachers' competence and skills to achieve effective educational performance. Furthermore, we will explore the foundations of building and organizing professional learning communities based on literature. The study will then denote the concept of sustainable teacher development and demonstrate its relevance by mentioning the most important factors for teachers' professional development and skills development, to recommend, ultimately, the effective application of professional learning communities in educational environments.

Keywords : Professional learning communities; Sustainable professional development; Continuous training; Quality of Education

Résumé :

Cet article s'adresse aux communautés d'apprentissage professionnel en tant que stratégie pour le développement professionnel durable des enseignants. Nous aborderons d'abord le concept de communautés d'apprentissage professionnel, puis indiquerons l'importance de cette stratégie pour

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développer les compétences et les aptitudes des enseignants afin d'obtenir un rendement éducatif efficace. Nous examinons ensuite les fondements de la création et de l'organisation de communautés d'apprentissage professionnel en fonction des études antérieures et de la littérature connexe. Nous allons ensuite nous référer au concept de développement durable des enseignants et démontrer sa pertinence en mentionnant les facteurs les plus importants pour le développement professionnel et le développement des compétences des enseignants, afin de recommander, en définitive, l'application efficace des communautés d'apprentissage professionnel dans les environnements éducatifs.

Mots clés : Communautés d'apprentissage professionnel; Développement professionnel durable; Formation continue; Qualité de l'éducation

Introduction:

Educational systems face increasing challenges to enhance their productivity and performance to contribute to economic and social development, especially in developing countries experiencing rapid and multifaceted transformations in various fields. These educational systems had to raise the quality of education and achieve the desired outputs in areas related to the educational process, such as curricula and teaching methods, infrastructure, academic management, teacher preparation, and rehabilitation before and during service.

Teachers play a pivotal role in ensuring quality education, as their competencies, commitment, and pedagogical skills greatly influence educational outcomes. Das & Singh (2023) emphasize that teachers' competence and dedication are crucial for enhancing educational effectiveness, positioning them as central to quality improvement According to Fatima (2023), teachers significantly affect the quality of education by increasing the participation of students in various technological means, promoting inclusive education, and ensuring learning for all, which is essential for sustainable development and national prosperity. As observed by Harris & Sass (2007), continuous teacher training offers significant opportunities for skill development and improves their teaching methods, leading to an improvement in the overall quality of education.

On the basis of the accelerated renewal of educational sciences, the the initial preparation of teachers in the Algerian context has become quantitatively and qualitatively insufficient to keep pace with this continuous scientific development. According to reports of the National Economic and Social Council (CNES), one of the reasons for the inadequacy of the first reforms of Algeria's educational system is the insufficient framing and lack of teacher training (Boukerdim, 2017, p. 90).

In the context of the comparison between the initial preparation program of mathematics teachers between Algeria and Canada (Quebec), both (Chenti & Talbi, 2021) found that the initial preparation system of mathematics teachers at the Higher School of Teachers in Kouba neglected attention to professional, educational and didactic aspects (17% of the size of the training program), focusing on the specialized aspect (80% of the training program). This imbalance negatively affects the quality of mathematics education in the Algerian school.

As for in-service training for teachers, Mnasria (2019) concluded that basic teaching skills are present to primary teachers in the city of Biskara, that in-service training programs still need to be fed and reviewed in order to achieve their desired objectives.

Therefore, educational systems were compelled to address this structural challenge. Programs for the continuous professional development of teachers, also called in-service training programs, have been developed. Despite the importance of these programs in renewing the knowledge of teachers to qualify them to perform the tasks entrusted to them efficiently, some studies have indicated the lack of effectiveness of strategies followed in in-service training in the Algerian context. Therefore, we ask the following question: What is the importance and role of professional learning

communities as a strategy in achieving the framework of sustainable professional development for teachers?

1- Definition of Professional Learning Communities:

Professional learning communities are an effective tool for improving teachers' skills and professional development. These communities aim to foster continuous learning and collaboration between teachers and educational institutions. Below we will present some definitions of professional learning communities, to form a concept about this strategy.

In the scholarly discourse surrounding professional learning communities (PLCs), several seminal definitions have emerged. (DuFour, 2004) postulates that "professional learning communities based on the philosophy that professional performance can be improved when professionals work together to solve problems and achieve common goals."

In earlier literature, Hord (1997) articulates that "Professional learning communities are defined as groups of professionals who meet regularly to share ideas and practices and promote continuous learning to improve the quality of performance and work." Subsequently, Eaker (2002) proposes that "Professional learning communities are a framework aimed at achieving continuous professional development through interpersonal collaboration to promote learning and professional development."

Synthesizing these theoretical perspectives, one can deduce that professional learning communities constitute collaborative assemblages within professional contexts, characterized by cooperative partnerships oriented toward the continuous enhancement of performance in service of institutional objectives.

2- Importance of professional learning communities:

An examination of high-performance educational systems reveals that professional learning communities have become foundational programs for effective teacher professional development. Professional learning communities are not just superficial behaviors such as preparing periodic education plans or exchanging teaching aids, but rather help professional learning communities, if well prepared, establish a culture change that seeks to create expectations for improvement and development within schools and among teachers. This includes expanding the concept of being a teacher (which means nailed and effective professional development) and developing teachers' performance by working under the supervision of other framers and teachers.

Some studies and research have also demonstrated, as Talbert (2010) points out, that an organization's ability to improve and support it depends largely on its ability to build and support professional communities of learning (Suleiman & Ashqar, 2020, p. 03).

Al-Barami & Abdul Rashid (2020) confirm that Learning Communities PLCs are one of the most promising methods for improving education systems, a pillar in professional development programs and developing teachers' performance, and a means of improving the performance of education, learning, and school culture.

After conducting a study of 32 secondary schools in three major cities in China to identify the importance of professional learning communities and their impact on empowering teachers to reform education, Song (2012) concluded that the application of professional learning communities power schools to improve, and makes teachers more receptive to educational reforms (Mohammed, 2019).

Professional learning communities, according to Al-Barami & Abdul Rashid (2020) represent one of the methods of teachers' mini-development, which has developed since the 1990s in the educational literature rapidly and has emerged as a promising idea to improve and reform circular systems, considering the school as the community and the main unit for making effective transformations to improve the performance of generalizers and the outputs of student generalization.

Mohammed (2019) notes that professional learning communities contribute to teachers' continuous professional development by:

- Provide training and continuing education opportunities for teachers.
- Focus on continuous individual, collective, and organizational improvement.

- Providing various opportunities to improve the performance of teachers to the maximum extent possible, by enhancing their professional practices, enabling them to test their ideas about teaching, and expanding their educational experiences.

- Constantly renewing the skills and knowledge of teachers and enabling them to keep pace with modern educational developments (Mohammed, 2019, p. 75).

:Foundations of Building and Organizing Professional Learning Communities -3

In conceptualizing professional learning communities (PLCs) or communities of practice, Wenger, McDermott & Snyder (2002) delineate three fundamental elements: "1. areas of common interest, such as science teaching or inquiry; 2. Social dimension, where members engage in activities, discussions, information sharing, and helping some of them; 3. practice, and includes expertise, tools, and experiences that demonstrate their professional practice" (Al-Zayed & Haj Omar, 2016, p. 351).

Jane and Kristine (2000), as cited by Al-Barami and Abdul Rashid (2020), highlight three interconnected components critical for PLC development: '1. Awareness of the tasks and actions needed for school progress; 2. Trust among team members; 3. Leadership that facilitates task execution, supports adaptation, and encourages reflection."

Al-Nabawi (2007) posits that PLCs concentrate on three primary elements: interprofessional cooperation and dialogue within educational institutions or supervisory frameworks, synchronized attention to pedagogical practices, and the utilization of evaluative data to monitor longitudinal progress. These communities exhibit adaptability and resilience in fostering continuous improvement (Al-Barami & Abdul Rashid, 2020).

Hassan (2016), as referenced in (Mohammed, 2019), articulates nine foundational principles governing school-based PLCs: "1. Trust and safety: In order for members of professional learning communities to interact positively with each other, they must have a sense of safety and confidence, especially when participants reveal weaknesses in their teaching or carrying out the work and tasks assigned to them. 2. Frankness: This is to provide an atmosphere of freedom for members of learning communities to share their ideas and experiences, express them, and share them with others without fear of sanctions or penalties, etc. 3. Respect: For members to integrate into learning communities, they must feel valued and respected by officials and all members of the community. 4. Collaboration: The success of learning communities in schools depends on the extent to which members can collaborate, work together, and interact with each other to exchange different knowledge, information, and experiences. 5-Empowerment: A sense of empowerment is a critical element and motivating result for members of the school community to participate effectively in professional learning communities, and generate a new sense of confidence in their abilities. 6- Initiative: The success of learning societies requires members to initiate and take the initiative in performing the tasks and work assigned to them, and to search for new ideas and try them. 7- Collective responsibility: Members of the learning community have a collective responsibility to improve their academic performance, improve educational outcomes, and improve students' continuing education processes. 8- Reflective professional inquiry: This principle is the beating heart of the learning community, and this includes reflective dialogues between teachers on important educational topics, and participation in the transfer of knowledge and its application in the classroom. 9. Continuous learning: Professional learning communities offer many opportunities for continuous learning for students, teachers, and administrators, and managers develop a culture that encourages and supports continuous learning."

Jensen , Sonnemann, Roberts-Hull, & Hunter (2016) observe that despite PLCs' significance, there exists no universally accepted organizational model. They reference exemplars from high-performing educational systems, specifically Singapore, British Columbia, and Shanghai, acknowledging the contextual specificity of their respective educational frameworks.

Table -1-: **Professional Learning Communities in Some High-Performance Educational Systems**

Phase	Learning Communities British Columbia	Research and Lesson Groups in Shanghai	Singapore Professional Learning Teams
Phase 01	Survey (evidence of .1 learners' achievement) Focus (prioritization) .2	Ask a research question .1 based on learners' achievement	.Collect and analyze data .1 Discussion with a focus .2 on the circle of improvement
Phase 02	Develop intuition .3 Learn a new strategy .4	Review of research .2 evidence Develop Priority Teaching .3 Strategies	Suggest new approaches .3
Phase 03	Implementation of the .5 new strategy Impact Verification .6	Test strategies in the .4 section, note and discuss .other lessons Analyze evidence, .5 identify improvement, and disseminate findings	Implement new .4 approaches and measure the impact Review, Reflect, and .5 Identify Effective Strategies

(Jensen , Sonnemann, Roberts-Hull, & Hunter, 2016) :Source

:Professional development of teachers -4

Professional development of teachers is an ongoing process systematically planned and practically implementable to improve the performance of the teacher by providing him with the necessary skills, providing information, and developing positive trends to improve the level of learning and education in response to the changes and needs of society (Jordan Ministry of Education, n.d).

Hassel (1999) defines professional development as the process of developing the skills and competencies required for those working in the educational field to achieve high academic outcomes for learners (Al-Hurr, 2010, p. 03).

Day (1999) asserts that for the teacher to achieve the basic goals advocated by education, including raising the level of learning and achievement of students, it is necessary to improve the quality of the teacher who bears this responsibility within the classroom. Numerous education systems have implemented targeted measures to take measures to improve the quality of the teacher, and among the most important of these measures is the provision of in-service training opportunities to ensure that the teacher continues to follow the latest developments in the field of teaching and evaluation, classroom management and even other leadership roles of the teacher (Al-Hurr, 2010).

:The importance of sustainable professional development for teachers

Karim et al.(2003) assert that teacher development in contemporary, dynamic societies transcends initial qualification from educational institutions. Rather, they posit that professional development must constitute a continuous, evolving process concurrent with practice. This developmental imperative is driven by modern exigencies requiring analytical thinking, efficient execution, and cost-effective implementation. The authors delineate several critical factors necessitating continuous professional development:

Regarding pedagogical paradigm shifts, Muhammad (1999), cited in Ben Ammar (2009), explains that new educational trends, driven by ongoing research, significantly impact teaching

practices. These advancements require continuous professional development to prepare teachers for evolving instructional roles.

Concerning scientific advancement, Muhammad (1999), referenced in (Ben Ammar, 2009), emphasizes the perpetual evolution of scientific knowledge, arguing that teacher expertise cannot remain static at pre-service levels. The expanding knowledge base, coupled with students' increased access to information, necessitates continuous professional development to maintain pedagogical credibility.

Jackson(2021) problematizes the adequacy of initial teacher preparation, noting the fundamental disparity between university instruction and practical teaching demands. The author acknowledges that while theoretical foundations are valuable, significant professional competency develops through authentic field experience.

(Sayed & Tabbaa, 2019) identify a significant disconnect between pre-service teacher preparation and the requisite skills for contemporary knowledge-based instruction, suggesting current teacher preparation programs inadequately address modern pedagogical demands.

Regarding educational reform implementation, Hassel (1999), as cited in (Al-Hurr, 2010), observes that despite numerous reform initiatives, traditional teaching practices persist, attributing this to insufficient professional development opportunities or inadequate programs for transforming pedagogical practices.

The National Center for Education Statistics (1998) presents empirical evidence indicating that only 56% of educators employ contemporary teaching methodologies, while 44% maintain traditional approaches.

In the Algerian context, research indicates significant challenges in competency-based instruction implementation. (Boukerma, 2006) research reveals that science educators across educational levels struggle with competency control. Al-Atwi's (2010) findings corroborate these challenges, identifying multiple obstacles including material, formative, conceptual, and theory-practice integration difficulties.

Muhammad (1999), as referenced in (Ben Ammar, 2009), identifies additional factors necessitating continuous teacher professional development, including evolving instructional and assessment methodologies, technological integration, and emerging pedagogical roles.

In addition to the foregoing, continuous professional development of teachers is considered to have a significant impact on educational achievement, as the study carried out by each... After an initial survey of 1,300 studies, nine studies determine the impact of teachers' professional development on academic achievement in mathematics, science, reading, English and linguistic arts. The results of these studies indicate that the average control groups of learners will increase by 21 points if their teacher has received substantial professional development.

Conclusion

Teacher professional development constitutes a critical determinant of pedagogical excellence and adaptability to societal transformations, encompassing various conceptualizations including continuous training and in-service development.

Empirical research indicates significant inadequacies in Algerian teacher training strategies. (Boussaaa, 2011) identifies systemic deficiencies, including insufficient professional development awareness among educators and the implementation of standardized, low-variability training seminars that generate practitioner disengagement. Al-Habib's (2011) research highlights several impediments to competency-based instruction, specifically: temporal constraints on training initiatives, inadequate preparatory support for pedagogical innovation implementation, and limited intrinsic motivation for professional development. Furthermore, (Qayli, 2015) findings reveal that 30% of educators maintain negative dispositions toward in-service training.

Conversely, substantial evidence supports the efficacy of professional learning communities (PLCs) in teacher professional development. Blitz's (2013) meta-analysis of eleven studies, as

referenced in (Al-Zayed & Haj Omar, 2016), demonstrates that PLC participation correlates with enhanced student-centered pedagogical practices and improved longitudinal academic outcomes. The research identifies critical success factors including enhanced interaction, structured collaboration, experiential diversity, and reflective practice integration.

Mohammed (2019) posits that PLCs facilitate continuous professional development through collaborative mechanisms including teamwork, ideational exchange, constructive dialogue, and innovative problem-solving approaches. This professional enhancement subsequently influences student achievement positively, establishing a direct correlation between teacher development, pedagogical innovation, and student academic performance.

The evidence suggests that PLCs, as exemplified in leading educational systems globally, represent a potentially effective strategy for sustainable teacher professional development in developing nations' educational systems, potentially catalyzing systemic quality enhancement.

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