



Developing A Learning Community Model To Enhance Teachers' Professional Capacity

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ABSTRACT

The community of practice model is applied as a method for teachers to share experiences, challenges, and solutions in teaching, thereby collectively developing their professional skills. This paper investigates and proposes a community of learning model within schools to enhance the professional competence of primary school teachers. By analyzing the current educational context and the challenges that primary school teachers are facing, the study focuses on designing and implementing a learning model based on knowledge and experience sharing among teachers, as well as support from information technology. The results of the analysis assessing 495 teachers' trust in the community of practice model have demonstrated its numerous advantages and high feasibility for enhancing the professional competence of teachers.

Keywords: community of practice model; teachers; competence; professional development

1. INTRODUCTION

In the ever-evolving landscape of education, enhancing the professional competence of primary school teachers has become exceedingly crucial. Professional competence encompasses not only a deep understanding of subject matter but also teaching skills, behavior management, and interaction with students. Primary school teachers play a pivotal role in shaping and nurturing early character traits and foundational knowledge in students, significantly contributing to shaping the future of each child. Therefore, investing in the professional development of teachers is an indispensable requirement in every education policy to ensure the quality of education and meet the increasing demands of society.

In recent years, the development of community of practice models within schools has garnered special attention as a potential solution to enhance the professional competence of teachers. However, implementing this model faces numerous challenges such as resource constraints, access to modern training methods, and differences in the needs for enhancing competence among teachers. Moreover, opportunities arise as information technology and communication continue to advance, providing favorable conditions for flexible learning and knowledge sharing.

The aim of this study is to develop a community of practice model within schools for primary school teachers with the purpose of enhancing their professional competence through facilitating knowledge sharing, experiences, and mutual support within the teacher community. This model will be designed to address current challenges and leverage available opportunities, especially the support of information technology, to create a professional, effective, and friendly learning environment, thus contributing to improving the quality of education in primary schools

2. LITERATURE REVIEW

Teacher's professional competence is understood as a combination of specialized knowledge, skills, attitudes, and values that teachers need to effectively carry out their teaching duties. It includes lesson planning, teaching methods, assessment and feedback, classroom management, as well as interpersonal skills and interactions with students. In the context of modern education, the demands on teachers' professional competence are increasing, requiring them not only to impart knowledge but also to inspire, develop critical thinking, and foster creativity in students.

Enhancing teachers' professional competence not only improves the quality of education but also contributes to creating a positive learning environment where students are encouraged to explore, inquire, and develop comprehensively. Therefore, investing in and developing teachers' professional competence is essential through professional development activities, deep learning, and experience sharing among educators.

Community of practice model and its application in teacher professional development The community of practice model is defined as an educational approach based on collaboration and knowledge sharing among community members. This model encourages active participation and contribution from teachers through sharing experiences, teaching methods, educational resources, and mutual support in professional development. In the community of practice model, teachers are not only knowledge transmitters but also learners, providing them with opportunities to reflect on and improve their teaching methods.

On the other hand, this model promotes voluntary and active cooperation, interaction, and knowledge sharing among members through activities such as workshops, group meetings, collaborative projects, or the use of information technology and communication to facilitate flexible and effective learning and knowledge exchange. Consequently, teachers not only enhance their professional competence but also develop creativity, problem-solving skills, and teamwork abilities, gradually meeting the increasing demands of modern education. The application of the community of practice model in teacher professional development brings numerous benefits. It creates a multidimensional learning environment where teachers can gradually improve their professional competence through learning and sharing with each other. This model also helps teachers develop critical reflection and self-assessment skills, thereby identifying strengths and areas for improvement in their teaching methods. Consequently, the community of practice model not only enhances the professional competence of teachers but also strengthens their bond and mutual support, creating a strong, flexible, and ready-to-face-challenges teacher community in modern education.

Etienne Wenger (2002) is one of the pioneers in the study of Communities of Practice (CoP). He explored how groups of teachers establish and maintain a learning community to share knowledge and teaching experiences. Wenger describes CoPs as groups of people with a shared area of interest who learn together to improve their skills and knowledge. In education, CoPs help teachers exchange innovative teaching methods, solve specific classroom problems, and support professional development. Wenger's research emphasizes the importance of learning within a community, where sharing and interaction among members create a rich and diverse learning environment.

Jean Lave (2002) developed the concept of "learning through practice" within communities of practice. Lave focuses on how individuals learn from others while engaging in specific activities and practices. In the community of practice model, new teachers and veteran teachers can learn from each other through collaboration, sharing, and discussing real-world educational issues. Lave's research on learning through practice has shed light on how teachers can develop professional competence through social interaction and learning from each other's experiences within a learning community.

Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006) explored how Professional Learning Communities (PLCs) support teachers in professional development through interaction and knowledge sharing. This study demonstrates that PLCs not only help improve teaching skills but also enhance teachers' confidence and job satisfaction, thereby improving students' learning outcomes.

Vescio, V., Ross, D., & Adams, A. (2008) synthesized studies on the impact of PLCs on teaching practices and student learning. They found that participation in PLCs significantly contributes to teachers' professional development, leading to the adoption of positive and innovative teaching methods. This not only enhances teachers' teaching skills but also positively affects students, including improving academic achievement and attitudes towards learning.

Darling-Hammond, L., & Richardson, N. (2009) analyzed important factors influencing teachers' learning processes and how Professional Learning Communities (PLCs) can support this process. They emphasize the provision of time, space, and necessary resources for teachers to engage in deep learning activities as crucial. Darling-Hammond and Richardson pointed out that, within PLCs, teachers have the opportunity to engage in learning activities such as sharing experiences, discussing teaching practices, reflecting, and collectively evaluating teaching methods. This study also addresses the importance of building a learning culture within schools, where teachers feel supported to experiment and apply new and effective teaching methods.

The article emphasizes that the continuous learning and professional development of teachers rely not only on training courses or workshops but also through collaboration and working together in a shared learning environment. This includes creating opportunities for teachers to practice and improve their teaching skills in a collaborative setting, as well as enhancing confidence and professional competence through reflection and evaluation.

One of the key points raised by Darling-Hammond and Richardson is the necessity of investing in teacher professional development through PLCs. They argue that investing in education and teacher professional development not only enhances teaching effectiveness but also positively impacts students' learning outcomes. By promoting collaboration among teachers and providing opportunities for them to engage in professional learning processes, schools can create a more positive and higher-quality educational environment.

3. RESEARCH METHODOLOGY

- a. Research Design This study employs a qualitative approach by analyzing data from interviews, observations, and Focus Group Discussions (FGDs) with elementary school teachers participating in the community of practice model, using Likert scales to assess the reliability of the CoP model.
- b. Research Participants The research participants consist of 495 elementary school teachers who are involved in community of practice learning groups at selected elementary schools. Sample selection criteria are based on factors such as geographic location, teaching experience, and diversity in teaching methods.
- c. Data Collection In-depth interviews: Conducted with teachers to gather detailed information about their experiences, perceptions, and personal opinions regarding the community of practice model. Observations: Detailed notes are taken on group meetings, discussion activities, and interactions among community members. Focus Group Discussions (FGDs): Organized to collect diverse perspectives from teachers on the effectiveness and challenges of the CoP model.
- d. Data Analysis: The collected data are systematically analyzed through content analysis and processing of quantitative data using SPSS.

4. RESEARCH RESULTS AND DISCUSSION

4.1. Construction of question system and survey results on CoP model

A. General information

Question 1: How many years of teaching experience do you have?

- Less than 5 years / from 5 to 10 years / from 15 to 20 years /Over 20 years

Question 2: What level of education do you teach?

- Primary school/ Secondary school / High school

Question 3: Have you ever participated in any Community of Practice (CoP) model? • Yes / No

Question 4: How did you learn about the Community of Practice model?

Word of mouth/ Social media platforms/ Website/ Advertisement

B. About the Community of Practice model

Likert 5: Completely wrong/Incorrect/Neutral/Correct/Completely correct

Questions 1: Are you willing to participate in a Community of Practice model?

Questions 2: Do you believe that the Community of Practice model can enhance teachers' professional competence?

Questions 3: The Community of Practice model emphasizes interaction and collaboration among community members.

Questions 4: The Community of Practice model focuses on building common knowledge through sharing information, opinions, and experiences among members.

Questions 5: The Community of Practice model promotes diversity and respect for differences among individuals within the community.

Questions 6: The Community of Practice model requires continuous feedback and evaluation from the community.

Questions 7: The Community of Practice model is concerned with the application of knowledge and skills in real-life situations.

Questions 8: School support plays an important role in participating in and developing Community of Practice models.

Questions 9: Do you evaluate the current resources (time, finances, support from the school) as sufficient to participate in a Community of Practice model?

Questions 10: Can you allocate time to participate in a Community of Practice model?

Questions 11: Do you have sufficient financial resources to participate in a Community of Practice model?

Questions 12: Do you receive adequate support from the school to participate in a Community of Practice model? Survey evaluation results:

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q1	37,20	66,073	,670	,875
Q2	37,20	65,328	,666	,875

Q3	37,54	66,702	,545	,884
Q4	36,87	68,233	,559	,882
Q5	37,07	67,216	,586	,880
Q6	36,61	67,409	,658	,876
Q7	35,87	70,633	,516	,884
Q8	35,79	71,388	,528	,883
Q9	36,39	67,060	,657	,876
Q10	35,91	70,564	,538	,882
Q11	36,20	68,470	,624	,878
Q12	35,92	69,984	,600	,880

Table 1: Teachers' Perception Levels in the Community of Practice Model (Note: Q: Questions)

Factors regarding Teachers' Perception Levels in the Community of Practice (CoP) consist of a total of 12 observed variables concerning their understanding and awareness of the role, significance, and application methods of this model in teaching and supporting students. The observed variables of this factor achieve Cronbach's Alpha reliability coefficients ranging from 0.875 to 0.884. The two variables with the lowest reliability within the Perception factor are "WTP" - Willingness to Participate (0.875) and "APPC" - Awareness of the potential for enhancing professional competence of the Community of Practice model (0.875). The variables with the highest reliability coefficient reach 0.884.

C. Effectiveness of the Model

Likert 5: Completely wrong/Incorrect/Neutral/Correct/Completely correct

Question 1: Do you feel that the Community of Practice model has helped you develop your professional skills?

- Updating in-depth knowledge of the subject matter
- Communication and interaction skills
- Leadership and organizational skills
- Feedback and evaluation skills
- Creativity and innovation
- Instructional and support skills
- Creating a diverse learning environment

Question 2: Which topics should the Community of Practice model focus on to effectively develop teachers' competencies?

- Teaching and learning methods
- Communication and interaction skills
- Creating a diverse and safe environment
- Using technology in teaching
- Critical thinking and inference
- Social and behavioral competence development training
- Collaborating with parents and the community

Question 3: Has the Community of Practice model helped you develop and apply your professional skills better?

Question 4: Have there been changes in your application of new teaching methods after participating in CoP?

Survey results with 16 variables.

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Total Correlation	Item-Cronbach's Alpha if Item Deleted
50,99	132,186	,543	,937
51,55	128,358	,698	,933
51,55	127,661	,691	,933
51,33	128,313	,673	,934
51,45	128,499	,637	,935
51,77	126,470	,699	,933
51,56	126,247	,726	,932
51,65	126,001	,744	,932
51,96	125,571	,687	,933
52,24	126,521	,641	,935
51,97	125,955	,676	,934
51,52	126,570	,755	,932
51,66	127,439	,696	,933
51,07	130,572	,667	,934
51,04	130,589	,618	,935
51,04	130,567	,633	,935

Table 2: Effectiveness of the Community of Practice (CoP) Model with a total of 16 observed variables

The factor of Effectiveness of the Community of Practice (CoP) Model consists of a total of 16 observed variables, reflecting the positive impacts of CoP on teachers to help them enhance their professional knowledge and skills to improve the quality of teaching and work. The reliability coefficient of the scale for this factor is 0.938. Among them, the reliability coefficient of the lowest observed variable reaches 0.932 and the highest reaches 0.935. The scale of this factor is evaluated as very good.

D. Challenges and Opportunities

Likert 5: Completely wrong/Incorrect/Neutral/Correct/Completely correct

Question 1: Challenges when participating in the Community of Practice model

- Managing diverse classrooms
- Handling conflicts and emotional management
- Adapting to changing learning environments
- Time and resource management

Question 2: Responsibilities of schools and educational authorities to encourage and support the development of the Community of Practice model

- Establishing supportive policies and strategies
- Providing teacher training and capacity building programs on implementing and managing the Community of Practice model
- Providing resources to support teachers in implementing the model
- Creating a conducive learning environment and promoting diversity and creativity within the model
- Establishing partnerships and networks with local organizations to support the implementation of the Community of Practice model

Question 3: According to you, what opportunities does the Community of Practice model bring for teachers' professional development?

- The Community of Practice model provides opportunities for teachers to share knowledge and experiences for professional exchange and development
- The Community of Practice model creates an environment where teachers can learn from the community
- The Community of Practice model promotes interaction and collaboration among teachers
- The Community of Practice model provides opportunities for teachers to receive support and feedback from the community
- The Community of Practice model provides an ideal environment for teachers to explore and apply technology in teaching
- The Community of Practice model provides opportunities for teachers to develop knowledge and skills related to working with diverse students in terms of learning needs and social responsibility

Survey results:

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Total Correlation	Item-Cronbach's Alpha if Item Deleted
57,90	142,647	,817	,975
57,87	141,355	,820	,975
57,86	141,142	,847	,974
57,88	141,958	,833	,974
57,91	142,125	,829	,974
57,89	141,496	,837	,974
57,97	143,426	,790	,975
57,97	141,317	,835	,974
57,79	141,492	,856	,974
57,94	141,205	,828	,974
57,84	141,998	,891	,974
58,01	141,079	,824	,975
57,95	142,566	,815	,975
58,00	140,563	,850	,974
57,96	140,764	,865	,974
57,98	140,809	,848	,974

Table 3: Survey Results of Teachers' Feedback on the Opportunities and Challenges of CoP

The factor scale of Opportunities and Challenges is a scale used to gather teachers' assessments and feedback on the difficulties and challenges they face when participating in the Community of Practice (CoP) model. This scale consists of 16 observed variables to measure influencing factors, with a reliability coefficient of 0.976. Among them, the reliability coefficient of the component observed variables ranges from 0.974 to 0.975. This scale is evaluated as very good.

E. Opinions and Suggestions

The majority of teachers surveyed regarding proposals to improve the Community of Practice model in their schools suggested the following:

Creating an open learning environment that encourages interaction among students, teachers, and parents: organizing monthly or quarterly meetings between teachers and parents to discuss ways to improve students' learning experiences. Creating a positive learning environment: Building a positive learning environment by promoting cooperation, creativity, respect, and autonomy.

Promoting a flexible and personalized learning environment by using technology and modern learning tools, utilizing online platforms, educational software, and other digital devices to develop necessary learning skills and nurture.

School administrations need to create a democratic, open environment and encourage the sharing of knowledge and experiences among teachers through seminars, research groups, or educational networks. This helps enhance professional knowledge and promote continuous professional development within the teaching community.

4.2. Solutions for Developing the Community of Practice Model to Enhance Teachers' Professional Capacity:

Solution 1: Establishing and Developing a Community of Learning Networks Creating opportunities for teachers from different schools to participate in learning groups, exchange experiences, and share knowledge about teaching methods, student assessment, and classroom management. Organizing professional events such as conferences, seminars, and workshops with the participation of education experts to update new knowledge and advanced educational trends.

Solution 2: Enhancing the Quality of Training and Professional Development Providing professional development courses, pedagogical skills, and technology application in teaching. Using information technology to organize online classes, seminars, enabling teachers to access a wealth of resources without being limited by space and time.

Solution 3: Encouraging Sharing and Mutual Learning Building an online platform for teachers to share educational resources, lessons, and teaching methods. Encouraging teachers to demonstrate and develop teaching skills through competitions, thereby creating opportunities for them to learn from each other.

Solution 4: Financial and Resource Support Mobilizing resources from the community, businesses, and government to support financial for teacher training programs and develop the community of practice model. Providing opportunities for teachers to access high-quality educational resources, including textbooks, reference materials, and educational software.

Solution 5: Evaluation and Feedback Implementing an effective evaluation system: Establishing an evaluation system to monitor the progress and effectiveness of teacher training programs, as well as the application of new knowledge and skills in actual teaching. Providing teachers with regular feedback from colleagues and education experts to improve and develop their teaching skills.

Solution 6: Building Partnerships with Educational Organizations at Home and Abroad Collaborating with educational organizations, universities, and non-profit organizations to share resources and knowledge. Joining international educational networks to learn from experiences and apply advanced teaching methods.

Solution 7: Developing Educational Technology, Applying Technology in Teaching Encouraging the use of information technology and new educational tools such as e-learning, MOOCs, and VR/AR in teaching. Providing necessary equipment and educational software for teachers and students to maximize the benefits of educational technology.

Solution 8: Emphasizing Career Development Establishing career development programs for teachers, including promotion, specialization, and career transitions based on abilities and interests. Expanding opportunities for teachers to participate in educational projects, research, and development, helping them enhance their skills and professional knowledge.

By implementing these solutions, the community of practice model not only helps enhance teachers' capacity but also creates a flexible, innovative, and collaborative educational environment where both teachers and students can thrive.

4.3. Discussion

The research findings on developing a community-based learning model to enhance teachers' capacity have yielded several notable results. Firstly, the collaborative nature of this approach promotes a sense of shared responsibility and collective ownership among educators. Through regular interaction and mutual support within the community, teachers can exchange ideas, share best practices, and collectively address challenges, resulting in a richer professional development experience.

Secondly, the community-based learning model provides teachers with access to a wide range of resources and diverse subject knowledge beyond their direct school environment. By tapping into the knowledge and skills of colleagues, mentors, and community partners, educators can expand their teaching repertoire, explore innovative teaching methods, and effectively address specific challenges.

Furthermore, sustained engagement with a larger community allows teachers to gain a deeper understanding of the local context, culture, and needs. This heightened awareness not only informs teaching activities but also promotes culturally responsive teaching methods, resonating better with culturally diverse students. Moreover, the research indicates that a collaborative learning environment supported by the community-based model contributes to increased job satisfaction and professional fulfillment for teachers. Feeling valued, supported, and connected within a vibrant learning community, educators are more motivated to invest in their own growth and development, ultimately leading to improved outcomes for both teachers and students. In summary, the research results underscore the effectiveness and value of implementing a community-based learning model as a means to enhance teachers' capacity. By harnessing collective intelligence and resources of the community, this approach has the potential to transform teaching practices, foster a culture of continuous learning, and ultimately enhance the quality of education for all stakeholders involved. =

CONCLUSION

The development of a community-based learning model is a significant step towards enhancing teachers' capacity. By leveraging expertise, resources, and collective support within the community, this approach empowers individual educators and fosters a culture of collaboration and continuous improvement in the teaching profession. Through ongoing interaction with colleagues, mentorship opportunities, and exposure to diverse perspectives, teachers can expand their knowledge, refine their skills, and adapt more effectively to the evolving needs of students and communities. Furthermore, by integrating stakeholders from the community into the learning process, such as parents, local organizations, and educational institutions, this model can enrich the educational experience and strengthen the connection between schools and the broader community. Ultimately, investing in community-based learning models promises to cultivate a dynamic learning ecosystem where teachers thrive and students flourish.

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