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Identification of Antecedents and Consequences of Professional Learning Community for Primary School Teachers

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ABSTRACT

Objective: This research was conducted with the aim of identifying the antecedents and consequences of the professional learning community for primary school teachers.

Method: In this article, a qualitative phenomenological method with stage analysis approach was used. The research participants consisted of 26 individuals, including university professors and faculty members in educational management, school principals, deputy principals, successful teachers in primary schools, and doctoral students or graduates in educational management working in education. They were selected through purposeful theoretical sampling. To collect data, in-depth interviews with research participants were utilized. For validity assessment, methods such as member checking, triangulation (three-point perspective) of data sources, peer review, and review by observers were used to enhance the validity of the research. Additionally, to examine reliability, strategies of dependability, credibility, confirmability, and transferability were employed.

Findings: After data analysis, results showed that the antecedents of the professional learning community for teachers included four components: educational leadership, organizational culture, collaborative learning, and organizational structure. The consequences of the professional learning community for teachers consisted of three macro dimensions: development of performance quality, commitment to the job and school, and job and professional satisfaction.

Conclusion: To realize the professional learning community for teachers, attention to the identified antecedents and consequences is necessary and essential. The duty of the professional learning community for teachers is to stimulate aspects such as mission, vision, collective commitment, and common goals, and to value creativity, risk-taking, initiative, and innovation, with the existence of an

atmosphere based on mutual respect being an important part of the professional learning community for teachers.

Keywords: Learning, Professional Learning Community, Antecedents, Consequences

1 Introduction

Certainly, teachers, as the human capital of the country's education system, are among the most important elements in shaping educational environments and a key factor in creating favorable conditions for achieving educational goals. Therefore, it is necessary for school educational leaders and managers to strive for fundamental successes and implement reforms in schools to improve learning and enhance teacher development (Okun, 2020). In this regard, one of the factors that is very important in relation to teachers and has a significant impact on their development is the existence of professional learning communities among teachers. This approach evokes a shift from a traditional approach, where teachers work alone and in isolation in a school, to an approach emphasizing collaboration, synergy, accountability, and effectiveness of teachers, necessitating the creation of conditions in the work environment that encourage teachers to collaborate and share ideas (Girvan et al., 2016; Hargreaves, 2008).

Elucidating the importance of such a topic, some researchers like focus on learning communities not just on individual teacher learning; rather, the focus is on professional learning within the context of cohesive groups centered on collective knowledge (Garet et al., 2001; Miresmaielie, 2005; Rahnavard & Mohammadi, 2010). Therefore, professional learning communities of teachers serve as a means and mechanism to improve their educational performance and enhance the academic achievements of their students (Allen, 2014; Balyer et al., 2015; Carpenter, 2015; Girvan et al., 2016; Jones et al., 2013; Pahlevan Sadegh et al., 2015; Sai & Siraj, 2015; Voelkel Jr & Chrispeels, 2017). Teachers learn better when they engage in learning with their colleagues, share ideas, and collaborate in a cooperative space. Teachers should solve problems together and, as a team, focus on the needs of their students (Assen & Otting, 2022; Farajzadeh & Alavinia, 2022).

Thus, professional learning communities can provide sustainable benefits for teachers, leading to increased human, professional, and social capital, as well as alleviating isolation among teachers, increasing commitment to the mission and goals of the school, and shared responsibilities (Macfarlane, 2020). Successful professional learning communities create environments and platforms where

teachers can share their strengths and weaknesses with colleagues; choose collaborative solutions for problems; and collectively implement new ideas for the benefit of their students (Assen & Otting, 2022; Lourmpas & Dakopoulou, 2014; Rosa, 2022). Additionally, the development of professional learning communities can certainly contribute to shared beliefs among teachers and greater participation in collective activities. These shared beliefs and collective work can, in turn, create a sense of collective responsibility, better teacher interactions, and common norms that enhance teachers' commitment to the school, profession, and students (DuFour & Eaker, 1998; DuFour & Eaker, 2009).

However, despite numerous studies and research records in explaining the importance of creating professional learning communities in schools and educational institutions, there is limited empirical evidence regarding the key elements and factors that facilitate the formation of professional learning communities for teachers (Allen, 2014; Carpenter, 2015; Hollins et al., 2004; Pahlevan Sadegh et al., 2015; Sai & Siraj, 2015; Serdyukov, 2017; Voelkel Jr & Chrispeels, 2017) and, in the organizational context of the school, many managers and teachers have little knowledge about the patterns of professional learning communities and their impact on the teaching and learning process of their students (Balyer et al., 2015; Sai & Siraj, 2015). Therefore, studying professional learning communities and how their dimensions impact school success and the development of educational and collective learning culture is crucial (Hargreaves, 2008; Hollins et al., 2004). Research in this area necessitates extensive studies and deep modeling, as it will reveal more strengths and weaknesses of the internal layers of communication in learning communities to stakeholders and clarify unclear and unknown issues. Additionally, research findings in technical schools in industrialized developed countries indicate that teachers who participated in advanced professional learning communities were more successful compared to those who did not participate, by creating more authentic and practical learning opportunities for students to acquire professional knowledge and skills (Serdyukov, 2017; Voelkel Jr & Chrispeels, 2017). The presence of individuals with expertise or experience in specific areas in professional learning sessions can be very beneficial for teachers (DuFour & Eaker, 2009; Hargreaves, 2008; Roberts, 2010).

On the other hand, there are still significant challenges, including neglect of the fundamental role of human factors (especially teachers) and the lack of appropriate mechanisms for preparing, organizing, and empowering human resources in the macrostructure of education. Analysis and exploration of the lived experiences of seasoned teachers at the national school level indicate that teacher education is primarily limited to several subject matter courses in the field of educational sciences, including teaching methods, principles and techniques of teaching, and practical teaching practice, which have been taught in traditional ways for years. In this training, the role of teachers' professional knowledge has been less examined (Naregal, 2016; Sahebihagh et al., 2016) and in some cases, teachers have chosen teaching methods through trial and error with great effort and have had little opportunity to review them (Assen & Otting, 2022). While if teachers do not have sufficient knowledge and expertise in the technical core of the school (one of the important examples of which is their teaching work and method), they may become uncertain in their choice of teaching methods by students, colleagues, and other school officials. If these individuals cannot find convincing and explanatory reasons for their scientific positions and teaching methods, they will undoubtedly be at risk of failure in their teaching and may completely lose their interest in working in this field (Karsantik, 2021; Macfarlane, 2020).

Therefore, in shaping the horizon of this research, the researcher tried to integrate and compare the components existing in the structure, pillars, and output of models and research findings of other researchers, and ultimately, to gather information from key informants in order to design and develop a model native and aligned with the realities, requirements, and necessities of the macro education system to improve the performance of primary school teachers, focusing on identifying the antecedents and consequences of professional learning community gatherings.

2 Methods and Materials

The present study falls under the category of applied research and was conducted within the framework of a qualitative design based on an exploratory model. Given the nature of the research topic, which requires examining and analyzing the perspectives, experiences, and viewpoints of individuals who have in some way grappled with the subject matter and the related existential voids, the researcher intends to use the phenomenological method with stage analysis approach in the qualitative part of this research.

Indeed, one of the most appropriate methods for conducting this study was to utilize the knowledge and experiences of those who are somehow related and informed about the research topic; hence, the phenomenological method is used, and the understanding and description of the participants is analyzed.

In this research, interviews were conducted for a better and more comprehensive understanding of the phenomenon of professional learning communities for teachers from different groups. The selected participants for this research included 26 individuals: 8 university professors and faculty members in educational management from Tehran and Alborz provinces, 10 principals, deputy principals, and successful teachers in primary schools of Tehran province, and 8 doctoral students or graduates in educational management working in education, who participated voluntarily and were selected purposefully based on the rule of theoretical saturation.

To enhance the validity of the study, after the interviewees' explanations during the interviews, the researcher expressed their understanding of the talks and conversations to ensure the accuracy of the information with the confirmation of the interviewees. Also, follow-up questions were used during the interview process for further clarification and to resolve ambiguities. Additionally, the researcher employed methods such as member checking, triangulation of data sources, peer review, and observer review to increase the validity of the research.

3 Findings and Results

After conducting the interviews, transcribing them, and analyzing the content of the interviews, the interview text was studied carefully. After reviewing all the concepts and categories mentioned, considering the literature and empirical and theoretical background of the research, coding was done in three stages: open, axial, and selective. The final category related to the antecedents of the professional learning community was determined and specified with particular dimensions, components, and indicators, which will be further explained.

Coding and Analysis of the First Research Question: "What are the Antecedents of Professional Learning Community for Teachers in Primary Schools?"

In the dimension of supportive educational leadership in professional learning communities for teachers, open codes were carefully studied, and the points raised by the interviewees were compared and matched with the literature

and empirical and theoretical background of the research. After screening and considering similarities and differences,

open codes (indicators), axial codes (components), and then selective codes were determined.

Table 1

Codes related to the final category of Educational Leadership Supporting Professional Learning Community

Selective Code and Final Category	Axial Code	Open Code
Educational Supporting Leadership Professional Learning Community	Supportive Leadership	1. Having common goals and support for achieving them, 2. Providing conditions for change and transformation and accompanying teachers, 3. Providing key information for teaching and better learning, 4. Continuous monitoring of teachers' success and appropriate appreciation
	Participative Leadership	5. Spending time to listen to teachers' views and suggestions, 6. Using teachers' views and suggestions for problem-solving, 7. Providing opportunities and suitable places for participation, 8. Facilitating active parent participation
	Distributed Leadership	9. Succession training and voluntary delegation of authority, 10. Allowing teachers to work in their own way, 11. Allowing participation in decision-making with delegated authority, 12. School affairs dependent on the principal with everyone's participation

In the dimension of supportive organizational culture in professional learning communities for teachers, open codes were studied in detail, and the points raised by the interviewees were compared and matched with the literature

and empirical and theoretical background of the research. After screening and considering similarities and differences, open codes (indicators), axial codes (components), and then selective codes were determined.

Table 2

Codes related to the final category of Organizational Culture Supporting Professional Learning Community

Selective Code and Final Category	Axial Code	Open Code
Organizational Supporting Professional Learning Community	Innovation, Shared Relationship, Communications, Integrity	Risk-taking, Subordinate Unity and
		13. An atmosphere of mutual respect and trust, 14. Institutionalizing the culture of love, 15. Importance of a safe and vibrant environment, 16. Importance of a culture of justice and equality, 17. Importance of attention to everyone's problems and striving to solve them, 18. Importance of flexibility in all matters, 19. Importance of creativity and innovation in activities, 20. Value and importance of risk-taking spirit, 21. Importance and value of having research-oriented teachers, 22. Teachers' responsibility for student learning, 23. Importance of having common values and ideals, 24. Having a common sense and attitude about values and ideals, 25. Decision-making based on common values and visions.

In the dimension of collaborative learning supporting the professional learner community, open codes were closely examined. The issues raised by the interviewees and the comparison and alignment with the literature, empirical and

theoretical background of the research, were screened after considering similarities and differences. They were categorized into open codes (indicators), central codes (components), and then the selected code was determined.

Table 3

Codes related to the final category of Collaborative Learning Supporting Professional Learning Community

Selective Code and Final Category	Axial Code	Open Code
Collaborative Supporting Professional Learning Community	Knowledge Management, Collective Learning	26. Viewing mistakes as learning opportunities, 27. Group participation of teachers for student learning, 28. Celebrating group participation outcomes, 29. Providing opportunities for individual and group learning for all teachers, 30. Evaluating learning processes rather than teaching, 31. Complementing formal and informal learning, 32. Holding meetings with experts for problem-solving, 33. Supporting group activities and sharing experiences, 34. Opportunities to observe each other's activities and provide appropriate feedback, 35. Training teachers to learn from each other and share experiences, 36. Recording individual and group experiences, 37. Creating conditions for utilizing experiences from other schools

In the dimension of supportive organizational structure in professional learning communities, open codes were studied

in detail, and the points raised by the interviewees were compared and matched with the literature and empirical and

theoretical background of the research. After screening and considering similarities and differences, open codes

(indicators), axial codes (components), and then selective codes were determined.

Table 4

Codes related to the final category of Organizational Structure Supporting Professional Learning Community

Selective Code and Final Category	Axial Code	Open Code
Organizational Supporting Professional Learning Community	Organic Structure	38. Structure aiding in creating a dynamic and empowered environment, 39. Decentralized and flexible structure, 40. Structure's ability to facilitate effective communication among individuals, 41. Structure's capacity in professional growth and development of teachers, 42. Hierarchy not hindering dynamic inter-personal relations, 43. Structure enabling group activities

Based on the results obtained from the interviews and considering the literature, empirical and theoretical background of the research, the conceptual model of the antecedents of the professional learning community has been designed and outlined with four dimensions: 1. Supportive educational leadership in professional learning communities for teachers. 2. Supportive organizational culture in professional learning communities for teachers. 3. Collaborative learning. 4. Supportive organizational structure in professional learning communities for teachers. Each dimension was divided into axial codes (components) based on open interview codes, and after determining the components, indicators related to each component were placed in their respective sections.

Coding and Analysis of the Second Research Question: "What are the Consequences of Professional Learning Community for Teachers in Primary Schools?"

As mentioned, for the second research question, a qualitative phenomenological method was used, and in-depth interviews were conducted with the selected sample in the qualitative section. Subsequently, to demonstrate the qualitative analysis process, the participants' explanations in the interviews were arranged in the form of open interview codes, which formed the basis for determining axial and selective codes.

In the dimension of improving the quality of teacher performance in professional learning communities, open codes were carefully studied, and the points raised by the interviewees were compared and matched with the literature and empirical and theoretical background of the research. After screening and considering similarities and differences, open codes (indicators), axial codes (components), and then selective codes were determined.

Table 5

Codes related to the final category of Improving the Quality of Teacher Performance in the Professional Learning Community of Teachers

Selective Code and Final Category	Axial Code	Open Code
Improving the Quality of Teacher Performance in the Professional Learning Community of Teachers	Qualitative Growth and Development of Educational and Training Skills	44. Ability to make good decisions for classroom problem-solving, 45. Good understanding of classroom conditions, 46. Student interest in attending and enjoying classes, 47. Satisfaction of everyone with teacher performance, 48. Placing students on the path of growth and progress, 49. Good teacher relationships with others and seeking their help for problem-solving, 50. Teacher's ability to create new ideas in teaching and learning, 51. Teacher's proper understanding of taught materials, 52. Teacher's ability to inspire and motivate students, 53. Use of new teaching and learning methods, 54. Transforming the classroom into an environment for individual and group learning, 55. Teacher's progress on the path of professional development and growth

In the dimension of feeling belonging with the job and school in professional learning communities, open codes were carefully studied, and the points raised by the interviewees were compared and matched with the literature

and empirical and theoretical background of the research. After screening and considering similarities and differences, open codes (indicators), axial codes (components), and then selective codes were determined.

Table 6

Codes related to the final category of Sense of Belonging to Job and School in the Professional Learning Community of Teachers

Selective Code and Final Category	Axial Code	Open Code
Sense of Belonging to Job and School in the Professional Learning Community of Teachers	Sense of Commitment, Responsibility, Internal Attachment	56. Attachment and internal commitment to school goals and full support for them, 57. Feeling a great responsibility for realizing school goals, 58. Perceiving school problems and issues as personal, 59. Reduced teacher isolation and increased interest in participation, 60. Interest in performing tasks beyond job duties, 61. Not perceiving a gap between personal and school goals, 62. Perceiving the fate of the school as one's own fate

In the dimension of feeling job and school satisfaction in professional learning communities, open codes were carefully studied, and the points raised by the interviewees were compared and matched with the literature and

empirical and theoretical background of the research. After screening and considering similarities and differences, open codes (indicators), axial codes (components), and then selective codes were determined.

Table 7

Codes related to the final category of Job and School Satisfaction in the Professional Learning Community of Teachers

Selective Code and Final Category	Axial Code	Open Code
Job and School Satisfaction in the Professional Learning Community of Teachers	Sense of Joy, Pleasure, and Inner Peace	63. Decreased mental and emotional distance between teachers and enjoyment of being together, 64. Realistic view of evaluation criteria and hope for professional advancement, 65. Feeling of working in a school and its relation to professional growth, 66. Helping each other in times of trouble and enjoying helping one another, 67. Joy in choosing the teaching profession, 68. Finding teaching work enjoyable and not monotonous, 69. Valuing the work done

Based on the results obtained from the interviews and considering the literature, empirical and theoretical background of the research, the conceptual model of the consequences of the professional learning community has been designed and outlined with three dimensions: 1. Improving the quality of teacher performance in professional learning communities for teachers. 2. Feeling of belonging to the job and school in professional learning communities. 3. Feeling of job and school satisfaction in professional learning communities for teachers, taking into account the emphasis of the interviewees and the literature, empirical and theoretical background of the research.

4 Discussion and Conclusion

The results of this research demonstrate that the model of professional learning community for primary school teachers comprises two major dimensions: antecedents and consequences. The antecedents of the model encompass prerequisites and elements that facilitate the realization of professional learning communities by teachers, effectively laying the groundwork for this achievement at the school level. Overall, the important components of the antecedent dimension (the precursors to the professional learning community of teachers) can be divided and categorized into four major elements, each consisting of specific indicators:

1. Educational leadership supportive of the professional learning community of teachers.
2. Organizational culture supportive of the professional learning community of teachers.
3. Collaborative learning supportive of the professional learning community of teachers.
4. Organizational structure supportive of the professional learning community of teachers.

Furthermore, the significant components of the consequential dimension of the model (outcomes and end-results of implementing the research model) are divided into three major elements, each encompassing the following aspects:

1. Development of teachers' performance quality.
2. Professional job satisfaction of teachers.
3. Teachers' sense of belonging to their job and school.

In the area of educational leadership supportive of the professional learning community of teachers, researchers (Berry et al., 2005; DuFour & Eaker, 1998; DuFour & Eaker, 2009; Garet et al., 2001; Girvan et al., 2016; Roberts, 2010; Sai & Siraj, 2015; Slater, 2004) show some agreement in various components and indicators. They believe that educational leadership and the choice of an appropriate style play a crucial role in transforming a school into a professional learning community for teachers. Some

emphasize the importance of educational leadership for change and transformation, viewing management as participatory, supportive, and distributive. Others discuss educational leadership in terms of delegating responsibilities, empowering, mentorship, support, and providing necessary conditions for achieving common goals in schools, considering these as fundamental principles of the professional learning community for teachers (Garet et al., 2001; Slater, 2004; Voelkel Jr & Chrispeels, 2017). Many studies state that teacher collaboration and cooperation play a vital role in their success (Allen, 2014; Balyer et al., 2015; Pahlevan Sadegh et al., 2015). Several studies also mention that delegating authority and responsibilities to teachers and staff and supporting them in achieving goals are the keys to the success of a professional learning community for teachers (Pahlevan Sadegh et al., 2015).

In the realm of organizational culture supportive of the professional learning community for teachers, researchers like (Balyer et al., 2015; Carpenter, 2015; Heydarifard et al., 2016; Pahlevan Sadegh et al., 2015; Rahnavard & Mohammadi, 2010; Rashid et al., 2011; Serdyukov, 2017) showed some alignment in components and indicators. Most of these researchers consider organizational culture, following educational leadership, as the second crucial factor for realizing a professional learning community for teachers in schools, emphasizing the importance of focusing on it. Regarding collaborative learning supportive of the professional learning community for teachers, researchers (Carpenter, 2015; Henriksen et al., 2020; Jiang et al., 2022) showed some alignment in various components and indicators. They believe that collaborative learning and knowledge management play a crucial and fundamental role in realizing the professional learning community for teachers and should be given due attention. They consider collaborative learning as the main element of the professional learning community for teachers. In the area of organizational structure supportive of a learning community, researchers like (Balyer et al., 2015; Heydarifard et al., 2016; Miresmaielie, 2005; Pahlevan Sadegh et al., 2015; Rahnavard & Mohammadi, 2010) showed some commonalities in certain components and indicators. They believe that the difference between the structure of the professional learning community for teachers and traditional structures lies in the organic nature of the former. Moreover, the structure should be flexible, transformative, and progressive.

As we know, the mission of education in Iran is formally implemented through schools. The school is the foundation of any development and change in society, as it nurtures talents, creativity, creative thinking, and problem-solving skills in teachers and consequently in students, gradually leading society towards flourishing, development, and growth. It appears that under current conditions, the centralized structure of the educational and administrative system, uniform educational programs and curricula, and teaching methods, as well as educational issues and school performance, will not meet the present and future needs of stakeholders in the educational system. Therefore, a school with an approach to the professional learning community for teachers can be considered as a way out of the current situation, which does not align with the standards of the Islamic Republic of Iran and fails to respond to environmental changes and societal needs. Such schools, when faced with environmental changes and transformations to remain responsive to their stakeholders, undergo a change in nature. These schools differ from others in terms of curriculum, course content, teaching and learning methods, school leadership style, culture, organizational climate, school structure, teaching approach which is collaborative learning, and the level of professionalism of teachers.

Furthermore, schools with a professional learning community approach for teachers engage their staff in continuous improvement. They propose new educational approaches, have different teaching and learning methods and structures, and strive to implement fresh and innovative plans to achieve their goals. The success and advancement of students, as well as the sense of belonging and satisfaction of teachers and staff, are their top priorities. To advance, they offer new curricula, educational software, advanced teaching and training, and better and more valuable educational and scientific services. Constructive and desirable relationships exist between the principal, teachers, and staff. These schools have capable human resources, supportive, participatory, and distributive leadership, an organizational culture with an innovative, positive climate, clear ideals, and goals, and positive trust, along with dynamic, vibrant structures, and facilitating processes. Leadership in schools with a professional learning community approach for teachers strives to provide a shared vision in the school, create a sense of participation and support throughout the school, and by delegating responsibilities to teachers and other staff, foster a sense of belonging. They are also committed to creating

opportunities for the professional growth and development of teachers and staff.

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Declaration of Interest

The authors of this article declared no conflict of interest.

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Authors Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Ethics principles

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were observed.

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