

**Collaborative Action Research: An Approach to Develop School Based
Community of Practice**

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Abstract

Introduction: *This study presents the development of a School-Based Community of Practice (CoP) model designed to enhance collaboration, professional growth, and collective problem-solving among teachers.*

Model aims to create a structured yet flexible framework that fosters continuous learning and shared expertise within the school environment.

Methodology: *Collaborative action research was employed to develop the model community of practice.*

Results: *The development process involved identifying key components essential for a successful CoP, including a shared vision, collaborative culture, leadership support, and mechanisms for ongoing reflection and feedback. The model emphasizes the importance of creating safe spaces for open dialogue, enabling teachers to share experiences, challenges, and strategies in a supportive environment. It also integrates professional development opportunities that*

align with the needs and goals of the CoP members.

Recommendations: *This study is very useful to strengthen teachers' learning but it is recommended that it could be done in two sectors, public and elite private sectors that can provide the explanation of whether there exists any difference of teacher's learning a professional development there and if it exists what can be done in public sector to further improve their professional learning.*

Key words: *Collaborative Action Research, Community of Practice, Mentoring, Headteacher,*

Introduction

Communities of Practice (CoP) is a developing idea that establishes a learning forum for teacher education inside the framework of the workplace in Pakistan. According to the research, there has not been much of the intended shift in practices among teachers, even with their formal training certification and participation in workshops for continued professional development. Teaching is a complex profession, and addressing students' needs and upgrading their practices required their engagement in ongoing learning with the colleagues working together (Mohammad & Harlech-Jones, 2008; Darling- Hammond, 2016; Khoso, et al., 2024). This concept of learning is primarily discussed by Wenger (2000), who defines learning as an ongoing professional development endeavor, led by a group of individuals (in this context, teachers) within the workplace who are united by a common passion and area of expertise, and learning that advances perspectives and practices while addressing contextual reality (Mohammad, et al., 2024).

Teachers who participate in such collaborative efforts tend to have more reflective attitudes, which in turn makes them feel more inspired and self-assured when they work with peers and colleagues to address practice limitations and evolving issues (Darling-Hammond, 2016, Palujanskiene & Svagzdiene, 2020; KRACHT work, 2016). Additionally, a common vision created by teachers and management provides an institutional learning framework for planning, sharing best practices, and receiving constructive feedback for individual growth and development (Tartwijk and Lockhorts, 2014). Community of practice is one of the powerful strategies for professional development as it provides the solutions of complex problems through collaboration, reflection, participation, and engagement (Iheringgues, 2024; Ahmad, et al., 2024). It is currently applied in educational settings to enhance teachers' learning in informal way as formal teacher education program has certain challenges that is difficult to overcome (Mehdizadeh et al., 2024).

Numerous programs, and various strategies have been developed and applied for teacher's learning and development. Many of them are formal educational programs that are developed for some specific needs but unable to identify and cater to the contextualized needs of nature. It is required therefore for the training and learning programs to be ongoing and systematic in the form of community where teachers can openly share and learn (Cochran-Smith and Lytle 2001; Loucks-Horsley et al. 2003). The new era demands multitude of tasks to be performed by the teacher and thus teacher needs to be a skilled person having competency and commands. For all of this, teacher needs motivation and support from their peers and heads (Smith et al., 2005). Literature suggests that to improve teacher's learning numerous subject and pedagogical specific professional development trainings have planned (Imran, Zaidi, & Rehan, 2024; Garet et al. 2001).

The notion of research perceived by schoolteacher as something beyond their scope and reach is possible with the application of action research in school context thereby can find out contextual problems of their teaching and learning (Phulpoto, Oad, & Imran, 2024; Chowdhury, 2018). Study conducted by Garet et al., (2001) proposed that effective professional development of teachers need to be aligned not only with content knowledge and pedagogical skills but also with collaboration, active learning and their connections with other professional development and learning activities. Teachers are the pillars of the nation, and they need a continuous learning platform that can not only provide them with learning but also provide them with support to cope with everyday challenges (Day, 2003). In everyday life, they feel depressed and worried because of the complexity of their duties and enhancement of expectation from them. (Ingersoll & Strong, 2011: 202). In that case being mentored and supported by other experienced and professional colleague can make them learn new skills, can identify the problems better and help them to reflect on their current teaching practices which in other case if not provided led to many teachers to quit their teaching profession or being worn out (Carter & Francis, 2001:256). In today's challenging era constructive feedback, emotional help and support, professional dialogues and discussions are the critical elements of mentoring programs which teachers in every school need to develop themselves (He, 2009). In light of this theoretical debate, the case study that this article offers looks at the difficulties and procedures involved in changing schools into communities of practices. This study aims to answer the following questions:
What are the s and procedures involved in schools transitioning to a community of practice? What part do heads of schools play in promoting the idea of community practices?

The study hence directed by following research objectives:

- To assess the overall process of action research on development of school-based community of practice
- To analyze the effects of community of practice on students' academic problems
- To evaluate the role of school heads in development of community of practice

Learning is fundamentally grounded in experience. This process involves reflection of one's own practical experience, a process called *critical discernment*. Teachers must assess whether their actions go along with their adopted values. Subsequently, they can determine future actions based on this notion (Lave, 2009). If a teacher considers their practice effective, they should then consider how to enhance it to navigate an unpredictable outcome. Conversely, if the practice is deemed lacking in any form, it is vital that strategies and plans are formulated for improvement. Among different key aspects and qualities of a teacher like professional development, their self-value, ability to think and reflect critically can help them to become the best mentors. This practice could be cultivated in schools, under the supervision and direction of school heads to bring a change in school culture (Salfi 2011). Literature suggests the critical role of head teacher in development and transformation of their schools. Teachers can work effectively under positive leadership through which continuous professional learning can easily take place (Stevenson et al., 2016). Work out is directly related to organizational culture (Imran, et al., 2023; Green, 2018). The study therefore concludes the effective role of school heads on developing community of practice in their schools. The present study unfolds the ways of teacher's learning in school setting by providing a framework of developing community of practice through collaborative action research as supported by the work of Wenger (2000) which is an innovative and dynamic way of professional learning (Grossman et al., 2001).

Current study has proved to be significant as it has developed a model through action research that can help the school leaders to develop community practices in their schools for their teacher's learning. It has also highlighted the role of school leaders that can bring change to their schools as without their support the change is not possible. Head teachers are the cornerstone of educational institution and without their involvement and support schools could not be transformed. The study has also showed the positive impacts of development of community of practice in students learning also.

Literature Review

Learning is fundamentally grounded in experience. This process involves reflection of one's own practical experience, a process called *critical discernment*. Practitioners must assess whether their actions go along with their adopted values. Subsequently, they can determine future actions based on this notion (Oad, Zaidi, & Phulpoto, 2023; Lave, 2009). If a practitioner considers their practice effective, they should then consider how to enhance it to navigate an unpredictable outcome. Conversely, if the practice is deemed lacking in any form, it is vital that strategies and plans are formulated for improvement. Previewing the history of origin of the term, we can realize that it dates back to 1991 with work of Lave and Wenger who introduced the idea in the book "Situated Learning". In their acknowledgements, Lave and Wenger wrote:

"The idea of exploring and developing the notion of legitimate peripheral participation would not have happened in any other context but that in which we were both working in 1988: The Institute for Research on Learning in Palo Alto, California." (Lave and Wenger, 1991: 25)

Wenger (2000) and Wenger and Snyder (2000) worked towards this idea and accumulated along with several other authors in the book "Cultivating Communities of Practice: A Guide to Managing Knowledge" (Wenger et al., 2002) Wenger claims that organizations always engage in and are shaped by such a social learning system where mutual relationships are sustained, discussions reflect a certain perspective. Wenger writes that a CoP is not a stable or stagnant entity; it evolves over time, its existence may be unknown to its members, and it should not be consummated.

Wenger et al. (2002) highlighted three concrete "modes of belongings" through which the process of learning takes place:

- Engaging with others, doing things together, talking.
- Creating our own image of communities, and the world in extension, to adapt ourselves, reflect, and explore new prospects.
- Keeping aligned with local activities to be compelling.

These modes describe a distinct base for the community, it creates a bridge between practices, facets of identities. Translating to management literature, CoP becomes a concept to give managers

the abilities to understand and cooperate in knowledge and management process. In the article by Wenger and Snyder, the points for value of CoP in organizations is described (Wenger and Snyder, 2000: 140–1):

- They help move along a strategy,
- They help initiate new aspects of business,
- They help solve problems promptly,
- They bring best practices,
- They produce and enhance professional skills,
- They aid in recruitment for companies.

The idea of CoP has widened to get used in various contexts since the term was popularized by Lave and Wenger. While initially used as a label of a type of knowledge, Lave and Wenger expanded and discussed it as an explanatory theory describing the naturally occurring mechanism behind all knowledge and learning, the concept has been altered in several writings (Davenport and Hall, 2002).

A difference of concept that is shown describes communities of practice as indigenous phenomena that one can clearly create and foster. Another change is the shift in viewpoint from anthropological and social bearing to materialistic manifestation of CoP and definite rules (Amin and Roberts, 2008). The terms knowledge-building community and CoP are occasionally used interchangeably (Hoadley & Kilner, 2005). They are used to discuss frameworks to understand social learning environments. A CoP occurring naturally does not need a learning goal as the engagement happens depending on the evolution of community's function and role within society.

Community practice can best be summed up by quotation provided in the work of Wenger and his coauthors in their forward.

“The situated (emphasis in the original) nature of learning, remembering, and understanding is a central fact. It may appear obvious that human minds develop in social situations, and that they use the tools and representational media that culture provides to support, extend, and reorganize mental functioning.”

These words of experts help us understand and interpret the notion of CoP within the sight of situated learning (Wenger, 2000 Wenger et al., 2002).

Collaborative action research; teacher's learning and mentoring

Action research performs the combination of theory and practice through changes and reflection within a situation inside a mutually acceptable ethical environment. Action research is a cycle of research and practitioners working together on a set of activities; like problem diagnosis, action intervention, and reflective learning (Avison et al., 1999 and Mac Naughton 2020). Action research is a type of method where one tries to put their learning into practice to see what they learned is applicable or does it require improvement in any areas or maybe it is not possible at all (De Oliveira, 2023). Action research is a process that involves learning through action and reflection (Zuber-Skerritt, 2021). It is applied in the fields of sciences, education, organizational and administrative studies, as well as management (Rehan, et al., 2024).

Fundamentally, it is linked to teacher's learning, which is associated with education and self-growth, leading many to view action research as a form of "educational research" (Lufungulo et al., 2021). Action research, like all forms of research, extends beyond mere activity; it is a practice that entails data gathering, reflection on actions as represented through that data, evidence generation, and the formulation of knowledge claims based on conclusions drawn from validated evidence (Bergmark, 2022). When producing reports on action research, it is insufficient to provide only descriptions and activity lists; researchers must also offer explanations for their activities, which should reflect their values, intentions, and purposes. (Kemmis, 2021). Therefore, when individuals specifically teachers exhibit their newfound confidence, such as by asking questions in public, the researcher can justifiably claim to have upheld their values and positively influenced the quality of teacher's professional life. (McNiff, 2013). Action researchers assert that individuals possess the capacity to construct their own identities while simultaneously recognizing the identities of others (Coghlan, 2019). They seek to accommodate diverse values and perspectives, a task that can be particularly challenging when certain values are in significant conflict (Newman, 2000). The objective is to promote coexistence despite having potential differences. Successful communal living urges substantial work and effort in deep understanding of various viewpoints, which includes distilling empathy and carefully suspending personal biases (Altrichter et al., 2002).

Community of practice through collaborative action research under supervision of Head Teachers

Among different key aspects and qualities of a teacher like professional development, their self-value, ability to think and reflect critically can help them to become the best mentors. This practice could be cultivated in schools, under the supervision and direction of school heads to bring a change in school culture (Salfi 2011). Literature suggests the critical role of head teacher in development and transformation of their schools. Teachers can work effectively under positive leadership through which continuous professional learning can easily take place (Stevenson et al., 2016). Work out is directly related to organizational culture (Green, 2018). The study therefore concludes the effective role of school heads on developing community of practice in their schools. The present study unfolds the ways of teacher's learning in school setting by providing a framework of developing community of practice through collaborative action research as supported by the work of Wenger (2000) which is an innovative and dynamic way of professional learning (Grossman et al., 2001).

The central focus of collaborative action research is deep inquiry among peers through professional interactions (McNiff, 2013). It involves sequential steps to examine any evidence in which critical reflection is the key to every step of action research (Ellstrom, 2007). Mentoring is the unique and important element of collaborative action research (Onchwari & Keengwe, 2008). In collaborative action research members adopt a new role of supporting and sharing knowledge to each other trying to maintain the framework of mentoring and be associated with the researcher for support and constructive feedback (Coghlan, 2019). Hence through collaborative action research study is aimed to developed community of practice model in school (Imran & Akhtar, 2023).

Methodology

Present study utilizes action research to frame the model school-based community of practices. The role of action research is immense as this particular type of research method is different in the way that the researcher studies and practice. Action researcher's objective is to analyze established systems of knowledge rather than to maintain them (Mc Niff ,2013). It goes in cyclical form and the cycle of research informs practice and practice informs research combines harmoniously. (Avison et al.,1999). Action researchers discuss that knowledge is an active and

dynamic process. An individual can create their own knowledge through their lived experiences. This perspective posits that knowledge is neither fixed nor complete; rather, it is a process of constant evolution as new insights emerge (Kemmis, 2021). Researchers utilize both methods quantitative as well as qualitative to analyze data to discover the elements and effects of developing school-based community of practices. Present study is conducted in public school of Nazimabad town of Karachi, Pakistan. For participation in study, the school head herself has selected three teachers on the basis of her competent and cooperative nature. Teachers worked on her class students. In this case 155 students have been selected for the study from three different grades: VI, VIII and X.

Action Plan for the study

The model of action plan developed illustrated below in Figure 1

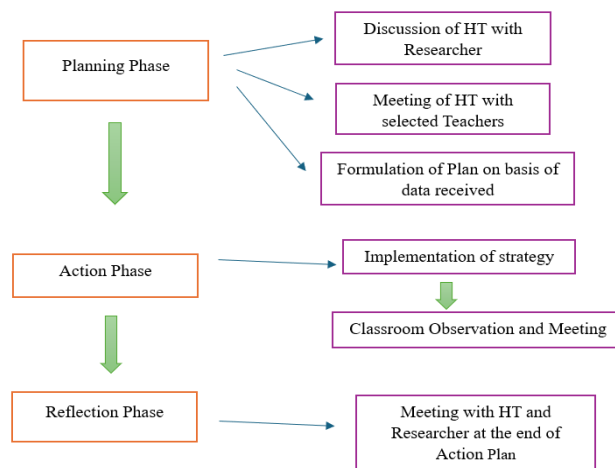


Figure 1 Action Plan of the study

The study is initiated with a meeting between researcher and a head teacher in which the researcher has asked her about the purpose of the research and her willingness to participate in the research. The researcher upon knowing the head teacher's willingness initiates the action plan for the study. The head teacher was asked to adopt the role of a mentor and to start the plan. For this she has to select three teachers, for which she can decide her own selection criteria, then invite them all for a meeting and discuss ongoing problems they are facing in their teaching and learning phase. The head teacher was asked to record the meeting and also to write meeting minutes at the end for the researcher. The teachers in the meeting have discussed many problems but they all point towards one common problem which was students 'inability to complete their home

assignments. After the meeting, the head teacher provided the researcher with the meeting minutes along with audio recordings. Researcher carefully reflect on the data received, reviewed literature, consulted with other subject matter experts and came out to be one reflective remedial action for this problem.

The solution was discussed with head teacher, and she was asked to apply the strategy in selected classrooms of selected teachers for fifteen days, observe the implementation and outcome of the efficacy that was measured in form of student completion and quality of home assignment that was assessed on a rubric provided by the researcher. Rubric was adapted from “Commack Schools.” During fifteen days four times the strategy for “Homework Club” was applied. Data was received in the form of scores, observation sheet, meeting minutes of head teacher and teacher. At the end of the plan, a semi structured interview was conducted with the head teacher and reflection of her was recorded to find out the outcome of the strategy and is the plan was able to develop community of practice in schools.

Data Analysis and Findings

Data received from the study was analyzed through quantitative as well as qualitative methods. Scores obtained after completion of homework club were analyzed through repeated measure ANOVA through SPSS: 22. Data received through meetings and observations and semi structured interviews were analyzed quantitatively using thematic analysis.

Quantitative Analysis of the Data

Total number of students participated in the study are 155 who were from three grades: VI, VIII and X. Descriptive statistics of the results are shown below:

PUBLIC	N	Min.	Max.	Mean	SD
score1	155	0	20	6.91	5.634
score2	155	0	20	9.19	6.110
score3	155	0	20	9.83	6.480
score4	155	0	20	11.35	9.057

Valid N (listwise) 155

Table 1 Descriptive statistics

The table above shows the Mean and Standard deviation of sample school collected at 4. Various times during the implementation of the Homework Club strategy. Differences in meaning from sample school is from 6.86-11.57. The table shows the maximum. Score of 20 indicating students have attained productivity in accomplishing their Homework. The purpose of the strategy was to test the sphericity of the sample therefore Repeated Measures ANOVA is performed. Mauchly's Test Result is shown in table below.

Mauchly's Test of Sphericity							
Measures	Measure 1						
		Approx.	Epsilon				
Within Subjects Effect	Mauchly's W	Chi-Square	Df	Sig.	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
Scores (public)	.170	270.723	5	.000	.575	.581	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix. a. Design: Intercept. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Table: 2 Mauchly's test for sphericity

It is performed to check whether the sphericity assumption can be held or not. When the level of significance ($\text{Prob} > \text{ChiSq}$) is greater than 0.05, sphericity can be assumed and in cases when it is less than 0.05 sphericity cannot be assumed. In the above case $\text{Prob} > \text{ChiSq} < 0.05$, depicting sphericity is not assumed. In that case, statistics Epsilon of all three correlations can be used in a test of within-subjects to evaluate the degree to which the violation of assumption has been done. In that case, we interpret Greenhouse- Geisser, Hyun- Feldt, and Lower -bound value. The rule says that when the Epsilon Value is less than 0.5 Greenhouse -Geisser significance value has to be noted and when it is ≥ 0.75 then the Huynh-Feldt Value is to be interpreted. In public school, as we can delineate from the table above Epsilon value is < 0.75 s, therefore value to be noted is of Greenhouse -Geisser, and in private school's value of Epsilon is > 0.75 in that case Huynh-Feldt value is to be noted. For the above value Epsilon, Table -4.3 can correct violation of sphericity.

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
scores (public)	Sphericity Assumed	1894.147	3	631.382	18.705	.000
	Greenhouse-Geisser	1894.147	1.725	1097.787	18.705	.000
	Huynh-Feldt	1894.147	1.743	1086.610	18.705	.000
	Lower-bound	1894.147	1.000	1894.147	18.705	.000

Table 3 Test of Within-Subjects

Table 3 illustrates both Greenhouse Geisser value to be significant in public schools and for private school Huyn Hund Felt Value to be significant. Results showed significant improvement in homework completion by students.

Qualitative Analysis of the Data

At the end of quantitative analysis, researcher conducted a semi structured interview with head teacher to analyze the efficacy of the action plan and how she observed and reflected the entire process of study.

Interview questions designed were below:

- What is your overall experience about the action study? Share strengths as well as weaknesses about the study?
- Have you enjoyed your new role? Did you find it challenging?
- Do you want to continue the culture of community of practice in your school? What steps you would take to sustain CoP in your school?

Interview were audio recorded by getting consent for the head teachers, transcribed carefully, codes were developed from which two broader themes were constructed that highlight the major findings of the study (Miles and Hubermann 1994). Details of the data received through different mediums are listed as below:

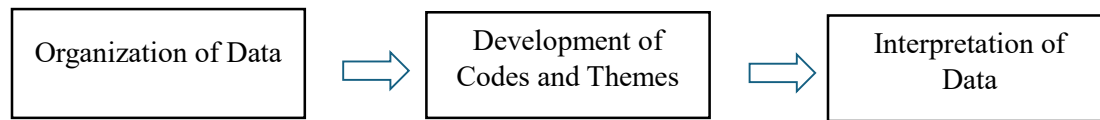
Meeting Minutes	Meeting Recordings	Observation	Semi structured Interview
(of HT with teachers)	(of HT with teachers)	by HT and Researcher	From HT
3	3	4	1

Table 4 (Details of Qualitative data)

[HT = Head Teacher]

Thematic Analysis

Data obtained from observation, meeting and interviews were analyzed as per detailed procedures provided by Miles and Hubermann (1984, 1994).



The enrich data unfolds two broad themes that reflects the development of school-based community of practice which are:

- Changing Culture of Schools; A way forward to develop Community of Practice
- Positive Influence of Leadership; Leaders as Mentor.

Changing Culture of Schools; A way forward to develop Community of Practice

During the entire study researcher has observed that every member involved was trying to work hard to get positive results. When the head teacher invited their teachers for a meeting to discuss their everyday challenges, they all were sharing their ideas in a way that can bring productive outcomes. During observation the head teacher found out the teachers were dedicatedly implementing the strategy, showing that they wanted to get a positive result. After every time they implement the strategy, they sit, discuss, reflect, and share their results and plan how to implement this next time in order to get satisfying results. The head teacher while interviewing proclaim:

I have seen the entirely different sides of my teachers. Never I make them sit in a way and they also never share ideas in a way. It felt e great when I saw them working for the school, for the students to solve their issues in their learning.

Other teacher was also observing these teachers, and they also want to implement this, as it is quoted:

Homework completion is a universal problem in our school and every teacher faces this in her/ his class as students coming from us are from low socio-economic backgrounds, doing evening jobs so could not focus..... This is like a worthy solution.

What is observed during the study is that teachers are starting to connect and collaborate with each other, in order to improvise their teaching and to find out productive ways that can help their students. They have formed a learning community the purpose of which is to share knowledge and encourage team building and team working which is in line of three core elements of CoP as

given by Lave and Wenger (1991): Domain, Community and Practice. In this context all teachers have a central focus, their shared vision on which they are working (Domain), they connect themselves and develop communities (Community) and they work together to achieve their goals, their focus of work (Practice). The teachers during the entire action plan, have faced numerous challenges, their workload increased, marking on rubrics and while implementation of homework club, the setting of their classrooms all was challenging but teachers despite all issues have worked passionately to make the strategy successful.

Positive influence of Leadership; Leader as a Mentor.

The study has provided a new role to the head teacher, a mentoring role which is duly performed by the head teacher. The study has directed the transformational leadership style in which the head teacher through her mentoring has changed the culture of the school and has transformed it into a place where their teachers can learn from each other (Leithwood & Jantzi, 2005). Head teacher with this role became very influential as teachers like her to be their mentor, who is leading them, discussing their problems, and making them learn to find out new ways to improve their teaching and learning processes.

We the heads always have been administrative, neglecting this side of school leadership. Your study made us to open this view And I like it... my teachers come to me to learn new things, to reflect on their teaching, which is very good for my learning.

Despite the tough administrative responsibilities, the head teacher took out time to be the part of the study reflecting, she wants to bring the change in their institution. As she said:

Yes, I have tough responsibilities but ... I Liked it ... I want to be a learner; I want to be a mentor.

The head teacher shared that they also require academic trainings also, as it is important for head teachers also to get training for emerging pedagogies that enable them to implement in their schools to improve students' learning outcomes. The entire study was possible and went productive because of the involvement of head teacher. Therefore, it is concluded that the role of head teachers was as an influencer that influences the working of their teachers as well as during

the plan continuous mentoring was provided by the head teacher through which teachers also get motivated to work in unique way.

Discussion

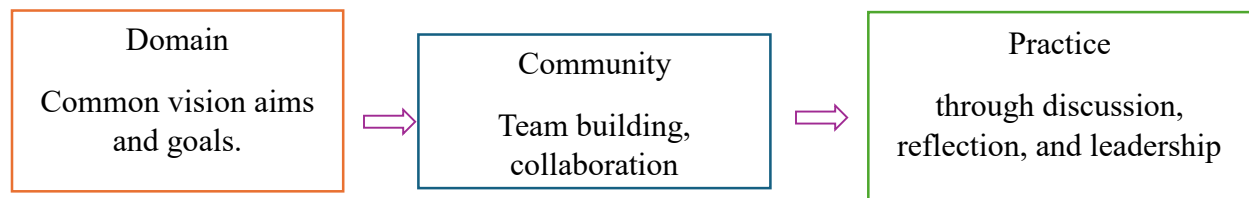
The data guide us that both head teacher and teachers wanted this to be continued, they wanted to collaborate, wanted to work in teams and they thought they can learn better in their own contexts, analyzing their situational problems very well as compared to from other resources. In order to sustain community of practices in school, it was proposed by the head teacher that an awareness program to entire teachers must be given, and different sub communities are developed first to cultivate this culture and later on all subcommunities within school can connect and share their learning with each other which could be extended to other schools to a broader context.

Overall findings suggested that through culture of community of practices, teachers learn from each other, and it provides positive effects on student's academic problems as they were unable to complete homework because of their home culture and low socioeconomic status. The collaborative nature of teachers under the mentorship of school heads provided the environment where students and teachers can find practical solutions of their problems for teaching and learning. The role of school heads is eminent and critical in developing community practices as teachers can work, share and learn together under their leadership. The study has provided the steps of cultivating the model of CoP, who has contributed to professional development of teachers which in turn can provide a better understanding of student's problem and can work to improve their academic performance.

Conclusion and Recommendations

The current study aims at developing the model of community of practice in schools using collaborative action research. Teachers successfully have interacted with each other, learn from each other under the strong positive influence of their headteacher and as a result community of practice is developed in alignment with the framework proposed by Wenger (1998a). As quality of education is decline in public sector because of teacher's lacking in competencies in pedagogies and to some extent in content (Tahira et al., 2021), it is very important that teachers can learn within their own context to improve themselves. The study has provided some essential building blocks to construct the framework of CoP in context of public schools of Pakistan. It is analyzed

and interpreted from the data that teachers believe in team working and collaboration, discussion and reflection and transformational and modelling leadership throughout the study.



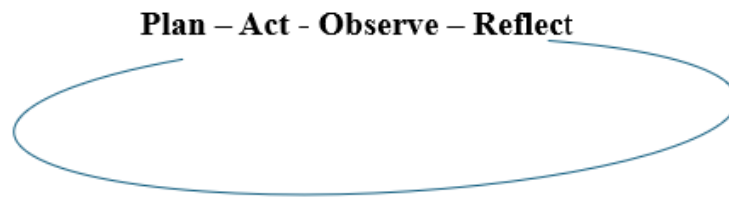
Looking into this to develop community of practice, the vision of the institution must be shared with teachers that can make them aware of institutional goals and can develop the sense of ownership among them. When forming communities, they must be associated with team building and collaboration and when in practice leadership role is the most significant one. The research is very significant as it has provided a new face of schools that can provide learning not only to students, but teachers can also learn from the model. derived from the study. In context of Pakistan where teacher's learning is an issue (Tahira et al.,2020) and teachers lack in attaining formal education programs (Saeed et al., 2013), study can direct the institution for the professional development and learning of their teachers.

Through CoP teachers, school heads and other staffs engage and interact with each other, head teacher facilitates and guide their teachers and with their support a learning culture can be developed in the school which is proposed by Peter Senge in his work provided the notion as "Learning Organization" which is learning in own contexts, in own working premises (Senge, 1990 and Lunenburg, 2011). CoP is now a needed theory for the emerging era, which schools need to adopt to find out practical ways to solve their educational challenges that can help to improve quality if teaching as well as learning.

Recommendations

- This study is very useful to strengthen teachers' learning but it is recommended that it could be done in two sectors, public and elite private sectors that can provide the explanation of whether there exists any difference of teacher's learning a professional development there and if it exists what can be done in public sector to further improve their professional learning.

- It is also recommended that teachers training, and workshop related to action research must be provided to schoolteachers so that they can perform better in future and can even perform action research by themselves to improve their existing pedagogies.
- Technology must also be integrated to develop CoP within schools as it will help to connect teachers easily, further teachers can exchange their ideas and resources better and faster through technology as compared to some other manual devices.
- It is also suggested to follow a properly structured inquiry pattern, the plan after this cycle after reflection again has to be replanned and re-execute to find out the efficacy of the plan. It must follow the cycle like



- It is also important to get continuous support from school heads in terms of some tangible resources and a part some monetary compensation for their teachers who are cooperative and are working additional for the development and sustainability of Cop. Also, there must be some support or guidance system for school heads as they also want mentoring to mentor others.
- After implementation, some evaluation mechanism should also be formulated, and for sustainability of CoP, it is very important to have some measures that can evaluate the efficacy of the CoP framework.

These suggestions can guide the future educational, policy makers and researchers to plan a long-term CoP framework effectively and strategically for the broader contexts that can serve large number of teachers, and students and can help the school and educational institutions to uplift the professional attainment of their teachers.

References

Ahmad, N., Iqbal, S., Ali, Z., Jabeen, R., & Imran, M., (2024). Bridging the Gap: Secondary School Teachers' Perspectives on Behavioral Barriers to Academic Success. *Al-Qanṭara* 10(2) ,144-162.

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- Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerritt, O. (2002). The concept of action research. *The learning organization*, 9(3), 125-131.
- Amin, A., & Roberts, J. (2008). Knowing in action: Beyond communities of practice. *Research policy*, 37(2), 353-369.
- Avison, D. E., Lau, F., Myers, M. D., & Nielsen, P. A. (1999). Action research. *Communications of the ACM*, 42(1), 94-97.
- Bergmark, U. (2022). The role of action research in teachers' efforts to develop research-based education in Sweden: intentions, outcomes, and prerequisite conditions. *Educational Action Research*, 30(3), 427-444.
- Carter, M. & Francis, R. (2001). 'Mentoring and Beginning Teachers' Workplace Learning'. *Asia-Pacific Journal of Teacher Education*, 29 (3), 249-262.
- Chowdhury, R. (2018). Collaborative Partnerships Within Communities of Practice: The Need for School-Based Action Research in Bangladesh. 159–178. https://doi.org/10.1007/978-981-13-0708-9_9
- Cochran-Smith, Marilyn, and Susan Lytle (2006). "Troubling images of teaching in no child left behind." *Harvard Educational Review* 76.4, 668-697.
- Darling-Hammond, L. (2016). Research on teaching and teacher education and its influences on policy and practice. *Educational Researcher*, 45(2), 83-91.
- Davenport, E., & Hall, H. (2002). Organizational knowledge and communities of practice. *Annual review of information science and technology*, 36(1).
- Day, C. (2003). Teachers' Development. Athens: Tipothito.
- De Oliveira, B. (2023). Participatory action research as a research approach: Advantages, limitations and criticisms. *Qualitative Research Journal*, 23(3), 287-297.
- Ellström, P. E. (2007, May). Knowledge creation through interactive research: A learning perspective. In *HHS-07 Conference, Jönköping University, May* (pp. 8-11).
- Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38, 915–945.
- Green, T. L. (2018). School as community, community as school: Examining principal leadership for urban school reform and community development. *Education and Urban Society*, 50(2), 111-135.

- Grossman, P., Wineburg, S., & Woolworth, S. (2001). Toward a theory of teacher community. *Teachers' college record*, 103(6), 942-1012.
- He, Y. (2009). 'Strength-based mentoring in pre-service teacher education: a literature review'. *Mentoring and Tutoring: Partnership in Learning*, 17 (3), 263-275.
- Hoadley, C., & Kilner, P. G. (2005). Using technology to transform communities of practice into knowledge-building communities. *SIGGROUP Bulletin*, 25(1), 31–40.
- Homework Grading Rubric retrieved from:
<https://www.commackschools.org/Downloads/IB%20Psych%20Homework%20Grading%20Rubric.doc>
- Iheringguesdes. (2024, February 21). *COMMUNITY OF PRACTICE IN EDUCATION*. Medium.
<https://medium.com/@iheringguesdes/community-of-practice-in-education-0e887af46a26>
- Imran, M., & Akhtar, N. (2023). Impact of Ethical Leadership Practices on Teachers' Psychological Safety and Performance: A Case of Primary School Heads in Karachi-Pakistan. *Academy of Education and Social Sciences Review*, 3(2), 172-181.
<https://doi.org/10.48112/aessr.v3i2.505>
- Imran, M., Ahmad, N., Al-Harthy, A. A. Q., & Jat, Z. G. (2023). Early Identification and Intervention: Amplifying the Voice of Slow Learners. *AITU Scientific Research Journal*, Volume. 1, Issue. 4,
- Imran, M., Zaidi, S.S., & Rehan, F., (2024). The Impact of Excessive Internet Usage on the Emotional Maturity of Adolescents: A Case Study in Pakistan. *Spry Journal of Humanities and Social Sciences (SJHSS)*, 2(1), 1-20.
<https://doi.org/10.62681/sprypublishers.sjhss/2/1/1>
- Ingersoll, R. & Strong, M. (2011). 'The Impact of Induction and Mentoring Programs for Beginning Teachers: A critical Review of the Research'. *Review of Education Research*, 81 (2), 201-233.
- Kemmis, S. (2021). Improving education through action research. In *Action research for change and development* (pp. 57-75). Routledge
- Khoso, F., J., Shaikh, N., Dahri, K., H., & Imran, M, (2024). Educational Nurturing in Underdeveloped Contexts Unraveling the Dynamics of Student Teachers' Holistic Development. *Spry Contemporary Educational Practices (SCEP)*, 3(1), 49-67.
<https://doi.org/10.62681/sprypublishers.scep/3/1/3>
- Lave, J. (2009). The practice of learning. In *Contemporary theories of learning* (pp. 208-216). Routledge
- Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press

- Leer *KRACHT (teaching FORCE)*. (2019, February 12). Hundred.org.
<https://hundred.org/en/innovations/leerkracht-teachingforce>
- Leithwood, K., & Jantzi, D. (2005). Transformational leadership. *The essentials of school leadership*, 31, 43.
- Loucks-Horsley, S., Stiles, K. E., Mundry, S., Love, N., & Hewson, P. W. (2009). *Designing professional development for teachers of science and mathematics*. Corwin press.
- Lufungulo, E. S., Mambwe, R., & Kalinde, B. (2021). The meaning and role of action research in education. *Multidisciplinary Journal of Language and Social Sciences Education* 4(2), 15-28.
- Lunenburg, F. C. (2011). Systems thinking and the learning organization: The path to school improvement. *Schooling*, 2(1), 1-6.
- Mac Naughton, G. (2020). Action research. In *Doing early childhood research* (pp. 208-223). Routledge
- McNiff, J. (2013). *Action Research: Principals and practice* (Third Edition). New York: Routledge
- Mehdizadeh, M., Pourhaji, M., & Derakhshan, A. (2024). Evolution of communities of practice, realignment of possible selves, and repositioning in EFL teacher professional identity development: A longitudinal case study. *The Language Learning Journal*, 52(3), 336-348.
- Miles, M.B, and Huberman, A.M. (1994). *Qualitative Data Analysis*, 2nd Ed., p. 10-12. Newbury Park, CA: Sage
- Miles, M.B., and Huberman, A.M. (1984). *Qualitative Data Analysis*, 16. Newbury Park, CA: Sage.
- Mohammad, N., Aslam, M., Anjum, T., Haider, S., Hashim, M., & Imran, M. (2024). Phenomenological Inquiry into Postgraduate Students' Perceptions of Academic Supervision and Feedback Experiences. *Al-Qanṭara*, 10(2), 126-144.
- Mohammad, R. F., & Harlech-Jones, B. (2008). Working as partners for classroom reform. *International Journal of Educational Development*, 28(5), 534-545.
- Newman, K. L. (2000). Organizational transformation during institutional upheaval. *Academy of management review*, 25(3), 602-619.
- Oad, L., Zaidi, S.S., & Phulpoto, S. A. J., (2023). Helicopter Parenting and its Influence on the Children of Pakistan: Thematic Analysis. *Spry Journal of Humanities and Social Sciences (SJHSS)*, 1(2), 72-87. <https://doi.org/10.62681/sprypublishers.sjhss/1/2/1>
- Onchwari, G., & Keengwe, J. (2008). The impact of a mentor-coaching model on teacher professional development. *Early Childhood Education Journal*, 36, 19-24.

- Palujanskiene, P., & Svagzdiene, B. (2020). The paradigm of school as a learning organization: key features forming a modern organization. *LASE Journal of Sport Science*, 11(1), 19-36.
- Phulpoto, S. A. J., Oad, L., & Imran, M. (2024). Enhancing Teacher Performance in E-Learning: Addressing Barriers and Promoting Sustainable Education in Public Universities of Pakistan. *Pakistan Languages and Humanities Review*, 8(1), 418–429. [https://doi.org/10.47205/plhr.2024\(8-1\)38](https://doi.org/10.47205/plhr.2024(8-1)38)
- Rehan, F., Zaidi, S. S., Imran, M., Akhtar, S., Shah, A., & Hameed, S. (2024). Exploring the Efficacy of Music-Based Pedagogies in Developing Communication Skills: Perspectives of Early Childhood Educators. *Al-Qanṭara*, 10(2), 79-98.
- Salfi, N. A. (2011). Successful leadership practices of head teachers for school improvement: Some evidence from Pakistan. *Journal of educational Administration*, 49(4), 414-432.
- Senge, P. M. (1990). *The Fifth Discipline: The Art and Practice of the Learning Organization*
- Smith, K. A., Sheppard, S. D., Johnson, D. W., & Johnson, R. T. (2005). Pedagogies of engagement: Classroom-based practices. *Journal of engineering education*, 94(1), 87-101.
- Stevenson, M., Hedberg, J. G., O’Sullivan, K. A., & Howe, C. (2016). Leading learning: The role of school leaders in supporting continuous professional development. *Professional development in education*, 42(5), 818-835.
- Tahira, M., Hassan, A., Malik, A., & Yousuf, M. I. (2020). Teacher Education in Pakistan: Issues and Problems.
- Tahira, M., Yousaf, I., & Haider, A. G. (2021). Analysis of Low-Quality Education at Primary Level in Public Sector in Pakistan. *International Journal of Curriculum and Instruction*, 13(3), 2253-2267.
- Van Tartwijk, J., & Lockhorst, D. (2014). Public Summary of Research Report Evaluation Change Approach Leer KRACHT 2013-2014. University of Utrecht and Oberon.
- Wenger, E. (2000) ‘Communities of practice and social learning systems’, *Organization*, 7 (2).
- Wenger, E. and Snyder, W.M. (2000) ‘Communities of Practice: The organizational frontier’, *Harvard Business Review*, January/February.
- Wenger, E., Mc. Dermott, R. and Snyder, W.M. (2002) *Cultivating Communities of Practice*. Boston: Harvard Business School Press.
- Zuber-Skerritt, O. (Ed.). (2021). *Action research for change and development*. Routledge