

Research Paper

The Important of the Community of Practice (CoP) in Improving the Primary School Teachers' Performance in Riau Province

Neni Hermita^{1*}, Tommy Tanu Wijaya², Naila Fauza¹, Eva Astuti Mulyani¹, Jesi Alexander Alim¹, Riki Apriyandi Putra¹ ¹ Universitas Riau, INDONESIA ²Guangxi Normal University, China

Received 30 September 2020 • Revised 8 January 2021 • Accepted 17 February 2021

ABSTRACT

Efforts to developing the quality of education is empowering educators. Positive activities that accommodate teachers to improve the quality of education are the activities of the Community of Practice (CoP). Community of Practice (CoP) or KKG in Indonesia Context is a forum for professional development for primary school teachers, and one of which is improving teacher performance. The effectiveness of the CoP really needs to be studied in depth. Therefore, a study was conducted on the role of CoP in improving the performance of primary school teachers in Riau Province. The method is a quantitative descriptive study, which describes the role of CoP activities in improving teacher performance in Riau through quantitative data. The research was carried out in May-August 2020. The participant was elementary schools' teachers in Riau Province. The data source is the primary school teachers totalling 60 people. Data collection techniques using a questionnaire. Based on the results and discussion, it can be concluded that there are several roles of CoP activities in improving teacher performance, among others: through CoP teachers can discuss in construct learning tools, teachers were able to arrange lesson plans for active learning based on analysis of student needs, learning materials are arranged based on various learning sources, using media active learning, analysing evaluation test and conducting assessments according to active learning and student abilities.

Keywords: community of practice, teacher performance, primary schools

INTRODUCTION

Education is the foundation of human civilization [1]–[3]. The development of a civilization really depends on the quality of the education produces. Quality education is structured according to the needs of a dynamically developing society. One of the efforts to improve the quality of education is through empowering teachers [4], [5]. In Indonesia teachers must to have (a) minimum academic qualifications of S--1 / D-IV, (b) competence as learning agents, namely pedagogical, personal, social, and professional competences, and (c) educator certificates. The mandate of the law emphasizes that teachers must continuously improve their competence through various efforts, namely: workshops, training, scientific writing activities, meetings in working groups and work deliberations, in this case through the Community of Practice (CoP).

Hermita et al./ Community of Practice, Teacher Performance, Primary Schools

CoP (KKG in Indonesia context) is a forum for professional development for primary school teachers. KKG can be said to be a concept of community practice (CoP) which refers to the learning process that occurs when a community consisting of a group of people with the same goals work together to achieve these goals, in a small social system[6], [7]. Boylan [8] said that in one conceptualization, CoP is a social organization where learning and participation takes place. Slatter [9] concluded that CoP is a group of people who share a concern or passion for something they do and learn how to do it better and interact regularly. Rory [10] emphasizes that the CoP is a working group that is oriented towards improving the quality of knowledge, teaching techniques, student teacher interactions, teaching methods, and others that focus on creating active teaching and learning activities.

CoP is specifically as a place for knowledge management to occur, which is defined as a place for useful and valuable knowledge, so it needs to be created, organized, shared and distributed [11], [12]. Therefore, efforts are needed to ensure that knowledge is created, captured, organized, and can be accessed and used as a valuable asset for personal development purposes [13], [14]. Evans [15] and Kramer [16] emphasize that knowledge management is an effort to create sharing knowledge and developing knowledge between individuals because knowledge has been considered a major commodity. Thus the main purpose of knowledge management is knowledge sharing (**Figure 1**), which describes the interaction people, two or more people, in communication process that aims to improve and develop the self of each member. Through knowledge sharing activities, it is possible for the creation of new knowledge to produce new innovations. It is hoped that the CoP will be able to change the mindset of each member so that it becomes a place for knowledge sharing



Figure 1. Knowledge Sharing cycle [17]

The objectives of the CoP are 1) broadening the teachers' insight and knowledge; 2) provide opportunities for working groups members or work deliberations to share experiences and provide mutual assistance and feedback; 3) provide opportunities for working groups members or work discussion to share experiences and provide mutual assistance and feedback; 4) increasing knowledge and skills, and adopting a renewal approach in learning that is more professional for participants in work groups or work discussion; 5) empowering and assisting working group members or working discussion (increasing knowledge, competence and performance) and developing teacher professionalism through professional development activities at the CoP level; 7) improving the quality of education and learning process as reflected in the student learning outcomes improvement, and 8) increasing teacher competence through activities at the CoP level [18].

Based on objectives of the CoP above, it is hoped that various obstacles in improving the quality of education can be resolved, and improving the primary school teachers' performance. However, in reality, the CoP has not been able to solve the problems. In 2019, the results of a survey conducted by innovation in the schools found that teachers did not see the CoP as a professional development forum. In general, teachers were less motivated to attend CoP meetings to construct instrument test and do some tasks, such as completing educational administration requirements. There are few resource persons available to facilitate teacher professional development, and the CoP forum is rarely utilized as a forum for in-service training or ongoing professional development. In addition, the Ministry of National Education also found several main problems faced by the CoP, such as: 1) CoP management was not functioning optimally; 2) CoP programs are less significant and less appropriate for teacher needs; 3) CoP operational support funds are not proportional; 4) The local government, through the related Education Office, does not care much about the various initiatives that the CoP carries out; 5) Professional associations are less supportive of the CoP activities, and 6) CoP are less empowered in improving the quality of learning which has a positive impact on improving the quality of national education.

The existence of the CoP is needs to be clearly described. Do almost all of CoP have the same problems, or are there already CoP that can be used as best practice in improving the quality of education in Indonesia. Therefore, we need a study on the role of the CoP in improving the performance of primary school teachers in Riau Province.

MATERIAL AND METHODS

Methods

This research is a quantitative descriptive study, that describes the role of CoP activities in improving primary school teacher performance in Riau through quantitative data. The research was carried out in May-August 2020. The participant was 60 elementary schools' teachers in Riau Province. Data collection techniques using a questionnaire. A questionnaire is a set of written statements or questions that are given to respondents to be answered [19], [20]. This questionnaire is a list of statements made by the researcher and that were be answer by respondent.

Instrument

The research instrument used a questionnaire which was distributed via google form to several elementary schools in Riau Province. The questionnaires to be used are arranged according to a modified Likert scale. This scale is used by researchers to measure the perceptions, attitudes or opinions of a person or group about social phenomena [21]. The use of this scale can assess attitudes or behavior by asking several questions to respondents. Then the respondent is asked to provide a choice of answers or opinions on the measurement scale provided, namely always, ever, sometimes, and never. The instrument is filled individually and does not include the respondent name, which aims to protect the privacy of the respondent's opinion.

Procedures

Hermita et al./ Community of Practice, Teacher Performance, Primary Schools

The data collection technique in this study was filling out a questionnaire by primary school teachers in Riau Province. The research procedure has several stages: (1) investigating the phenomena that occur in primary school teachers; (2) looking for problems from the phenomenon; (3) finding solutions to problems; (4) carry out further investigations or research; (5) conducting a literature review; (6) construct a research instrument, namely a questionnaire to investigate this phenomenon; (7) perform data analysis and discussion; (8) draw conclusions.

Data Analysis

The data analysis technique used a questionnaire distributed to primary school teachers in Riau Province. The data collected in Table 1:

Table 1. Tabulation of Primary School Teacher Performance

No	Question	Optional			
		Always	Ever	Sometimes	Never
1	A learning unit is created for every meeting discussed at the local CoP forum	37%	29%	27%	7%
2	Lesson plan are prepared using active learning based on an analysis of students' abilities	64%	29%	3%	3%
3	Teaching in class using only existing books	9%	29%	49%	13%
4	Feeling that has no obligation that before teaching to make a planning program	5%	15%	9%	71%
5	Providing subject matter refers to the latest books according to the curriculum.	81%	12%	9%	0%
6	Applying active learning media from training at the CoP forum	39%	34%	24%	3%
7	Providing an assessment to students according to active learning and student abilities	88%	12%	0%	0%
8	There is a CoP program on the analysis of learning evaluation questions before they are tested.	24%	53%	17%	6%

The results of this study through a questionnaire via google form, there were 60 respondents. There are 8 (eight) statements related to the role of the CoP on the performance of primary school teachers in Riau Province. The first statement states that 37% of the learning units are always made for every time the meeting is discussed together at the local CoP. Meanwhile, 7% of the teachers never created a learning unit for every meeting with the CoP. Based on these data, it can be seen that most of the CoP activities have created learning units and utilized CoP activities for the benefit of making lesson plans. Furthermore, most teachers have prepared lesson plans using active learning based on an analysis of student abilities. In line with the 2013 curriculum, which requires students to learn actively (student center) (Suwarjo, et al., 2015). Teachers as facilitators and motivators for students (Esi, et al., 2016).

RESULTS AND DISCUSSION

Teachers always use existing books in class teaching [22], [23]. This shows that teachers have many supporting learning resources, not only books available in schools [24], [25]. A variety of learning sources can add to students' insights so that students are interested and not bored [26]–[28]. There are 71% of teachers who have an obligation before teaching that they have to make a planning program. The essence of programming is to design programs according to student characteristics and learning materials [29], [30]. 81% of teachers always provide subject matter according to the latest books according to the curriculum [31]. Curriculum development in accordance with the

times. It is proven that the 2013 Curriculum can improve skills, attitudes and knowledge [32].

Most of the teachers have applied active learning media from training at the CoP forum. Active learning can increase learning activeness and creativity. Learning does not escape the assessment of students. Assessment is objective so that student's ability is well measured. As 88% of teachers have provided assessments in accordance with active learning and student abilities. There are obstacles in assessing learning outcomes, the teacher experiences several problems related to the number of assessment elements, the complexity of the assessment, making assessment instruments, implementing the assessment, and reporting the results of the assessment. Based on these findings, it is suggested that the assessment of student learning outcomes be simplified and still meet the assessment principles, such as comprehensive, objective, transparent, and accountable. There are 24% of the local CoP program always analysing learning evaluation questions before being tested. And 53% have done an analysis of evaluation questions. Question analysis is useful for getting quality items to improve student learning outcomes.

In general, CoP is a very important role in improving teacher performance. And in the end, it will lead to improving the quality of education in Indonesia. The research results of Teng [33] also explain that the CoP allows teachers to expand their teaching and research capacities, in addition to creating a shared commitment.

CONCLUSION

Based on the results and discussion, it can be concluded that there are several roles of CoP activities in improving teacher performance, among others, through CoP teachers can discuss in constructing learning tools, teachers get to construct lesson plans for active learning based on analysis of student needs, learning materials are arranged based on various learning sources, using learning media active, analyzing the evaluation questions and carrying out assessments according to active learning and students' abilities.

ACKNOWLEDGMENTS

The Authors thank to the Research and Community Service Institute (LPPM) of Universitas Riau for this funding this research under the grand of DIPA LPPM 2020.

REFERENCES

[1] M. Bernard and S. Chotimah, "Improve student mathematical reasoning ability with open-ended approach using VBA for powerpoint," *AIP Conf. Proc.*, vol. 2014, no. September, 2018.

[2] S. I. Kulsum, W. Hidayat, T. T. Wijaya, and J. Kumala, "Analysis on high school students' mathematical creative thinking skills on the topic of sets," *J. Cendekia J. Pendidik. Mat.*, vol. 03, no. 02, pp. 431–436, 2019.

[3] Y. J. Chang, T. Y. Wang, S. F. Chen, and R. H. Liao, "Student Engineers as Agents of Change: Combining Social Inclusion in the Professional Development of Electrical and Computer Engineering Students," *Syst. Pract. Action Res.*, vol. 24, no. 3, pp. 237–245, 2011.

[4] M. W. Olofson, M. J. C. Swallow, and M. D. Neumann, "TPACKing: A constructivist framing of TPACK to analyze teachers' construction of knowledge," *Comput. Educ.*, vol. 95, pp. 188–201, 2016.

[5] L. Fan, Y. Zhu, and Z. Miao, "Textbook research in mathematics education: Development status and directions," *ZDM - Int. J. Math. Educ.*, vol. 45, no. 5, pp. 633–646, 2013.

[6] M. Pardasani, "Teaching Students the Importance of Community Engagement and Awareness in the Areas of Mental Health and Addiction," *New Dir. Treat. Educ. Outreach Ment. Heal. Addict.*, pp. 299–313, 2018.

[7] M. M. Barry, Community Mental Health Promotion Principles and Strategies. 2019.

[8] M. Boylan, "Ecologies of participation in school classrooms," *Teach. Teach. Educ.*, vol. 26, no. 1, pp. 61–70, 2010.

[9] W. Slatter and B. France, "Community of Practice: Pedagogical Strategies for Linking Communities of Practice to the Classroom," in *Handbook of Technology Education*, 2018, pp. 629–641.

[10] R. Kokelaar, "Remaining 'Grounded' in a Laparoscopic Community of Practice: The Qualitative Paradigm," *Adv. Surg. Educ. Innov. Chang. Prof. Educ.*, vol. 17, pp. 439–443, 2019.

[11] M. Gallardo, *Negotiating identity in modern foreign language teaching*. Springer International Publishing, 2019.

[12] M. Flavin, "Disruptive Technology Enhanced Learning," *Disruptive Technol. Enhanc. Learn.*, pp. 87–109, 2017.

[13] L. Adie, A. Mergler, J. Alford, V. Chandra, and E. Hepple, "Teacher Educators' Critical Reflection on Becoming and Belonging to a Community of Practice," *Communities Pract.*, pp. 403–419, 2017.

[14] N. Movshovitz-hadar and A. Shriki, "The Proceedings of the 12th International Congress on Mathematical Education," *Proc.* 12th Int. Congr. Math. Educ., pp. 597–600, 2015.

[15] M. Evans, "The Challenges of Knowledge Management to Human Performance Technology.," *TechTrends Link. Res. Pract. to Improv. Learn.*, vol. 48, no. 2, pp. 48–52, 2004.

[16] J. König and C. Kramer, "Teacher professional knowledge and classroom management: on the relation of general pedagogical knowledge (GPK) and classroom management expertise (CME)," *ZDM* - *Math. Educ.*, vol. 48, no. 1–2, pp. 139–151, 2016.

[17] V. J. Shute and B. Emihovich, "Assessing Problem-Solving Skills in Game-Based Immersive Environments," in *Second Handbook ofInformation Technology in Primary and Secondary Education*, 2018, pp. 635–648.

[18] D. Juandi and A. Jupri, "Developing Mathematical Communication and Representation of Students Grade Vii: a Design Research," J. Pengajaran Mat. dan Ilmu Pengetah. Alam, vol. 18, no. 2, p. 135, 2013.

[19] R. A. Fani and P. Sukoco, "Volleyball learning media using method of teaching games for understanding adobe flash-based," *Psychol. Eval. Technol. Educ. Res.*, vol. 2, no. 1, pp. 34–50, 2019.

[20] S. Fitri, E. Syahputra, and H. Syahputra, "Blended learning rotation model of cognitive conflict strategy to improve mathematical resilience in high school students," *Int. J. Sci. Technol. Res.*, vol. 8, no. 12, pp. 80–87, 2019.

[21] S. Aminah, T. T. Wijaya, and D. Yuspriyati, "Analisis Kemampuan Komunikasi Matematis Siswa Kelas Viii Pada Materi Himpunan," *J. Cendekia J. Pendidik. Mat.*, vol. 2, no. 1, pp. 15–22, 2018.

[22] P. Aditya, T. T. Wijaya, S. N. Dewi, and Z. Zulfah, "ANALISIS BUKU SISWA MATEMATIKA SMA DARI INDONESIA DAN CHINA PADA MATERI PELUANG DAN STATISTIK," *J. Cendekia J. Pendidik. Mat.*, vol. 4, no. 2, pp. 813–822, 2020.

[23] J. Cai, M. Ding, and T. Wang, "How do exemplary Chinese and U.S. mathematics teachers view instructional coherence?," *Educ. Stud. Math.*, vol. 85, no. 2, pp. 265–280, 2014.

[24] T. T. Wijaya, Z. Ying, and L. Suan, "Using Geogebra in Teaching Plane Vector," *J. Innov. Math. Learn.*, vol. 3, no. 1, pp. 15–23, 2020.

[25] N. Hermita, H. S. Ningsih, J. A. Alim, M. Alpusari, Z. H. Putra, and T. T. Wijaya, "Developing Science Comics for Elementary School Students on Animal Diversity," *Solid State Technol.*, vol. 63, no. 1s, 2020.

[26] T. T. Wijaya, Z. Ying, S. Chotimah, M. Bernard, Zulfah, and Astuti, "Hawgent dynamic mathematic software as mathematics learning media for teaching quadratic functions," in *Journal of Physics: Conference Series*, 2020, vol. 1592, no. 1.

[27] T. T. Wijaya, Z. Ying, A. Purnama, and N. Hermita, "Indonesian students' learning attitude towards online learning during the coronavirus pandemic," *Psychol. Eval. Technol. Educ. Res.*, vol. 3, no. 1, pp. 17–25, 2020.

[28] T. T. Wijaya, Z. Ying, and A. Purnama, "Using Hawgent dynamic mathematics software in teaching trigonometry," *Int. J. Emerg. Technol. Learn.*, vol. 15, no. 10, 2020.

[29] J. H. L. Koh, H. L. Woo, and W. Y. Lim, "Understanding the relationship between Singapore preservice teachers' ICT course experiences and technological pedagogical content knowledge (TPACK) through ICT course evaluation," *Educ. Assessment, Eval. Account.*, vol. 25, no. 4, pp. 321–339, 2013.

Page **32** of **33**

[30] E. Baran, S. Canbazoglu Bilici, A. Albayrak Sari, and J. Tondeur, "Investigating the impact of teacher education strategies on preservice teachers' TPACK," *Br. J. Educ. Technol.*, vol. 50, no. 1, pp. 357–370, 2019.

[31] L. Fan and K. S. G., "The influence of textbooks on teaching strategies: An empirical study," *Mid-Western Educ. Res.*, vol. 13, no. 4, 2000.

[32] H. Bancong and J. Song, "Do physics textbooks present the ideas of thought experiments?: A case in Indonesia," J. Pendidik. IPA Indones., vol. 7, no. 1, pp. 25–33, 2018.

[33] F. Teng, "Autonomy, agency, and identity in teaching and learning english as a foreign language," *Auton. Agency, Identity Teach. Learn. English as a Foreign Lang.*, vol. 2019, pp. 1–132, 2018.