

Enhancing Teacher Competence through Continuous Professional Development: A Case Study at Brawijaya Smart School

Shobihatul Fitroh Noviyanti^{1*}, Suti'ah¹, Mulyadi¹, Juri Wahananto², Ihsan Zikri¹

¹UIN Maulana Malik Ibrahim, Malang, Indonesia

²Kementerian Agama Kabupaten Lamongan, Indonesia

* corresponding author: shobihanoviyanti@gmail.com

ABSTRACT

This study investigates the implementation and impact of the Continuous Professional Development (PKB) program at Brawijaya Smart School (BSS) in Malang, Indonesia. Employing a mixed-methods approach, the research evaluates the program's effects on teacher competence in pedagogical, professional, social, and personal domains. Data collection methods included observations, interviews, and document analysis. Findings suggest that structured development activities significantly enhance teacher competencies. Recommendations include aligning professional development initiatives with teacher needs for continuous improvement.

ARTICLE HISTORY:

Received: 13 Desember 2023

Accepted: 3 April 2024

Published: 31 Mei 2024

KEYWORDS:

Continuous Professional Development, Teacher Competence, Teacher Quality, Professional Development Program, Education Improvement.

ABSTRAK

Studi ini menyelidiki implementasi dan dampak dari program Pengembangan Keprofesian Berkelanjutan (PKB) di Brawijaya Smart School (BSS) di Malang, Indonesia. Menggunakan pendekatan metode campuran, penelitian ini mengevaluasi efek program pada kompetensi guru dalam domain pedagogis, profesional, sosial, dan pribadi. Metode pengumpulan data meliputi observasi, wawancara, dan analisis dokumen. Temuan menunjukkan bahwa kegiatan pengembangan terstruktur secara signifikan meningkatkan kompetensi guru. Rekomendasi termasuk menyelaraskan inisiatif pengembangan profesional dengan kebutuhan guru untuk perbaikan berkelanjutan.

Kata kunci: Pengembangan Keprofesian Berkelanjutan, Kompetensi Guru, Kualitas Guru, Program Pengembangan Keprofesian, Peningkatan Pendidikan



INTRODUCTION

The professional development of teachers is a critical component in the pursuit of high-quality education worldwide. Teachers are required to possess a wide range of competencies, including academic qualifications, educational certifications, and the physical and mental health necessary to fulfill their roles effectively, as stipulated in Indonesian law (UU Guru Nomor 14 Tahun 2005). The continuous improvement of teaching skills is essential to adapt to evolving educational needs and to foster innovative teaching methods. Recognizing the pivotal role of teacher competence in achieving national educational goals, various laws and regulations have been enacted to standardize the qualifications and professional development of educators (Sekretariat Negara Indonesia, 2005).

Previous research has highlighted significant gaps in teacher preparedness and instructional methods. For instance, Leonard's study revealed that a considerable number of teachers in Jakarta did not adequately prepare for the learning process, focusing more on the subject matter rather than the educational goals (Leonard, 2018). Additionally, there is a tendency among teachers to employ monotonous teaching strategies, which do not effectively engage students or utilize learning objectives to guide the creation of teaching materials, strategies, and evaluation tools. Such findings underscore the necessity for continuous professional development programs to enhance teacher competence and align teaching practices with educational objectives.

Professional development programs have demonstrated varied degrees of effectiveness across different contexts and disciplines. For example, Groothuijsen, Prins, and Bulte (2019) found that tailored professional development programs could empower teachers to become leaders in curriculum innovation. Similarly, the NITARP program has shown that authentic research-based professional development can significantly shift educators' motivations from inward-focused to outward-focused (Rebull et al., 2018). Moreover, the ELP program in Bahrain has effectively enhanced school leaders' competencies in management and ICT integration (Abdul Razzak, 2013), while the



Foundations of Science Literacy program significantly improved preschool teachers' science teaching quality and children's learning outcomes (Gropen et al., 2017).

In addition to these examples, professional development programs have also been shown to improve pedagogical content knowledge (Yutakom et al., 2016) and enhance inquiry-based instructional practices (Lotter et al., 2014). Belland, Burdo, and Gu (2015) demonstrated that blended professional development could equip middle school science teachers with the skills to provide individualized student support comparable to inquiry-oriented teachers (Belland et al., 2015). Similarly, Todorova and Osburg (2009) reported that the Intel® Teach - Advanced Online program significantly improved teachers' competencies in technology integration, collaboration, and teaching practices, which in turn motivated students (Todorova & Osburg, 2009).

Despite these successes, challenges and gaps remain in the implementation of professional development programs. For instance, Kalim and Bibi (2024) identified the need for structuring professional development programs in Pakistan to address the specific needs of different teacher groups (Kalim & Bibi, 2024). Furthermore, Sipman et al. (2022) found that a systemic-phenomenological professional development program enhanced teachers' awareness and intuition but highlighted the complexities in handling diverse classroom situations (Sipman et al., 2022). Hardy (2009) emphasized the importance of aligning professional development with progressive and socially democratic approaches to support teacher growth effectively (Hardy, 2009).

This study aims to address these gaps by investigating the implementation of the sustainable professional development program at Brawijaya Smart School (BSS) Malang High School. By evaluating its impact on enhancing teacher competence in pedagogical, professional, social, and personal domains, this research seeks to determine how well the program aligns with the needs and professional standards of teachers as mandated by relevant Indonesian education laws and regulations. The findings of this study will contribute to the ongoing discourse on effective teacher professional development and provide insights for policymakers

and educational institutions aiming to enhance teacher quality and student outcomes.

METHODS

This study employed a mixed-methods research design combining literature review and field research to investigate the implementation of the Continuous Professional Development (PKB) program at Brawijaya Smart School (BSS) aimed at enhancing teacher quality. The literature review involved a comprehensive search of national and international journals, books, and relevant literature on professional development programs in education. This provided a theoretical framework and contextual understanding of PKB implementation strategies and their impact on teacher competence across pedagogical, professional, social, and personal domains.

Field research was conducted to complement the literature findings. Data collection methods included direct observations, semi-structured interviews, and analysis of pertinent documentation such as program reports and educational policy documents. Observations were conducted at BSS to witness firsthand the implementation of PKB activities, focusing on workshop sessions, Teacher Forums (MGMP), and training programs. Interviews were conducted with key stakeholders including teachers, school administrators, and educational policymakers to gather insights into their perceptions and experiences with the PKB program.

Data analysis followed a qualitative approach, involving thematic analysis of interview transcripts and observational notes. Themes related to the effectiveness of PKB activities in improving teacher competencies were identified and categorized. Additionally, documentary analysis of program reports and policy documents provided contextual background and corroborated findings from field observations and interviews.

To ensure the reliability and validity of findings, several measures were implemented. Triangulation of data sources—combining observations, interviews, and documentation—enhanced the credibility of the study findings. Member checking was conducted with participants to validate interpretations and ensure accuracy of data representation. Moreover, detailed descriptions of the research procedures and transparent reporting of data collection and



analysis methods aimed to increase the study's trustworthiness and replicability.

In summary, this mixed-methods approach facilitated a comprehensive investigation into the implementation and impact of the PKB program at BSS, offering valuable insights into effective strategies for enhancing teacher quality through continuous professional development initiatives.

FINDINGS AND DISCUSSION

FINDINGS

Sustainable Professional Development (SDP) is a dedicated policy for certified teachers to develop their competence and professionalism that is implemented as needed, gradually, and continuously. Thus, the implementation of the PKB programme should be carried out according to the needs of the teacher concerned. The need for teachers to achieve and/or improve their competence above the average competence of the teacher profession. Currently, the government guarantees the professionalism of the teachers by making a policy on teacher certification, This has the aim of improving the quality of teacher competence and .is expected to have an impact on the improvement of the quality of education. In addition to receiving certification benefits, educators are required to undertake equivalence activities so that the benefits remain. Activities such as training on extracurricular activities in schools, conducting professional learning activities, and performing remedial teaching or learning improvements.

Development planning activities are a first step in the development of educators and educational personnel; it become a benchmark so that development can go on with maximum. Brawijaya Smart School (BSS) is implementing educational and educational development planning based on Sustainable Professional Development (PKB) regulations. As revealed by the school curriculum (Laily, 2023): "In education, there is the name of sustainable professional development, it must indeed be done by each school, if we here usually have a program from the head of the school and he instructs educators and officials obliged to follow the development of the profession..." The statement is confirmed by the head of the school (Nandung, 2023) in connection with the planning of educational growth and educative strength that sustained professional development is one of our benchmarks in planning the education

development of teachers and teachers in BSS this high school, I also mandate the teacher and the educational force to follow their professional development. From the continued development of such professions, then the researchers tried to look for comprehensive data with the analysis of documents such as the Ministry of State Declaration of State Appliances and Bureaucratic Reforms No. 16 of 2009 on the functional posts of teachers and their credit figures, researchers found data corresponding to the results of the above interview. Wherein the PANRB states that "sustainable professional development includes: self-development, scientific publication, and innovative work". PKB activities at BSS High School are carried out through several stages that need to be taken into account and some methods are used in the development process. As expressed by the human section (Anisa, 2023) related PTK development methods are as follows:

"...the most frequently used and common development methods here are with workshops and MGMP, sometimes there are also a few stalls that follow training..."

The results of the interview can also be seen in some documents obtained by the researchers, The document is one of the workshops carried out at Brawijaya Smart School High School in educational development activities and educational resources, as follows:



Figure 1. Evidence of PTK development activities

The above document represents some of the educational and educational development activities carried out through the Workshop and MGMP conducted at the Brawijaya Smart School High School. On March 16, 2023 researchers also had the opportunity to perform an observation on one of the

development activities conducted through the workshop method, as the results of the observation were as follows:

"... on March 16, 223 at 9:45 a.m. researchers conducted research at BSS High School, on that day researchers made a vow with one of the informants, after having interviewed the informants then informants invited researchers to watch the ongoing development activities at that time. The researchers saw the condition of the room was very conducive, the material provided was very interesting and the teachers who followed the activity looked enthusiastic..."

In addition to the results of the observations carried out by the researchers in person at the school, researchers also performed observations through the media and the website of the High School Labolatorium, as in the following explanation, the website and Instagram of the BSS High School also became part of this research. The researcher several times did observations on the two pages, and on these two pages also frequently updated educators and educators development activities, as shown in the following picture.

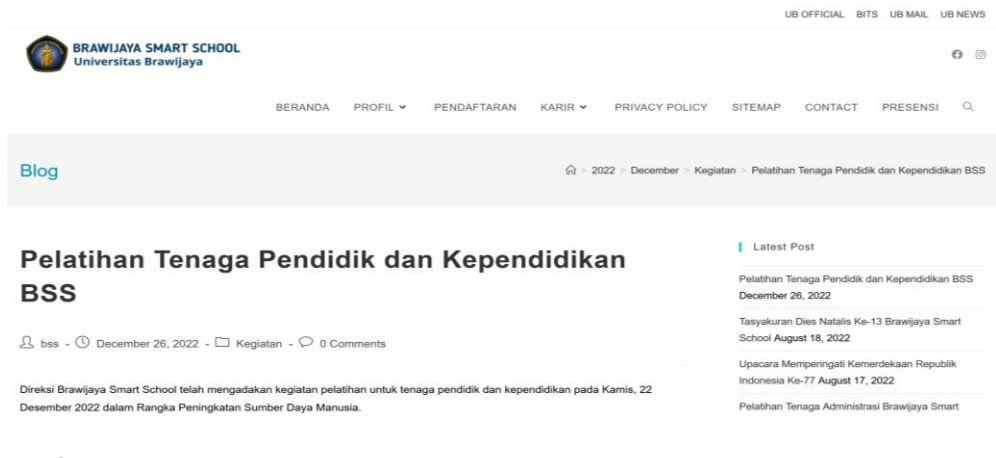


Figure 2. Proof of PTK development activities

The above document is one of the examples of proof that the educational development activities of the BSS High School are real. Thus it can be concluded that the process of development of educators and educational resources is

carried out in BSS high school through several stages, namely by doing activity planning, preparation of proposals for development activities, implementation of activities, and reporting. Besides, the method of development used is workshop activities, training outside of school, and teachers' lessons. (MGMP).

The process of implementing the development of educators and educational staff is incomplete if we do not know how to evaluate the development implementation carried out at Brawijaya Smart School. Here are the results of the research interview with the head of the school (Nandung, 2023) related to the evaluation of development performance as follows:

"...for all our activities must have a measure of success, no to know the activities are successful or not, usually the initiator gives assignments as an evaluation from the development activities of educator and staff..."

Thus, it can be concluded that the evaluations of educational development activities carried on at Brawijaya SMART School are with the granting of assignment as a measuring tool for the success of activities. Besides, researchers' observations on Monday, March 20, 2023, also found that assignments given section. usually appear in reports of activities or announced in WhatsApp groups of educators and educational personnel. As the following observation, the researchers conducted research at BSS High School on March 16, 2023, at 9:45 p.m. The researchers performed interviews with the BSS high school humans section After the interview session was completed, the researcher asked about the proof of the assignment given, and then the bu anisa of the humans department gave his pose and showed the announcement of the assignment granted by the tutor of the curriculum. The appointment given is to create a learning video that is applauded on the device BSS SMA. Besides the explanation related to the task, it also contains the deadline and the way of applauding.

Based on the results of interviews, observations, and documentation, it can be concluded that the evaluation of the development of educators and educational capacity at Brawijaya Smart School was done with assignment. The assignments are given by the development theme raised at the time, the assignment is given through the whatsapp group or announced directly after the development activity.



DISCUSSION

The implementation of Continuous Professional Development (PKB) programs to enhance teacher quality is rooted in well-established educational planning principles, which emphasize defining organizational goals, formulating strategies, and developing comprehensive plans to coordinate activities (Robbins, 1999). Sustainable professional development (SPD) is critical in encouraging educators to continuously improve their knowledge and skills, aligning with previous studies that highlight its importance in professional growth (Rusdarti, 2018; Sukanti, 2016). This study aims to explore how PKB programs are implemented at Brawijaya Smart School (BSS) and their impact on teacher competencies across various domains.

The study's findings indicate that the PKB program at BSS follows a structured development process, beginning with planning, followed by proposal preparation, implementation, and reporting of activities. Notably, the most frequently used development methods include workshops and teacher forums (MGMP), which have been shown to be effective in enhancing teacher competencies (I Wayan et al., 2004). The data collected through interviews, observations, and documentation consistently demonstrate that these methods foster a conducive learning environment, actively engaging teachers in professional development activities.

When comparing these results with previous research, the findings support the notion that structured and ongoing professional development programs significantly enhance teachers' pedagogical and professional competencies (Groothuisen et al., 2019; Rebull et al., 2018). For instance, the use of workshops and MGMP at BSS aligns with the effective practices identified in the Intel® Teach program and the NITARP program, which emphasize continuous learning and collaboration among educators (Rebull et al., 2018; Todorova & Osburg, 2009). However, the study also reveals that while the PKB program improves certain competencies, the extent of its impact varies, highlighting the need for tailored approaches to address specific teacher needs (Kalim & Bibi, 2024).

The significance of these findings lies in their implications for educational policy and practice. The structured approach of the PKB program, coupled with frequent evaluations through assignments and observations,

ensures that teachers not only participate in development activities but also apply the learned skills in their teaching practice. This echoes the importance of evaluation in professional development, as noted by Djamarah (2006) and Sudjana (2005), who argue that assignments can effectively measure and motivate teachers' understanding and application of new knowledge. Thus, the PKB program at BSS exemplifies a comprehensive model for enhancing teacher quality through systematic planning and evaluation (Djamarah, 2006; Sudjana, 2005).

While the study presents positive outcomes, it also advises caution in interpreting these results. The effectiveness of professional development programs can be influenced by various factors, including the quality of implementation, the relevance of the training content, and the support provided by school leadership (Domitrovich et al., 2009; Hardy, 2009). Therefore, it is essential to consider these contextual factors when generalizing the findings to other educational settings. Further research could explore the long-term impact of PKB programs on teacher performance and student outcomes, providing deeper insights into their effectiveness.

In conclusion, the findings from this study underscore the importance of structured, continuous professional development programs in enhancing teacher quality. The PKB program at BSS, with its systematic approach to planning, implementation, and evaluation, serves as a model for other schools seeking to improve their educators' competencies. These findings have significant implications for educational policymakers and practitioners, highlighting the need for sustained investment in teacher development and the adoption of best practices from successful programs. By aligning professional development initiatives with the specific needs and contexts of educators, schools can foster an environment of continuous learning and improvement, ultimately enhancing the overall quality of education.

CONCLUSION

The primary aim of this study was to investigate the implementation of the Continuous Professional Development (PKB) program at Brawijaya Smart School (BSS) and evaluate its impact on enhancing teacher competence across pedagogical, professional, social, and personal domains. The findings reveal that



the PKB program at BSS follows a structured development process involving planning, preparation of activity proposals, implementation, and reporting. Key methods used in the program include workshops, MGMP (Teacher Forums), and training sessions, all of which have been shown to significantly enhance teacher competencies. Evaluation of these activities, primarily through assignments, ensures that teachers apply the acquired knowledge and skills effectively.

The implications of these findings are profound for the field of education. They highlight the critical role of structured and ongoing professional development in improving teacher quality and, consequently, the overall quality of education. The systematic approach of the PKB program at BSS serves as a model that other schools can adopt to enhance their educators' competencies. Moreover, this study underscores the importance of aligning professional development initiatives with teachers' specific needs and professional standards, as mandated by relevant educational regulations.

Despite the positive outcomes, this study acknowledges several limitations. The research was confined to a single educational institution, which may limit the generalizability of the findings. Additionally, the study relied heavily on qualitative data from interviews and observations, which, while rich in detail, may be subject to subjective interpretation. Future research should consider expanding the scope to include multiple institutions and incorporate quantitative measures to provide a more comprehensive evaluation of professional development programs.

In light of these findings and limitations, further research is recommended to explore the long-term impact of PKB programs on teacher performance and student outcomes. Investigating the effectiveness of different professional development methods across diverse educational settings would provide valuable insights into best practices. Moreover, longitudinal studies tracking the sustained impact of professional development on teacher competence and student achievement would contribute significantly to the field.

In conclusion, the implementation of the PKB program at BSS demonstrates the effectiveness of structured, continuous professional development in enhancing teacher quality. The systematic approach to planning, implementation, and evaluation serves as a robust model for other educational institutions. These findings advocate for sustained investment in teacher

development and the adoption of best practices to foster continuous learning and improvement in the educational sector.

REFERENCES

- Abdul Razzak, N. (2013). The effectiveness of a university-based professional development program in developing Bahraini school leaders' management and leadership competencies of implementing effective school-wide professional development and ICT integration. *Professional Development in Education*, 39(5), 732–753. Scopus. <https://doi.org/10.1080/19415257.2012.759127>
- Ahmad, F. (2014). *Efektivitas Kerja Pegawai Dinas Sosial PROV.SUL-SEL* [Thesis, Hasanuddin University]. <https://core.ac.uk/download/pdf/25494423.pdf>
- Belland, B. R., Burdo, R., & Gu, J. (2015). A Blended Professional Development Program to Help a Teacher Learn to Provide One-to-One Scaffolding. *Journal of Science Teacher Education*, 26(3), 263–289. Scopus. <https://doi.org/10.1007/s10972-015-9419-2>
- Djamarah. (2006). *Strategi Belajar Mengajar*. PT Rineka Cipta.
- Domitrovich, C. E., Gest, S. D., Gill, S., Jones, D., & DeRousie, R. S. (2009). Individual factors associated with professional development training outcomes of the head start REDI program. *Early Education and Development*, 20(3), 402–430. Scopus. <https://doi.org/10.1080/10409280802680854>
- Groothuisen, S. E. A., Prins, G. T., & Bulte, A. M. W. (2019). Towards an empirically substantiated professional development programme to train lead teachers to support curriculum innovation. *Professional Development in Education*, 45(5), 739–761. Scopus. <https://doi.org/10.1080/19415257.2018.1510427>
- Gropen, J., Kook, J. F., Hoisington, C., & Clark-Chiarelli, N. (2017). Foundations of Science Literacy: Efficacy of a Preschool Professional Development Program in Science on Classroom Instruction, Teachers' Pedagogical Content Knowledge, and Children's Observations and Predictions. *Early Education and Development*, 28(5), 607–631. Scopus. <https://doi.org/10.1080/10409289.2017.1279527>



- Hardy, I. (2009). The production of Australian professional development policy texts as a site of contest: The case of the federal quality teacher programme. *Australian Educational Researcher*, 36(1), 73–88. Scopus. <https://doi.org/10.1007/BF03216893>
- I Wayan, Andi, & Ahmad. (2004). Methods for Enhancing Teacher Competencies. *Journal of Professional Development*.
- Kalim, U., & Bibi, S. (2024). Assessing Teacher Competencies in Public Schools of Pakistan: A Pathway for Improving the Effectiveness of Professional Development Programs for Teachers. *SAGE Open*, 14(2). Scopus. <https://doi.org/10.1177/21582440241236060>
- Leonard. (2018). Study on Teacher Preparation and Educational Goals in Jakarta. *Journal of Education Research ER -*.
- Lotter, C., Yow, J. A., & Peters, T. T. (2014). Building a community of practice around inquiry instruction through a professional development program. *International Journal of Science and Mathematics Education*, 12(1), 1–23. Scopus. <https://doi.org/10.1007/s10763-012-9391-7>
- Rebull, L. M., Roberts, T., Laurence, W., Fitzgerald, M. T., French, D. A., Gorjian, V., & Squires, G. K. (2018). Motivations of educators for participating in an authentic astronomy research experience professional development program. *Physical Review Physics Education Research*, 14(1). Scopus. <https://doi.org/10.1103/PhysRevPhysEducRes.14.010148>
- Robbins, P. S. dan M. C. (1999). *Manajemen*. PT Prenhalindo.
- Rusdarti. (2018). Pengembangan Keprofesian Berkelanjutan Dalam Pembuatan Publikasi Ilmiah Melalui Workshop Dan Pendampingan Bagi Guru Sma Kota Semarang. *Universitas Negeri Semarang*, 16(1), 87.
- Sekretariat Negara Indonesia. (2005). *Peraturan Pemerintah tentang standar nasional pendidikan dengan (PP no. 19 tahun 2005)*.
- Sipman, G., Thölke, J., Martens, R., & McKenney, S. (2022). Can a Systemic-Phenomenological Teacher Professional Development Program Enhance Awareness of Intuitions and Serve Pedagogical Tact? *Systemic Practice and Action Research*, 35(2), 153–175. Scopus. <https://doi.org/10.1007/s11213-021-09562-z>
- Sudjana, N. (2005). *Dasar-Dasar Proses Belajar Mengajar*. Sinar Baru Algesindo.

- Sukanti. (2016). Pengembangan Profesi Guru Secara Berkelanjutan. *Universitas Negeri Yogyakarta*, 1(1), 8.
- Todorova, A., & Osburg, T. H. (2009). Teacher professional development for the knowledge society: The Intel® teach advanced online program. *International Journal of Learning*, 16(11), 73–82. Scopus.
- Yutakom, N., Thipkong, S., Rungsayatorn, S., Pongsophon, P., Lertamornpong, C., Jeerapattanatorn, P., & Setthakasivit, N. (2016). Professional development program to enhance pre-service teacher's pedagogical content knowledge. *Kasetsart Journal of Social Sciences*, 37(3), 306–318. Scopus.

