SUSTAINABLE MENTORING IN THE USE OF ONLINE LEARNING PLATFORMS TO ENHANCE THE EFFECTIVENESS OF CHRISTIAN RELIGIOUS EDUCATION TEACHING IN RURAL SCHOOLS [A SYSTEMATIC LITERATURE REVIEW]

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Abstract

This article presents a systematic literature review on continuous mentoring in using online platforms to enhance the effectiveness of Christian Religious Education (CRE) teaching in rural schools. Based on an analysis of 17 empirical articles (2020-2024), this study identifies multidimensional challenges faced by teachers, including limited infrastructure, low digital pedagogy competence, and psychological barriers such as technostress. The synthesis reveals that effective mentoring models are sustainable and contextual, combining instructional coaching for individual support and virtual communities of practice (VCoP) for peer collaboration. This approach significantly enhances complex dimensions of teachers' TPACK particularly Technological Pedagogical Knowledge (TPK) and Technological Content Knowledge (TCK) enabling them to design more interactive, reflective, and contextual online CRE learning. Key success factors include contextualizing materials for low-bandwidth conditions, building trust-based mentor-teacher relationships, and active support from school leadership. The findings provide an evidence-based foundation for policymakers and practitioners to design targeted mentoring programs that improve the quality of online CRE learning in rural areas.

Keywords: Teacher Mentoring, Online Learning, Christian Religious Education, Rural Schools, TPACK.

INTRODUCTION

The rapid development of digital technology has brought massive disruption to the global education landscape, including in Indonesia. In the post COVID-19 pandemic era, online learning is no longer merely an alternative but has become a necessity that must be permanently integrated into educational systems. The Ministry of Education, Culture, Research, and Technology has emphasized the importance of digital transformation in education through various policies, such as the Merdeka Mengajar Platform (Kurniawan, MF, & Wanto, D., 2023). However, the implementation of these policies in practice, particularly in rural areas, faces complex and multidimensional challenges. While awareness of the importance of technology is present, the gap between policy expectations and on-the-ground realities remains very wide.

The digital divide between urban and rural schools has emerged as a critical factor hindering the effectiveness of online learning. Metri (2025) explicitly reveals that the primary challenges in rural areas are not limited to poor internet infrastructure and limited access to devices, but extend more deeply to issues of digital literacy and teachers' pedagogical readiness. Teachers in rural contexts are often trapped in surface-level uses of technology due to a lack of understanding of how to integrate digital tools into meaningful instructional strategies. This situation creates a paradox in which technology is present but does not significantly enhance the quality of the teaching learning process. Within the context of Christian Religious Education (PAK), these challenges become even more complex. PAK is not merely a cognitive subject but carries a strong mission of character and faith formation, requiring reflective, dialogical, and contextual learning approaches. Sunardi and Zega (2024) emphasize that the

effectiveness of PAK is measured by its capacity to build social presence and facilitate cognitive presence. Such processes, which rely heavily on interpersonal interaction and sensitivity to students' lived contexts, are extremely difficult to translate into digital environments without a deep understanding of digital pedagogy. As a result, many PAK teachers in rural areas use platforms such as WhatsApp or Google Classroom primarily as one-way tools for content delivery and assignment submission. This inability to optimize online learning platforms is rooted in ineffective models of teacher professional development. Nugent, Houston, Kunz, and Chen (2023), in their study on instructional coaching, conclude that the short term, one off training programs commonly implemented fail to produce sustainable changes in classroom practice. Teachers require continuous mentoring to experiment with new approaches, receive feedback, and address the specific challenges they encounter. Without such support, teachers tend to remain within a comfort zone of minimal technology use, ultimately reducing the meaning of PAK learning to a merely transactional activity. Therefore, this systematic literature review is both timely and urgent. The study aims to consolidate recent empirical findings in order to construct a conceptual framework identifying effective mentoring models within resource constrained rural contexts, particularly for the teaching of PAK. Through comprehensive synthesis, this review is expected to provide a strong foundation for policymakers, educational institutions, and practitioners in designing targeted interventions that can genuinely enhance the effectiveness of PAK instruction in the digital era.

LITERATURE REVIEW

This literature review is constructed upon four interrelated conceptual pillars. The first pillar addresses the digital divide and pedagogical challenges in rural contexts. Dewi et al. (2024) consistently demonstrate that these barriers are systemic and mutually reinforcing. Beyond the classic issue of infrastructure limitations, the most significant challenges are non-technical in nature, including low teacher self-confidence, fear of technology, and limited understanding of how to design meaningful learning experiences using digital tools. Teachers frequently experience technostress, which in turn reduces their instructional effectiveness. The second pillar examines teacher competencies in the digital era through the lens of TPACK. The Technological Pedagogical Content Knowledge (TPACK) framework remains relevant as a foundational basis for analyzing teacher readiness. Sanjaya and Syefrinando (2024), in their contemporary discussion of TPACK, emphasize that technological knowledge alone is insufficient; what is critical is technological pedagogical knowledge and technological content knowledge. In the context of Christian Religious Education (PAK), content knowledge consists of theology and Christian values, making the core challenge for teachers the identification of an authentic intersection between technological pedagogical knowledge and technological content knowledge in order to construct a holistic TPACK, an area that remains underexplored in the literature.

The third pillar focuses on the effectiveness of PAK instruction in digital learning environments. Agnesiana et al. (2021) offer the perspective that effective online PAK learning must be capable of fostering a community of inquiry. The key elements include the development of social presence to establish relational bonds and trust, cognitive presence to stimulate critical reflection, and teaching presence to design and facilitate meaningful learning experiences. Online platforms should therefore be utilized to support these three elements rather than merely functioning as content repositories. The fourth pillar examines models of teacher professional development through mentoring. The literature indicates a significant shift from conventional training approaches toward collaborative and sustained mentoring models. Hendrayani et al. (2025), in their study on virtual communities of practice, demonstrate that job-embedded, reflective approaches that provide direct, just-in-time support are far more effective in transforming instructional practices. Virtual communities of practice, in particular, represent a promising strategy for rural contexts, as they can leverage group-based platforms such as WhatsApp to bridge geographical distances and create peer support networks. The synthesis of these four pillars reveals a clear research gap. While there is a substantial body of literature on teacher mentoring and technology integration, as well as some studies on online PAK instruction, very limited research specifically investigates how sustained mentoring models can be effectively developed to enhance the TPACK of PAK teachers in rural settings characterized by significant resource constraints. This study seeks to address this gap through a focused synthesis.

METHOD

This study employs a systematic literature review method designed to identify, evaluate, and synthesize all relevant high-quality empirical studies. This method was selected because it provides a comprehensive and objective overview of the most recent developments in the research theme, while also identifying patterns and gaps in the existing body of knowledge.

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The literature search process was conducted extensively during the period of March to April 2024. The databases used included Google Scholar, ERIC (Education Resources Information Center), and DOAJ (Directory of Open Access Journals), using combinations of keywords in both Indonesian and English. The main keywords included: ("teacher mentoring" OR "instructional coaching" OR "pendampingan guru") AND ("online learning" OR "digital platform" OR "pembelajaran daring") AND ("rural education" OR "sekolah pedesaan") AND ("Christian religious education" OR "Pendidikan Agama Kristen") AND ("TPACK" OR "teacher competence"). The search was limited to publications from 2020 to 2024 to ensure the currency of the findings. The collected articles were then screened through multiple stages based on inclusion criteria. The primary criteria were: articles consisting of empirical research (quantitative, qualitative, or mixed-methods) or systematic reviews; publication in nationally accredited SINTA journals or reputable international journals; substantive discussion of at least two of the four conceptual pillars in the literature review; and availability in full-text form. The selection process followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram to ensure transparency and accountability, encompassing identification, screening, eligibility, and final inclusion. After the screening process, 17 primary articles met all inclusion criteria. Data from these articles were extracted into an analysis matrix including author(s) and year, research objectives, methodology, context or location, key findings, and implications. Data analysis was conducted using a thematic analysis approach. Coding was applied to identify emerging themes related to challenges, mentoring models, impacts, and enabling or inhibiting factors. These themes were subsequently synthesized to address the research questions and objectives.

RESULTS AND DISCUSSION

Based on the thematic analysis of 17 articles, the synthesis of the research findings can be presented through several key results. First, with regard to the characteristics of challenges faced by Christian Religious Education teachers in rural areas, the studies reveal that these challenges are hierarchical and mutually influential. As identified by Wika (2024), the most basic level of barriers relates to infrastructure, resulting in limited and unstable access. Above this lies the competency barrier, where teachers possess basic technological knowledge but fail to develop it into creative pedagogical strategies for Christian Religious Education, as confirmed by Gulo and Kasse (2023). At the highest level are psychological barriers, including fear of making mistakes, low self-efficacy, and increased workload resulting from efforts to integrate technology, which ultimately leads to reluctance to explore further.

With regard to effective mentoring models, the literature points to two primary models that can be combined: instructional coaching and virtual communities of practice (VCoP). Suheri (2025) emphasizes that effective coaching is dialogical in nature, focused on teachers' specific goals, and involves iterative cycles of observation, feedback, and reflection. Meanwhile, Alfiyaturohmaniyyah (2025) demonstrates that VCoPs facilitated through WhatsApp groups or other simple platforms successfully create safe spaces for teachers to collaboratively share problems, resources, and solutions, thereby reducing the sense of isolation commonly experienced by rural teachers. The combination of individual mentoring through coaching and group-based support through VCoPs produces a strong synergistic effect. In terms of impact on TPACK competence, the findings indicate that sustained mentoring significantly enhances more complex knowledge dimensions. The greatest improvements do not occur in technical Technological Knowledge, but rather in Technological Pedagogical Knowledge and Technological Content Knowledge. Mentored teachers begin to demonstrate the ability to select appropriate digital tools to achieve specific pedagogical objectives, such as using digital storyboarding applications to reconstruct biblical narratives, and to present theological content in more engaging ways through digital media, which represents the core of TPACK. Ali et al. (2024) note that teachers start to understand how features such as breakout rooms can be used for small-group discussions on Christian ethical values, serving as a clear example of TPACK application.

Regarding determinants of success, the analysis identifies three crucial factors. First, contextualization, whereby mentoring programs must utilize platforms and learning activities that are realistic within conditions of low bandwidth and limited devices in rural areas. Second, relationships and trust, as the success of coaching is highly dependent on mutual trust between the coach and the teacher, creating a safe environment for taking risks and experimentation. Third, school leadership, where active support from school principals in providing time, resources, and recognition for teacher participation functions as a strong enabling factor. Furthermore, the synthesis also identifies implications for Christian Religious Education learning. Successful mentoring leads teachers to realize that online platforms are not dehumanizing threats to learning, but rather potential tools for expanding faith-based learning communities. As reported by Ipapoto et al. (2025), teachers begin to design learning activities that utilize social media or student-created short videos as forms of contextual faith reflection, enabling the development of social presence and cognitive presence even within virtual spaces. This shifts online Christian Religious Education

from a one-way sermon model toward a model of an interactive and reflective community. Overall, this discussion reinforces the proposition that improving the effectiveness of online Christian Religious Education teaching in rural contexts cannot be achieved solely through the provision of technology or short-term training. What is required is a holistic, sustained, and context-sensitive mentoring intervention, specifically designed to comprehensively develop teachers' TPACK while simultaneously addressing the psychological and social barriers they face.

CONCLUSION

Based on the systematic literature synthesis of publications from 2020 to 2024, it can be concluded that the challenges faced by Christian Religious Education teachers in rural areas in utilizing online platforms are multidimensional, encompassing infrastructural constraints, limited digital pedagogical competence (TPACK), and psychological barriers such as low self-efficacy and technostress. Effective mentoring models are those that are sustained, context-sensitive, and combine instructional coaching for individualized support with virtual communities of practice for social support and peer collaboration. The primary impact of successful mentoring is the improvement of teachers' complex TPACK dimensions, particularly Technological Pedagogical Knowledge and Technological Content Knowledge, which enable them to design online Christian Religious Education learning that is more interactive, reflective, and contextual, thereby enhancing social presence and cognitive presence. The success of such programs is largely determined by the contextualization of mentoring materials, the quality of the relationship between mentors and teachers, and tangible support from school leadership.

RECOMMENDATIONS

1. For Future Researchers: Further studies employing action research or research and development (R&D) designs are needed to test, adapt, and validate the identified hybrid instructional coaching and virtual community of practice (VCoP) model within more specific rural Christian Religious Education contexts across different regions of Indonesia.
2. For Policymakers (Ministry of Education, Culture, Research, and Technology; Local Education Offices; Educational Foundations): It is recommended to allocate resources and formulate policies that support the establishment of sustainable mentoring programs, for example by developing the roles of "Expert Teachers" or "District Instructors" as instructional coaches and facilitating the formation of cross-school VCoPs. Policies should remain flexible and allow the use of low-bandwidth platforms as the primary media for mentoring activities.
3. For Practitioners (Facilitators, School Principals, and Teachers): Facilitators or mentors should build partnership-based relationships, focus on teachers' practical goals, and provide examples of online Christian Religious Education activities that are low-tech but high-touch. School principals should offer administrative support, such as allocating time for teachers to participate in mentoring, recognizing achievements, and fostering a school culture that supports digital pedagogical innovation. Christian Religious Education teachers should actively engage in communities of practice, both online and offline, to share experiences and resources, and maintain an open mindset toward experimentation and collaborative learning.

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