

The Design of Thailand's Online Teacher Development Center

Phiyapa Sirivedin, Ministry of Education, Thailand

The European Conference on Education 2025
Official Conference Proceedings

Abstract

This action research aimed to 1) design and 2) investigate the effective design of Thailand's Online Teacher Development Center (OTDC) enhancing Thai teachers' empowerment. Six teachers from two secondary schools in different provinces were purposively selected to participate in a one-month Deming's Plan-Do-Study-Act (PDSA) course. Qualitative data, gathered through observation, in-depth interviews, and focus group discussions, focused on participants' self-development performances and perspectives. The findings revealed three key features - Community Network, Database Catalog & Search Engine, and Web/Online Workshops - that played crucial roles in fostering empowerment. Specifically, the Community Network supported professional confidence and knowledge sharing, while the Database Catalog & Search Engine enhanced self-confidence through user-friendly and practical design. The Web/Online Workshops provided real-time guidance and consultation, contributing to self-assurance. Additionally, nine essential attributes were identified, including accessibility, interactivity, quality of content, and ease of use, which were instrumental in promoting satisfaction and self-improvement. The study underscores the positive impact of integrating online technology into teacher development, aligning with previous research on empowerment and creativity. It recommends scaling OTDC by adopting technology-centered approaches that emphasize collaboration, accessibility, and personalized support, addressing potential challenges to ensure broader implementation. This approach can guide institutions in fostering professional growth and teacher empowerment, ultimately enhancing educational quality.

Keywords: online, teacher development, center

iafor

The International Academic Forum
www.iafor.org

Introduction

Teachers play a central role in shaping educational quality, directly influencing student learning outcomes. In Thailand, however, the effectiveness of teachers is increasingly compromised by an overwhelming workload that extends far beyond classroom instruction. In addition to teaching responsibilities, teachers are often burdened with administrative tasks such as financial management, organizing community and ceremonial events, and coordinating student cooperatives. This added workload limits their capacity for professional development, reducing opportunities for reflective practice, innovation in pedagogy, and engagement with emerging educational paradigms (Huang et al., 2021; Stavroulia & Lanitis, 2017).

While various countries have restructured educational systems to separate instructional duties from administrative functions, such reforms have yet to gain full traction in Thailand. However, the proliferation of digital technology offers a promising alternative for addressing these challenges. Online platforms, particularly in remote areas, provide teachers with access to resources, collaborative networks, and professional learning opportunities that transcend geographical barriers. Over the last two decades, numerous studies have demonstrated the effectiveness of such platforms in enhancing teacher competencies and transforming professional learning practices (Luo et al., 2021; Perkins Coie, 2020).

This study aimed to design and evaluate the Online Teacher Development Center (OTDC) for Thailand using the Plan-Do-Study-Act (PDSA) framework. It employed a design-based research approach to develop a context-responsive, user-centered platform tailored to the unique needs of Thai educators.

Literature Review

Lifelong Learning Theory

Lifelong learning encompasses the continuous, voluntary pursuit of knowledge for both personal and professional purposes. It reflects a holistic approach to education that supports learners at all stages of life. This perspective emphasizes adaptability, inclusivity, and the capacity for individuals to continually refine their knowledge and skills in response to changing societal and economic demands. Lifelong learning includes formal, non-formal, and informal modalities. Formal learning is structured and institutionalized, typically occurring in schools and universities. Non-formal learning, by contrast, is organized but outside traditional institutions, such as online training and professional development workshops. Informal learning is unstructured and arises through daily activities, workplace experiences, and self-directed exploration. Together, these modes contribute to personal agency, social mobility, and workforce readiness in the 21st century (Field, 2006; Jarvis, 2007; UNESCO, 2009).

Online Technology and Lifelong Learning Skill Development

The digitalization of education has revolutionized access to learning, enabling flexible and scalable professional development. Online platforms have become vital in supporting lifelong learning by offering on-demand resources, interactive content, and collaborative environments that accommodate diverse learner needs. These platforms allow educators to engage in self-paced learning while also facilitating synchronous and asynchronous interactions with peers and experts. Tools such as Zoom, Facebook Groups, and LINE are

particularly relevant in educational contexts. They provide channels for communication, resource sharing, and community building. The integration of such tools not only supports individualized learning paths but also cultivates digital literacy and professional confidence among educators (Gomezelj & Čivre, 2012; Urdan & Weggen, 2000).

Functional Features of Online Platforms

Zoom, a synchronous communication tool, is widely used for its capabilities in real-time interaction. Features such as breakout rooms, screen sharing, and recording functions enhance collaborative learning and instructional delivery. Facebook Groups offer an asynchronous, community-based platform that supports continuous engagement through discussions, multimedia sharing, and notifications. LINE provides a hybrid interface, enabling instant messaging, group chats, and automation for educational content dissemination. These platforms offer practical, scalable options for educators to access professional development opportunities without the limitations of time and place.

Methodology

This study utilized a case study approach structured into three main phases: Planning, Doing, and Study-Action. The objective was to identify the most effective design elements for an online professional development platform customized for Thai educators.

The research engaged six secondary school teachers from Chiang Mai and Chiang Rai provinces. Selection criteria included teachers under the age of 35, with English proficiency and a willingness to participate in the study. The participants represented a range of subject areas, including science, mathematics, and languages, to ensure diverse input.

Chiang Mai was selected as a representative of a large, geographically extensive province with remote districts, while Chiang Rai was chosen due to its status as a highland province with scattered populations and limited infrastructure in some areas. Both provinces are considered peripheral compared to central Thailand. The rationale for selecting these areas was to ensure that the Online Teacher Development Center (OTDC) could be tested in conditions that reflect typical barriers faced by rural teachers, including varying degrees of internet coverage. This approach helps verify that the platform is accessible across diverse topographies and technological environments, thereby ensuring its scalability and applicability throughout the country.

In the planning phase, participants attended a three-day workshop that included brainstorming sessions, discussions, and in-depth interviews. This phase aimed to gather insights into the specific needs, challenges, and expectations of teachers regarding an online development platform. Data from this phase informed the initial design of the Online Integrated Platform (OIP).

The second phase involved the implementation of a mockup OTDC within a closed Facebook group. Participants interacted with digital content including articles, videos, and educational tools. Feedback was collected through interviews and focus group discussions to refine the platform.

In the final phase, teachers joined Zoom-based professional exchanges with both local and international experts. LINE was used for meeting coordination and supplementary

communication. A RECAP process - Reflection, Evaluation, Feedback, and Finalization—was applied to synthesize findings and finalize the platform design. Content analysis techniques were employed to analyze qualitative data collected across the phases.

Results

The study findings indicated that teachers expressed positive attitudes and high levels of satisfaction with the effectiveness and appropriateness of the OTDC characteristics, particularly the core and essential attributes. Data analysis from individual and group observations, in-depth interviews, and focus group discussions on the three core characteristics and seven essential features of OTDC revealed the following.

Teachers identified three primary characteristics - community networks, database catalogues and search engines, and web/online workshops - as the most impactful for their self-development. These characteristics were perceived as pivotal in enhancing their professional growth. The findings highlighted teachers' satisfaction with these attributes, as supported by statements from the in-depth interviews and focus groups.

Regarding online community networks, participants agreed that connecting teachers and experts through these networks was vital for improving daily work. These networks facilitated feedback, built confidence, and supported effective performance. Most participants expressed satisfaction with the knowledge exchange and Q&A sessions during the OTDC service simulations. They emphasized the importance of professional networks and suggested developing the OTDC in a Virtual Reality (VR) format to enhance realism and engagement. Additionally, participants recommended incorporating real-time consultation features into the online platform to improve decision-making processes.

The focus group discussions further underscored the value of online knowledge exchange in guiding professional practice and providing timely, relevant information. Online networks were also seen as effective in building trust and streamlining access to personal resources. Participants highlighted the need for continuous feedback and evaluation to support ongoing professional development. They proposed that offering certifications for consultations would increase the credibility and value of the outcomes, particularly when dealing with challenges related to a lack of experience. Furthermore, participants recommended further research into integrating VR into OTDC platforms to foster more immersive learning experiences and enhance engagement in professional development activities.

The “Database Catalog & Search Engine” feature is a crucial component of the system, serving as a comprehensive repository of diverse and accessible data, such as academic journals, newspapers, and specialized databases. The information is well-organized into categories, making it easy to access and use. Participants in the research highlighted that the system effectively meets their informational needs, especially for those lacking prior experience with similar platforms. They noted that the database is user-friendly and uncomplicated, with reliable content and clear references, ensuring tangible results. The categorization of data was praised for enabling quick access to valuable information, streamlining the search process. Overall, the system's design was widely appreciated for its accessibility, with feedback suggesting further enhancements to the “Search Engine” feature. These insights confirm that the system's organization and ease of use significantly contribute to its effectiveness, offering a practical and efficient solution for users seeking reliable information.

In addition, the majority of participants expressed satisfaction with the system's structured approach, noting that the categorized database saves time and enhances productivity by providing quick access to relevant materials. The clear organization of content into distinct categories allows users to find the information they need without unnecessary delays. Participants also emphasized that the database's reliability, coupled with its user-friendly interface, makes it a valuable resource for academic and professional purposes. The system's ability to efficiently manage and deliver trusted information was seen as a key factor in improving the overall research experience, further supporting the call for expanding its search engine capabilities in future updates. This feedback highlights the system's potential for continued improvement and its ability to meet the evolving needs of its users.

The feedback from participants on the "Online Workshop/Webinar" format, specifically in the OTDC model, reveals that the platform facilitated a valuable opportunity for professional networking and real-time exchange of experiences with peers and experts. The majority of participants expressed that the service provided them with direct access to expert advice, which they found particularly beneficial for making informed decisions. They emphasized the importance of real-time consultations, highlighting that these interactions, conducted through the Zoom platform, were essential in refining their decision-making processes. Participants also appreciated the opportunity to engage with well-known experts, whom they previously knew only by reputation, adding credibility to the sessions. These experts, both domestic and international, contributed significantly to participants' confidence in their work and professional development.

The majority of responses also indicated that the virtual workshops helped overcome geographic barriers, allowing participants to connect with professionals from across the country and internationally. The ease of communication through real-time Q&A with experts was highlighted as an important feature, as it fostered a sense of confidence, especially when engaging in discussions in English. Many noted that the advice they received during these consultations helped them make more informed decisions, particularly in lesson planning and overall professional development. Furthermore, participants felt that the feedback they received not only supported their own growth but also positively impacted their students' development.

The study revealed that OTDC model significantly enhanced teacher self-development, particularly in remote areas, by offering nine essential attributes: (1) accessibility and interactivity; (2) ease of use; (3) personalized options; (4) diverse and systematic categorized data, (5) access to hard-to-reach resources, (6) quality of content or reliable content fostering creativity, (7) real-time information updates, (8) modern service system for easy access and time savings, and (9) user-friendly services. Teachers expressed positive attitudes towards these attributes, highlighting the OIP's ability to provide tailored, efficient, and accessible services that facilitated their professional growth.

Specifically, the OTDC's Database Catalog & Search Engine, Community Network, and Web/Online Workshops were highly valued for their user-friendly design, accessibility, and real-time support. Teachers appreciated the platform's ability to provide diverse resources, foster collaboration, and enhance creativity through reliable content. These findings align with previous research, confirming that online technologies can effectively support self-development by offering flexible, personalized learning environments. The OIP's success in addressing the unique needs of teachers in remote areas underscores its potential as a transformative tool for professional growth and educational improvement.

Additionally, the findings underscore OTDC model's significant role in promoting equitable access to learning resources, particularly for teachers in remote regions. By providing personalized and comprehensive data, real-time updates, and easy access to hard-to-reach resources, OTDC facilitates continuous professional growth and fosters a sense of community among educators. Teachers expressed a high level of satisfaction with OTDC's ability to streamline their learning processes, reduce barriers to information access, and enhance their creativity and academic work. These outcomes reflect the model's effectiveness in overcoming geographical and infrastructural challenges, ultimately contributing to the enhancement of educational quality and teacher self-development across diverse contexts.

Discussion

The findings of this study reinforce the foundational principles of lifelong learning, emphasizing the importance of continuous, self-directed skill development among educators. As outlined by Field (2006) and Jarvis (2007), lifelong learning supports not only professional adaptability but also social inclusion and economic participation. In the context of this study, the OTDC's features facilitated such development by creating opportunities for informal and non-formal learning through collaborative online environments.

The community networks supported via OTDC exemplify the role of informal learning as described by Livingstone (2001). Teachers engaged in meaningful peer-to-peer interactions that led to knowledge co-construction, professional reflection, and increased confidence in applying new pedagogical strategies. These interactions mirror the informal learning processes that naturally occur in professional communities but were enhanced here through technological mediation.

The database catalog and search engine embody the functional application of non-formal learning mechanisms, enabling educators to access structured, yet flexible content (OECD, 2000). This aligns with Gomezelj & Čivre's (2012) findings on how digital platforms provide adaptive learning paths. The feedback from participants in this study underscores that user-friendly design and organized content categories significantly reduce barriers to resource utilization, particularly for less digitally fluent teachers.

The real-time webinars and online workshops hosted on platforms like Zoom further align with Urdan and Weggen's (2000) observations on the impact of synchronous e-learning environments. These sessions offered real-time consultations and interactive dialogue with national and international experts, fostering both cognitive and affective engagement. Participants reported enhanced teaching practices and increased professional agency, echoing Jarvis's (2007) assertion that lifelong learning must foster not only skill acquisition but also learner empowerment.

Overall, the OTDC platform demonstrated its capacity to fulfill the multidimensional demands of lifelong learning - providing formal content through webinars, non-formal access through structured databases, and informal collaboration through digital communities. Its success highlights the importance of integrating technology into teacher development in a way that complements and enhances each dimension of lifelong learning.

Conclusion

This study demonstrated that the OTDC model offers an effective framework for teacher professional development, especially in remote or underserved areas. Features such as Community Networks, Database Catalogs, and Online Workshops provided accessible, flexible, and reliable support for educators' growth. Teachers expressed high satisfaction with the platform's ability to promote collaboration, enhance resource access, and support informed instructional practices.

The OTDC serves as an innovative alternative to traditional teacher development models by offering a dynamic, user-centered platform that responds to the real-world challenges of Thai educators. Its success in fostering lifelong learning and enhancing teaching capacity indicates strong potential for broader implementation and continued evolution.

Suggestions

Future platform improvements should focus on integrating immersive technologies such as VR to deepen engagement. Enhancing the search engine function would support more nuanced information retrieval. Additionally, expanding the scope of online workshops and professional networking opportunities could strengthen peer-to-peer and expert collaboration. To ensure inclusivity, OTDC services should be tailored for deployment in rural and underserved areas.

Routine evaluations are necessary to ensure the platform evolves alongside changes in educational policy and teacher needs. Longitudinal studies could explore the impact of OTDC participation on student learning outcomes and instructional effectiveness. Further research comparing OTDC with traditional professional development formats would offer valuable insights into its scalability and adaptability across diverse educational contexts.

Acknowledgement

The author wishes to express sincere gratitude to the Thailand Science Research and Innovation (TSRI) and the Office of the Permanent Secretary, Ministry of Education, Thailand, for the financial support provided through a scholarship which enabled the successful completion of this study. Appreciation is also extended to the Office of the Civil Service Commission (OCSC) for the generous provision of a scholarship to support the presentation of this work at the 13th European Conference on Education (ECE2025).

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

This paper used AI-assisted technologies in the writing process before submission to improve the language and readability of the paper and with the appropriate disclosure.

References

- Field, J. (2006). *Lifelong Learning and the New Educational Order*. Trentham Books.
- Gomezelj D., & Civre Z. (2012). Tourism graduate students' satisfaction with online learning. *Turizam: Međunarodni Znanstveno-Stručni Časopis.*, 60(2), 159–174.
- Huang, Y., Richter, E., Kleickmann, T, & Richter, D. (2021). Virtual reality in teacher education from 2010 to 2020: A review of program implementation, intended outcomes, and effectiveness measures. Springer VS Wiesbaden.
<http://link.springer.com/book/9783658378943> <https://doi.org/10.35542/osf.io/ye6uw>
- Jarvis, P. (2007). *Globalization, Lifelong Learning and the Learning Society*. Routledge, London. <https://doi.org/10.4324/9780203964408>
- Livingstone, D. (2001). Adult's informal learning: definitions, findings, gaps and future research. *New Approaches to Lifelong Learning*, 21.
https://www.researchgate.net/publication/255570159_Adults'_Informal_Learning_Definitions_Findings_Gaps_and_Future_Research
- OECD. (2000). OECD Annual Report: 2000.
https://www.oecd.org/content/dam/oecd/en/publications/reports/2000/06/oecd-annual-report-2000_g1ghg138/annrep-2000-en.pdf
- Perkins Coie. (2020). 2020 Augmented and virtual reality survey report.
<https://www.perkinscoie.com/images/content/2/3/v4/231654/2020-AR-VR-Survey-v3.pdf>
- Stavroulia, K., & Lanitis, A. (2017). On the potential of using virtual reality for teacher education. In P. Zaphiris, A. Ioannou (Eds.), *Learning and Collaboration Technologies. Novel Learning Ecosystems. LCT 2017*. Lecture Notes in Computer Science, vol 10295. Springer, Cham. https://doi.org/10.1007/978-3-319-58509-3_15
- UNESCO. (2009). *Policy Guidelines on Inclusion in Education*. United Nations Educational, Scientific and Cultural Organization, Paris, France.
- Urdan T., & Weggen C. (2000). *Corporate E-learning: Exploring a new frontier*. WR Hambrecht & Co.

Contact email: s_phiyapa@hotmail.com