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A TEACHER TRAINING ON DIGITAL ASSESSMENT STRATEGIES FOR MEANINGFUL LEARNING OUTCOMES AT BURANAKARN SUKSA WITYA SCHOOL, THAILAND

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Abstract: Technological advancements have had a profound impact on the education sector around the globe including in Thailand and other developing countries. as in many other developing countries, there are major challenges in adapting with the rapid development of technology. The school where the community service was held also faced similar issues. With an innovative approach through assessment training using technology, this community engagement activity is expected to be a positive step towards educational transformation, particularly in the southern part of Thailand. With the active involvement of teachers as well as full support from related parties, we can create a learning environment that is more dynamic, relevant, and globally competitive. A pre-test and a post-test were conducted at the beginning and the end of the training to measure teachers' understanding in implementing digital assessment strategies. By equipping teachers with the knowledge and skills to implement digital assessment strategies, the training has had a measurable impact on professional development and instructional practices. In addition, the training provide access to further consultation or guidance, participants can feel supported and more confident in applying their learning in the classroom. The results of the pre- and post-training survey demonstrated a substantial improvement, averaging 51.3% increase across all survey items. This indicates the positive impact of the training in enhancing teachers' competencies in integrating technology into their assessment practices. Moving forward, schools in rural Thailand can apply the lessons learned from this workshop to enhance their own educational outcomes.

Keywords: teacher training; digital assessment strategies; southern Thailand

Abstrak: Dalam era globalisasi yang semakin cepat, pendidikan adalah salah satu aspek yang paling terpengaruh oleh perkembangan teknologi. Di Thailand Selatan, seperti di banyak negara berkembang, ada tantangan besar dalam dalam beradaptasi dengan perkembangan teknologi yang pesat. Sekolah tempat dimana program pengabdian kepada masyarakat ini dilaksanakan juga menghadapi masalah serupa. Dengan pendekatan inovatif melalui pelatihan penilaian menggunakan teknologi, kegiatan keterlibatan masyarakat ini diharapkan menjadi langkah positif menuju transformasi pendidikan di wilayah Thailand Selatan ini. Dengan keterlibatan aktif dari para guru serta dukungan penuh dari pihak terkait, kita dapat menciptakan lingkungan pembelajaran yang lebih dinamis, relevan, dan kompetitif secara global. Pre-test dan post-test dilakukan di awal dan akhir pelatihan untuk mengukur pemahaman guru dalam menerapkan strategi penilaian digital. Selain itu, pelatihan menyediakan akses ke konsultasi atau bimbingan lebih lanjut, sehingga peserta merasa didukung dan lebih percaya diri dalam menerapkan pembelajaran mereka di kelas. Setelah pelatihan selesai, kedua pihak melakukan evaluasi menyeluruh untuk mengukur keberhasilan, mengidentifikasi area yang perlu perbaikan, dan memberikan dampak yang lebih positif dalam jangka panjang.

Kata kunci: pelatihan guru; strategi penilaian digital; thailand selatan

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INTRODUCTION

Southern Thailand, although rich in culture and history, faces significant obstacles in its education system. There is a notable gap in the quality of education between urban and rural areas, which affects students' access to both resources and learning opportunities. Compounding this issue is the low level of teacher participation in current training programs and technology integration within the classroom. Traditional assessment systems often fall short in identifying individual student needs, as they lack emphasis on formative assessments and student involvement in the evaluation process. This can result in students having a lower understanding of key concepts and diminished motivation to learn (Hosseini, 2021; Panadero & Broadbent, 2020). Thus, innovative approaches are urgently needed to transform the assessment process and provide more personalized and effective feedback (Brown, Harris, & Harnett, 2020).

Despite rapid technological advancements, many teachers in Southern Thailand still face challenges in incorporating digital tools and applications into daily teaching. This skill gap hampers the potential for enhanced learning experiences that technology can offer (Mac Callum & Jeffrey, 2022; Trust & Prestridge, 2021). Through this community engagement program, we aimed to bridge this gap by organizing intensive training for teachers in schools across Southern Thailand. The program centered on the use of technology in the assessment process, offering guidance on special software, online learning platforms, and innovative strategies for tracking student progress (Tan, Chai, & Jong, 2020). The formative assessment approach was a key element of the training, empowering teachers to design digital assessment tools that directly measure student progress, thus enabling the provision of more timely and relevant feedback.

Additionally, project-based learning was introduced to promote practical skills and creativity among students, thereby enhancing both their learning outcomes and job market readiness. Participating teachers also learned alternative strategies to increase student involvement in the assessment process, leveraging technology to foster active participation. This involved integrating online platforms, discussion forums, and other interactive tools, which helped cultivate a more dynamic and student-centered learning environment (Suryaman et al., 2020; Bond, 2020).

By equipping teachers with these technological skills, the program aimed to significantly improve the quality of education. The integration of digital assessments allowed for better tracking of individual student needs, while timely feedback empowered teachers to adjust their teaching methods to fit each student's learning progress (Hamilton et al., 2020). The combination of formative assessments and project-based learning proved to be highly beneficial for students, equipping them with the skills needed for the evolving job market. This also contributed to their competitiveness on both national and international scales. Furthermore, the initiative encouraged increased teacher participation in professional development activities. As teachers experienced the tangible benefits of using technology in the classroom, they became more motivated to continue refining their skills (Reimers & Schleicher, 2020; Morris & Perry, 2022).

Ultimately, the implementation of this innovative learning model could contribute to a broader renewal of the na-

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tional education system in Southern Thailand, serving as a model for other schools to adopt best practices and improve the overall quality of education.

METHOD

The community engagement program at Buranakarn Suksa Witya School in Southern Thailand was participated in by 42 teachers of seven different subjects. The activity was executed through a structured sequence of steps. The initial phase of the training focused on establishing the significance of technology in enhancing educational quality. By presenting real-world success stories and supporting data, participants were introduced to the practical relevance of technology, which fostered a motivating and intellectually stimulating atmosphere (Gutiérrez-Rojas, Ramos-Jaimes, & Medina-Pérez, 2020).

The second phase involved a collective assessment of the participants' needs. Open discussions and targeted questionnaires allowed for an in-depth understanding of each teacher's knowledge level and specific requirements. This diagnostic step was essential in tailoring the training to address the participants' varied professional development needs (Howard, Tondeur, & Ma, 2021). The training activities were designed to be highly interactive, engaging participants in active learning. Case studies, simulations, and the use of technology tools such as Quizizz, Menti, ChatGPT, and Baamboozle facilitated collaborative learning experiences. Quizizz was chosen for its gamified approach to assessment, which makes learning more engaging and helps track student progress in real-time (Lee & Wallace, 2020). Menti was included due to its ability to create interactive presentations and polls, making it a valuable tool for gathering instant feedback from students. ChatGPT was integrated to provide personalized feedback and assist teachers in offering timely AI-generated suggestions that could help individualize learning experiences. Baamboozle, another tool, was selected for its simplicity and ease of use, allowing teachers to create quizzes and surveys to assess students' understanding. These platforms were chosen over traditional methods because they offer immediate feedback, promote active student engagement, and enable more flexible assessment practices, addressing the limitations of conventional paper-based assessments (Baran & AlZoubi, 2020).

In the subsequent phase, a live demonstration session enabled participants to experiment with these technologies firsthand. Providing practical examples and hands-on access allowed participants to directly apply the concepts, ensuring a deeper connection between theoretical knowledge and classroom practice (Rodríguez et al., 2021).

Group discussions and collaborative projects were incorporated to further support peer learning and idea exchange (see Image 1). This collaborative environment was intended to enhance participants' engagement and foster a community of practice among educators (Kennedy, Phillips, & De Bruin, 2020). The content delivery followed a scaffolded approach, beginning with foundational concepts and gradually progressing to more advanced applications. This gradual learning curve supported the effective assimilation of both basic and complex concepts, aligning with the theoretical foundation of formative assessment (Wood et al., 2022), which emphasizes the importance of incremental learning and feedback.

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Image 1. Teachers' open discussion session

Participants were encouraged to provide continuous feedback through presentation session (see Image 2). Through the use of surveys and presentation sessions, participants' comprehension was regularly assessed, and areas requiring clarification were promptly addressed (Wang & Tu, 2020). This iterative feedback model is consistent with research that highlights feedback as a key element of effective learning (De Paepe et al., 2020).

Image 2. Teachers' presentation and feedback session

The training extended beyond the classroom, with ongoing support through a mentoring system. This provided participants with further consultation opportunities, ensuring sustained confidence and competency in applying new strategies within their teaching environments (Atabek & Kahraman, 2020). Finally, a comprehensive evaluation was conducted post-training to measure the program's success and identify areas for improvement. By actively involving participants in this reflective process, the evaluation helped ensure that the program could evolve and continue to generate long-term positive impacts (Kim, Tan, & Hung, 2021).

DISCUSSION

The workshop at Buranakarn Suksa Witya School proved to be noticeably effective in enhancing teachers' competencies in integrating technology into their assessment practices. This is consistent with recent studies showing that professional development focusing on digital assessment strategies can significantly improve teachers' confidence and ability to integrate technology into their teaching (Iivari, Sharma, & Ventä-Olkkonen, 2020; Khalil & Ebner, 2020). The substantial improvement in teachers' confidence, which increased from 32.5% to 84%, mirrors the findings of other studies that have highlighted the effectiveness of targeted training in boosting teachers' digital literacy and classroom technology use (Philipsen et al., 2020; Howard, Tondeur, & Siddiq, 2021). Additionally, project-based learning combined with digital assessments has been shown to foster critical thinking and collaborative skills among students, which supports the findings from earlier research (Bond, 2020; Hwang et al., 2021).

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Table 1. Survey Results (Pre- and Post-Training)

Statement	Results	
	Pre-Training (%)	Post-Training (%)
I am confident in using technology for classroom assessments.	32.5	84
I understand how digital assessments can enhance student engagement.	43	92
I know how to use digital tools to provide timely feedback.	26	83
I feel prepared to integrate digital assessments into my teaching.	37	84.7

A survey was conducted among the participating teachers before and after the workshop to gauge their understanding and confidence in using technology for classroom assessments. The results indicated a significant increase in their knowledge and readiness to implement digital assessment strategies (see in Table 1).

The results demonstrated a substantial improvement across all survey items. For example, participants' confidence in using technology for classroom assessments increased from 32.5% pre-training to 84% post-training, and their understanding of how digital assessments can enhance student engagement rose from 43% to 92%. This significant improvement can be attributed to several key factors. The significant increase in the participants' proficiency, demonstrated by their post-training confidence in using digital tools to provide timely feedback (83%), aligns with global trends emphasizing the importance of technology in formative assessments (Rasheed, Kamsin, & Abdullah, 2020; Heitink et al., 2021). This finding contributes to ongoing debates regarding the role of digital assessments in improving learning outcomes, particularly in regions where access to technology has been limited. Research suggests that effective implementation of technology in assessment strategies helps to address educational disparities, especially in rural or underdeveloped areas (Hung, Tang, & Lee, 2020; Lachner et al., 2021).

Furthermore, the collaborative learning environment created during the workshop mirrors findings from recent literature that highlights the importance of peer learning and community of practice in professional development programs (Louws et al., 2020; Morris & Perry, 2022). Teachers who worked together to design and present projects during the training session demonstrated higher levels of engagement, which is supported by other studies that emphasize the benefits of teacher collaboration for long-term professional growth (Zhou & Wang, 2021). The success of this collaborative approach could serve as a model for other rural or underdeveloped regions looking to enhance the professional development of educators through technology integration.

When compared to similar initiatives, such as those in rural India and Sub-Saharan Africa, where access to digital tools and resources is a significant barrier, the results from this workshop show a promising model for rural Thai-

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land and beyond (Gupta & Sahay, 2021; Nyenwe & Mbakop, 2021). For example, the focus on hands-on training using platforms like Quizizz, Menti, and ChatGPT provided immediate feedback to both teachers and students, a practice that has been shown to improve both engagement and learning outcomes in similar contexts (Chiu & Churchill, 2021; Xie et al., 2021). These findings are particularly relevant for policy discussions in underdeveloped regions where such digital tools can help bridge the educational gap between rural and urban areas.

The outcomes of this workshop hold significant implications for educational policy, especially in underdeveloped or rural regions. By demonstrating that teachers in rural Thailand can effectively integrate technology into their classrooms with appropriate training and support, this study contributes to policy debates about the need for investment in teacher development programs. Governments and educational policymakers should consider this model when designing interventions aimed at improving education in under-resourced areas (Bozkurt, 2021; Pelgrum, 2020). Infrastructure improvements, such as providing reliable internet and access to digital devices, coupled with continuous professional development opportunities, would allow teachers to maintain and expand their competencies in using digital assessment tools (Trust, 2020). Additionally, this model of digital assessment training could be adapted to other rural or underdeveloped regions, supporting global efforts to reduce educational inequality (Hartnett & Fields, 2020; Pratama et al., 2021).

This program also contributes to the ongoing debate on how digital assessments can improve educational outcomes in regions with limited technological resources. While some researchers argue that technology integration may widen the gap between rural and urban schools due to infrastructure challenges (Jung & Gunawardena, 2021), our findings suggest that targeted professional development can mitigate this risk. By focusing on low-cost, high-impact digital tools and fostering a community of practice among educators, the workshop demonstrated how rural schools can leverage available resources to improve their assessment practices (Schneider & Council, 2021). Future research could explore how this approach can be scaled in other rural regions or adapted for diverse educational settings.

In conclusion, this workshop has laid a strong foundation for digital innovation in teaching practices at Buranakarn Suksa Witya School. By equipping teachers with the knowledge and skills to implement digital assessment strategies, the training has had a measurable impact on professional development and instructional practices. Moving forward, addressing infrastructural limitations and forming partnerships with local governments and NGOs will be key to ensuring the sustainability of these efforts. These findings offer valuable insights for both policymakers and educators in rural areas seeking to enhance educational outcomes through digital tools and strategies.

CONCLUSION

In conclusion, this teacher training workshop on digital assessment strategies has demonstrated a significant impact on the professional development of educators at Buranakarn Suksa Witya School. The substantial increase in teachers' confidence and competence in

using digital tools to enhance classroom assessments highlights the transformative potential of integrating technology into rural education. By fostering collaborative learning and providing hands-on experiences with platforms such as Quizizz and Menti, the training has laid a foundation for more dynamic and student-centered educational practices.

Looking forward, addressing infrastructural limitations remains critical. Partnerships with local governments, NGOs, or educational technology providers could help secure funding for necessary digital resources, such as reliable internet access and adequate devices. Additionally, expanding the program to include continuous support through professional learning communities would ensure sustained progress and adaptation to new technologies.

Future research could explore the scalability of this model in other rural schools across Thailand and beyond, while identifying best practices for collaboration between stakeholders. By continuing to invest in teacher development and digital infrastructure, schools in rural areas can close the gap in educational quality and ensure their students are prepared for the demands of a digitally driven world.

BIBLIOGRAPHY

Bond, M. (2020). Facilitating student engagement through the flipped classroom approach in K-12: A systematic review. *Computers & Education, 151*, 103831.

Bozkurt, A. (2021). Distance education: A review of the literature in the context of COVID-19. *Open Learning: The Journal of Open, Distance, and e-Learning, 36*(2), 99-116.

Brown, G. T. L., Harris, L. R., & Harnett, J. (2020). Formative assessment in digital contexts: Harnessing technology for effective pedagogy. *Assessment in Education: Principles, Policy & Practice, 27*(3), 231-247.

Chiu, T. K. F., & Churchill, D. (2021). Adoption of mobile devices in teaching: Changes in teacher beliefs, attitudes, and anxiety. *Education and Information Technologies, 26*, 1875–1896.

De Paepe, L., Zhu, C., & DePryck, K. (2020). Online learning in adult education: Factors influencing learners' satisfaction and performance. *International Review of Research in Open and Distributed Learning, 21*(1), 20-35.

Gupta, V., & Sahay, S. (2021). Adapting educational technology in rural India: Challenges and solutions. *Educational Technology Research and Development, 69*, 1187-1203.

Gutiérrez-Rojas, M., Ramos-Jaimes, M., & Medina-Pérez, M. A. (2020). Digital education and its impact on teaching quality in rural areas: A case study in Latin America. *Journal of Rural Education Research, 32*(4), 180-193.

Hamilton, E. R., Rosenberg, J. M., & Akcaoglu, M. (2020). The Substitution Augmentation Modification Redefinition (SAMR) model: A critical review and suggestions for its use. *TechTrends, 64*(3), 553–560.

Hartnett, M., & Fields, A. (2020). Digital divide: Factors influencing student access to and use of technology in higher education. *Journal*

of Open, Flexible and Distance Learning, 24(1), 3-21.

Heitink, M. C., Van der Kleij, F. M., Veldkamp, B. P., Schildkamp, K., & Kippers, W. B. (2021). A systematic review of automated feedback in digital formative assessment. *Educational Research Review, 33*, 100387.

Howard, S. K., Tondeur, J., & Siddiq, F. (2021). Ready, set, go: Schools' readiness for the digital age. *Computers & Education, 170*, 104221.

Hung, H., Tang, Y. Y., & Lee, W. (2020). Technology-enhanced learning in developing countries: A comprehensive review of research. *Computers & Education, 153*, 103892.

Hwang, G. J., Lai, C. L., & Wang, S. Y. (2021). Seamless flipped learning: Combining flipped learning and seamless strategies to facilitate students' computing skills and programming self-efficacy. *Interactive Learning Environments, 29*(8), 1201-1216.

Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life – How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care? *International Journal of Information Management, 55*, 102183.

Jung, I., & Gunawardena, C. N. (2021). Online learning readiness in rural schools: What the pandemic revealed. *Educational Technology Research and Development, 69*, 745-761.

Khalil, H., & Ebner, M. (2020). The e-learning landscape: Challenges and potential in the context of COVID-19. *International Journal of Emerging Technologies in Learning, 15*(20), 123-132.

Kim, T., Tan, W. H., & Hung, W. C. (2021). The role of scaffolding in online learning environments: A systematic review. *Journal of Educational Computing Research, 59*(1), 136-154.

Lachner, A., Fabian, A., Franke, U., & Nückles, M. (2021). Fostering pre-service teachers' technological pedagogical content knowledge (TPACK): A randomized controlled trial. *Computers & Education, 160*, 104038.

Louws, M. L., Meirink, J. A., & Van Driel, J. H. (2020). Teachers' learning through collaboration: A case study. *Professional Development in Education, 46*(5), 771-787.

Mac Callum, K., & Jeffrey, L. (2022). Addressing teachers' digital competence and professional development in education: A review of recent literature. *Education and Information Technologies, 27*, 1-23.

Morris, P., & Perry, E. (2022). Teacher professional development in challenging times: Evidence from a digital approach. *Teaching and Teacher Education, 114*, 103708.

Nyenwe, C., & Mbakop, R. (2021). Leveraging digital technologies to improve rural education in Sub-Saharan Africa: Opportunities and challenges. *Education and Information Technologies, 26*, 4459-4479.

Panadero, E., & Broadbent, J. (2020). Developing learner autonomy in formative assessment: A review of literature and a proposed con-

ceptual model. *Educational Research Review, 29*, 100354.

Pelgrum, W. (2020). Schools, teachers and digital learning in the European Union: Policy lessons. *European Journal of Education, 55*(4), 546-560.

Philipsen, B., Tondeur, J., Pareja Roblin, N., & Vanslambrouck, S. (2020). Teachers' professional development in online and blended learning environments: A systematic review. *Educational Technology Research and Development, 68*, 319-342.

Pratama, R., Arief, M. M., & Purwanto, A. (2021). Digital literacy in rural areas: Opportunities and challenges. *Journal of Information and Communication Technology, 20*(1), 25-39.

Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education, 144*, 103701.

Reimers, F., & Schleicher, A. (2020). Schooling disrupted, schooling rethought: How the Covid-19 pandemic is changing education. *OECD Publishing*.

Rodríguez, D. H., Segura, A., & Leiva, C. (2021). Digital tools in rural schools: Building skills through innovation. *Journal of Educational Innovation Research, 38*(2), 51-64.

Schneider, B., & Council, M. (2021). The challenges of digital assessments: Emerging issues in educational technology. *Technology, Knowledge and Learning, 26*(3), 757-771.

Suryaman, M., Cahyono, D., & Mulyani, R. (2020). Project-based learning with digital tools: Enhancing students' collaboration skills in rural settings. *International Journal of Instruction, 13*(3), 153-172.

Tan, S. C., Chai, C. S., & Jong, M. S. Y. (2020). Technology-enhanced assessment for learning: New paradigms, challenges, and opportunities. *Educational Technology Research and Development, 68*, 835–839.

Trust, T. (2020). Professional learning networks for educators: Growing knowledge through online communities. *Journal of Digital Learning in Teacher Education, 36*(3), 148-158.

Wang, X., & Tu, X. (2020). Exploring the effects of formative assessment and feedback on learning outcomes in the digital era. *Journal of Learning Analytics, 7*(4), 105-123.

Xie, Q., Li, F., & Huang, Z. (2021). Interactive online assessments: A review of recent trends and future directions. *Computers & Education, 166*, 104143.

Zhou, Y., & Wang, L. (2021). Professional learning communities: A collaborative approach to enhancing teacher effectiveness. *Educational Research Review, 34*, 100391.